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# ACADEMIC PLANS

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Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

- Accounting (p. 6)
- Addiction Counselor Education (p. 8)
- Applied Management (BAS) (p. 11)
- Art (p. 13)
- Associate in Arts (AA) - General Transfer (p. 17)
- Associate in Science – Track 1 (AST1) (p. 26)
- Associate in Science – Track 2 (AST2) (p. 31)
- Automotive Technology (p. 37)
- Bioengineering and Chemical Engineering (p. 39)
- Biological Sciences (p. 41)
- Business Administration (p. 43)
- Computer Technology (p. 49)
- Culinary Arts (p. 51)
- Cybersecurity (BAS) (p. 54)
- Dental Hygiene (BAS) (p. 55)
- Diesel Technology (p. 57)
- Digital Media Arts (p. 59)
- Early Childhood Education (p. 60)
- Electrical and Computer Engineering (p. 65)
- Emergency Medical Services (p. 69)
- Health Information Management / Medical Billing and Coding (p. 71)
- Human Services (BAS) (p. 73)
- Marketing (p. 75)
- Materials Science (p. 77)
- Math Education (p. 78)
- Mechanical, Civil & Aeronautical Engineering (p. 80)
- Mechatronics (p. 85)
- Medical Assistant (p. 87)
- Music (p. 90)
- Network Technology (p. 92)
- Nursing (p. 94)
- Pharmacy Technician (p. 98)
- Phlebotomy (p. 101)
- Surveying & Geomatics (p. 102)
- Teacher Education (BAS) (p. 105)
- Web Development (p. 107)
- Welding Technology (p. 109)

# ACCOUNTING

Accounting is an essential component of every institution and business organization. Basic accounting skills provided by the one-year certificate or the two-year degree will prove to be valuable in managing financial resources, policies and decisions.

- Accounting Clerk (CP)(Plan Code: ATBACC45) (p. 6)
- Accounting (AAS)(Plan Code: ATBACAPT) (p. 6)

## Accounting Clerk (CP)(Plan Code: ATBACC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills (minimum 3 credits/units required)</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills (minimum 3 credits/units required)</i>		
BUS 102	Business Math Applications	5
<i>Human Relations (minimum 3 credits/units required)</i>		
BUS 148	Business Professional Self Development	3
<b>Business Core Courses</b>		
ACCT 129	Basic Accounting Procedures	5
BUS 150	Computer Business Applications	5
BUS& 101	Introduction to Business	5
ECON 101	Introduction to Economics	3
MGMT 101	Principles of Management	3
<b>Major Area Requirements</b>		
ACCT 136	Accounting Applications	3
BUS 169	Introduction to Excel	3
BUS 130	Computerized Accounting	3
BUS 199	Cooperative Work Experience <sup>1</sup>	1-5
COLL 101	College Essentials: Introduction to Clark	2
Additional Electives to meet minimum 45 credit/unit requirement		0-1
<b>Total Credits/Units</b>		<b>45-48</b>

<sup>1</sup> Minimum of 3 credits/units must be earned in Cooperative Work Experience.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)

- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses manually as well as using computer systems.
- Perform all steps of the accounting cycle, using both general and specialized journals.
- Accurately create and maintain payroll records required under federal and state laws.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Accounting (AAS)(Plan Code: ATBACAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Health &amp; Physical Education</i>		
Course Options (p. 296)		3
<i>Humanities</i>		
CMST& 220	Public Speaking	5
	or CMST& 230 Small Group Communication	
<i>Natural Sciences</i>		
Course Options (p. 297)		5
<i>Computational Skills</i>		
BUS 102	Business Math Applications	5
<i>Human Relations</i>		
BUS 148	Business Professional Self Development	3
<i>Social Sciences</i>		
ECON 101	Introduction to Economics	3
<b>Business Core</b>		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
MGMT 101	Principles of Management	3
<b>Major Area Requirements</b>		
ACCT 136	Accounting Applications	3
BUS 199	Cooperative Work Experience <sup>1</sup>	1-5
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5

ACCT& 203	Principles of Accounting III	5
BUS& 201	Business Law	5
BUS 130	Computerized Accounting	3
BUS 170	Excel for Business	3
BUS 169	Introduction to Excel	3
MATH& 146	Introduction to Stat	5
COLL 101	College Essentials: Introduction to Clark	2
<b>Total Credits/Units</b>		<b>91</b>

<sup>1</sup> Five credit/unit maximum.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Accurately prepare, interpret, and analyze financial statements for service and merchandising businesses manually as well as using computer systems.
- Accurately analyze financial data and information to make business decisions.
- Provide accounting data and information for all types and sizes of businesses, including sole proprietorships, partnerships, and corporations.
- Accurately create and maintain payroll records required under federal and state laws.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# ADDICTION COUNSELOR EDUCATION

The Clark College Addiction Counselor Education Department (ACED) program offers an AAS, for students pursuing the Chemical Dependency Professional (CDP) certification, an AA for students wishing to transfer to a state college or university and a Certificate of Proficiency for students who already possess a degree and plan to sit for the CDP state exam. The ACED program is certified by the National Association of Alcohol and Drug Abuse Counselors (NAADAC), as well as the National Addiction Studies Accreditation Commission (NASAC).

Addiction counselors work with families and individuals of all ages who are experiencing problems with addictive behaviors. Counselors may work as members of treatment teams in inpatient or outpatient settings, with schools, or in businesses. They provide group, individual, and couples therapy as well as assessments and interventions. Addiction counselors also work as liaisons for their clients to judicial systems, schools, state services, and communities. Counselors may serve as educators in their communities, acquainting community members with treatment options and prevention strategies for the community. Please contact the Addiction Counselor Education Department (ACED) program advisor for current Washington state certification requirements.

Students must complete all specifically listed courses and Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and be awarded the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

- Addiction Counselor Education (CP)(Plan Code: SAAACC45) (p. 8)
- Addiction Counselor Education (AAS)(Plan Code: SAAACAPT) (p. 9)
- Addiction Counselor Education (AA)(Plan Code: LASACAA) (p. 9)

## Addiction Counselor Education (CP) (Plan Code: SAAACC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills (minimum 3 credits/units required)</i>		
ENGL& 101	English Composition I	5
<i>Human Relations (minimum 3 credits/units required)</i>		
PSYC& 100	General Psychology	5
<i>Computational Skills (minimum 3 credits/units required)</i>		
Course Options (p. 296)		
<b>Major Area Requirements</b>		
ACED 101	Survey of Addictionology <sup>1</sup>	3-5
or HSSA& 101	Introduction to Addictive Drugs	

ACED 125	Group Counseling In Addictions	3
ACED 132	Introduction to Counseling Family Members	3
ACED 136	Law and Ethics In Addictions Counseling	3
ACED 137	Addictions and Mental Illness	3
ACED 138	Prevention and Education In The Community	3
ACED 160	Pharmacology of Drugs of Abuse	3
ACED 164	Adolescent Addiction Assessment & Treatment	3
ACED 170	Air- and Blood-Borne Pathogens	3
ACED 201	Theories of Counseling <sup>1</sup>	3
ACED 202	Multi-Cultural Addictions Counseling	3
ACED 203	Case Management In Addiction Medicine	3
ACED 204	Introduction to Addiction Counseling Skills	3
ACED 205	Advanced Techniques for Addiction Counsel	3
PSYC& 200	Lifespan Psychology	5
<b>Total Credits/Units</b>		<b>56-62</b>

<sup>1</sup> For non-majors also.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.
- Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
- Successfully complete Washington State Chemical Dependency Professional exam.
- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Treat substance abuse clients in multiple settings including individual and group counseling situations.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)



## Addiction Counselor Education (AAS) (Plan Code: SAAACAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Health &amp; Physical Education</i>		
Course Options (p. 296)		3
<i>Computational Skills</i>		
MATH 92	Applied Elementary Algebra (or any higher level Math course)	5
<i>Human Relations</i>		
PSYC& 100	General Psychology <sup>1</sup>	5
<i>Humanities</i>		
Course Options (p. 296)		3
<i>Social Sciences</i>		
PSYC& 200	Lifespan Psychology	5
<i>Natural Sciences</i>		
Course Options (p. 297)		3
<b>Major Area Requirements</b>		
ACED 101	Survey of Addictionology <sup>2</sup>	3-5
or HSSA& 101	Introduction to Addictive Drugs	
ACED 125	Group Counseling In Addictions	3
ACED 132	Introduction to Counseling Family Members	3
ACED 136	Law and Ethics In Addictions Counseling	3
ACED 137	Addictions and Mental Illness	3
ACED 138	Prevention and Education In The Community	3
ACED 160	Pharmacology of Drugs of Abuse	3
ACED 164	Adolescent Addiction Assessment & Treatment	3
ACED 170	Air- and Blood-Borne Pathogens	3
ACED 201	Theories of Counseling <sup>2</sup>	3
ACED 202	Multi-Cultural Addictions Counseling	3
ACED 203	Case Management In Addiction Medicine	3
ACED 204	Introduction to Addiction Counseling Skills	3
ACED 205	Advanced Techniques for Addiction Counsel	3
ACED 210	Field Placement I	12
& ACED 211	and Field Placement II	
<b>General Electives</b>		
Complete as many courses as necessary to reach 90 credits/units		0-2
<b>Total Credits/Units Required</b>		<b>90</b>

<sup>1</sup> May count for both Human Relations and Social Science distribution.

<sup>2</sup> For non-majors also.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.
- Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
- Successfully complete Washington State Chemical Dependency Professional exam.
- Treat substance abuse clients in multiple settings including individual and group counseling situations.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Addiction Counselor Education (AA) (Plan Code: LASACAA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Oral Communication</i>		
CMST& 210	Interpersonal Communication	5

or CMST& 220 Public Speaking	
or CMST& 230 Small Group Communication	
<i>Quantitative Skills</i>	
Course Options (p. 290)	5
<i>Health &amp; Physical Education</i>	
Course Options (p. 290)	3
<i>Humanities</i>	
Course Options (p. 290) <sup>1</sup>	15
<i>Social Sciences</i>	
PSYC& 100 General Psychology	5
Select 10 additional credits/units from two other departments (p. 291)	10
<i>Natural Sciences</i>	
Course Options (p. 292) <sup>2</sup>	15
<b>Major Area Requirements</b>	
ACED 101 Survey of Addictionology <sup>3</sup>	3-5
or HSSA& 101 Introduction to Addictive Drugs	
ACED 125 Group Counseling In Addictions	3
ACED 136 Law and Ethics In Addictions Counseling	3
ACED 160 Pharmacology of Drugs of Abuse	3
ACED 201 Theories of Counseling	3
ACED 204 Introduction to Addiction Counseling Skills	3
PSYC& 200 Lifespan Psychology	5
Additional Specified Electives	4
<b>Total Credits/Units</b>	<b>95-97</b>

<sup>1</sup> Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than 10 credits/units from any one subject area. A maximum of five (5) credits/units of "B" list coursework may be applied. A maximum of five (5) credits/units of 100-level world language can be applied.

<sup>2</sup> Must include a lab science.

<sup>3</sup> For non-majors also.

Refer to the Degree and Certificate Requirements section in the Clark College Catalog to identify the courses needed to satisfy the general education requirements.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)

- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of clients, patients, colleagues, the public, and other healthcare providers.
- Demonstrate professional and ethical behaviors when working with clients, patients, other professionals, and the public.
- Successfully complete Washington State Chemical Dependency Professional exam.
- Understand and participate in addiction placement, continuing care, and discharge of patients and clients with addictions.
- Treat substance abuse clients in multiple settings including individual and group counseling situations.

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# APPLIED MANAGEMENT (BAS)

The Bachelor of Applied Science (BAS) in Applied Management is a two-year, 90-credit/unit program that combines technical and academic courses. This degree is designed for professional and technical education (PTE) students, to qualify them for the program with a junior standing, after completing an associate degree. The BAS in Applied Management program combines 300-and 400-level general education and managerial courses, to prepare technically skilled students to enter their respective career fields with a bachelor's degree, allowing them to obtain managerial-level positions or to start their own businesses.

## Application Process & Preliminary Requirements

Preliminary requirements must be satisfied to qualify to apply prior to program entry. Clark College reserves the right to determine admissions status. Please note: completion of the preliminary requirements does not guarantee entrance into the Bachelor of Applied Science in Applied Management Program.

To meet preliminary program entrance requirements, candidates must:

- Complete an associate (AAS, AAT) degree (90 credits/units or higher) or higher from an accredited institution and/or international equivalent
- Cumulative GPA of 2.0
- Complete the following preliminary courses with a grade of 'C' or better:
  1. Communication skills
    - a. English Composition (ENGL& 101 or equivalent)
    - b. Oral Communications (CMST& 210, CMST& 220, CMST& 230 or equivalent)
  2. College-level Math (5 credits/units required)
- Submit official college transcripts from all previous colleges attended to the Credential Evaluations Office for complete transcript evaluation and continue to send updated transcripts quarterly, as additional courses are completed. If you earned your degree or all your credits/units from Clark College, you do not need to include a transcript.
- Apply to the program by completing the Clark College application packet for BAS in Applied Management. Submit the packet to the Clark College Enrollment Services in Gaiser Hall before the enrollment deadline, along with the non-refundable program application fee.

Upon completion of the preliminary requirements, all qualified applicants will be notified in writing of final acceptance into the program. The payment of a non-refundable deposit will reserve a position for the program's next entry date. Students not selected for entry are welcome to reapply for the next cohort start date but are encouraged to seek advising before doing so. Students must formally comply with the published application and admission criteria for that year and cohort.

Selective criteria and current fee amounts are subject to change.

For complete, updated information, please visit the Applied Management (BAS) website (<https://www.clark.edu/academics/programs/business-and-entrepreneurship/basam/>).

- Applied Management (BAS)(Plan Code: BAMAMBAS) (p. 11)

## Applied Management (BAS)(Plan Code: BAMSMBAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

All BASAM specifically listed courses must be completed with a grade of "C" or higher.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		<b>60</b>
<i>Communication Skills</i>		
CMST 310	Organizational Communication	5
<i>Human Relations</i>		
SOC 315	Organizational Behavior	5
<i>Social Sciences</i>		
ECON 405	Managerial and Global Economics	5
<i>Humanities</i>		
PHIL 420	Ethics In Management	5
<i>Natural Science</i>		
ENVS 430	Sustainability & Environmental Practices	5
<b>Major Area Requirements</b>		
BASAM 301	Foundations of Management	5
BASAM 305	Social Media In Business	5
BASAM 320	Business Research Applications	5
BASAM 325	Business Principles	5
BASAM 330	Accounting Principles for Managers	5
BASAM 335	Legal Issues In Management	5
BASAM 340	Marketing for Managers	5
BASAM 400	Human Resource Management	5
BASAM 410	Principles of Project Management	5
BASAM 415	Financial Management	5
BASAM 425	Operations and Logistics	5
BASAM 440	Capstone: Strategic Management & Policy	5
BASAM 450	Applied Management Internship	5
<b>Additional Requisite Requirements</b>		
Please note that in addition to the 90 credits/units required in upper division courses a student must complete 90 (ninety) additional credits/units from an associate degree for a total of 180 credits/units.		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
MATH& 146	Introduction to Stat	5
or		
Any College level Math course (5 credits/units)		
<i>Social Sciences</i>		
Course Options (p. 291)		5
<i>Humanities</i>		
CMST& 210	Interpersonal Communication	5
	or CMST& 220 Public Speaking	

or CMST& 230 Small Group Communication

#### Natural Sciences

Course Options (p. 292)

#### Additional General Education Requirements

Select ten (10) additional credits/units from the general education categories above (WC, Q, SS, HA, HB, NS)

**Total Credits/Units Required 180**

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Describe the complexities that affect successful trading in domestic and global markets, utilizing information, data, and technologies to support effective decision making.
- Recognize and apply effective communication strategies, appropriate to organizational settings.
- Analyze and apply managerial functions, roles, styles, and effective strategies for stability and change, to be used in various managerial and leadership situations.
- Analyze legal issues for risk management and responsible oversight.
- Interpret financial models for business decision-making to support organizational goals.
- Evaluate and develop organizational structures and operating procedures to foster continuous improvement, innovation, and quality results.
- Balance theoretical and practical strategies and policies for a productive, quality, and motivated workforce, including managing diversity, ethics, and social responsibility.
- Develop and apply a marketing strategy, based on an integrated marketing plan, to produce and distribute products at optimum operational levels.
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry

# ART

The Clark College Art Department offers many classes to help students prepare for advanced studies at a four-year institution, enter an art profession directly, or simply enrich their spirit. Clark's Art faculty is composed of a complementary blend of highly qualified instructors possessing advanced degrees, as well as recognized working professionals who bring with them a practical knowledge of the art marketplace.

It is imperative that students planning to transfer to a college, university or art school and seek a B.A. (Bachelor of Arts) or B.F.A. (Bachelor of Fine Arts) in a design-related field see an Art Department faculty member as early as possible to plan an individualized program. Call 360-992-2370 or 360-992-2639 for an appointment.

- Graphic Design (AFA)(Plan Code: LASFGAA) (p. 13)
- Studio Arts (AFA)(Plan Code: LASFSAA) (p. 14)

## Graphic Design (AFA)(Plan Code: LASFGAA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Completion of the following recommended courses does not guarantee admission as an art major with junior standing at the transfer institution. A competitive GPA and a quality portfolio are also essential. Due to the AFA degree's heavy emphasis on art and graphic design foundation courses, upon acceptance, the AFA student should expect to complete further general education courses at the baccalaureate institution in addition to the major area coursework. Students are strongly advised to select and plan courses in collaboration with their Art Department advisor, and to contact the intended transfer institution to determine required coursework as early as possible. Also, please see the Computer Graphics Technology (CGT) department's career and technical degrees in Web and Graphic Design, including an Associate of Applied Technology in Web and Graphic Design, the Graphic Design Certificate of Proficiency or the Web Design Certificate of Proficiency.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>College 101</i>		
COLL 101	College Essentials: Introduction to Clark	2
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
Select one from the following:		
MATH& 107	Math In Society (recommended)	5
OR		
Select five credits/units from any college level Math class (p. 290)		
<i>Health &amp; Physical Education</i>		
Select one from the following:		
HPE 258	Fitness-Wellness	3

or HPE 266 Mind Body Health  
or HPE 220 Occupational Wellness

OR		
Select two credits/units of Health and one credit/unit of Physical Education (p. 290)		
<i>Humanities</i>		
Choose one of the recommended courses: <sup>1</sup>		
CMST& 102	Intro to Mass Media	5
DRMA 154	Introduction to Cinema	
ENGL 173	Popular Culture	
ENGL 176	Nature and the Humanities	
<i>Social Sciences</i>		
CMST& 230	Small Group Communication (recommended)	5
<i>Natural Sciences</i>		
Select five credits/units from a lab science (p. 292)		
<b>Major Area Requirements</b>		
<i>Fine Arts Foundations</i>		
ART 101	2D Art and Design	5
ART 103	Drawing I	5
<i>Digital Media Arts</i>		
DMA 101	Photoshop Raster Graphics	4
DMA 102	Illustrator Vector Graphics	4
<i>Graphic Design</i>		
ART 172	Graphic Design Exploration	5
ART 173	Graphic Design Studio I	5
ART 174	Typography I	5
ART 215	Portfolio Development	3
ART 170	Publication Production I	3
ART 271	Typography II	5
ART 272	Graphic Design History	5
ART 273	Graphic Design Studio II	5
ART 274	Graphic Design Studio III	5
<i>Choose 2 (two) electives from the list below</i>		
ART 104	Observational Drawing	
ART 105	Drawing for Comics	
ART 117	Three-Dimensional Design	
ART 118	Time-Based Art and Design	
ART 120	Printmaking I	
ART 121	Printmaking II	
ART 123	Photography I	
ART 124	Photography II	
ART 203	The Human Figure I	
ART 204	The Human Figure II	
ART 208	Digital Painting & Illustration	
ART 257	Painting I	
ART 258	Painting II	
ART 260	Watercolor I	
ART 261	Watercolor II	
ART 270	Publication Production	
DMA 104	Motion Graphics and Animation I	
DMA 201	Video and Sound Production I	
DMA 202	Video and Sound Production II	

DMA 204	Motion Graphics and Animation II
ENGL 128	Graphic Fiction Writing
ENGL 277	Literary Publication
<b>Total Credits/Units Required</b>	<b>94-99</b>

<sup>1</sup> World Languages 121, 122 or 123 recommended if you do not have two years of high school foreign language or equivalent.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Recognize and apply foundational art theory.
- Place design projects and issues in context of society and culture.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Interact, collaborate and implement projects with peers, clients or others in various work environments.
- Effectively organize and manage graphic design projects.
- Use written, verbal and visual means to effectively present and communicate graphic design projects.
- Demonstrate work and business ethics in graphic design practice.
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Apply communication theory to demonstrate effective oral communication skills.(GE)

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## Studio Arts (AFA)(Plan Code: LASFSAA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

The Art Department offers this specialized degree primarily for students intending to pursue a Bachelor of Fine Arts in Studio Art at a baccalaureate institution with competitive portfolio entry. The program also provides a suggested framework of study for those who, although they may not wish to transfer, still want a well-rounded educational experience in studio art for personal enrichment or to develop their skills as a commercial or fine artist. The degree places emphasis on fine art foundations courses and also requires the student to specialize in a particular studio area (painting, drawing, photography, ceramics, or metals). Students will document a body of artwork in the culminating ART 215 Portfolio class and create related written materials to demonstrate their skills and to carry them to the next step on their pathway within the fine arts.

Completion of the following recommended courses does not guarantee admission as an art major with junior standing at the transfer institution. A competitive GPA and a quality portfolio are also essential. Due to the AFA degree's heavy emphasis on studio art and art foundation courses, upon acceptance, the AFA student should expect to complete further general education courses at the baccalaureate institution in additions to upper-level course work in their major area. Students are strongly advised to select and plan courses in collaboration with their Art Department advisor and to contact the intended transfer institution to determine required coursework as early as possible.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
Course Options (p. 290)		5
<i>Social Sciences</i>		
Course Options (p. 291)		5
<i>Humanities</i>		
Select five credits/units from the AA distribution list of Humanities A-list classes (p. 290) <sup>1</sup>		5
<i>Natural Sciences</i>		
Course Options (p. 292) <sup>2</sup>		5
<i>College 101</i>		
COLL 101	College Essentials: Introduction to Clark	2
<b>Fine Art Foundations</b>		
ART 101	2D Art and Design	5
ART 103	Drawing I	5
ART 110	Creativity and Concept	3
ART 117	Three-Dimensional Design	5

ART 118	Time-Based Art and Design	5
ART 104	Observational Drawing	5
or ART 203	The Human Figure I	
or ART 105	Drawing for Comics	
ART 215	Portfolio Development	3

**Art History**

Art History - Choose 2 (two) from List A and 1 (one) more from either list A or B:

**List A:**

ART 220	Art History: Ancient to Late Antique	5
ART 221	Art History: Medieval-Renaissance	5
ART 222	Art History: Baroque-Modern	5
ART 223	Art History: 20th Century	5

**List B:**

ART 225	Art History: Asian Art	5
ART 250	Women Artists Through History	5
ART 272	Graphic Design History	5

**Studio Concentration**

Select a minimum of 15 credits/units from one of the following studio concentration areas:<sup>3</sup>

**Metal Arts**

ART 189	Metal Arts I	5
ART 190	Metal Arts II	5
ART 191	Metal Arts III	5

**Photography**

ART 123	Photography I	5
ART 124	Photography II	5
ART 125	Photography III	5

**Ceramics**

ART 180	Ceramics I	5
ART 181	Ceramics II	5
ART 182	Ceramics III	5

**Drawing/Painting**

ART 104	Observational Drawing	5
ART 105	Drawing for Comics	5
ART 120	Printmaking I	5
ART 121	Printmaking II	5
ART 122	Printmaking III	5
ART 203	The Human Figure I	5
ART 204	The Human Figure II	5
ART 257	Painting I	5
ART 258	Painting II	5
ART 259	Painting III	5
ART 260	Watercolor I	5
ART 261	Watercolor II	5
ART 262	Watercolor III	5

**Illustration**

ART 105	Drawing for Comics	5
ART 208	Digital Painting & Illustration	5
ART 260	Watercolor I	5

<b>Electives</b>		2
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Select an additional 2 (two) credits/units from the AA distribution list of General Electives

**Total** **90**

<sup>1</sup> Cannot be an Art class.

<sup>2</sup> Must include a lab course.

<sup>3</sup> Must not include those listed in the Foundations requirements.

**Studio Concentrations****Metal Arts**

Code	Title	Credits/ Units
ART 189	Metal Arts I	5
ART 190	Metal Arts II	5
ART 191	Metal Arts III	5

**Photography**

Code	Title	Credits/ Units
ART 123	Photography I	5
ART 124	Photography II	5
ART 125	Photography III	5

**Ceramics**

Code	Title	Credits/ Units
ART 180	Ceramics I	5
ART 181	Ceramics II	5
ART 182	Ceramics III	5

**Drawing/Painting**

Code	Title	Credits/ Units
ART 104	Observational Drawing	5
ART 105	Drawing for Comics	5
ART 120	Printmaking I	5
ART 121	Printmaking II	5
ART 122	Printmaking III	5
ART 203	The Human Figure I	5
ART 204	The Human Figure II	5
ART 257	Painting I	5
ART 258	Painting II	5
ART 259	Painting III	5
ART 260	Watercolor I	5
ART 261	Watercolor II	5
ART 262	Watercolor III	5

**Illustration**

Code	Title	Credits/ Units
ART 105	Drawing for Comics	5
ART 208	Digital Painting & Illustration	5
ART 260	Watercolor I	5

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Identify and utilize the elements and principles of design in works of art.
- Analyze works and ideas in the visual arts within appropriate historical, cultural, and stylistic contexts.
- Demonstrate technical skill, care in handling of materials, awareness of process, and purposeful execution appropriate to discipline.
- Use discipline appropriate vocabulary.
- Synthesize design skills, contextual awareness, technique and craftsmanship to create innovative, coherent works.
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills.(GE)

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# ASSOCIATE IN ARTS (AADTA) AND CONCENTRATIONS

(Plancode: LASTDAA)

The Associate in Arts (AA) degree is designed for students planning to transfer to a four-year institution to pursue a bachelor's degree program. The degree, in most cases, meets the first two (2) years of general education requirements at the senior institution. There are exceptions; please check with the transfer institution for additional information. Most students transferring with the AA degree will be granted junior standing upon entry to the senior institution.

The standard Associate in Arts degree is also known as a Direct Transfer Agreement (DTA) Associate degree. The AA-DTA is a statewide agreement between the Washington State community and technical colleges and Washington State public universities as well as some private colleges and universities. The agreement outlines transferability of coursework and standing; in most cases students who have completed an AA-DTA will also have satisfied general education requirements at the baccalaureate institution and will have junior standing. Students should review their baccalaureate institution to see if they are part of the DTA in Washington State.

## AA – DTA Degree Options

Students are advised to carefully examine the differences in the degree requirements where there is more than one choice within a major field and be sure that their transfer intent is in line with the degree chosen.

## Transfer of Grades

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. They also are not used in calculating students' Clark GPA. Courses completed with a grade of 'D' or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or 'C' is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

## General Requirements for All Associate in Arts Degrees

- Complete a minimum of ninety (90) college-level credits/units.
- Maintain a minimum cumulative college-level GPA of 2.00 or higher.
- Thirty (30) credits/units minimum must be completed at Clark College to meet Academic Residency.
- Submit a graduation application by the appropriate deadline.

## General Credit/Unit Restrictions

- Credit/Unit by Department: Ten (10) credits/units maximum from any single department can be used to fulfill Humanities, Social Sciences and Natural Sciences distribution requirements.
- World Language: Five (5) credits/units maximum in 100-level world language can be used to fulfill Humanities distribution requirements. Additional 100-level world language coursework can be used to meet Specified or General Elective requirements.

- Physical Education Activity: Three (3) credits/units maximum in PE activity can apply toward the degree.

## Other Applicable Credit/Unit Options

- Advanced Placement (AP) and/or International Baccalaureate (IB): A maximum of forty-five (45) credits/units from AP, IB or a combination of both, can be applied to a degree.
- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits/units to be applied to a degree. Credits/Units will be used to fulfill general elective requirements only.
- Course Challenge: Students may use credits/units earned from successful course challenges toward 25% of the degree or certificate. Credit/Unit by course challenge will meet academic residency requirements.
- Tech Prep/Direct Credit/Unit: Tech Prep/Direct Credit/Unit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits/units. If Tech Prep/Direct Credit/Unit courses apply to a professional technical degree or certificate, there is no limit to the number of credits/units that can be applied.
- Cooperative Work Experience: No more than fifteen (15) credits/units may be applied to the associate degree.
- Special Projects: No more than fifteen (15) credits/units in Special Projects will be allowed toward the Associate in Arts degree.
- Military Experience: Credits/Units may be earned by previous military experience. Please contact the Veterans Affairs Office at Clark College for further information. Credit/Unit awarded for military experience may be granted for up to 25% of the degree and/or certificate.
- Pass/Fail Grading Option: Forty-Five (45) credits/units maximum in courses with Pass/Fail grading option can apply toward the degree, with the exception of the AA Nursing degree which exceeds this limit because of clinical requirements.

## General Restrictions

1. A course can apply toward only one (1) distribution requirement (i.e., Communication Skills, Quantitative Skills/Symbolic Reasoning Skills, Humanities, Social Sciences and Natural Sciences). The exception is for Oral Communications, which is a local degree requirement. When meeting the Oral Communications requirement, the same course can be applied to the degree requirement and to the distribution area.
  2. Excess credits/units earned in distribution areas (i.e., Communication Skills, Quantitative Skills/Symbolic Reasoning Skills, Humanities, Social Sciences and Natural Sciences) can be used to fulfill the Elective requirements.
  3. Credit/Unit by Challenge coursework will meet academic residency requirements.
- Associate in Arts (AADTA)(Plan Code: LASDTAA) (p. 18)
  - Concentration in Agroecology (AADTA)(Plan Code: LASDTAA, Subplan Code: AGROECOLGY) (p. 19)
  - Concentration in Elementary Education (AADTA) (Plan Code: LASDTAA, Subplan Code: ELMNTRYEDU) (p. 19)
  - Concentration in Graphic Design (Plan Code: LASDTAA, Subplan Code: GRAPHICDSN) (p. 20)
  - Concentration in Honors (Plan Code: LASDTAA, Subplan Code: HONORS) (p. 21)

- Concentration in International Studies (Plan Code: LASDTAA, Subplan Code: INTLSTDY) (p. 21)
- Concentration in News Media Studies (Plan Code: LASDTAA, Subplan Code: NEWSMEDIA) (p. 22)
- Concentration in Power, Privilege, and Inequity (Plan Code: LASDTAA, Subplan Code: PWRPRVINEQ) (p. 23)
- Concentration in Studio Arts (Plan Code: LASDTAA, Subplan Code: STUDIOART) (p. 23)
- Concentration in Women's Studies (Plan Code: LASDTAA, Subplan Code: WOMENSSTDY) (p. 24)
- Concentration in World Languages (AADTA)(Plan Code: LASDTAA, Subplan Code: WORLDLANG) (p. 24)

## Associate in Arts (AADTA)(Plan Code: LASDTAA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

UPDATED 9/23/22: Please see corrections page (<https://catalog.clark.edu/corrections/degrees-certificate-corrections/>)

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Select one of the following Options</i>		
<i>Option 1</i>		
ENGL& 102 or ENGL& 235	English Composition II Technical Writing	5
<i>Option 2</i>		
BUS 211	Business Communications	3
and		
CMST& 220 or CMST& 210 or CMST& 230	Public Speaking Interpersonal Communication Small Group Communication	5
<i>Quantitative Skills/Symbolic Reasoning Skills</i> <sup>1</sup>		
Select one option: (p. )		5
<b>Distribution Requirements</b>		
<i>Humanities</i>		
Course Options (p. 290) <sup>2</sup>		15
<i>Social Sciences</i>		
Course Options (p. 291) <sup>3</sup>		15
<i>Natural Sciences</i>		
Course Options (p. 292) <sup>4</sup>		15
<b>Additional Requirements</b>		
<i>College 101</i>		
COLL 101	College Essentials: Introduction to Clark	2
<i>Health and Physical Education</i>		
Select one option (p. 290)		3
<i>Oral Communication</i> <sup>8</sup>		
CMST& 210	Interpersonal Communication	5

or CMST& 220 Public Speaking or CMST& 230 Small Group Communication	
<i>Power, Privilege, and Inequity</i> <sup>10</sup>	3
Select one option (p. )	
<b>Elective Requirements</b> <sup>5</sup>	
<i>Specified Electives</i>	
Course Options (p. 293) <sup>6</sup>	12
<i>General Electives</i> <sup>9</sup>	
Course Options (p. 293) <sup>7</sup>	15
<b>Total Credits/Units</b>	<b>90</b>

<sup>1</sup> For admission to the institution, the University of Washington requires completion of the course designated Algebra II at either the high school or community college. However, UW recognizes the new QSR as fulfilling the DTA QSR requirement.

To qualify for QSR, college level math and logic courses must require intermediate algebra course work (high school or college) with a grade of 2.0 or higher as a prerequisite.

The University of Washington accepts Mathematics for Elementary Education for elective credits/units, but not as meeting its QSR requirement, since UW offers no degree pathway for which it is appropriate.

<sup>2</sup> Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than 10 credits/units from any one subject area. A maximum of five (5) credits/units of "B" list coursework may be applied. A maximum of five (5) credits/units of 100-level world language can be applied.

<sup>3</sup> Select courses from at least three (3) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from any one subject area.

<sup>4</sup> Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from one subject area. You must include at least one lab science.

<sup>5</sup> Complete a total of twenty-seven (27) credits/units from courses numbered 100 and above. No more than 15 credits/units can be taken from the General Elective area.

<sup>6</sup> Approved courses that apply: WC, Q, HA, HB, SS, NS, SE, HE, HPE, PE, PPI, OC.

A maximum of two (2) credits/units in PE activity can apply toward this area.

<sup>7</sup> These courses may be vocational in nature from Career and Technical education courses. The transferability of the Career-Technical courses and any CAP, ESL OR IELP 100-level courses is determined by the receiving baccalaureate institution.

Note: Coursework in ESL or FLPC cannot apply to the AA degree program.

<sup>8</sup> Oral Communications courses fulfill the Oral Communication requirement within an existing distribution area. Check course description for further distribution information.

<sup>9</sup> COLL 101 fulfills 2 (two) credits/units of General Electives.

<sup>10</sup> Power, Privilege and Inequity required course fulfill the PPI requirement within an existing distribution area. Check course description for further distribution information.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be

able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Agroecology (AADTA)(Plan Code: LASDTAA, Subplan Code: AGROECOLGY)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Must concurrently complete the AADTA.

Code	Title	Credits/ Units
<b>Core Courses</b>		
ENVS& 101	Introduction to Environmental Science	5
ENVS 200	Global Climate Change	5
MATH& 146	Introduction to Stat	5
BIOL 224	Flowering Plants of The Pacific Northwest	5
ENVS 202	Native Plant Propagation: Principles & Practice	3
ENVS 208	Field Studies In Environmental Science (minimum of 3 credits/units required)	1-8
or BIOL 208	Field Studies In Biology	
or BIOL 139	Introduction to Wildlife	
ENVS 290	Special Projects (minimum 1 credit/unit required)	1-5
<b>Total Credits/Units Required for Concentration</b>		<b>32-39</b>

<b>Recommended courses to be completed as part of the AADTA degree</b>		
ENVS 231	Environmental Politics	5
GEOG 205	Physical Geography	5
WS 101	Introduction to Women's Studies	5
ENGL 176	Nature and the Humanities	5
SOC& 101	Introduction to Sociology	5
HLTH 103	Environmental Health	2
SPAN& 121	Spanish I	5
SPAN& 122	Spanish II	5
<b>Total Credits/Units Required for AADTA Degree</b>		<b>90</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate an understanding of the connections between the natural and managed landscape.
- Demonstrate how agriculture, ecology, and equity intersect and interact, and how changes to any one impacts the others, using foundation principles of systems.
- Draft and implement an agroecology system plan and demonstrate an understanding of the outcomes and evaluate to determine future actions (next steps) that need to be taken.
- Communicate effectively, accurately and professionally, using verbal, non-verbal, and written language with diverse populations of potential customers, employees, colleagues, the public, and other organizations and agencies about agroecology concepts, strategies and applications.
- Recognize the diversity of opportunities within agroecology and identify their own niche where their interests and skills converge. (the special project will be used as assessment).

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## Concentration in Elementary Education (AADTA) (Plan Code: LASDTAA, Subplan Code: ELMNTRYEDU)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
MATH 122	Math for Elementary Teachers	5
MATH 123	Math for Elementary Teachers	5
MATH 124	Math for Elementary Teachers	5
GEOG& 200	Human Geography	5
ECON& 201	Micro Economics	5
PSYC& 200	Lifespan Psychology	5
HIST& 146	US History I	5
POLS 111	American National Government and Politics	5
BIOL& 100	Survey of Biology	5
GEOL& 101	Introduction to Physical Geology	5
ASTR& 101	Introduction to Astronomy	5
ENVS 109	Integrated Environmental Science	5
<b>Total Credits/Units Required for Concentration</b>		<b>70</b>
<b>Total Credits/Units Required for AADTA</b>		<b>90</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

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To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Graphic Design (Plan Code: LASDTAA, Subplan Code: GRAPHICDSN)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Core Courses</b>		
ART 101	2D Art and Design	5
ART 103	Drawing I	5
ART 173	Graphic Design Studio I	5
ART 174	Typography I	5
ART 272	Graphic Design History	5
DMA 102	Illustrator Vector Graphics	4
<b>Electives</b>		

Choose courses from the list below to reach a minimum of 90 credits/units:

ART 104	Observational Drawing	5
ART 105	Drawing for Comics	5
ART 118	Time-Based Art and Design	5
ART 120	Printmaking I	5
ART 121	Printmaking II	5
ART 123	Photography I	5
ART 124	Photography II	5
ART 170	Publication Production I	3
ART 172	Graphic Design Exploration	5
ART 203	The Human Figure I	5
ART 204	The Human Figure II	5
ART 208	Digital Painting & Illustration	5
ART 215	Portfolio Development	3
ART 257	Painting I	5
ART 258	Painting II	5
ART 260	Watercolor I	5
ART 261	Watercolor II	5
ART 271	Typography II	5
ART 273	Graphic Design Studio II	5
ART 274	Graphic Design Studio III	5
DMA 101	Photoshop Raster Graphics	4
DMA 104	Motion Graphics and Animation I	4
DMA 201	Video and Sound Production I	4
DMA 202	Video and Sound Production II	4
DMA 204	Motion Graphics and Animation II	4
<b>Total Credits/Units Required for Concentration</b>		<b>33-38</b>
<b>Total Credits/Units Required for AADTA</b>		<b>90</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be

able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Recognize and apply the elements and principles of design in works of visual art and communications.
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

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To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Honors (Plan Code: LASDTAA, Subplan Code: HONORS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

updated 10.25.22, for details visit corrections page (<https://catalog.clark.edu/corrections/degrees-certificate-corrections/>).

### Program Admission Requirements

Students must meet the following requirements for admission to the program:

- At least 12 college-level credits/units with a cumulative GPA of 3.50 or higher
- Completion of ENGL& 101 (<https://catalog.clark.edu/search/?P=ENGL%26%20101>) with a grade B+ or higher
- Eligibility for enrollment in MATH 96 (<https://catalog.clark.edu/search/?P=MATH%2096>) or higher

One or more of the admission requirements above may be waived if a Clark faculty member submits a formal recommendation of admission on behalf of the student. Visit the Transfer AA Honors Program

website (<https://www.clark.edu/academics/programs/concentrations/honors/>) for more information.

## Transfer AA Honors Concentration

To earn the Honors Academic Concentration, students must satisfy the following requirements:

- Completion of 20 credits/units of Honors-designated courses
- Completion of a 3-credit/unit Honors capstone course
- 3.50 cumulative GPA
- Concurrent completion of Transfer AA, AST, or AFA degree requirements

Code	Title	Credits/Units
<b>Certificate Requirements</b>		
Honors-designated courses		20
HONS 290	Special Projects <sup>1</sup>	1-6
<b>Total Credits/Units</b>		<b>23</b>

<sup>1</sup> Students must complete at least three credits/units.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Integrate knowledge and skills from multiple academic disciplines to produce original academic or artistic works.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in International Studies (Plan Code: LASDTAA, Subplan Code: INTLSTDY)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>Required Core Courses</b>		
<i>World Language</i>		
Select five credits/units from &200-level courses in one language (Japanese or Spanish)		5
<i>Select 20 credits/units from the Approved International Electives:</i>		<i>20</i>

**Approved International Electives***Select one of the following:*

ANTH& 206	Introduction to Cultural Anthropology
ART 220	Art History: Ancient to Late Antique
or ART 221	Art History: Medieval-Renaissance
or ART 222	Art History: Baroque-Modern
BIOL 101	Environ Biol Conf/Lab
CMST 216	Intercultural Communication
ECON 110	Introduction to The Global Economy
ECON 120	International Economics
ENGL& 255	World Literature II
or ENGL& 256	World Literature III

*Select one of the following:*

ENGL& 226	British Literature I
or ENGL& 227	British Literature II
or ENGL& 228	British Literature III
ENGL 150	Introduction to Mythology
GEOG& 102	World Regional Geography
GEOG& 207	Economic Geography
HIST 231	History of Genocide
HIST 260	African History
HIST 285	History of Latin America

*Select one of the following:*

HIST& 126	World Civilizations I
or HIST& 127	World Civilizations II
or HIST& 128	World Civilizations III
HIST 251	Women In World History I
or HIST 252	Women In World History II
JAPN 171	Japanese Culture and Society

*Select one of the following:*

MUSC 116	Music History: Middle Ages to Baroque
or MUSC 117	Music History: Classical/Romantic
or MUSC 118	Music History: Twentieth Century
PHIL& 101	Introduction to Philosophy
POLS& 203	International Relations
WS 201	Women Across Cultures-Women's Studies

**Total Credits/Units Required for Concentration** **25****Total Credits/Units for AADTA** **90**

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate awareness of other cultures.
- Demonstrate world language skills.
- Describe the field of international studies.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are

subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in News Media Studies (Plan Code: LASDTAA, Subplan Code: NEWSMEDIA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>Core Courses</b>		
JOUR 101	Introduction to Journalism	5
JOUR 111	Digital News	5
Select three credits/units from the following:		3
JOUR 110	College News Production	
JOUR 120	College News Production	
JOUR 130	College News Production	
ENGL 127	Creative Nonfiction Writing	5
CMST& 102	Intro to Mass Media	5
<b>Additional Coursework</b>		
Select one from the following:		3-4
ART 131	Photographic Storytelling	
DMA 201	Video and Sound Production I	
<b>Total Credits/Units</b>		<b>26-27</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Students who complete the News Media Studies Certificate will be able to explain current news media principles and practices and appropriately apply fundamental news production skills.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Power, Privilege, and Inequity (Plan Code: LASDTAA, Subplan Code: PWRPRVINEQ)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Core Courses</b>		
EDUC& 240	Diversity in Education	5
ENGL 175	Introduction to LGBTQ Studies	5
ENGL 240	Literature By Women	5
SOC 131	Race and Ethnicity In The U.S.	5
WS 101	Introduction to Women's Studies	5
WS 220	Race, Class, Gender and Sexuality-Women's Studies	5
WS 225	Racism & White Privilege In The U.S.-Women's Studies	3
<b>Elective Courses</b>		
Select one from the following:		3-5
ASL 125	American Deaf Culture or ENGL 176 Nature and the Humanities or ENGL 243 Queer Literature or ENGL 267 American Multiethnic Lit or HIST& 215 Women In US History or HIST& 219 Native American History or HIST 275 African-American History or SOC 230 Domestic Violence	
<b>Total Credits/Units Required for Concentration</b>		<b>36-38</b>
<b>Total Credits/Units Required for AADTA</b>		<b>90</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Identify and deconstruct the individual, institutional, and ideological systems of power, privilege and inequity.
- Critically analyze one's own multiple identities within the context of power, privilege and inequity.
- Critically examine and describe the social, political and historical construction of identity and difference with regard to sex, gender, race, class, sexuality, age, and ability.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Studio Arts (Plan Code: LASDTAA, Subplan Code: STUDIOART)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This is a suggested program for the first two years of study for those wanting a general AA/DTA degree with an emphasis in Studio Art. Lower division course requirements will vary depending on the transfer institution, but this program is specifically designed to fulfill all lower division requirements for students wishing to obtain a BA with a minor in Fine Arts at Washington State University, Vancouver.

Code	Title	Credits/ Units
<b>Core Courses</b>		
ART 103	Drawing I	5
<i>Choose one of the following:</i>		
ART 104	Observational Drawing	5
or ART 105	Drawing for Comics	
or ART 203	The Human Figure I	
<i>Choose one of the following:</i>		
ART 220	Art History: Ancient to Late Antique	5
or ART 221	Art History: Medieval-Renaissance	
or ART 222	Art History: Baroque-Modern	
<i>And choose 2D Focus or 3D Focus from the lists below:</i>		
<b>Core Courses: 2D Focus</b>		
<i>Choose at least five credits/units of the following:</i>		5
ART 101	2D Art and Design	
ART 257	Painting I	
ART 258	Painting II	
<b>Core Courses: 3D Focus</b>		
<i>Choose at least five credits/units of the following:</i>		5
ART 117	Three-Dimensional Design	
ART 180	Ceramics I	
ART 181	Ceramics II	
ART 189	Metal Arts I	
<b>Art Electives</b>		
Choose any two additional ART-prefix courses		10
<b>Total Credits/Units for Concentration</b>		<b>30</b>
<b>Total Credits/Units Required for AADTA</b>		<b>90</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s)/unit(s) may change your map/plan.

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## Concentration in Women's Studies (Plan Code: LASDTAA, Subplan Code: WOMENSSTDY)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>Core Courses <sup>1</sup></b>		
WS 101	Introduction to Women's Studies	5
WS 201	Women Across Cultures-Women's Studies	5
WS 220	Race, Class, Gender and Sexuality-Women's Studies	5
<b>Electives <sup>2</sup></b>		<b>9-11</b>
ART 250	Women Artists Through History	
ENGL 175	Introduction to LGBTQ Studies	
ENGL 240	Literature By Women	
ENGL 243	Queer Literature	
HIST& 215	Women In US History	
HIST 251	Women In World History I	
HIST 252	Women In World History II	
HLTH 207	Women's Health	
SOC 230	Domestic Violence	

WS 210	Women, Arts, and Culture-Women's Studies	
WS 225	Racism & White Privilege In The U.S.-Women's Studies	
WS 280	Selected Topics	
WS 290	Special Projects	
<b>Total Credits/Units Required for Concentration</b>		<b>24-26</b>
<b>Total Credits/Units for AADTA</b>		<b>90</b>

<sup>1</sup> Core courses must be completed with a grade of "C" or better.

<sup>2</sup> At least three elective credits/units must be WS prefix courses

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Describe foundational concepts in Women's Studies such as: the personal is political; the waves of feminism; the diversity of women's experiences; the difference between sex and gender; the history of feminist activism for social justice; and, women's contributions to culture, politics, history, etc.
- Explain the social construction of identity and difference, analyzing power, privilege and inequality from feminist theoretical perspectives, distinguishing the intersections between gender and other social and cultural identities, such as race, sex, class, ethnicity, national origin, religion, class, ability and sexuality, and locating oneself within the hierarchy of identities.
- Analyze institutional, ideological, and individual components that maintain or challenge systems of oppression in contemporary U.S. society and throughout the world.

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## Concentration in World Languages (AADTA)(Plan Code: LASDTAA, Subplan Code: WORLDFLANG)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>Core Courses</b>		
ASL 125	American Deaf Culture	5
ASL& 221	Am Sign Language IV	5
ASL& 222	Am Sign Language V	5
ASL& 223	Am Sign Language VI	5



CMST& 220	Public Speaking	5
<b>Total Credits/Units Required for Concentration</b>		<b>25</b>
<b>Total Credits/Units Required for AADTA</b>		<b>90</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Participate in most formal and informal conversations on general topics in ASL.
- Analyze the Deaf culture and American Sign Language, with an appreciation for the linguistic and cultural diversity.
- Manage common interactions using enhanced vocabulary and grammar with fellow classmate using ASL.
- Identify the rules of behavior, values, beliefs and etiquette of Deaf culture.

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# ASSOCIATE IN SCIENCE – TRACK 1 (AST1)

Associate in Science – Track 1 is for students intending to transfer into programs in:

## AST1 - Concentration Options:

- Biological Sciences
- Chemistry
- Geology
- Associate in Science Transfer - General (AST1)(Plan Code: LRST1AS) (p. 26)
- Concentration in Biological Sciences (AST1)(Plan Code: LRST1AS, Subplan Code: BIOSCIENCE) (p. 27)
- Concentration in Chemistry (AST1)(Plan code: LRST1AS, Subplan Code: CHEMISTRY) (p. 28)
- Concentration in Geology (AST1)(Plan Code: LRST1AS, SubPlan Code: GEOLOGY) (p. 29)

## Associate in Science Transfer - General (AST1)(Plan Code: LRST1AS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitatives Skills</i>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II <sup>2</sup>	5
<i>Health &amp; Physical Education</i>		
Select one option (p. 290)		3
<i>Humanities (HA) (HB) and Social Sciences (SS) course(s)</i>		
Humanities (HA) Course (p. 290)		5
Social Sciences (SS) Course (p. 291)		5
Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 290)		5
<b>Pre-major Program Requirements <sup>3</sup></b>		
<i>General Chemistry Sequence</i>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III	6
<i>Additional Sequence</i>		
Select one sequence from the following:		15
Biology Sequence (BIOL& 221/222/223)		

Physics Sequence (100 level)(non-calculus based)		
Physics Sequence (200 level)(calculus based)		
<i>Additional mathematics course(s) <sup>4</sup></i>		
MATH& 153	Calculus III	5
or MATH& 146 Introduction to Stat		
<i>Additional requirements for intended major <sup>5</sup></i>		
Select 2-3 courses from the following list, 10-15 units total are required:		10-15
BIOL 101	Environ Biol Conf/Lab	
BIOL 105	Small World Antibiotics Research 1	
BIOL 139	Introduction to Wildlife	
BIOL 140	Mammals of The Northwest	
BIOL 141	Birds of The Pacific Northwest	
BIOL 142	Freshwater Fishes of The Pacific Northwest	
BIOL 145	Reptiles & Amphibians of The Pacific NW	
BIOL 167	Human Genetics	
BIOL 208	Field Studies In Biology	
BIOL& 221	Majors Ecology/Evolution	
BIOL& 222	Majors Cell/Molecular	
BIOL& 223	Majors Organismal Phys	
BIOL 224	Flowering Plants of The Pacific Northwest	
BIOL& 241	Human Anatomy and Physiology I	
BIOL& 242	Human Anatomy and Physiology II	
BIOL& 251	Human A & P I	
BIOL& 252	Human A & P II	
BIOL& 253	Human A & P III	
BIOL& 260	Microbiology	
CHEM& 241 & CHEM& 251	Organic Chemistry I and Organic Chemistry Laboratory I	
CHEM& 242 & CHEM& 252	Organic Chemistry II and Organic Chemistry Laboratory II	
CHEM& 243 & CHEM& 253	Organic Chemistry III and Organic Chemistry Laboratory III	
ENVS 218	Introduction to Ecological Restoration	
GEOL 102	Intro to Geology II Lab	
GEOL 218	Field Studies In Geology	
GEOL& 101	Introduction to Physical Geology	
MATH 215	Linear Algebra	
MATH 221	Differential Equations	
MATH& 254	Calculus IV	
PHYS& 134 & PHYS& 124	General Physics I and General Physics Lab I	
PHYS& 135 & PHYS& 125	General Physics II and General Physics Lab II	
PHYS& 136 & PHYS& 126	General Physics III and General Physics Lab III	
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	
<b>Remaining Credits/Units:</b>		

Sufficient additional college-level credits/units so that the total credits/units earned are at least 90 term credits/units<sup>6</sup>

**Total Credits/Units** 90

<sup>1</sup> Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration. These prerequisite courses can be used to fulfill elective requirements within the Associate in Science (AS) degree program.

<sup>2</sup> Or select math courses that have MATH& 152 as a prerequisite.

<sup>3</sup> Must consult with faculty or advising to pick the correct sequences.

<sup>4</sup> Check with chosen 4-year school.

<sup>5</sup> Preferably a 3-term sequence; check with chosen 4-year school regarding course selection to better prepare for major.

<sup>6</sup> These remaining credits/units may include prerequisites for major courses, additional major coursework, or specific general education or other university requirements as approved by the advisor. A maximum of five (5) General Elective (GE) credits/units will apply.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply scientific methodologies to develop and answer questions about the natural world.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.

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## Concentration in Biological Sciences (AST1)(Plan Code: LRST1AS, Subplan Code: BIOSCIENCE)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II	5
<i>Health &amp; Physical Education</i>		
Course Options (p. 290)		3
<i>Humanities &amp; Social Sciences</i>		15
Select 10 credits/units from the following:		10
Humanities Course Options (p. 290)		
Social Sciences Course Options (p. 291)		
<b>Pre-Major Requirements</b>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III	6
Select one from the following:		
PHYS& 134 & PHYS& 124	General Physics I and General Physics Lab I	5
PHYS& 135 & PHYS& 125	General Physics II and General Physics Lab II	5
PHYS& 136 & PHYS& 126	General Physics III and General Physics Lab III	5
BIOL& 221 & BIOL& 222 & BIOL& 223	Majors Ecology/Evolution and Majors Cell/Molecular and Majors Organismal Phys (8/9/21)	15
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
Select one from the following:		
MATH& 146 or MATH& 153	Introduction to Stat Calculus III	5
<b>Science Electives</b>		
BIOL 101	Environ Biol Conf/Lab	5
BIOL 208 or BIOL 224	Field Studies In Biology Flowering Plants of The Pacific Northwest	1-10
BIOL 139	Introduction to Wildlife	3
Select one from the following:		3

BIOL 140	Mammals of The Northwest
BIOL 141	Birds of The Pacific Northwest
BIOL 142	Freshwater Fishes of The Pacific Northwest
BIOL 145	Reptiles & Amphibians of The Pacific NW
<b>Total Credits/Units</b>	<b>90</b>

<sup>1</sup> Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111) or recommending score on an approved placement test prior to registration.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

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## Concentration in Chemistry (AST1) (Plan code: LRST1AS, Subplan Code: CHEMISTRY)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		5
ENGL& 101	English Composition I	
<i>Quantitative Skills</i>		10
MATH& 151	Calculus I <sup>1</sup>	
MATH& 152	Calculus II	
<i>Health &amp; Physical Education</i>		3
Course Options (p. 290)		
<i>Humanities &amp; Social Sciences</i> <sup>2</sup>		15
Course Options (p. 290)		10
<b>Pre-Major Program Requirements</b>		<b>45-50</b>
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III	
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	
<b>Science Electives</b>		
CHEM& 241 & CHEM& 251	Organic Chemistry I and Organic Chemistry Laboratory I	
CHEM& 242 & CHEM& 252	Organic Chemistry II and Organic Chemistry Laboratory II	
CHEM& 243 & CHEM& 253	Organic Chemistry III and Organic Chemistry Laboratory III	
<b>Other Electives</b>		
Select one from the following:		5
ENGL& 102	English Composition II	
ENGL& 235	Technical Writing	
MATH 111	College Algebra	
MATH 221	Differential Equations	
MATH& 254	Calculus IV	
Foreign Language <sup>3</sup>		
<b>Total Credits/Units</b>		<b>93-98</b>

<sup>1</sup> Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

<sup>2</sup> CMST& 230 would count as a social science; otherwise, the third course needs to be a social science.

<sup>3</sup> Please check with the transfer institution regarding foreign language requirements.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be

able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply scientific methodologies to develop and answer questions about the natural world.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.

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## Concentration in Geology (AST1) (Plan Code: LRST1AS, SubPlan Code: GEOLOGY)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II	5
<i>Health &amp; Physical Education</i>		
		3

Select one from the following:

HPE 258 Fitness-Wellness  
or HPE 266 Mind Body Health

HLTH Health Course (two credits/units) and PE Activity Course (one credit/unit)

*Humanities & Social Sciences*

CMST& 220 Public Speaking 5

Select 10 credits/units from the following: 10

Humanities Course Options (p. 290)

Social Sciences Course Options (p. 291)

**Chemistry Sequence**

CHEM& 141 General Chemistry I 4

CHEM& 142 General Chemistry II 4

CHEM& 143 General Chemistry III 4

CHEM& 151 General Chemistry Laboratory I 1

CHEM& 152 General Chemistry Laboratory II 1

CHEM& 153 General Chemistry Laboratory III 2

**Additional Science Sequence Requirements**

PHYS& 241 Engineering Physics I 5  
& PHYS& 231 and Engineering Phys Lab I

PHYS& 242 Engineering Physics II 5  
& PHYS& 232 and Engineering Phys Lab II

PHYS& 243 Engineering Physics III 5  
& PHYS& 233 and Engineering Phys Lab III

**Pre-Major Program Requirements**

GEOL& 101 Introduction to Physical Geology 5

GEOL 102 Intro to Geology II Lab 5

GEOL 218 Field Studies In Geology 1-6

MATH& 153 Calculus III 5

ENGL& 102 English Composition II 5

**Total Credits/Units** 90

<sup>1</sup> Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

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# ASSOCIATE IN SCIENCE – TRACK 2 (AST2)

Associate in Science – Track 2 is for students intending to transfer into programs in:

AST - Concentration Options:

- Clean/Renewable Energy
- Computer Science
- Engineering
- Environmental Engineering
- Physics
- Associate in Science – General (AST2)(Plan Code: PHST2AS) (p. 31)
- Concentration in Clean/Renewable Energy (AST2/MRP)(Plan Code: PHST2AS, Subplan Code: CLEANENRGY) (p. 32)
- Concentration in Computer Science (AST2)(Plan Code: PHST2AS, Subplan Code: COMPUTRSCI) (p. 33)
- Concentration in Environmental Engineering (AST2/ MRP)(Plan Code: PHST2AS, Subplan: ENVIROSCI) (p. 34)
- Concentration in Physics (AST2)(Plan Code: PHST2AS, Subplan Code: PHYSICS) (p. 35)

## Associate in Science – General (AST2)(Plan Code: PHST2AS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills/Symbolic Reasoning Skills</i>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II	5
<i>Humanities &amp; Social Sciences</i>		
Humanities (HA) Course Options (p. 290)		5
Social Sciences (SS) Course Options (p. 291)		5
Select an additional five credits/units from Humanities (HA) or (HB) or Social Science (SS) courses (p. 290)		5
<b>Pre-Major Program Requirements</b>		
Complete a Physics Sequence, Science with Laboratory and Math Option Below		
<i>Choose one of the following Physics Sequences</i>		
Option 1:		
PHYS& 134	General Physics I	4
PHYS& 124	General Physics Lab I	1
PHYS& 135	General Physics II	4
PHYS& 125	General Physics Lab II	1

PHYS& 126	General Physics Lab III	1
PHYS& 136	General Physics III	4
Option 2:		
PHYS& 242	Engineering Physics II	4
PHYS& 231	Engineering Phys Lab I	1
PHYS& 243	Engineering Physics III	4
PHYS& 232	Engineering Phys Lab II	1
PHYS& 241	Engineering Physics I	4
PHYS& 233	Engineering Phys Lab III	1
<i>Science with Laboratory</i>		
Choose 5 (five) credits/units of Science with Laboratory (Engineering Students must complete CHEM& 141 and CHEM& 151)		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
or		
Any 5 (five) credit/unit Science Class with Lab		5
<i>Math Option</i>		
MATH& 153	Calculus III	5
or MATH& 146 Introduction to Stat		
<i>Remaining Credits/Units</i>		35
The remaining units should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend		
Courses from the following subject area may be used to satisfy this requirement		
BIOL/BIOL&		
CHEM& (restricted to CHEM& 141 or higher)		
CSE		
ENGL&		
ENGR/ENGR&		
GEOL/GEOL&		
MATH/MATH& (restricted to above MATH& 152)		
<b>Total Credits/Units Required</b>		<b>90</b>

<sup>1</sup> Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)

- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply communication theory to demonstrate effective oral communication skills.(GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Analyze and solve multi-step problems using techniques through single-variable calculus

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmmap.clark.edu/academics> (<https://programmmap.clark.edu/academics/>)

## Concentration in Clean/Renewable Energy (AST2/MRP)(Plan Code: PHST2AS, Subplan Code: CLEANENRGY)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Degree requires students to complete minimum of 90 quarter hours of transferable credit/units with a cumulative grade point average of at least 2.00. In order for a student to be junior ready in Renewable/Clean Energy Engineering at specific transfer institutions, there are additional credits/units beyond the AST2 credit/unit requirements for this degree that a student need to consider. Please consult your faculty adviser to learn more and to develop your education plan ([www.engrcs.com/schedule](http://www.engrcs.com/schedule)). The minimum required credits/units are distributed as follows:

Code	Title	Credits/Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II	5
<i>Humanities</i> <sup>2</sup>		10

Course Options (p. 290)		
<i>Social Sciences</i> <sup>3</sup>		5
Course Options (p. 291)		
<b>Pre-Major Program (Minimum 25 credits/units)</b>		<b>25</b>
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	
MATH& 153	Calculus III	
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I <sup>4</sup>	
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II <sup>4</sup>	
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III <sup>4</sup>	
<b>Remaining Credits (Minimum 35 credits/units)</b>		<b>35</b>
CSE 121	Introduction to C	
ENGR 120	Intro to Electrical/Computer Sci & Engineering	
ENGR 253	Signals and Systems	
ENGR 252	Electrical Circuits and Signals	
ENGR& 204	Electrical Circuits	
MATH 215	Linear Algebra	
MATH 221	Differential Equations	
CHEM& 142	General Chemistry II	
CHEM& 152	General Chemistry Laboratory II	
CSE 222	Introduction to Data Structures	
ENGL& 235	Technical Writing	
ENGR 250	Digital Logic Design	
ENGR 270	Digital Systems and Microprocessors	
ENGR& 214	Statics	
GEOL& 101	Introduction to Physical Geology	
<b>Total Credits/Units</b>		<b>90</b>

<sup>1</sup> Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

<sup>2</sup> Any list A Humanities - CMST& 220 and CMST& 230 are recommended

<sup>3</sup> Any Social Science - ECON& 202 is recommended

<sup>4</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)



- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Analyze and solve multi-step problems using techniques through single-variable calculus.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Computer Science (AST2)(Plan Code: PHST2AS, Subplan Code: COMPUTRSCI)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Requires students to complete minimum of 90 quarter hours of transferable credit/units with a cumulative grade point average of at least 2.00. In order for a student to be junior ready in Computer Science at specific transfer institutions, there are additional credits/units beyond the AST2 credit/unit requirements for this degree that a student need to consider. Please consult your faculty adviser to learn more and to develop your education plan ([www.engrcs.com/schedule](http://www.engrcs.com/schedule)). The minimum required credits/units are distributed as follows:

Code	Title	Credits/Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i> <sup>1</sup>		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
<i>Humanities &amp; Social Science</i> <sup>2</sup>		15

Coursework should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend

Humanities Course Options (p. 290)

Social Science Course Options (p. 291)

Additional 5 (five) credits/units in either Humanities or Social Science

### Pre-Major Program Requirements (minimum of 25 credits/units) 25

Any 5 (five) credit/unit Biology (BIOL/BIOL&) Class with Lab<sup>3</sup>

MATH& 153 Calculus III

PHYS& 241 Engineering Physics I  
& PHYS& 231 and Engineering Phys Lab I<sup>4</sup>

PHYS& 242 Engineering Physics II  
& PHYS& 232 and Engineering Phys Lab II<sup>4</sup>

PHYS& 243 Engineering Physics III  
& PHYS& 233 and Engineering Phys Lab III<sup>4</sup>

### Remaining Credits/Units (minimum of 35 credits/units) 35

The remaining credits/units should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend

CSE 101 Engineering and Computer Science Orientation

CSE 120 Introduction to Electrical/Computing

CSE 121 Introduction to C

CSE 215 Discrete Structures

CSE 222 Introduction to Data Structures

CSE 223 Data Structures & Object-Oriented Programming

CSE 224 Programming Tools

ENGR 250 Digital Logic Design

ENGR 270 Digital Systems and Microprocessors

MATH 215 Linear Algebra

MATH& 254 Calculus IV

ENGL& 235 Technical Writing

### Total Credits/Units 90

<sup>1</sup> Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111) or recommending score on an approved placement test prior to registration.

<sup>2</sup> WS 101, ECON& 202 and HIST& 128 are recommended

<sup>3</sup> Any 5 Credit/Unit Biology course with Lab - BIOL& 175 and BIOL& 100 are recommended.

<sup>4</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.

- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

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## Concentration in Environmental Engineering (AST2/ MRP)(Plan Code: PHST2AS, Subplan: ENVIROSCI)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Basic Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations <sup>2</sup>	5
<b>Distribution Requirements</b>		
<i>Humanities</i>		
Course Options (p. 290)		
<i>Social Sciences</i> <sup>3</sup>		
Course Options (p. 291)		

Additional credits/units in either Humanities or Social Sciences 5

### Physics<sup>4</sup>

*Sequence One:*

PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
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*Sequence Two:*

PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
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*Sequence Three:*

PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
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### Chemistry with Lab

CHEM& 141	General Chemistry I	4
CHEM& 151	General Chemistry Laboratory I	1
CHEM& 142	General Chemistry II	4
CHEM& 152	General Chemistry Laboratory II	1

### Additional Requirements

ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5

### Math/Engineering Electives 15-20

Select a minimum of 4 specialization courses in consultation with an Engineering Advisor as appropriate for intended transfer institution

BIOL& 100	Survey of Biology
BIOL& 222	Majors Cell/Molecular
BIOL& 260	Microbiology
ENGL& 235	Technical Writing
ENGR 105	Wheeler Innovation Lab Qualifications
ENGR 109	Introduction to Engineering
ENGR 113	Engineering Sketching and Visualization
ENGR 121	Field Survey I
ENGR 140	Basic Autocad
ENGR 150	Basic Solidworks
ENGR 221	Materials Science
ENGR& 224	Thermodynamics
ENGR 240	Applied Numerical Methods for Engineers
MATH& 254	Calculus IV

**Total Credits/Units 100-105**

- <sup>1</sup> MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.
- <sup>2</sup> Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.
- <sup>3</sup> ECON& 201 or ECON& 202 is recommended, but not required.
- <sup>4</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.

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## Concentration in Physics (AST2) (Plan Code: PHST2AS, Subplan Code: PHYSICS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Quantitative Skills</i>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II	5
<i>Health &amp; Physical Education</i>		

Health Requirement (p. 290)		2
Physical Education Activity (p. 290)		1
<i>Humanities &amp; Social Sciences</i>		
Select one from the following:		5
CMST& 210	Interpersonal Communication	
CMST& 220	Public Speaking	
CMST& 230	Small Group Communication	
Select 10 credits/units from the following:		10
Humanities Course Options (p. 290)		
Social Science Course Options (p. 291)		
<b>Pre-Major Program Requirements</b>		
ENGL& 102	English Composition II	5
MATH 111	College Algebra	5
	or MATH 110 College Algebra With Support	
MATH& 153	Calculus III	5
MATH 221	Differential Equations	5
MATH& 254	Calculus IV	5
Electives		1-5
<b>Science Sequence Requirements</b>		
CHEM& 141	General Chemistry I	4
CHEM& 142	General Chemistry II	4
CHEM& 143	General Chemistry III	4
CHEM& 151	General Chemistry Laboratory I	1
CHEM& 152	General Chemistry Laboratory II	1
CHEM& 153	General Chemistry Laboratory III	2
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<b>Total Credits/Units Required</b>		<b>90</b>

<sup>1</sup> Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply scientific methodologies to develop and answer questions about the natural world.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply communication theory to demonstrate effective oral communication skills.(GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# AUTOMOTIVE TECHNOLOGY

Clark College has two automotive program offerings:

- Toyota T-TEN
- HiTECC (Dealer Ready)

## Toyota T-TEN

Clark College is an award-winning Toyota Technical Education Network (T-TEN) training center. Our T-TEN program requires a Toyota Dealer sponsorship prior to admission. Entry into the program is yearly, beginning summer term; the format is a two-year program of a term of instruction on campus followed by a term of on-the-job learning. This means that for the two years that they are in the program, students alternate one term of full-time classroom and lab practice with one term as a full-time dealership apprentice.

## HiTECC (Dealer Ready)

The Hannah initiative for Technician Education with Clark College, or HiTECC automotive program prepares students for maintenance and repair employment opportunities in automotive dealerships nationwide. This program provides a broad overview of technology used in modern vehicles. The program structure is patterned after the successful Toyota program and will require a dealership sponsor prior to entry. Students will participate in a cooperative work experience at a dealership while attending school.

For all programs, students must complete all Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section in the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

- HiTECC Automotive Technology (AAT)(Plan Code: AUMHAAPT) (p. 38)
- T-TEN Automotive Technology (AAT)(Plan Code: AUMTAAPT) (p. 37)

## T-TEN Automotive Technology (AAT) (Plan Code: AUMTAAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
or		
PTWR 135	Introduction to Applied Technical Writing <sup>1</sup>	5
<i>Computational Skills</i> <sup>2</sup>		
PTCS 110	Professional Technical Computational Skills <sup>1</sup>	5
<i>Human Relations</i>		

AUTO 180	Professionalism in Automotive <sup>1</sup>	5
<b>Major Area Requirements</b>		
AUTO 140	Automotive Bridge Program Readiness	2
AUTO 150	Introduction to Toyota	7
AUTO 151	Toyota Electrical I	7
AUTO 152	Toyota Electrical II	7
AUTO 153	Toyota Brakes	7
AUTO 154	Toyota Internship I	8
AUTO 155	Toyota Steering and Suspension	7
AUTO 156	Toyota Engine Performance I	7
AUTO 157	Toyota Engine Performance II	7
AUTO 250	Toyota Climate Control	7
AUTO 251	Toyota Internship II	4
AUTO 252	Toyota Engine Mechanical	7
AUTO 253	Toyota Manual Transmission	7
AUTO 254	Toyota Automatic Transmissions	7
AUTO 256		7
<b>Total Credits/Units</b>		<b>113</b>

<sup>1</sup> Recommended.

<sup>2</sup> College-Level Math Required.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Use Toyota's 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of concern, correct the concern, and verify proper vehicle operation.
- Represent Toyota/Lexus and their dealers by being competent, highly trained, and ethical Toyota technicians.
- Achieve, maintain, and advance in the Toyota/Lexus technician certification process.
- Work as an effective team member in a Toyota dealership environment.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## HiTECC Automotive Technology (AAT) (Plan Code: AUMHAAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I (recommended)	5
or		
PTWR 135	Introduction to Applied Technical Writing (recommended)	5
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (recommended)	5
<i>Human Relations</i>		
AUTO 180	Professionalism in Automotive (recommended)	5
<b>Major Area Requirements</b>		
AUTO 140	Automotive Bridge Program Readiness	2
AUTO 160	Introduction to Dealership Operations	7
AUTO 161	Electrical I	7
AUTO 162	Electrical II	7
AUTO 163	Brakes	7
AUTO 164	Internship I	8
AUTO 165	Steering and Suspension	7
AUTO 166	Engine Performance I	7
AUTO 167	Engine Performance II	7
AUTO 260	Climate Control	7
AUTO 261	Internship II	4
AUTO 262	Engine Mechanical	7
AUTO 263	Manual Transmission	7
AUTO 264	Automatic Transmissions	7
AUTO 266	Advanced Applied Electrical	7
<b>Total Credits/Units</b>		<b>113</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Use a 6-step process to verify customer vehicle concern, determine related symptoms, analyze symptoms, isolate cause of concern, correct the concern, and verify proper vehicle operation.

- Represent sponsoring dealers by being competent, highly trained, and ethical dealership technicians.
- Achieve, maintain, and advance in the ASE technician certification process.
- Work as an effective team member in a dealership environment.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

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# BIOENGINEERING AND CHEMICAL ENGINEERING

The following is a degree program designed by a consortium of two-year and four-year colleges in Washington. Students should be aware that baccalaureate institutions may have slightly different requirements for these degrees, and students should consult the transfer institution for exact questions.

Students should complete the entirety of any science sequence at the same school for best transferability. These degrees are not DTA degrees, and there are some general education requirements that students will need to finish upon transfer.

Though this degree does not require such, Clark College students should know that the standard Clark AST degree path has this difference from the Major Related Program (MRP) defined below:

- Clark requires 3 credits/units of Health-Physical Education coursework.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark students should keep these requirements in mind should their transfer pathways change.

Students completing this Associate of Science will receive the same priority consideration for admission to the baccalaureate institution as they would for completing the direct transfer associate degree and will be given junior status by the receiving institution.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

- Bioengineering and Chemical Engineering (AST2/MRP)(Plan Code: CHEBCAS) (p. 39)

## Bioengineering and Chemical Engineering (AST2/MRP)(Plan Code: CHEBCAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

### Clark College Equivalents

Code	Title	Credits/ Units
<b>Communication Skills</b>		
ENGL& 101	English Composition I	5
<b>Mathematics</b> <sup>1</sup>		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 221	Differential Equations	5
<b>Distribution Requirements</b>		

Coursework should be planned with the help of an advisor based on the specific discipline at the baccalaureate institution the students select to attend.

Humanities	5
Social Sciences	5
Additional 5 (five) credits/units of either Humanities or Social Sciences	5

#### Physics

Complete the following Physics sequences with the required concurrent enrollment:

##### Sequence One

PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	4	5
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##### Sequence Two

PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5	5
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##### Sequence Three

PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	6	5
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#### Chemistry with Lab

CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5	5
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5	5
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III	6	6

#### Select one from the following sequences

##### Sequence One:

CHEM& 241 & CHEM& 251	Organic Chemistry I and Organic Chemistry Laboratory I	5	5
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##### Sequence Two:

CHEM& 242 & CHEM& 252	Organic Chemistry II and Organic Chemistry Laboratory II	5	5
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##### Sequence Three:

BIOL& 222	Majors Cell/Molecular	5	5
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#### Specialization Courses

Select 3 (three) courses (minimum 14-16 units) in consultation with an advisor as appropriate for intended specialization in the major and the intended transfer institution:

BIOL& 221	Majors Ecology/Evolution	5
BIOL& 223	Majors Organismal Phys	5
CHEM& 243	Organic Chemistry III	4
CHEM& 253	Organic Chemistry Laboratory III	2
CSE 101	Engineering and Computer Science Orientation	1
CSE 121	Introduction to C	5
ENGL& 235	Technical Writing	5
ENGR 101	Engineering and Computer Science Orientation	1
ENGR& 104	Introduction to Design	5
ENGR 109	Introduction to Engineering	5
ENGR 120	Intro to Electrical/Computer Sci & Engineering	5
ENGR& 204	Electrical Circuits	5
ENGR& 214	Statics	5
ENGR 221	Materials Science	5
ENGR& 224	Thermodynamics	5

ENGR 240	Applied Numerical Methods for Engineers	4
ENGR 250	Digital Logic Design	5
MATH 215	Linear Algebra	5
MATH& 254	Calculus IV	5
<b>Total Credits/Units</b>		<b>95</b>

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

<sup>1</sup> Required at Clark: MATH& 254 (Five credits/units) – Calculus IV. Other electives as advised dependent on transfer institution.

<sup>2</sup> MATH 103 and MATH 111 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met via COMPASS.

<sup>3</sup> Clark requires concurrent enrollment of completion in MATH& 254 when taking MATH 221.

<sup>4</sup> Requires concurrent enrollment in PHYS 94.

<sup>5</sup> Requires concurrent enrollment in PHYS 95.

<sup>6</sup> Requires concurrent enrollment in PHYS 96.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.



# BIOLOGICAL SCIENCES

Biological sciences are the basic foundation for many professions. Upper-division requirements at the transfer institution will determine the area of specialization. Students should work with a faculty advisor to develop a specific program.

## Professional Opportunities

Following completion of a Bachelor of Arts or Science Degree at a four-year institution of the student's choice, several avenues of employment or advancement are open. A few of these are:

- Food Processing
- Commercial Fisheries
- Graduate School
- State and Federal Wildlife agencies
- Science teaching at elementary or secondary level
- Environmental Sciences
- Transfer into professional health programs (medical, dental, pharmacy, physical therapy or optometry)
- Veterinary/Animal Science

Clark's Biological Sciences majors have had excellent success in finding placement in graduate programs, health science programs, and professional areas. Clark College offers the first two years of most Biological Sciences majors: Biology, Botany, Forestry, Genetics, Marine Biology, Microbiology, Wildlife, and Zoology. Special emphasis is placed on small class size, individual instruction, field experiences, and undergraduate research opportunities. There is good exchange between the support areas of Chemistry, Geology, and Physics to aid in developing relevant courses.

- Biology DTA/MRP (Plan Code: GEBBIAS) (p. 41)

## Biology DTA/MRP (Plan Code: GEBBIAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

### Basic Requirements

1. May be individualized based on baccalaureate college of choice.
2. Statistics (a course that includes descriptive and inferential statistics) may substitute for Calculus I at some institutions; students are encouraged to check with the transfer institution early in their decision process to confirm requirements.
3. Intermediate Algebra proficiency may be demonstrated by successful completion of a Calculus and/or Statistics course for which Intermediate Algebra is a prerequisite.

### Distribution Requirements

1. In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the humanities courses that best support or may be required as prerequisites to their Biology curriculum.

2. In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the social science courses that best support or may be required as prerequisites to their Biology curriculum.
3. A full year sequence at a single college is the best preparation for the baccalaureate biology degree.

### Electives

1. Electives allow students to include additional courses to prepare for the biology major based on college selection. Examples include a full year sequence of organic chemistry for majors; a full year sequence of physics for science majors; or further math at the pre-calculus level or above or statistics.

Students should check with the transfer institution prior to taking any further biology courses beyond the one-year sequence. Some colleges require all continuing biology courses be taken at the 300 level.

Clark College Equivalents

Code	Title	Credits/ Units
<b>Basic Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative/Symbolic Reasoning Requirement</i> <sup>1</sup>		
Select one from the following:		5-6
MATH& 148	Business Calculus	
MATH& 146	Introduction to Stat	
MATH& 151	Calculus I	
MATH 140	Calculus for Life Sciences	
<b>Distribution Requirements</b>		
<i>Humanities</i>		
Course Options (p. 290)		15
<i>Social Sciences</i>		
Course Options (p. 291)		15
<i>Natural Sciences</i>		
BIOL& 221	Majors Ecology/Evolution	5
BIOL& 222	Majors Cell/Molecular	5
BIOL& 223	Majors Organismal Phys	5
CHEM& 141	General Chemistry I	4
CHEM& 142	General Chemistry II	4
CHEM& 143	General Chemistry III	4
CHEM& 151	General Chemistry Laboratory I	1
CHEM& 152	General Chemistry Laboratory II	1
CHEM& 153	General Chemistry Laboratory III	2
<b>Electives</b>		
Select 14 additional term credits/units <sup>2</sup>		14
<b>Total Credits/Units</b>		<b>90</b>

<sup>1</sup> Check with transfer institution to see if MATH 147 will also be necessary.

<sup>2</sup> Note: Clark's chemistry sequence has 16 credits/units.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequality. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Acquire scientific information from appropriate sources to analyze issues, claims or situations.
- Apply scientific methodologies to develop and answer questions about the natural world.

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To view the current suggested map for your program please visit our website <http://www.clark.edu/academics/programs/program-maps/>

# BUSINESS ADMINISTRATION

The Business Administration program teaches individuals how to maintain a competitive edge in business today through theory and practical applications. There is special emphasis on utilizing technology to solve problems and improve productivity, teamwork, interpersonal skills, and professional workforce behavior.

Whether owning, operating, and/or managing a small or large business, Clark's Business Administration and technical education programs allow the student to specialize in a particular area of business. Graduates have found successful positions in accounting, sales and services, merchandising and management.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program planning.

- Small Business Management (CP)(Plan Code: SBMSMC45) (p. 43)
- Business Administration (AAS)(Plan Code: BAMBUAPT) (p. 43)
- Supervisory Management (CP) (Plan Code: HRPSMC45) (p. 44)
- Supervisory Management (AAS)(Plan Code: HRPSMAPT) (p. 45)
- Business Administration (DTA/MRP)(Plan Code: BUCBUAA) (p. 45)

## Small Business Management (CP) (Plan Code: SBMSMC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	3-5
<i>Computational Skills</i>		
BUS 102	Business Math Applications	5
<i>Human Relations</i>		
BUS 148	Business Professional Self Development	3
<b>Business Core Course</b>		
ACCT 129	Basic Accounting Procedures	5
BUS 150	Computer Business Applications	5
BUS& 101	Introduction to Business	5
ECON 101	Introduction to Economics	3
MGMT 101	Principles of Management	3
<b>Major Area Requirements</b>		
BUS 115	Small Business Management	5
BUS& 201	Business Law	5
BUS 199	Cooperative Work Experience <sup>1</sup>	1-5
COLL 101	College Essentials: Introduction to Clark	2
<b>Total Credits/Units</b>		<b>47-49</b>

<sup>1</sup> Minimum of three credits/units required for program completion

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Prepare a business plan.
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Describe the U.S. legal system and the legal environment of business by outlining the basic principles of law that apply to business transactions.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Business Administration (AAS)(Plan Code: BAMBUAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Health &amp; Physical Education</i>		
Course Options (p. 296)		3
<i>Humanities</i>		
CMST& 220	Public Speaking	5
or CMST& 230 Small Group Communication		
<i>Natural Sciences</i>		
Course Options (p. 297)		3
<i>Computational Skills</i>		
BUS 102	Business Math Applications	5
<i>Human Relations</i>		
BUS 148	Business Professional Self Development	3
<i>Social Sciences</i>		
ECON 101	Introduction to Economics	3

<b>Business Core</b>		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
MGMT 101	Principles of Management	3
<b>Major Area Requirements</b>		
ACCT 136	Accounting Applications	3
BUS 110	Customer Service	3
BUS 115	Small Business Management	5
BUS 199	Cooperative Work Experience	5
BUS 211	Business Communications	3
BUS 260	Principles of Marketing	5
BUS& 201	Business Law	5
MGMT 103	Applied Management Skills	3
MGMT 126	Introduction to Project Management	4
COLL 101	College Essentials: Introduction to Clark	2
<i>Project Management courses be used to satisfy Additional Major Area Requirements. However, ten (10) units may be utilized from any course with ACCT, BUS, ECON, or MGMT prefixes.</i>		10
<b>Total Credits/Units</b>		<b>93</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate customer skills (internal and external) to establish a customer-centered business organization.
- Identify and demonstrate professional traits and behaviors that apply to job performance in real-world environments.
- Use micro- and macroeconomic concepts to analyze domestic and global business situations.
- Communicate effectively, using business terminology in written and verbal language.
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry

method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Supervisory Management (CP) (Plan Code: HRPSMC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

<b>Code</b>	<b>Title</b>	<b>Credits/Units</b>
<b>General Education Requirements</b>		
<i>Communication</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills</i>		
BUS 102	Business Math Applications	5
<i>Human Relations</i>		
BUS 148	Business Professional Self Development	3
<b>Business Core Courses</b>		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
ECON 101	Introduction to Economics	3
MGMT 101	Principles of Management	3
<b>Major Area Requirements</b>		
MGMT 103	Applied Management Skills	3
MGMT 110	Creative Problem Solving	3
MGMT 128	Human Resources Management	3
BUS 199	Cooperative Work Experience <sup>2</sup>	1-5
<b>Total Credits/Units</b>		<b>46</b>

<sup>2</sup> Minimum of 3 credits/units required

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Effectively manage people and resources to meet organizational and institutional goals.
- Understand and apply managerial techniques for decision making, problem solving, and managing change.

- Apply the understating of human resources issues and functions, identifying applicable laws.

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## Supervisory Management (AAS)(Plan Code: HRPSMAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i> <sup>1</sup>		
ENGL& 101	English Composition I	5
<i>Health and Physical Education</i>		
Course Options (p. 296)		3
<i>Humanities</i>		
CMST& 220	Public Speaking	5
	or CMST& 230 Small Group Communication	
<i>Natural Sciences</i>		
Course Options (p. 297)		3
<i>Social Science</i>		
ECON 101	Introduction to Economics	3
<i>Computational Skills</i>		
BUS 102	Business Math Applications	5
<i>Human Relations</i>		
BUS 148	Business Professional Self Development	3
<b>Business Core</b>		
ACCT 129	Basic Accounting Procedures	5
BUS 150	Computer Business Applications	5
BUS& 101	Introduction to Business	5
MGMT 101	Principles of Management	3
<b>Major Area Requirements</b>		
MGMT 103	Applied Management Skills	3
MGMT 128	Human Resources Management	3
MGMT 110	Creative Problem Solving	3
BUS 199	Cooperative Work Experience <sup>2</sup>	1-5
BUS 211	Business Communications	3
MGMT 112	Conflict Management	2
MGMT 106	Motivation and Performance	3
MGMT 126	Introduction to Project Management	4
BUS& 201	Business Law	5
BUS 110	Customer Service	3
BUS 105	Introduction to International Business	3
COLL 101	College Essentials: Introduction to Clark	2

*Electives* 10

Project Management courses may be used to satisfy Additional Major Area Requirements. However, ten (10) units may be utilized from any course with ACCT, BUS, ECON, or MGMT prefixes.

**Total Credits/Units** 94

<sup>1</sup> Six (6) credits/units maximum.

<sup>2</sup> Five (5) credits total required for BUS 199

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Design a comprehensive management project with given criteria, using software.
- Describe the U.S. legal system and the legal environment of business by outlining the basic principles of law that apply to business transactions.
- Apply the understanding of human resource issues and functions, identifying applicable laws.
- Communicate effectively using business terminology in written and verbal language.
- Effectively manage people and resources to meet organizational and institutional goals.
- Apply techniques to improve production and to decrease waste.

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## Business Administration (DTA/MRP) (Plan Code: BUCBUAA)

### Basic Requirements

#### Communication Skills

ENGL& 101 is required at Eastern Washington University.

## Distribution Requirements

### Humanities

Students intending the international business major should consult their potential transfer institutions regarding the level of world language required for admission to the major. Five credits/units in world languages may apply to the Humanities requirement.

CMST& 220 is specifically required for WSUV business transfer.

### Natural Sciences

Students intending the manufacturing management major at WWU should consult WWU regarding the selection of natural science courses required for admission to the major.

## Major Requirements

### Business Courses

Universities with a lower division Business Law requirement: UW (all campuses), WSU (all campuses), EWU, CWU, WWU, Gonzaga, SMU, SPU, and Whitworth.

The following institutions do not require a lower division Business Law course and agree to accept the course taken as part of this degree as a lower division elective, but generally not as an equivalent to the course required at the upper division: Heritage, PLU, SU, and Walla Walla University.

International students who completed a business law course specific to their home country must take a business law course at a U.S. institution in order to demonstrate proficiency in in U.S. business law.

## Electives

### Elective Courses

Five institutions have requirements for admission to the major that go beyond those specified above. Students can meet these requirements by careful selection of the elective University Course Equivalent to:

- WSU (all campuses): Management Information Systems MIS 250
- Gonzaga: Management Information Systems BMIS 235
- PLU: Computer applications CSCE 120, either an equivalent course or skills test
- SPU: Spreadsheet BUS 1700, either an equivalent course or skills test
- WWW: Introduction to Business Computer Systems MIS 220 (for transfer students entering fall 2014)

Code	Title	Credits/ Units
<b>Basic Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
	or ENGL& 235 Technical Writing	
<i>Quantitative/Symbolic Reasoning</i>		
Course 1:		
Select one from the following:		5
MATH& 148	Business Calculus	
MATH& 151	Calculus I	
MATH& 152	Calculus II	
MATH& 254	Calculus IV	
Course 2:		

Select one from the following:		5
MATH 103	College Trigonometry	
	or MATH 104 Finite Math with Support	
	or MATH 105 Finite Mathematics	
MATH 110	College Algebra With Support	
	or MATH 111 College Algebra	
MATH& 153	Calculus III	
MATH 215	Linear Algebra	
MATH 221	Differential Equations	

### Distribution Requirements

<i>Humanities</i>		
Select 15 term credits/units of Humanities (p. 290) <sup>1</sup>		15
<i>Social Sciences</i>		
ECON& 201	Micro Economics	5
ECON& 202	Macro Economics	5
Select a Social Science from outside Economics (p. 291)		5
<i>Natural Sciences</i>		
MATH& 146	Introduction to Stat	5
Select Natural Science coursework, including one lab as defined by Clark College (p. 292)		10

### Major Requirements

<i>Business Courses (for all schools except UW)</i>		
ACCT& 201	Principles of Accounting I	5
ACCT& 202	Principles of Accounting II	5
ACCT& 203	Principles of Accounting III	5
BUS& 201	Business Law	5

### Electives

Elective Courses (p. 293)	5
<b>Total Credits/Units</b>	<b>90</b>

<sup>1</sup> CMST& 220 is strongly recommended.

## Program Outcomes

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- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

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# COMPUTER TECHNOLOGY

The Computer Technology (CTEC) department at Clark College offers training in a variety of foundational and content-specific topics relating to general computer literacy and fluency, computer operating systems interactions, programming, databases, web technology, and networking. Our course offerings serve a variety of missions: to enhance and expand an individual student's skill set, to serve as a prerequisite or requirement for another area of study, or to be a component course in one of the programs offered by this department.

CTEC currently offers the Computer Support program with degree and certificate options to provide students with skills for employment as computer technicians, help desk workers and other technical support roles. The department also offers an AAT degree in Web Development, which focuses on preparing students for careers that feature web programming skills.

Student considering options in computer-related careers should meet with a program advisor to consider which CTEC courses or programs may benefit them in their training and career exploration. CTEC course offerings can help provide a foundational understanding and set of skills in computer technology that will help them make informed decisions on career choices in other Clark College computer-related programs offered by Networking Technology (NTEC), Digital Media Arts (DMA), and Business Technology as well as on transfer opportunities in Computer Science and Information Technology.

For CTEC degrees and certificates, students must complete all major area requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award. Students should refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements for our program offerings.

- Information Technology Skills (CP)(Plan Code: MIAISC45) (p. 49)
- Computer Support Specialist (AAT)(Plan Code: MIACTAPT) (p. 49)

## Information Technology Skills (CP) (Plan Code: MIAISC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Students interested in the Computer Support Specialist program should obtain advising before entering the program.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills (3 credits required)</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills (3 credits required)</i>		
PTCS 110	Professional Technical Computational Skills	5
Or completed MATH course with 'C' or better where prerequisites are MATH 092 or higher		5
<i>Human Relations</i>		

CTEC 104	IT Support	3
<b>Major Area Requirements</b>		
BUS 149	Computer Application Essentials	3
CTEC 106	Information Technology Fundamentals	5
CTEC 111	Powershell Fundamentals	3
CTEC 115	Internet Research and Living Online	3
CTEC 130	Microsoft Windows OS Fundamentals	3
CTEC 131	Microsoft Networking Fundamentals	3
CTEC 205	Introduction to Managed Information Systems	5
CTEC 213	CompTIA A+ Fundamentals	4
CTEC 214	CompTIA A+ Operating Systems & Networking	4
NTEC 103	IP Subnetting	3
<b>Total Credits/Units</b>		<b>49</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Analyze the ethical and legal issues surrounding access to and use of technology.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate foundational understanding of concepts, skills and issues relating to underlying technology and current industry standards involving computer technology
- Install, configure, and maintain hardware and software to bring the system to an appropriate operational level for the end user.
- Diagnose, troubleshoot and repair customer hardware, software, and networking issues.
- Identify, access, and evaluate resources, and respond appropriately and professionally with written and verbal communications to colleagues and customers.
- Maintain a professional and supportive role with colleagues and customers in regard to their computer technology needs.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Computer Support Specialist (AAT) (Plan Code: MIACTAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online

catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills	5
or completed MATH course with 'C' or better where prerequisite requirements are MATH 096 or higher		5
<i>Human Relations</i>		
CTEC 104	IT Support	3
COLL 101	College Essentials: Introduction to Clark	2
<b>Major Area Requirements</b>		
BUS 149	Computer Application Essentials	3
CTEC 106	Information Technology Fundamentals	5
CTEC 111	Powershell Fundamentals	3
CTEC 115	Internet Research and Living Online	3
CTEC 121	Intro to Programming & Problem Solving	5
CTEC 130	Microsoft Windows OS Fundamentals	3
CTEC 131	Microsoft Networking Fundamentals	3
CTEC 132	Microsoft Windows Server Fundamentals	4
CTEC 133	Microsoft Security Fundamentals	3
CTEC 134	Microsoft Database Admin	5
CTEC 145	Web Server Technology	5
CTEC 200	Help Desk Technician I	3
CTEC 201	Help Desk Technician II	3
or CTEC 199	Cooperative Work Experience	
CTEC 205	Introduction to Managed Information Systems	5
CTEC 213	CompTIA A+ Fundamentals	4
CTEC 214	CompTIA A+ Operating Systems & Networking	4
CTEC 233	CompTIA Security+	5
CTEC 235	CompTIA Cybersecurity	5
NTEC 103	IP Subnetting	3
NTEC 142	Cloud Computing Fundamentals	3
<b>Total Credits/Units</b>		<b>92</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Install, configure, and maintain hardware and software to bring the system to an optimal operational level for the end user.
- Demonstrate progress toward healthier behaviors. (GE)
- Diagnose, troubleshoot and repair customer hardware, software, and networking issues in a variety of environments.
- Identify, access, and evaluate resources, and respond appropriately and professionally with written and verbal communications to colleagues and customers.

- Analyze the ethical and legal issues surrounding access to and use of technology.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate broad based understanding of concepts, skills and issues relating to underlying technology and current industry standards involving computer and information technology.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# CULINARY ARTS

The culinary and hospitality industries are experiencing tremendous growth. Employers all over the nation are looking for people who have not only technical skills, but also the ability to manage effectively and solve problems creatively.

At the Tod and Maxine McClaskey Culinary Institute at Clark College, we are building on nearly 60 years of excellence in culinary education to offer newly updated programs that prepare you to meet the growing demand for culinary and hospitality professionals. Our programs emphasize mastery of the fundamentals as well as management and critical thinking skills to prepare you for a range of career opportunities.

Our faculty combine their real-world experience with teaching expertise to help you master the technical, organizational, and management skills you need to stand out to potential employers. In addition, your on-campus experience will help develop skills including teamwork, customer service, merchandising, efficiency, equipment and food safety, production scheduling, and more – all key skills to prepare you for a career in the region's dynamic food and hospitality industry.

Whether you aspire to work in a restaurant, bakery, industrial kitchen, catering service, or your own small business, the McClaskey Culinary Institute will assist in preparing you for a variety of career opportunities.

- Baking and Pastry Arts Fundamentals (CA)(Plan Code: BPABPC20) (p. 51)
- Professional Baking and Pastry Arts Management (AAT)(Plan Code: BPAPBAPT) (p. 51)
- Cuisine Fundamentals (CA)(Plan Code: CACCF20) (p. 52)
- Cuisine Management (AAT)(Plan Code: CACCMAPT) (p. 53)

## Baking and Pastry Arts Fundamentals (CA)(Plan Code: BPABPC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This program is built on a competency model focused on developing the fundamental knowledge, skills and abilities to work in a bakery or pastry shop environment.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
PBAK 110	Artisan Breads	9
PBAK 111	Early Morning Product	5
PBAK 120	Viennoiserie	9
PBAK 121	Cookies, Brownies, Bars and Quick Breads	5
PBAK 130	Cakes, Desserts and Tortes	9
PBAK 131	Retail Operations and Barista	5
<b>Total Credits/Units</b>		<b>42</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply processes of baking, including concepts of ingredient cause and effect, in daily routine
- Accurately follow a formula, with notes, to completion
- Perform accurate mathematical operations appropriate to baking
- Operate commercial baking equipment and tools using standard safety and sanitation procedures
- Demonstrate accurate use of both digital and balance scales
- Demonstrate effective time management

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Professional Baking and Pastry Arts Management (AAT)(Plan Code: BPAPBAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This program of study will delve deeply into the science of baking and then apply that theoretical knowledge in a hands-on production focused lab environment. During the course of their studies students will learn all aspects of artisan breads, laminated doughs, cakes, tortes, French pastries, and merchandising. While developing these key industry competencies students will simultaneously be developing work place skills such as team work, food costing, customer service, efficiency, speed and accuracy, equipment and food safety, and production scheduling.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
PTWR 135 or ENGL& 101	Introduction to Applied Technical Writing <sup>1</sup> English Composition I	5
<i>Computational Skills</i>		
PTCS 110 or MATH& 146	Professional Technical Computational Skills <sup>1</sup> Introduction to Stat	5
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2
MGMT 101 or BUS 148	Principles of Management Business Professional Self Development	3

### Major Area Requirements

PBAK 110	Artisan Breads	9
PBAK 111	Early Morning Product	5
PBAK 120	Viennoiserie	9
PBAK 121	Cookies, Brownies, Bars and Quick Breads	5
PBAK 125		3
PBAK 130	Cakes, Desserts and Tortes	9
PBAK 131	Retail Operations and Barista	5
PBAK 200	Applied Professional Development	9
PBAK 210	Production Baking	9
PBAK 220	Pastry Chef/Restaurant Baking	9
PBAK 221	Retail/Merchandising, Inventory/Purchasing	5
PBAK 230	Capstone Project	6
PBAK 231	Industry Internship	4
<b>Total Credits/Units</b>		<b>102</b>

<sup>1</sup> These courses are recommended

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Apply processes of baking, including concepts of ingredient cause and effect, in a daily routine.
- Accurately follow a formula, with notes, to completion.
- Perform accurate mathematical operations appropriate to baking.
- Operate commercial baking equipment and tools using standard safety and sanitation procedures.
- Demonstrate accurate use of both digital and balance scales.
- Demonstrate effective time management.
- Demonstrate effective bakery management skills.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Cuisine Fundamentals (CA)(Plan Code: CACCF20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This program is designed to provide a solid foundation of necessary skills and practices for entry level employment.

Code	Title	Credits/Units
<b>Major Area Requirements</b>		
CUIS 110	Culinary Fundamentals I	5
CUIS 111	Professional Cooking I	8
CUIS 120	Culinary Fundamentals II	5
CUIS 121	Professional Cooking II	8
CUIS 130	Culinary Fundamentals III	5
CUIS 131	Professional Cooking III	8
Subtotal		39
<b>Specialized Short courses</b>		
Select a minimum of four credits/units from the following:		4
CUIS 140	Classic and Modern Soups and Sauces	
CUIS 141	Meat Cutting and Fabrication	
CUIS 142	Wine, Beer, Spirits and Food Pairings	
CUIS 143	Restaurant Baking	
CUIS 144	Banquet and Buffet Planning and Execution	
CUIS 145	Wine Appreciation	
CUIS 147	Barbeque Basics	
CUIS 148	Advanced Garde Manger	
<b>Total Credits/Units</b>		<b>43</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply the basics of classical, modern, and healthy cooking techniques.
- Identify and describe a variety of food ingredients and specifications with focus on sustainable, organic, nutritional needs; specialty diets; and aspects of vegetarian and veganism.
- Demonstrate proper kitchen sanitation, safety and professionalism in the workplace.
- Identify and demonstrate proper use of kitchen tools and equipment.
- Demonstrate basic measuring, conversion, food costing and yield management practices.
- Demonstrate cook to order practices with American and International cuisine.
- Apply teamwork, workplace ethics, customer service and communications in the workplace.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Cuisine Management (AAT)(Plan Code: CACCMAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This program prepares students for a wide variety of employment opportunities in the food service and hospitality industries. Some of these employment venues include restaurants, resorts, assisted living communities and hospital environments. This program is designed to provide a solid foundation of necessary skills and practices for entry level employment. The curriculum is delivered in a competency based format with a focus on skill development, production and customer service. In addition to skill development the curriculum also includes a focus on healthy cooking options, special dietary needs, international cuisine, food cost management, industry trends and sustainable production.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
PTWR 135 or ENGL& 101	Introduction to Applied Technical Writing <sup>1</sup> English Composition I	5
<i>Computational Skills</i>		
PTCS 110 or MATH& 146	Professional Technical Computational Skills <sup>1</sup> Introduction to Stat	5
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2
MGMT 101 or BUS 148	Principles of Management Business Professional Self Development	3
<b>Major Area Requirements</b>		
CUIS 110	Culinary Fundamentals I	5
CUIS 111	Professional Cooking I	8
CUIS 120	Culinary Fundamentals II	5
CUIS 121	Professional Cooking II	8
CUIS 130	Culinary Fundamentals III	5
CUIS 131	Professional Cooking III	8
CUIS 200	CAREER EXPLORATIONS	5
CUIS 210	Advanced Culinary Fundamentals	5
CUIS 211	Advanced Culinary Practices	8
CUIS 220	Management and Banquet Theory	5
CUIS 221	Management Practices	8
CUIS 230	Cuisine Capstone	6
CUIS 231	Industry Internship	4
CUIS 201		4
<b>Specialized Short Courses</b>		
Select a minimum of six credits/units from the following: 6		
CUIS 140	Classic and Modern Soups and Sauces	
CUIS 141	Meat Cutting and Fabrication	
CUIS 142	Wine, Beer, Spirits and Food Pairings	
CUIS 143	Restaurant Baking	
CUIS 144	Banquet and Buffet Planning and Execution	
CUIS 145	Wine Appreciation	

CUIS 147	Barbeque Basics
CUIS 148	Advanced Garde Manger
<b>Total Credits/Units</b>	
<b>105</b>	

<sup>1</sup> These courses are recommended

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Apply the basics of classical, modern, and healthy cooking techniques.
- Identify and describe a variety of food ingredients and specifications with focus on sustainable, organic, nutritional needs; specialty diets; and aspects of vegetarian and veganism.
- Demonstrate proper kitchen sanitation, safety and professionalism in the workplace.
- Identify and demonstrate proper use of kitchen tools and equipment.
- Demonstrate basic measuring, conversion, food costing and yield management practices.
- Demonstrate cook to order practices with American and International cuisine.
- Apply teamwork, workplace ethics, customer service and communications in the workplace.
- Demonstrate effective management skills.
- Demonstrate professional cooking skills and skills in menu and recipe interpretation and conversion, proper cooking methods, plating and saucing principles to carry out complete dinner and/or banquet service.
- Demonstrate advanced storeroom inventory, management, purchasing and quality control.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# CYBERSECURITY (BAS)

Cybersecurity BAS program entrance consideration is based on the following:

- Completion of the Clark College Application for Admission (if new to Clark College)
- Completion of the Cybersecurity BAS Program Intent Form (a non-refundable program application fee of \$50 is required at the time of application submission)
- Official transcripts from all other colleges sent to Clark College Enrollment Services
- Completion of an AA, AAS, AAT, or higher from a regionally accredited institution with a minimum cumulative GPA of 2.00 overall, and 2.50 or above in core program coursework
- Eligibility for the following courses: PHIL& 120 and ENGL& 235
- Completion of 5 math credits — any generally transferable math course with Intermediate Algebra as a prerequisite
- Completion of 5 English credits — any generally transferable English composition/writing course
- Attend a pre-program advising session with a trained professional or faculty advisor
- Attend a program orientation session

Questions about any step in this process? Contact the Advising Department at 360-992-2345 or cyber@clark.edu.

- Cybersecurity (BAS)(Plan Code: CISCYBAS) (p. 54)

## Cybersecurity (BAS)(Plan Code: CISCYBAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

A minimum of 35 quarter units or 24 semester units (100-level or above) must be completed prior to program completion and needs to include five units minimum in each of the following categories: communication studies, quantitative skills, humanities, social science, and natural science as defined by Clark College.

Code	Title	Credits/ Units
<b>General Education Requirements (45 credits/units required)</b>		
<i>Communication Skills</i>		
ENGL& 235	Technical Writing	5
CMST 310	Organizational Communication	5
<i>Quantitative/Symbolic Reasoning</i>		
PHIL& 120	Symbolic Logic	5
<i>Humanities</i>		
CMST& 230	Small Group Communication	5
PHIL 420	Ethics In Management	5
<i>Social Science</i>		
ECON 110	Introduction to The Global Economy	5
SOC 315	Organizational Behavior	5

### *Natural Science*

ENVS 109	Integrated Environmental Science	5
ENVS 430	Sustainability & Environmental Practices	5

### **Qualifying AA/AAT/AAS General Education Requirements**

#### *Communication Skills*

ENGL& 101	English Composition I	5
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#### *Computational Skills*

Any generally transferable computational course with Intermediate Algebra as a prerequisite	5
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#### *Human Relations*

Course Options (p. 296)	5
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### **Major Area Requirements**

NTEC 321	Enterprise Networking Foundation	5
NTEC 361	Cybersecurity Programming & Scripting Foundation	5
NTEC 364	IoT Foundation: Connecting Things	5
NTEC 365	Big Data & Analytics Foundation	5
NTEC 371	Cybersecurity Foundation	5
NTEC 472	Cybersecurity Penetration Testing	5
NTEC 473	Cybersecurity Analyst	5
NTEC 475	Cybersecurity Operations	5
NTEC 499	Capstone Project	5

**Qualifying AA/AAT/AAS degree** **90**

**Total Credits/Units Required** **180**

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Plan, implement, administer, and support enterprise information technologies and systems.
- Analyze the security vulnerabilities of an organization's information technology resources.
- Plan and implement security measures and practices for an organization's information technology resources.
- Evaluate organization needs, and use those to plan the implementation of information technology systems.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# DENTAL HYGIENE (BAS)

A career as a dental hygienist offers a wide range of opportunities. Services provided by dental hygienists include patient assessment procedures, managing and treating periodontal conditions, providing pain management for patients, placing and finishing dental restorative materials, applying preventive materials to the teeth, teaching patients appropriate oral hygiene to maintain oral health, nutrition counseling, teeth whitening services, performing documentation and office management activities, developing and implementing community oral health programs, and more.

Graduates receive a Bachelor of Applied Science degree. Students who successfully complete the program qualify to take national, regional, and state board examinations for licensure and are prepared to enter clinical practice. The program includes all responsibilities allowed by Washington state law. Clinical experience takes place in the Clark College Firstenburg Dental Hygiene Education and Care Center under the supervision of licensed dentists and dental hygienists.

The Clark College Dental Hygiene program is accredited by the Commission on Dental Accreditation of the American Dental Association, a specialized accrediting body recognized by the Council on Postsecondary Accreditation and the United States Department of Education.

## About the Program

For Financial Aid purposes, the Bachelor of Applied Science in Dental Hygiene is open enrollment which enables all students who wish to pursue this degree to complete the "Dental Hygiene Degree Requirements" (courses in the areas of English, Biological Sciences, Psychology, etc.). The "Dental Hygiene Degree Requirements" provide the foundation for the subsequent "Dental Hygiene Core" classes (classes with "DH" prefix). Due to clinical space limitations, although the program of study for the dental hygiene degree is open enrollment, there is a competitive application process for students to be able to begin the "Dental Hygiene Core" classes. The instructions in the Dental Hygiene Program Guide explain the Dental Hygiene Degree requirements and the competitive application process to be able to begin the Dental Hygiene Core classes.

The Dental Hygiene Program Guide is posted on the Dental Hygiene website at: <http://www.clark.edu/academics/programs/health-care-and-biosciences/dental/index.php> (<http://www.clark.edu/academics/programs/health-care-and-biosciences/dental/>)

## Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student's request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at [http://www.clark.edu/campus-life/student-support/disability\\_support/index.php](http://www.clark.edu/campus-life/student-support/disability_support/index.php) ([http://www.clark.edu/campus-life/student-support/disability\\_support/](http://www.clark.edu/campus-life/student-support/disability_support/)). Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that

fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

- Dental Hygiene (BAS)(Plan Code: DEHDBAS) (p. 55)

## Dental Hygiene (BAS)(Plan Code: DEHDBAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements <sup>1</sup></b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I <sup>2</sup>	5
ENGL& 102	English Composition II	5
<b>Humanities</b>		
In addition to the CMST& course, select 5 credits/units of Humanities (HA/HB) from the following:		5
Course Options (p. 290)		
CMST& 210	Interpersonal Communication	5
	or CMST& 220 Public Speaking	
	or CMST& 230 Small Group Communication	
<b>Social Sciences</b>		
PSYC& 100	General Psychology	5
SOC& 101	Introduction to Sociology	5
<i>College-level Math</i>		
MATH& 146	Introduction to Stat (recommended)	5
Course Options (p. 290)		
<i>Natural Sciences <sup>3</sup></i>		
BIOL& 160	General Biology W/Lab	5
BIOL& 251	Human A & P I	15
& BIOL& 252	and Human A & P II	
& BIOL& 253	and Human A & P III	
or		
BIOL& 241	Human Anatomy and Physiology I	10
& BIOL& 242	and Human Anatomy and Physiology II	
BIOL& 260	Microbiology	5
CHEM& 121	Intro to Chemistry: Pre-Health	5
CHEM& 131	Intro to Organic/Biochem	5
NUTR& 101	Nutrition	3
<i>Physical Education</i>		
Select one fitness/activity course (p. 290)		1
<b>Junior Year</b>		
<i>Fall Term</i>		
DH 282	Pharmacology I	1
DH 283	Clinical Dental Hygiene Techniques I	6
DH 284	Oral Medicine	2
DH 285	Periodontics I	3
DH 286	Dental Anatomy	3
DH 292	Introduction to Digital Management Systems	1
<i>Winter Term</i>		

DH 303	Head and Neck Anatomy	3
DH 313	Clinical Dental Hygiene Techniques II	6
DH 323	Oral Radiology I	3
DH 353	Ethics and The Profession	1
DH 373	Cariology	2
DH 383	Pharmacology II	1
DH 393	Clinical Dental Hygiene Techniques II Lab	0.5
<i>Spring Term</i>		
DH 304	Educational Theory and Application	2
DH 314	Clinical Dental Hygiene Techniques III	6
DH 324	Oral Radiology II	1
DH 344	General and Oral Pathology	3
DH 364	Local Anesthesia & Pain Control	4
DH 384	Pharmacology III	1
DH 394	Clinical Dental Hygiene Techniques III Lab	0.5
<b>Senior Year</b>		
<i>Summer Term</i>		
DH 301	Introduction to Dental Materials/Assisting	3
DH 321	Clinical Dental Hygiene Techniques IV	4
DH 331	Oral Radiology III	2
DH 431	Restorative Dentistry I	2
DH 451	Special Needs Populations I	1
DH 471	Nitrous Oxide Sedation	1
<i>Fall Term</i>		
DH 402	Dental Public Health - Research Methods I	2
DH 410	Behavior Modification	1
DH 412	Clinical Dental Hygiene Techniques V	8
DH 422	Clinical Dental Hygiene Techniques V Lab	1
DH 432	Restorative Dentistry II	5
DH 472	Periodontics II	2
<i>Winter Term</i>		
DH 403	Dental Public Health - Research Methods II	2
DH 413	Clinical Dental Hygiene Techniques VI	8
DH 423	Clinical Dental Hygiene Techniques VI Lab	1
DH 433	Restorative Dentistry III	4
DH 443	Restorative Dentistry III Lab	1.5
DH 452	Special Needs Populations II	1
DH 473	Periodontics III	2
<i>Spring Term</i>		
DH 404	Dental Public Health - Research Methods III	1
DH 414	Clinical Dental Hygiene Techniques VII	8
DH 424	Clinical Dental Hygiene Techniques VII Lab	1
DH 434	Restorative Dentistry IV	3
DH 444	Restorative Dentistry IV Lab	1.5
DH 484	Capstone	3
<b>Total Credits/Units Required</b>		<b>181-184</b>

<sup>3</sup> All science courses must be seven (7) years current upon program entry.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply the roles of clinician, educator, and researcher to prevent oral diseases and promote health.
- Communicate and collaborate effectively and professionally, using verbal, non-verbal, and written language with diverse populations to include patients, colleagues, the public, and other healthcare providers.
- Analyze professional behaviors and make appropriate decisions guided by ADHA ethical principles and core values.
- Assess, diagnose, plan, implement, and evaluate the provision of optimal, patient-centered dental hygiene care.
- Apply evidenced-based decision-making through critical analysis of current research.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

<sup>1</sup> All preliminary courses must be completed with a 2.0 or above and obtain minimum applicable and science grade point averages (GPA) of 2.60

<sup>2</sup> Must be completed by end of winter term of application year.



# DIESEL TECHNOLOGY

The diesel technician must be able to work on a great variety of equipment and their component parts. These include brake systems, drive trains, electrical and electronic circuits, hydraulic systems, and diesel engines. Diesel power is used in the transportation industry in light, medium, and heavy-duty trucks and in industrial applications such as heavy equipment, agriculture, marine propulsion, power generation, and locomotives.

Because of the widespread use of this type of power, diesel technicians can work in a shop or outdoors as a field service technician. This program is designed to prepare students for entry-level positions into the diesel technician trade. Diesel program instruction includes both classroom theory and extensive hands-on experience in the shop where the student encounters real day-to-day problems.

The diesel evening program includes courses for Caterpillar, Cummins, and Detroit engines; electronic controls; and industrial hydraulics for technicians who wish to further their knowledge and skills. Any course in the program can be made available to area employers and their employees.

Students must complete all Major Area Requirements and specifically listed courses with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

- Diesel Technician (CP) (Plan Code: DMTDTC90) (p. 57)
- Diesel Technologies (AAS)(Plan Code: DMTDTAPT) (p. 57)

## Diesel Technician (CP) (Plan Code: DMTDTC90)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing (recommended)	5
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (recommended)	5
<i>Human Relations</i>		
Course Options (p. 296)		3
<b>Major Area Requirements</b>		
DIES 111	Diesel Fundamentals	5
DIES 112	Diesel Procedures	10
DIES 113	Diesel Engines/Fuel Systems	5
DIES 114	Diesel Procedures	10
DIES 115	Drive Trains	5
DIES 116	Diesel Procedures	10
DIES 120	Basic Electrical	3
DIES 121	Electronic Engine Management Systems	3

DIES 122	Electronic Vehicle Control Systems	3
DIES 221	Electrical/Electronic Systems	5
DIES 222	Diesel Procedures	6
DIES 223	Hydraulic Systems	5
DIES 224	Diesel Procedures	10
DIES 225	Brakes, Steering, and Suspension	5
DIES 226	Diesel Procedures	10

**Total Credits/Units 108**

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Troubleshoot engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Repair engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Comply with personal and environmental safety practices that relate to the diesel powered Industry.
- Evaluate and use technical information from a variety of resources.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Diesel Technologies (AAS)(Plan Code: DMTDTAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing	5
Course Options (p. 295)		1
<i>Health &amp; Physical Education</i>		
Course Options (p. 296)		3
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills	5
<i>Human Relations</i>		

CMST& 230	Small Group Communication	5
or CMST& 210	Interpersonal Communication	
<i>Humanities</i>		
Course Options (p. 296)		3
<i>Social Sciences</i>		
Course Options (p. 297)		3
<i>Natural Sciences</i>		
Course Options (p. 297)		3
<b>Major Area Requirements</b>		
DIES 111	Diesel Fundamentals	5
DIES 112	Diesel Procedures	10
DIES 113	Diesel Engines/Fuel Systems	5
DIES 114	Diesel Procedures	10
DIES 115	Drive Trains	5
DIES 116	Diesel Procedures	10
DIES 120	Basic Electrical	3
DIES 121	Electronic Engine Management Systems	3
DIES 122	Electronic Vehicle Control Systems	3
DIES 221	Electrical/Electronic Systems	5
DIES 222	Diesel Procedures	6
DIES 223	Hydraulic Systems	5
DIES 224	Diesel Procedures	10
DIES 225	Brakes, Steering, and Suspension	5
DIES 226	Diesel Procedures	10
<b>Total Credits/Units</b>		<b>123</b>

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmmap.clark.edu/academics> (<https://programmmap.clark.edu/academics/>)

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate and use technical information from a variety of resources.
- Troubleshoot engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Repair engines, hydraulic systems, electrical systems, power train systems, brakes, steering, and suspension systems.
- Comply with personal and environmental safety practices that relate to the diesel powered industry.

# DIGITAL MEDIA ARTS

The Digital Media Arts AAT degree prepares students for professional practice in digital art and media design. Students create visual content and communications for delivery to various web, social and digital media platforms. Students will be skilled in designing digital art, motion graphics, basic animation, integrated multimedia, video/sound production, user experience, website and interface design.

Competency is developed through hands-on experience, real client project work, professional skills and building a portfolio of work. Graduates will be prepared to enter the job market as a freelance digital designer, production artist, digital media specialist, web designer, videographer, multimedia/motion designer, marketing assistant, or content/project coordinator.

- Digital Media Arts (AAT)(Plan Code: DMWDMAPT) (p. 59)

## Digital Media Arts (AAT)(Plan Code: DMWDMAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

The Digital Media Arts AAT degree prepares students for professional practice in digital art and media design. Students create visual content and communications for delivery to various web, social and digital media platforms.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>College Preparation</i>		
COLL 101	College Essentials: Introduction to Clark	2
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills	5
<i>Human Relations</i>		
Select one from the following:		5
CMST& 210	Interpersonal Communication	
or CMST& 211	Interpersonal Communication	
or CMST& 212	Small Group Communication	
or BUS& 101	Introduction to Business	
or SOC& 101	Introduction to Sociology	
<b>Major Area Requirements</b>		
<i>Fine Art Foundations</i>		
ART 101	2D Art and Design	5
<i>Digital Media Arts</i>		
ART 118	Time-Based Art and Design	5
ART 208	Digital Painting & Illustration	5
DMA 101	Photoshop Raster Graphics	4
DMA 102	Illustrator Vector Graphics	4
DMA 104	Motion Graphics and Animation I	4

DMA 201	Video and Sound Production I	4
DMA 202	Video and Sound Production II	4
DMA 204	Motion Graphics and Animation II	4
<i>Web Design</i>		
CTEC 117	User Experience Design	4
CTEC 121	Intro to Programming & Problem Solving	5
CTEC 122	HTML Fundamentals	4
CTEC 160	WordPress I	5
CTEC 270	Web and Interface Design I	4
CTEC 271	Web and Interface Design II	4
<i>Professional Development</i>		
DMA 114	Professional Practices and Portfolio I	4
DMA 214	Professional Practices and Portfolio II	4
DMA 215	Professional Studio Experience	4
<b>Total Credits/Units</b>		<b>94</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Contextual Communication: Strategize and articulate the context, purpose, and meaning of digital media messaging.
- Design Thinking: Engage in design thinking through user-centered, iterative design and evaluation process.
- Media Technology: Integrate media technology through synthesis of content, interaction and functionality.
- Professional Practice: Demonstrate professional practices through industry preparation, performance and portfolio.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# EARLY CHILDHOOD EDUCATION

Work in programs for young children is a challenging, absorbing, and personally rewarding career. In Clark College's Early Childhood Education program, students study child development and program organization, plan learning experiences for young children, and develop guidance skills in working with children.

The Early Childhood Education (ECE) department offers various certificates of achievement. As part of each certificate program, students are required to complete prescribed numbers of hours doing student teaching and/or observation in the Child and Family Studies program under the supervision of selected staff as well as in the community at large.

Programs are revised periodically to reflect changes in the specific career field. The following list of courses is an example of the coursework required for each program. Students planning to complete this program must meet with an advisor prior to registration for a current list of requirements.

Students must complete all Major Area Requirements and specifically listed courses with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Students preparing to transfer should make an early decision and contact the four-year school to which they will transfer. The Early Childhood Education Advisors can help in planning a schedule based on the four-year school's requirements.

Students must be able to pass a Criminal History screening to participate with the children in the ECE lab school. Participation in the ECE lab is a requirement for taking classes in ECE program. Students are also required to get a TB test or provide written proof that they have had one within the last year.

- State Initial Early Childhood Education Certificate (CC)(Plan Code: ECEECC01) (p. 60)
- State Short Early Childhood Education Certificate of Specialization-Administration (CC)(Plan Code: ECEADC20) (p. 60)
- State Short Early Childhood Education Certificate of Specialization-Family Child Care(CC)(Plan Code: ECEFCC20) (p. 61)
- State Short Early Childhood Education Certificate of Specialization-General(CC)(Plan Code: ECEGEC20) (p. 61)
- State Short Early Childhood Education Certificate of Specialization-Infants and Toddlers(CC)(Plan Code: ECEITC20) (p. 61)
- State Short Early Childhood Education Certificate of Specialization-School Age Care(CC)(Plan Code: ECESAC20) (p. 62)
- State Early Childhood Education Certificate (CP)(Plan Code: ECESEC45) (p. 62)
- Early Childhood Education (AAS)(Plan Code: ECEECAPT) (p. 63)

## State Initial Early Childhood Education Certificate (CC)(Plan Code: ECEECC01)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>Major Area Requirements</b>		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
<b>Total Credits/Units</b>		<b>12</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## State Short Early Childhood Education Certificate of Specialization-Administration (CC) (Plan Code: ECEADC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
ECED& 139	Administration of ECE	3
EDUC& 115	Child Development	5
<b>Total Credits/Units</b>		<b>20</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## State Short Early Childhood Education Certificate of Specialization-Family Child Care(CC) (Plan Code: ECEFCC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
ECED& 134	Family Care Management	3
EDUC& 115	Child Development	5
<b>Total Credits/Units</b>		<b>20</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Promoting child development and learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## State Short Early Childhood Education Certificate of Specialization-General(CC)(Plan Code: ECEGEC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
EDUC& 115	Child Development	5
EDUC& 130	Guiding Behavior	3
<b>Total Credits/Units</b>		<b>20</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## State Short Early Childhood Education Certificate of Specialization-Infants and Toddlers(CC)(Plan Code: ECEITC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
ECED& 132	Infants/Toddler Care	3
EDUC& 115	Child Development	5
<b>Total Credits/Units</b>		<b>20</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## State Short Early Childhood Education Certificate of Specialization-School Age Care(CC) (Plan Code: ECESAC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
EDUC& 115	Child Development	5
EDUC& 136	School Age Care	3
<b>Total Credits/Units</b>		<b>20</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## State Early Childhood Education Certificate (CP)(Plan Code: ECESEC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
Select one from the following:		3-5
PTWR 135	Introduction to Applied Technical Writing	
ENGL& 101	English Composition I	
ENGL& 102	English Composition II	
ENGL& 235	Technical Writing	
<b>Computational Skills</b>		
Course Options (p. 296)		5
<i>Human Relations</i>		
EDUC& 150	Child, Family, Community	3
<b>Major Area Requirements</b>		
ECED& 105	Introduction to Early Childhood Education	5
ECED& 107	Health/Safety/Nutrition	5
ECED& 120	Practicum-Nurturing Rel	2
ECED& 160	Curriculum Development	5
ECED& 170	Learning Environments	3
ECED& 180	Language and Literacy	3
ECED& 190	Observation and Assessment	3
EDUC& 115	Child Development	5
Select one from the following:		3
EDUC& 130	Guiding Behavior	
EDUC& 136	School Age Care	
ECED& 132	Infants/Toddler Care	
ECED& 134	Family Care Management	
ECED& 139	Administration of ECE	
<b>Total Credits/Units</b>		<b>45-47</b>

Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be

able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Power, privilege and inequity: Students will analyze and evaluate their awareness of equity pedagogy and create strategies for implementing cultural competence in their work with children and their families.
- Promoting child development and learning: Students will apply developmental knowledge to create learning environments and meaningful activities.
- Teaching and learning: Students will apply developmentally appropriate practices when implementing meaningful curriculum in the classroom.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Early Childhood Education (AAS) (Plan Code: ECEECAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
Course Options (p. 295)		
<i>Health &amp; Physical Education</i>		
Course Options (p. 296)		
<i>Computational Skills</i>		
Course Options (p. 296)		
<i>Human Relations</i>		
EDUC& 150	Child, Family, Community	3
<i>Humanities</i>		
Course Options (p. 296)		
<i>Social Sciences</i>		
Course Options (p. 297)		
<i>Natural Sciences</i>		
Course Options (p. 297)		
<b>Major Area Requirements</b>		
ECE 102	Science and Mathematics for Young Children	3
ECE 116	Literature and Storytelling for Children	2

EDUC& 240	Diversity in Education	5
ECE 135	Partnerships With Families In Early Care & Educ	3
ECE 199 & ECE 215	Cooperative Work Experience and Early Childhood Seminar	3-5
ECE 211 & ECE 212	Learning Experiences for Young Children II and Learning Experiences for Young Children II Lab	5
ECE 222	Learning Experiences Lab Sec	1
ECE 213 & ECE 214	Learning Experiences for Young Children III and Learning Experiences for Young Children III Lab	5
ECE 224	Learning Experience Lab Section	1
ECED& 105 & ECED& 120	Introduction to Early Childhood Education and Practicum-Nurturing Rel	7
ECED& 107	Health/Safety/Nutrition	5
ECED& 160	Curriculum Development	5
ECED& 170	Learning Environments	3
ECED& 180	Language and Literacy	3
ECED& 190	Observation and Assessment	3
EDUC& 115	Child Development	5
EDUC& 130	Guiding Behavior	3
EDUC& 204	Inclusive Education	5
ECED& 132 or EDUC& 136	Infants/Toddler Care School Age Care	3
<b>Total Credits/Units Required</b>		<b>90</b>

The course of study in Early Childhood Education conforms to the following:

- Guidelines for preparation of early childhood professionals; Washington State Skill Standards; and
- Early childhood education professional competencies.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Promoting Child Development and Learning: Students will apply developmental knowledge to create learning environments and meaningful activities.

- Building Family and Community Relationships: Students will recognize, support and partner with families and communities in learning environments and with meaningful activities.
- Observing, Documenting and Assessing to Support Young Children and Families: Students will apply the process of observation to diverse, and appropriate assessments of children.
- Teaching and Learning: Students will apply developmentally appropriate practices when implementing meaningful curriculum in the classroom.
- Becoming a Professional: Students will apply professional standards and frameworks in early learning classrooms.
- Power, Privilege and Inequity: Students will analyze and evaluate their awareness of equity pedagogy and create strategies for implementing cultural competence in their work with children and their families.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)



# ELECTRICAL AND COMPUTER ENGINEERING

Electrical & Computer Engineers design, develop and analyze computer, electrical and electronic systems. These engineers work within multi-disciplinary teams and are employed in all industries. Their projects include power generation and distribution, communications systems, robotics, nano- and micro-electrical machinery, Biosystems, semiconductors, automation and robotics, networking, embedded systems and general computer system.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

- Concentration in Computer Engineering (AST2)(Plan Code: EECCEAS, Subplan Code: COMPTRENGR) (p. 66)
- Concentration in Electrical Engineering (AST2/MRP)(Plan Code: EECCEAS, Subplan: ELECTENGR) (p. 67)
- Electrical and Computer Engineering (AST2/ MRP)(Plan Code: EECCEAS) (p. 65)

## Electrical and Computer Engineering (AST2/ MRP)(Plan Code: EECCEAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Electrical Engineering Transfer Degree AST2 requires students to complete minimum of 95 quarter hours of transferable credit with a cumulative grade point average of at least 2.00. In order for a student to be junior ready in Electrical Engineering at specific transfer institutions, there are additional credits/units beyond the AST2 credit/unit requirements for this degree that a student need to consider. Please consult your faculty adviser to learn more and to develop your education plan ([www.engrccs.com/schedule](http://www.engrccs.com/schedule)). The minimum required credits/units are distributed as follows:

Code	Title	Credits/Units
<b>Basic Requirements</b>		
<i>Communication Skills (minimum 5 credits/units)</i>		
ENGL& 101	English Composition I	5
<i>Mathematics (minimum 25 credits/units) <sup>1</sup></i>		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations <sup>2</sup>	5
<b>Distribution Requirements</b>		
Coursework should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.		
<i>Humanities</i>		
Course Options (p. 290)		5
<i>Social Sciences</i>		

Course Options (p. 291)	5
<i>Additional Credits/Units in either Humanities or Social Sciences</i>	5
<i>Physics <sup>3</sup></i>	

Sequence One		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5

Sequence Two:		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5

Sequence Three:		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5

<i>Chemistry with Lab</i>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5

<i>Required Major Courses</i>		
ENGR& 204	Electrical Circuits	5
CSE 121	Introduction to C	5

### Specialization Courses

Select Minimum of five (5) specialization courses (minimum 20 - 25 20-25 units) as appropriate for intended major and intended baccalaureate institution:

ENGL& 235	Technical Writing
ENGR 101	Engineering and Computer Science Orientation
ENGR 120	Intro to Electrical/Computer Sci & Engineering
ENGR 252	Electrical Circuits and Signals
ENGR 250	Digital Logic Design
ENGR 253	Signals and Systems
ENGR 270	Digital Systems and Microprocessors
MATH& 254	Calculus IV

**Total Credits/Units** **95-100**

<sup>1</sup> Calculus I (MATH& 151) requires the successful completion of both Trigonometry (MATH 103) and College Algebra (MATH 110/MATH 111), or recommending score on an approved placement test prior to registration.

Two courses at or above introductory calculus level. Third-term calculus or approved statistics course: 5 term credits/units chosen with the help of an Engineering faculty advisor based on the requirements of the specific discipline at the baccalaureate institution the student plans to attend.

<sup>2</sup> Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or better.

<sup>3</sup> Calculus-based or non-calculus based sequence including laboratory. Students should be advised that some baccalaureate programs require physics with calculus.

<sup>4</sup> Either ECON course is recommended, but not required.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Computer Engineering (AST2)(Plan Code: EECCEAS, Subplan Code: COMPTRENGR)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Computer Engineering Transfer Degree AST2 requires students to complete minimum of 95 quarter hours of transferable credit with a cumulative grade point average of at least 2.00. In order for a student to be junior ready in Computer Engineering at specific transfer institutions, there are additional credits beyond the AST2 credit requirements for this degree that a student need to consider. Please consult your

faculty adviser to learn more and to develop your education plan ([www.engrcs.com/schedule](http://www.engrcs.com/schedule)).

Code	Title	Credits/ Units
<b>Basic Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i> <sup>1</sup>		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations	5
<i>Distribution Requirements</i>		
Coursework should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend.		
<i>Humanities</i>		
Course Options (p. 290)		5
<i>Social Sciences</i> <sup>2</sup>		
Course Options (p. 291)		5
<i>Minimum of additional 5 credits in either Humanities or Social Sciences</i>		
<i>Physics</i> <sup>3</sup>		
Complete the following 3-term physics sequence with the required concurrent enrollment:		
Sequence One:		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
Sequence Two:		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
Sequence Three:		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<i>Chemistry with Lab</i>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
<i>Required Major Courses</i>		
ENGR& 204	Electrical Circuits	5
CSE 121	Introduction to C	5
<b>Specialization Courses</b>		
Select Minimum of five (5) specialization courses (minimum 20 - 25 20-25 units) as appropriate for intended major and intended baccalaureate institution:		
CSE 222	Introduction to Data Structures	
CSE 223	Data Structures & Object-Oriented Programming	
CSE 224	Programming Tools	
ENGL& 235	Technical Writing	
ENGR 101	Engineering and Computer Science Orientation	
ENGR 120	Intro to Electrical/Computer Sci & Engineering	
ENGR 252	Electrical Circuits and Signals	
ENGR 250	Digital Logic Design	
ENGR 253	Signals and Systems	

ENGR 270	Digital Systems and Microprocessors
MATH 215	Linear Algebra
MATH& 254	Calculus IV
<b>Total Credits/Units</b>	<b>95-100</b>

<sup>1</sup> MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met

<sup>2</sup> WS 101, ECON& 202 and HIST& 128 are recommended

<sup>3</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Analyze and solve multi-step problems using techniques through single-variable calculus.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Electrical Engineering (AST2/MRP)(Plan Code: EECCEAS, Subplan: ELECTENGR)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics (minimum of 25 credits/units) <sup>1</sup></i>		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations <sup>2</sup>	5
<i>Distribution Requirements</i>		
Coursework should be planned with the help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend		
<i>Humanities</i>		5
Course Options (p. 290)		
<i>Social Sciences <sup>2</sup></i>		5
Course Options (p. 291)		
Additional 5 credits/units in either Humanities or Social Sciences		5
<b>Physics <sup>3</sup></b>		
Complete the following 3-term physics sequence with the required concurrent enrollment		
<i>Sequence One:</i>		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
<i>Sequence Two:</i>		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
<i>Sequence Three:</i>		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<i>Chemistry with Laboratory</i>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
<i>Required Major Courses (Min. 10 Credits/Units)</i>		
ENGR& 204	Electrical Circuits	5
CSE 121	Introduction to C	5
<b>Electives</b>		
<i>Select 5 (five) specialization courses (minimum of 20-25 units) in consultation with an advisor as appropriate for intended specialization in the major and the intended transfer institution:</i>		
ENGL& 235	Technical Writing	
ENGR 101	Engineering and Computer Science Orientation	
ENGR 120	Intro to Electrical/Computer Sci & Engineering	

ENGR 250	Digital Logic Design
ENGR 252	Electrical Circuits and Signals
ENGR 253	Signals and Systems
ENGR 270	Digital Systems and Microprocessors
MATH& 254	Calculus IV
<b>Total Credits/Units</b>	<b>95-100</b>

<sup>1</sup> MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.

<sup>2</sup> WS 101, ECON& 202 and HIST& 128 are recommended

<sup>3</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.

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To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# EMERGENCY MEDICAL SERVICES

## Emergency Medical Technician

EMTs work in the pre-hospital setting alongside Paramedics, Firefighters, and police. They must have a good driving record and pass a background check to volunteer or be employed as an EMT. Emergency Medical Technicians learn to manage, assess, and treat ill or injured patients both on scene and en-route to a medical facility. Clark College's Emergency Medical Technician course is for students that would like to pursue a career in the medical field with a focus on pre-hospital emergency care.

### To request information, please contact:

Welcome Center  
start@clark.edu  
360-992-2078

Clark County Fire District 5  
CCFD5.org  
11606 NE 66th Street, Suite 103  
Vancouver, WA 98662  
(564) 397-2100

### More about the course

The EMT course is a 12-credit/unit course taught in different modules that include lecture, laboratory, and field experience on an ambulance and fire engine.

Classes take place on Monday and Wednesday evenings throughout the academic year. This course is not available during summer quarter/term.

### Preliminary Requirements:

We encourage students interested in the EMT course to review the minimum requirements listed below. The following requirements must be met and submitted to Clark County Fire District 5 one week prior to the first night of class. Please see CCFD5's website (<https://ccfd5.org/courses/emt-training/emt-online/>) for exact deadline and further instructions.

- Adult 17 years or older for eligibility to register for this course. Must be at least 18 before you can apply for a WA state EMT licensure.
- High school diploma or GED required to be licensed in the state of WA, however not required to be eligible to test for the NREMT.
- Copy of a medical level CPR card such as: American Heart Association BLS (card can be earned by taking HLTH 124 offered each term at Clark College). Emergency Care and Safety Institute for Healthcare Providers, Red Cross BLS for Healthcare Providers, or a CPR course for Professional Rescuers)
- Copy of driver's license or passport.
- Hepatitis B Immunization record (3-series) or waiver
- MMR Immunization (twice in a lifetime or within the last 10 years) or waiver
- Negative TB skin test or chest X-ray (valid within a year)
- Washington State criminal background check (valid within six months before course start date). See Washington State Patrol website for directions on how to complete a background check: [www.wsp.wa.gov](http://www.wsp.wa.gov)

Course instruction takes place at Clark County Fire District 5. For more information please visit: Clark County Fire District 5.

Clark County Fire District 5  
11606 NE 66th Street, Suite 103  
Vancouver, WA 98662  
Phone: (564) 397-2100

- Emergency Medical Technician Accelerated (CC)(Plan Code: EMAETC01) (p. 69)

## Emergency Medical Technician Accelerated (CC)(Plan Code: EMAETC01)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Program Requirements</b>		
EMT 103	Emergency Medical Technician (Accelerated)	12
Select one of the following options: <sup>1</sup>		5-6
BIOL& 175	Human Biology w/ Lab	
AH 100 & AH 101	Basic Concepts of Anatomy and Physiology I and Basic Concepts of Anatomy and Physiology II	
<b>Total Credits/Units</b>		<b>17-18</b>

<sup>1</sup> BIOL& 175, AH 100, AND AH 101 must be seven years current upon program entry.

## Affiliation

Students who are not affiliated with an appropriate agency have 18 months after completing the program to gain affiliation and take the Washington state exam. All Emergency Medical Technician-Basics wishing to work in Washington must obtain state certification.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Administer first aid treatment or life support care to sick or injured persons in prehospital settings.
- Perform emergency assessment and treatment procedures, observing, recording, and reporting to the receiving facility, the patient's condition or injury.
- Communicate effectively and professionally, using verbal, non-verbal, and written language with patients, colleagues, the public, diverse populations, and other healthcare providers.
- Model professional behaviors and make appropriate decisions guided by ethical principles and core values.

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method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# HEALTH INFORMATION MANAGEMENT / MEDICAL BILLING AND CODING

The Medical Billing/Coding Specialist Certificate of Proficiency leads to a Health Information Management AAT degree and prepares individuals for employment in the areas of medical insurance, physician's office coding, inpatient hospital coding, health care claims processing, and home-remote coding. This program also serves the needs of healthcare personnel interested in upgrading their professional skills.

Training in medical billing includes CMS-1500 and UB04 claim forms as well as the processing of insurance claims and basic health information procedures. Coding training includes CPT, HCPCS, ICD, PCS, MS-DRGs as well as the legislative changes in healthcare insurance.

The Health Information Management Associate in Applied Technology Program trains individuals on topics in health data content, structure and standards, information protection, access, disclosure, archives, privacy, security, health information technologies, revenue management, medical coding, compliance, and leadership. Health Information Management professionals may practice in different health care settings such as health information systems, health finance and billing services, and health information standards and policy development.

With highly marketable skills that will continue to be in demand, graduates are prepared to enter the workforce. This is a selective admissions program; a separate application is required.

## Eligibility

To successfully pass one of the following examinations you will need to review each individual association's eligibility requirements.

### National Certification:

- Certified Provider Certification (CPC) through the American Academy of Professional Coders (AAPC) (<https://www.aapc.com/certification/cpc/>)
- Certified Coding Associate (CCA) through the American Health Information Management Association (AHIMA) (<https://www.ahima.org/certification-careers/certifications/>)
- Certified Coding Specialist (CCS) through the American Health Information Management Association (AHIMA) (<https://www.ahima.org/certification-careers/certifications/ccs/>)

**Applications are accepted at any time however this is a limited entry program.**

- Medical Billing/Coding Specialist (CP)(Plan Code: MICMCC45) (p. 71)
- Health Information Management (AAT)(Plan Code: MICMCAPT) (p. 72)

## Medical Billing/Coding Specialist (CP)(Plan Code: MICMCC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online

catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills</i>		
AH 261	Statistics for Health Care Professionals	3
<i>Human Relations</i>		
HIM 206	Medical Office Practicum	3
<b>Major Area Requirements</b>		
BUS 104	Keyboarding & Word Processing <sup>1</sup>	1-3
BUS 149	Computer Application Essentials	3
AH 104	Health Care Delivery & Career Exploration	3
AH 110	Medical Terminology I	3
AH 111	Medical Terminology II	3
HIM 112	Introduction to Pathophysiology	3
HIM 114	Medical Office Administrative Procedures	4
HIM 131	Revenue Cycle Management	4
HIM 130	Medical Coding I	4
HIM 232	Medical Coding II	5
HIM 233	Medical Coding III & Coding Exam Prep	5
HIM 101	Legal & Ethical Aspects of Healthcare	3
AH 100	Basic Concepts of Anatomy and Physiology I	3
AH 101	Basic Concepts of Anatomy and Physiology II	3
HLTH 124	Healthcare Provider CPR and First Aid	1
<b>Total Credits/Units Required</b>		<b>58-60</b>

<sup>1</sup> Only 1 (one) credit/unit required

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate use of medical office software to complete medical office tasks (billing and coding).
- Apply policies and principles of medical reimbursement.
- Accurately code using ICD-9 and CPT coding principles.
- Demonstrate the ability to work as a team member to accomplish a task. (affective)

- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor)
- Accurately process medical billing claims

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Health Information Management (AAT)(Plan Code: MICMCAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills</i>		
AH 261	Statistics for Health Care Professionals	3
MATH& 146	Introduction to Stat	5
or PTCS 110	Professional Technical Computational Skills	
or BUS 102	Business Math Applications	
<i>Human Relations</i>		
CMST& 210	Interpersonal Communication	5
or CMST& 230	Small Group Communication	
<b>Major Area Requirements</b>		
AH 100	Basic Concepts of Anatomy and Physiology I	3
AH 101	Basic Concepts of Anatomy and Physiology II	3
AH 110	Medical Terminology I	3
AH 111	Medical Terminology II	3
AH 104	Health Care Delivery & Career Exploration	3
AH 261	Statistics for Health Care Professionals	2
BUS 104	Keyboarding & Word Processing	1-3
BUS 149	Computer Application Essentials	3
BUS 169	Introduction to Excel	3
HLTH 124	Healthcare Provider CPR and First Aid	1
HIM 101	Legal & Ethical Aspects of Healthcare	3
HIM 112	Introduction to Pathophysiology	3
HIM 113	Pharmacology	3
HIM 114	Medical Office Administrative Procedures	4
HIM 130	Medical Coding I	4
HIM 131	Revenue Cycle Management	4
HIM 201	Health Information Governance	5
HIM 202	Health Care Quality	3
HIM 211	Health Informatics, Analytics, and Data Use	5
HIM 215	Health Organization, Management & Leadership	3

HIM 220		1
HIM 226	Professional Practice Experience	3
HIM 232	Medical Coding II	5
HIM 233	Medical Coding III & Coding Exam Prep	5
HIM 280	Selected Topics (Only needed as substitution to ensure total credits met)	1-4

**Total Credits/Units** **96-99**

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate use of medical office software to complete medical office tasks (billing and coding).
- Apply policies and principles of medical reimbursement.
- Accurately code using ICD-9/10 and CPT coding principles.
- Demonstrate the ability to work as a team member to accomplish a task.
- Communicate effectively with peers, patients, and health care professionals through written and oral communications.
- Accurately process medical billing claims.
- Solve quantitative problems and interpret the solutions.
- Communicate with various audiences using a variety of methods.
- Demonstrate interpersonal/human relations skills.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)



# HUMAN SERVICES (BAS)

Clark College is proposing a Bachelors of Applied Sciences degree in Human Services to serve the needs of the community and Clark College students by keeping current with emerging trends in mental health and addictions treatment. This BASHS degree will operate in tandem with the Addiction Counseling Education Department, which will function as the primary foundational Associates degree for the BAS.

**All prospective students who meet the minimum requirements, and would like to apply for admission to the BAS in Human Services program, must have the following prior to admission:**

- An associate degree or higher, or within 15 credits of graduating with an associate degree, from a regionally accredited institution.
- Cumulative 2.5 GPA in degree program coursework.
- Submission of official college transcripts from previous colleges attended.
- Completed Baccalaureate of Applied Science in Human Services Statement of Intent submitted in-person, by mail, or email to the Enrollment Services Office:

Enrollment Services Office  
Gaiser Hall, Room 128  
360-992-2107  
admissions@clark.edu

Clark College  
Enrollment Services Office, GH 128  
1933 Fort Vancouver Way  
Vancouver, WA 98663-3598

- Human Services (BAS)(Plan Code: HSTHSBAS) (p. 73)

## Human Services (BAS)(Plan Code: HSTHSBAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative Skills</i>		
MATH& 146	Introduction to Stat	5
<i>Humanities</i>		
WS 101	Introduction to Women's Studies (recommended)	5
Course Options (p. 290)		
<i>Social Sciences</i>		
PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
<i>Natural Sciences</i>		
BIOL& 175	Human Biology w/ Lab	5

Course Options (p. 292)		5
<i>Additional General Education Courses</i>		
SOC 230	Domestic Violence (recommended)	5
ANTH& 206	Introduction to Cultural Anthropology (recommended)	5
SOC& 101	Introduction to Sociology (recommended)	5
ACED courses and/or General Education Courses <sup>1</sup>		42
<b>Major Area Requirements</b>		
BASHS 301	Introduction to Human Services	5
BASHS 302	Systems and Social Justice	5
BASHS 303	Ethics In Human Services	5
BASHS 304	Practical Family Therapy	5
BASHS 305	Advanced Co-Occuring Disorders Treatment	5
BASHS 306	Trauma, Grief & Loss	5
BASHS 401	Multicultural Counseling In HS	5
BASHS 402	Human Services Intervention	5
BASHS 403	Research & Evaluation Methodologies In HS	5
BASHS 404	Advanced Case Management In HS	5
BASHS 410	Human Services Field Placement I	5
BASHS 411	Human Services Field Placement II	5
ACED 101	Survey of Addictionology	3
ACED 122		3
ACED 125	Group Counseling In Addictions	3
ACED 136	Law and Ethics In Addictions Counseling	3
ACED 160	Pharmacology of Drugs of Abuse	3
ACED 201	Theories of Counseling	3
<b>Total Credits/Units from Associate's Degree</b>		<b>90</b>
<b>Total Credits/Units for Degree</b>		<b>180</b>

<sup>1</sup> Please note that for all BAS degrees the following General Education credits must be earned:

- Communications - 10 credits
- Quantitative/Symbolic Reasoning Skills - 5 credits
- Humanities - 10 credits
- Social Science - 10 credits
- Natural Science - 10 credits
- Additional general education courses – 15 credits

Please work with advisor to identify any outstanding needs based on associate degree credits already earned.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# MARKETING

The certificates and degree in this area are designed to provide students with the basic skills necessary to work for a variety of organizations that focus on the distribution of customer goods and services. Graduates of these specialized certificates have found the acquired skills very valuable in all types of business and non-profit organizations, domestic as well as international.

Students must complete all specifically listed courses in Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Consult with a business academic advisor for recommended course, program listing.

- Marketing (CP)(Plan Code: SALMAC45) (p. 75)
- Marketing (AAS)(Plan Code: SALMAAPT) (p. 75)

## Marketing (CP)(Plan Code: SALMAC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills</i>		
BUS 102	Business Math Applications	5
<i>Human Relations</i>		
BUS 148	Business Professional Self Development	3
<b>Business Core Courses</b>		
ACCT 129	Basic Accounting Procedures	5
BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
ECON 101	Introduction to Economics	3
MGMT 101	Principles of Management	3
<b>Major Area Requirements</b>		
BUS 117	Advertising	3
BUS 251	Professional Selling	3
BUS 260	Principles of Marketing	5
BUS 199	Cooperative Work Experience <sup>1</sup>	1-5
COLL 101	College Essentials: Introduction to Clark	2
<b>Total Credits/Units</b>		<b>50</b>

<sup>1</sup> Minimum of Three credits/units required for completion

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be

able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Successfully manage a buyer-seller relationship to include service follow-up, using professional selling techniques.
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Create an effective business advertisement to meet the needs of specific target market(s).

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Marketing (AAS)(Plan Code: SALMAAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Program has been updated effective 12/14/22. Please see corrections page (<https://catalog.clark.edu/corrections/degrees-certificate-corrections/>) for details

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills (6 credits required)</i>		
ENGL& 101	English Composition I <sup>1</sup>	5
<i>Course Options (p. 295)</i>		
<i>Health and Physical Education (minimum 3 credits/units required)</i>		
<i>Course Options (p. 296)</i>		
<i>Humanities (minimum 3 credits/units required)</i>		
CMST& 220	Public Speaking	5
or CMST& 230 Small Group Communication		
<i>Natural Sciences (minimum 3 credits/units required)</i>		
<i>Course Options (p. 297)</i>		
<i>Computational Skills (minimum 3 credits/units required)</i>		
BUS 102	Business Math Applications	5
<i>Human Relations (minimum 3 credits/units required)</i>		
BUS 148	Business Professional Self Development	3
<i>Social Sciences (minimum 3 credits/units required)</i>		
ECON 101	Introduction to Economics	3
<b>Business Core</b>		
ACCT 129	Basic Accounting Procedures	5

BUS& 101	Introduction to Business	5
BUS 150	Computer Business Applications	5
MGMT 101	Principles of Management	3
<b>Major Area Requirements</b>		
BUS 105	Introduction to International Business	3
BUS 110	Customer Service	3
BUS 117	Advertising	3
BUS 251	Professional Selling	3
BUS 260	Principles of Marketing	5
BUS 199	Cooperative Work Experience <sup>2</sup>	1-5
COLL 101	College Essentials: Introduction to Clark	2
BUS 270		5
MGMT 103	Applied Management Skills	3
DMA 101	Photoshop Raster Graphics	4
<i>Electives</i>		8
However, eight (8) units may be utilized from any course with ACCT, BUS, ECON, or MGMT prefixes.		
<b>Total Credits/Units</b>		<b>90</b>

<sup>1</sup> Six credit/unit maximum.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Analyze a target market and develop product, pricing, promotion, and distribution strategies to meet customers' needs at a profit.
- Establish market strategies on the international level.
- Use micro- and macroeconomic concepts to analyze domestic and global business situations.
- Accurately maintain payroll register as required under federal and state laws.
- Create an effective business advertisement to meet the needs of specific target market(s).
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# MATERIALS SCIENCE

- Materials Science (AST2/MRP)(Plan Code: MEEMSAS) (p. 77)

## Materials Science (AST2/MRP)(Plan Code: MEEMSAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i> <sup>1</sup>		
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
<i>Distribution Requirements</i>		
Coursework should be planned with the Help of an advisor based on the requirements of the specific discipline at the baccalaureate institution the student selects to attend		
<i>Humanities</i>		5
Course Options (p. 290)		
<i>Social Sciences</i>		5
Course Options (p. 291)		
<i>Additional 5 credits in either Humanities or Social Sciences</i>		5
<b>Physics</b>		
Complete the following 3-term physics sequence with the required concurrent enrollment		
<i>Sequence One:</i>		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
<i>Sequence Two:</i>		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
<i>Sequence Three:</i>		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<i>Chemistry with Laboratory</i>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
<i>Additional Requirements</i>		
ENGR& 214	Statics	5
ENGR& 225	Mechanics of Materials	5
ENGR 221	Materials Science	5
<b>Electives</b>		
Select 5 (five) specialization courses (minimum of 20-25 units) in consultation with an advisor as appropriate for intended specialization in the major and the intended transfer institution: 20-25		

BIOL& 221	Majors Ecology/Evolution
CSE 101	Engineering and Computer Science Orientation
CSE 121	Introduction to C
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III
CHEM& 241	Organic Chemistry I
CHEM& 251	Organic Chemistry Laboratory I
ENGL& 235	Technical Writing
ENGR 101	Engineering and Computer Science Orientation
ENGR& 104	Introduction to Design
ENGR 105	Wheeler Innovation Lab Qualifications
ENGR 109	Introduction to Engineering
ENGR 113	Engineering Sketching and Visualization
ENGR 140	Basic Autocad
ENGR 150	Basic Solidworks
ENGR& 204	Electrical Circuits
ENGR 221	Materials Science
ENGR& 224	Thermodynamics
ENGR 240	Applied Numerical Methods for Engineers
MATH 221	Differential Equations
MATH& 254	Calculus IV

**Total Credits/Units 95-100**

- <sup>1</sup> MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.
- <sup>2</sup> Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.
- <sup>3</sup> ECON& 201 or ECON& 202 is recommended, but not required.
- <sup>4</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# MATH EDUCATION

The mathematics program at Clark College prepares students for successful study at four-year colleges and universities. At the university level, the student may prepare for a career in industry, government, or teaching. Students who intend to enter the job market before graduate school should have exposure to the natural, social, and applied sciences.

A variety of resources are available which help students with differing learning styles understand mathematical concepts. At Clark, computers, graphing calculators and other technology are integrated into classroom teaching and research.

The math department maintains a Web page that provides information about faculty members, course descriptions and online general advising for selecting a math course. Advice to help students succeed in math courses, along with instructional materials for some math classes, can be found on the website.

The Math Help Session is staffed 25-30 hours each week by department instructors to assist students who drop by for individual help with homework or understanding math concepts. New evening hours have also been added for night students at the Help Session.

Students who need to brush up on basic math skills will find classes in both the math and developmental education departments that prepare them for success before tackling college-level coursework. Single-credit classes to learn to use graphing calculators and for overcoming math anxiety are also offered.

- Math Education (DTA/MRP) (Plan Code: METMEAS) (p. 78)

## Math Education (DTA/MRP) (Plan Code: METMEAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This pathway is applicable to students planning to prepare for math education majors at the secondary level at universities in Washington. Students need to make early contact with their potential transfer institutions regarding the specific course choices in each area of the agreement where options are listed. Students also need to check with their potential transfer institutions regarding the requirement for overall minimum GPA, a higher GPA in a selected subset of courses, or a specific minimum grade in one or more courses such as math or English.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

1. Clark requires 3 credits of Health-Physical Education coursework, and
2. As of Fall 2011, Clark requires a course in Oral Communication, and
3. Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark

students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

Please visit the Major Related Programs section of this catalog for more specific information.

## Clark College Equivalents

Code	Title	Credits/ Units
<b>Basic Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative/Symbolic Reasoning Requirements</i> <sup>1</sup>		
MATH& 151	Calculus I	5
<b>Distribution Requirements</b>		
<i>Humanities</i>		
CMST& 220	Public Speaking	5
Course Options (p. 290)		10
<i>Social Sciences</i>		15
PSYC& 100	General Psychology	5
Course Options (p. 291)		
<i>Natural Sciences</i>		
MATH& 152	Calculus II	5
Course Options (p. 292) <sup>3</sup>		10
<b>Major Requirements</b>		
<i>Math Courses</i>		
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH& 254	Calculus IV	5
<i>Education Courses</i>		
<b>Electives</b>		
<i>Elective Courses</i>		
Course Options (p. 293) <sup>4</sup>		15
<b>TOTAL CREDITS REQUIRED</b>		<b>90</b>

<sup>1</sup> MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.

<sup>2</sup> Fulfills oral communication requirement

<sup>3</sup> Natural science course work, including one lab, as defined by Clark College

<sup>4</sup> As defined under MRP Requirements/ C. Major Requirements /3. Elective Courses

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# MECHANICAL, CIVIL & AERONAUTICAL ENGINEERING

Engineering is a profession where you are challenged to develop creative solutions to problems related to every aspect of life, through the application of mathematical and scientific principles, experience, creativity, and common sense.

Mechanical engineering is a diverse discipline which can include robotics, consumer electronics, automotive, appliances, energy-sustainable and clean fuels, aerospace, medical innovations, amusement park rides, toys, and nanotechnology.

Civil engineers work in many areas essential to modern life such as construction, architecture, environmental engineering, power generation, public works and highway departments, or the federal government. Civil engineers are at the forefront of efforts to design inexpensive yet effective ways to ensure that people living in these regions have access to potable water.

Aeronautical engineering expertise is innovative in space exploration but also pioneering in other industries such as automobile manufacturing. Aerospace engineers are experts in aerodynamics, so some of them put their skills to use in making race cars go faster or golf balls fly further.

It is critical that you work with an Engineering faculty advisor to ensure your program will give you the maximum benefit when you transfer.

- Concentration in Aeronautical Engineering (AST2/ MRP)(Plan Code: MEEMCAS, Subplan: AEROENGR) (p. 81)
- Concentration in Civil Engineering (AST2/MRP)(Plan Code: MEEMCAS, Subplan: CIVILENGR) (p. 82)
- Concentration in Mechanical Engineering (AST2/MRP)(Plan Code: MEEMCAS, Subplan: MECHENGR) (p. 83)
- Mechanical, Civil Aeronautical Engineering (AST2/MRP)(Plan Code: MEEMCAS) (p. 80)

## Mechanical, Civil Aeronautical Engineering (AST2/MRP)(Plan Code: MEEMCAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations <sup>2</sup>	5

### Distribution Requirements

Coursework should be planned with the help of an advisor based on the requirements of specific discipline at the baccalaureate institution the student selects to attend.

<i>Humanities</i>	5
<i>Social Sciences</i> <sup>3</sup>	5
<i>Additional 5 (five) credits in either Humanities or Social Sciences</i>	5
<b>Physics</b> <sup>4</sup>	

Complete the following 3-term physics sequence with the required concurrent enrollment

*Sequence One:*

PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
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*Sequence Two:*

PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
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*Sequence Three:*

PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
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### Chemistry with Laboratory

CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5

### Additional Requirements

ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5

### Specialization Courses

**15-20**

Select 4 (four) specialization courses (minimum 15-20 units) in consultation with an advisor as appropriate for intended specialization in the major and the intended transfer institution:

BIOL& 100	Survey of Biology
BIOL& 222	Majors Cell/Molecular
BIOL& 260	Microbiology
CHEM& 143 & CHEM& 153	General Chemistry III and General Chemistry Laboratory III
CSE 121	Introduction to C
ENGL& 235	Technical Writing
ENGR 101	Engineering and Computer Science Orientation
ENGR& 104	Introduction to Design
ENGR 105	Wheeler Innovation Lab Qualifications
ENGR 109	Introduction to Engineering
ENGR 113	Engineering Sketching and Visualization
ENGR 121	Field Survey I
ENGR 140	Basic Autocad
ENGR 150	Basic Solidworks
ENGR& 204	Electrical Circuits
ENGR 221	Materials Science
ENGR& 224	Thermodynamics
ENGR 240	Applied Numerical Methods for Engineers
MATH& 254	Calculus IV



Total Credits/Units Required

**Total Credits/Units** 100-105

- <sup>1</sup> MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.
- <sup>2</sup> Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.
- <sup>3</sup> ECON& 201 or ECON& 202 is recommended, but not required.
- <sup>4</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate progress toward healthier behaviors. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Aeronautical Engineering (AST2/ MRP)(Plan Code: MEEMCAS, Subplan: AEROENGR)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>Basic Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i> <sup>1</sup>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations <sup>2</sup>	5
<b>Distribution Requirements</b>		
<i>Humanities</i>		
Course Options (p. 290)		5
<i>Social Sciences</i> <sup>3</sup>		
Course Options (p. 291)		5
Additional Credits in either Humanities or Social Sciences		5
<i>Physics</i> <sup>4</sup>		
<i>Sequence One:</i>		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
<i>Sequence Two:</i>		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
<i>Sequence Three:</i>		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<i>Chemistry with Lab</i>		
CHEM& 141	General Chemistry I	4
CHEM& 151	General Chemistry Laboratory I	1
CHEM& 142	General Chemistry II	4
CHEM& 152	General Chemistry Laboratory II	1
<b>Additional Requirements</b>		
ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5
<b>Math/Engineering Electives</b>		<b>15-20</b>
<i>Select a minimum of 4 specialization courses in consultation with an Engineering Advisor as appropriate for intended transfer institution</i>		
CSE 121	Introduction to C	
ENGL& 235	Technical Writing	
ENGR 105	Wheeler Innovation Lab Qualifications	
ENGR 109	Introduction to Engineering	
ENGR 113	Engineering Sketching and Visualization	

ENGR 140	Basic Autocad
ENGR 150	Basic Solidworks
ENGR& 204	Electrical Circuits
ENGR 221	Materials Science
ENGR& 224	Thermodynamics
ENGR 240	Applied Numerical Methods for Engineers
MATH& 254	Calculus IV
<b>Total Credits/Units</b>	<b>100-105</b>

- <sup>1</sup> MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.
- <sup>2</sup> Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.
- <sup>3</sup> ECON& 201 or ECON& 202 is recommended, but not required.
- <sup>4</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry

method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Civil Engineering (AST2/MRP)(Plan Code: MEEMCAS, Subplan: CIVILENGR)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>Basic Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Mathematics</i> <sup>1</sup>		
MATH& 151	Calculus I <sup>1</sup>	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH 215	Linear Algebra	5
MATH 221	Differential Equations <sup>2</sup>	5
<b>Distribution Requirements</b>		
<i>Humanities</i>		5
Course Options (p. 290)		
Social Sciences <sup>3</sup>		5
Course Options (p. 291)		
Additional Credits in either Humanities or Social Sciences		5
<b>Physics</b> <sup>4</sup>		
<i>Sequence One:</i>		
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5
<i>Sequence Two:</i>		
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5
<i>Sequence Three:</i>		
PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
<b>Chemistry with Lab</b>		
CHEM& 141 & CHEM& 151	General Chemistry I and General Chemistry Laboratory I	5
CHEM& 142 & CHEM& 152	General Chemistry II and General Chemistry Laboratory II	5
<b>Additional Requirements</b>		
ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5
<b>Math/Engineering Electives</b>		<b>15-20</b>
Select a minimum of 4 specialization courses in consultation with an Engineering Advisor as appropriate for intended transfer institution		
BIOL& 100	Survey of Biology	

BIOL& 222	Majors Cell/Molecular
BIOL& 260	Microbiology
ENGL& 235	Technical Writing
ENGR 105	Wheeler Innovation Lab Qualifications
ENGR 109	Introduction to Engineering
ENGR 113	Engineering Sketching and Visualization
ENGR 121	Field Survey I
ENGR 140	Basic Autocad
ENGR 150	Basic Solidworks
ENGR 221	Materials Science
ENGR& 224	Thermodynamics
ENGR 240	Applied Numerical Methods for Engineers
MATH& 254	Calculus IV
<b>Total Credits/Units</b>	<b>100-105</b>

<sup>1</sup> MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.

<sup>2</sup> Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.

<sup>3</sup> ECON& 201 or ECON& 202 is recommended, but not required.

<sup>4</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Concentration in Mechanical Engineering (AST2/MRP)(Plan Code: MEEMCAS, Subplan: MECHENGR)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units	
<b>Basic Requirements</b>			
<i>Communication Skills</i>			
ENGL& 101	English Composition I	5	
<i>Mathematics</i> <sup>1</sup>			
MATH& 151	Calculus I <sup>1</sup>	5	
MATH& 152	Calculus II	5	
MATH& 153	Calculus III	5	
MATH 215	Linear Algebra	5	
MATH 221	Differential Equations <sup>2</sup>	5	
<b>Distribution Requirements</b>			
<i>Humanities</i>			
Course Options (p. 290)			
Social Sciences <sup>3</sup>			5
Course Options (p. 291)			
Additional Credits in either Humanities or Social Sciences			5
<b>Physics</b> <sup>4</sup>			
<i>Sequence One:</i>			
PHYS& 241 & PHYS& 231	Engineering Physics I and Engineering Phys Lab I	5	
<i>Sequence Two:</i>			
PHYS& 242 & PHYS& 232	Engineering Physics II and Engineering Phys Lab II	5	
<i>Sequence Three:</i>			

PHYS& 243 & PHYS& 233	Engineering Physics III and Engineering Phys Lab III	5
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**Chemistry with Lab**

CHEM& 141	General Chemistry I	4
CHEM& 151	General Chemistry Laboratory I	1
CHEM& 142	General Chemistry II	4
CHEM& 152	General Chemistry Laboratory II	1

**Additional Requirements**

ENGR& 214	Statics	5
ENGR& 215	Dynamics	5
ENGR& 225	Mechanics of Materials	5

**Math/Engineering Electives 15-20**

Select a minimum of 4 specialization courses in consultation with an Engineering Advisor as appropriate for intended transfer institution

ENGL& 235	Technical Writing
ENGR 105	Wheeler Innovation Lab Qualifications
ENGR 109	Introduction to Engineering
ENGR 113	Engineering Sketching and Visualization
ENGR 150	Basic Solidworks
ENGR 221	Materials Science
ENGR& 224	Thermodynamics
ENGR 240	Applied Numerical Methods for Engineers
MATH& 254	Calculus IV

**Total Credits/Units 100-105**

- <sup>1</sup> MATH 103 and MATH 111/MATH 110 are required prerequisites for MATH& 151 that may be needed if calculus placement is not met.
- <sup>2</sup> Clark requires concurrent enrollment or completion of MATH& 254 with a grade of "C" or higher.
- <sup>3</sup> ECON& 201 or ECON& 202 is recommended, but not required.
- <sup>4</sup> Requires concurrent enrollment in PHYS 94/PHYS 95/PHYS 96

- Apply communication theory to demonstrate effective oral communication skills.(GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and solve multi-step problems using techniques through single-variable calculus.
- Demonstrate understanding of the derivative as an instantaneous rate of change and the definite integral as a limit of a sum.
- Acquire scientific and technological information from appropriate sources to examine issues, claims or situations.
- Apply fundamental principles and relationships from the Natural Sciences to analyze technological or scientific problems.
- Apply scientific and technological knowledge and methodologies to creatively solve technological or scientific problems.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Demonstrate progress toward healthier behaviors. (GE)

# MECHATRONICS

Mechatronics Technology is a growing career field that deals with the integration of mechanical and electronic components managed by control systems. Mechatronics technicians troubleshoot, maintain and repair mechanical equipment controlled by electrical, electronic and computer systems. These types of systems are increasingly used in a wide variety of manufacturing and industrial settings. Clark College's Mechatronics Technology (MTX) classes emphasize current concepts and technology by providing practical, hands-on experiences with the latest, industry standard equipment. In addition to the technical know-how needed to maintain and repair equipment, the certificate and degree programs will help prepare students to think critically, function as a successful team member and communicate clearly too internal and external customers.

The multiple certificate and degree options available within this program allow students the option to stop-out and enter the workforce, and re-enter the program as needed, or complete their program of study without stopping.

- Mechatronics Fundamentals (CC)(Plan Code: ETEMFC01) (p. 85)
- Mechanical and Instrumentation Automation (CA)(Plan Code: ETEMAC20) (p. 85)
- Mechanical and Instrumentation Automation (AAT)(Plan Code: ETEMIAPT) (p. 86)

## Mechatronics Fundamentals (CC) (Plan Code: ETEMFC01)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
MTX 100	Industrial Safety	1
MTX 101	DC Fundamentals	3
MTX 102	AC Fundamentals	4
MTX 103	Basic Measurement Tools	2
MTX 106	Fluid Power Systems	4
MTX 110	Electric Motor Control 1	4
<b>Total Credits/Units</b>		<b>18</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Troubleshoot DC and AC circuits for malfunctions.
- Design fluid power systems and identify common components.

- Correctly connect, operate and troubleshoot an AC motor control circuit.
- Demonstrate proper tool identification and usage techniques.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Mechanical and Instrumentation Automation (CA)(Plan Code: ETEMAC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
MTX 100	Industrial Safety	1
MTX 101	DC Fundamentals	3
MTX 102	AC Fundamentals	4
MTX 103	Basic Measurement Tools	2
MTX 106	Fluid Power Systems	4
MTX 110	Electric Motor Control 1	4
MTX 121	Semiconductors I	3
MTX 130	Programmable Logic Controllers 1	4
or MTX 132	Siemens PLC Lvl I	
MTX 140	Robotic Systems	4
MTX 145	Electrical Power & Distribution Systems	4
MTX 175	Mechatronics Systems Fundamentals	3
MTX 180	Mechanical Systems	5
<b>Total Credits/Units</b>		<b>41</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Troubleshoot problems in electrical, mechanical, hydraulic and pneumatic equipment.
- Communicate with colleagues, supervisors and clients, using written and verbal technical and/or nontechnical language.
- Actively participate as an effective team member, completing prescribed project tasks and meeting project goals.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Mechanical and Instrumentation Automation (AAT)(Plan Code: ETEMIAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing (recommended)	5
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (recommended)	5
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2
BUS 148 or MGMT 101	Business Professional Self Development Principles of Management	3
<b>Major Area Requirements</b>		
MTX 100	Industrial Safety	1
MTX 101	DC Fundamentals	3
MTX 102	AC Fundamentals	4
MTX 103	Basic Measurement Tools	2
MTX 106	Fluid Power Systems	4
MTX 110	Electric Motor Control 1	4
MTX 121	Semiconductors I	3
MTX 130	Programmable Logic Controllers 1	4
MTX 132	Siemens PLC Lvl I	4
MTX 140	Robotic Systems	4
MTX 145	Electrical Power & Distribution Systems	4
MTX 175	Mechatronics Systems Fundamentals	3
MTX 180	Mechanical Systems	5
MTX 216	Mechatronics 2	5
MTX 221	Semiconductors 2	3
MTX 224	Motor Drive Systems	5
MTX 230	Laser Alignment	2
MTX 232	Digital Electronics Fundamentals	3
MTX 240	Process Control Systems	6
MTX 250	Advanced Programmable Logic Controllers	4
MTX 275	Advanced Fluid Power Systems	5
MTX 292	Manufacturing System Principles	4
MTX 296	Capstone/Final Project	4
<b>Total Credits/Units</b>		<b>101</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Design, operate, and troubleshoot automation processes and systems.
- Communicate with colleagues, supervisors, clients, using written and verbal technical and/or nontechnical language.
- Actively participate as an effective team member, completing prescribed project tasks and meeting project goals.
- Use computational skills to analyze physical parameters within automated processes and systems.
- Assimilate/interpret technical and nontechnical descriptions to form a solution.
- Collect data based on sensory input and system performance to analyze and interpret process capabilities.
- Operate, measure, and modify, software-driven industrial control systems

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# MEDICAL ASSISTANT

Medical Assistants maintain the daily workflow of a medical office. Work activities vary depending on the medical setting but often include customer service, administrative and clinical tasks. Medical assistants work directly with physicians and patients to ensure a productive experience in a variety of healthcare environments. The Medical Assistant program prepares students for both front-office clerical and back-office clinical medical assisting responsibilities by providing cognitive (knowledge), psychomotor (skills), and affective (behavior) learning competencies. The Clark College Medical Assistant Certificate of Proficiency is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Medical Assisting Education Review Board (MAERB). Graduates of the Clark College Medical Assisting program are eligible to sit for the American Association of Medical Assistants (AAMA)'s Certified Medical Assistant (CMA) examination, a national certification for Medical Assistants. To gain employment as a Certified Medical Assistant, the student must graduate from the program and pass the CMA examination.

Commission on Accreditation of Allied Health Education Programs  
www.caahep.org (<http://www.caahep.org>)  
25400 US Highway N  
Suite 158  
Clearwater, FL 33756  
727-210-2350

Medical Assistant Education Review Board  
<http://www.maerb.org/>  
20 N. Wacker Drive, Suite 1575  
Chicago, IL 60606  
1-800-228-2262

Washington State Department of Health  
www.doh.wa.gov (<http://www.doh.wa.gov>)  
Town Center 2  
111 Israel Rd SE  
Tumwater, WA 98501  
360-236-4700  
Fax number: 360-236-4818  
Email Address: [hsqa.csc@doh.wa.gov](mailto:hsqa.csc@doh.wa.gov)

National Center for Competency Testing  
NCCT 7007 College Blvd Suite 385 Overland Park KS 66211  
Phone: 800.875.4404 Fax: 913.498.1243  
www.ncctinc.com/ (<http://www.ncctinc.com/>)

American Association of Medical Assistants  
www.aama-ntl.org (<http://www.aama-ntl.org>)

Applications are accepted at any time however this is a limited entry program. Candidates who meet the preliminary requirements will be considered for program entry. For more information, please visit the program website (<https://www.clark.edu/academics/programs/health-care-and-biosciences/med-assistant/>).

- Medical Assistant (CP)(Plan Code: MLAMAC45) (p. 87)
- Medical Assistant with Phlebotomy or Business Option (AAT)(Plan Code: MLAMSAPT (p. 88)

## Medical Assistant (CP)(Plan Code: MLAMAC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>First Term (Fall)</b>		
PTWR 135	Introduction to Applied Technical Writing	5
or ENGL& 101	English Composition I	
AH 104	Health Care Delivery & Career Exploration	3
AH 100	Basic Concepts of Anatomy and Physiology I <sup>1</sup>	3
AH 110	Medical Terminology I <sup>1</sup>	3
<b>Second Term (Winter)</b>		
MA 103	Math for Medical Assistants <sup>1</sup>	3
AH 101	Basic Concepts of Anatomy and Physiology II <sup>1</sup>	3
AH 111	Medical Terminology II <sup>1</sup>	3
MA 123	Legal Aspects of The Medical office <sup>1</sup>	3
AH 120	Bloodborne Pathogens in Healthcare Settings	1
<b>Third Term (Spring) - Admitted to MA Program</b>		
MA 104	Medical Office Administrative Procedures	6
MA 114	Medical Reimbursement	4
MA 124	Therapeutic Comm Skills for Health Prof	2
HLTH 124	Healthcare Provider CPR and First Aid	1
<b>Fourth Term (Summer)</b>		
MA 201	Introduction to Pathophysiology	5
MA 212	Pharmacology for Medical Assistants	3
<b>Fifth Term (Fall)</b>		
MA 211	Medical Office Clinical Procedures	6
MA 221	Medical Office Laboratory Procedures	6
<b>Sixth Quarter (Winter)</b>		
MA 202	Ma Assistant Examination Review	2
MA 222	Medical Assistant Practicum	6
MA 232	Medical Assistant Seminar	1
<b>Total Credits/Units</b>		<b>69</b>

<sup>1</sup> AH 100, AH 101, AH 110, AH 111, MA 103, AND MA 123 must be seven (7) years current upon program entry.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)

- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate use of medical office administrative and clinical software to complete medical office tasks (scheduling, patient information management, billing and office finances). (affective, cognitive and psychomotor)
- Apply policies and principles of office management (patient reception, scheduling, billing and office finances). (affective, cognitive and psychomotor)
- Apply policies and procedures for office management. (cognitive)
- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor)
- Demonstrate the ability to work as a team member to accomplish a task. (affective)
- Accurately and effectively demonstrate clinical skills required of the medical assistant. (affective, cognitive and psychomotor)
- Successfully complete all criteria necessary for taking the CMA Exam. (cognitive and psychomotor)

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## Medical Assistant with Phlebotomy or Business Option (AAT)(Plan Code: MLAMSAPT

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

[The Allied Health and the Medical Assisting courses are held at the CCW Campus. The CCW campus is located on WSU Vancouver campus, click here for map and directions.](#)

Code	Title	Credits/ Units
<b>Basic Requirements</b>		
<i>Communication Skills</i>		
PTWR 135 or ENGL& 101	Introduction to Applied Technical Writing English Composition I	5
<i>Computational Skills</i>		
MA 103	Math for Medical Assistants <sup>1</sup>	3
AH 261	Statistics for Health Care Professionals	3
<i>Human Relations</i>		
MA 222	Medical Assistant Practicum	6
<i>Medical Assisting Foundation</i>		
AH 100	Basic Concepts of Anatomy and Physiology I <sup>1</sup>	3
AH 101	Basic Concepts of Anatomy and Physiology II <sup>1</sup>	3
AH 104	Health Care Delivery & Career Exploration	3
AH 110	Medical Terminology I <sup>1</sup>	3

AH 111	Medical Terminology II <sup>1</sup>	3
AH 120	Bloodborne Pathogens in Healthcare Settings	1
MA 123	Legal Aspects of The Medical office <sup>1</sup>	3
<i>Medical Assisting Core</i>		
BUS 104	Keyboarding & Word Processing	1-3
HLTH 124	Healthcare Provider CPR and First Aid	1
CMST& 210 or MA 124	Interpersonal Communication Therapeutic Comm Skills for Health Prof	5
MA 104	Medical Office Administrative Procedures	6
MA 201	Introduction to Pathophysiology	5
MA 202	Ma Assistant Examination Review	2
MA 211	Medical Office Clinical Procedures	6
MA 212	Pharmacology for Medical Assistants	3
MA 221	Medical Office Laboratory Procedures	6
MA 232	Medical Assistant Seminar	1
MA 241	Medical Coding for Medical Assistants	4
MA 251	Patient Advocacy and Care Navigation	3

### Medical Assisting Specialization

Select from one of the following options:

<i>Phlebotomy Option (Subplan: PHLEBOTOMY)</i>		
PHLE 115	Phlebotomy Education W/Lab	3
PHLE 116	Basic Laboratory for The Phlebotomist	3
PHLE 197	Phlebotomy Clinical Experience	5
PHLE 198	Phlebotomy Clinical Seminar	1
<i>Business Management Option (Subplan: MANAGEMENT)</i>		
BUS 150	Computer Business Applications	5
MGMT 107	Supervisory Communication I, Written	3
MGMT 112	Conflict Management	2
MGMT 101	Principles of Management	3

**Total Credits/Units Required** **93-96**

<sup>1</sup> AH 100, AH 101, AH 110, AH 111, MA 103, and MA 123 must be seven (7) years current upon program entry.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate use of medical office administrative and clinical software to complete medical office tasks (scheduling, patient information management, billing and office finances). (affective, cognitive and psychomotor)
- Apply policies and principles of office management (patient reception, scheduling, billing and office finances). (affective, cognitive and psychomotor)



- Apply policies and procedures for office management. (cognitive)
- Demonstrate the ability to work as a team member to accomplish a task. (affective)
- Communicate effectively with peers, patients, and health care professionals through written and oral communications. (affective and psychomotor).
- Accurately and effectively demonstrate clinical skills required of the medical assistant. (affective, cognitive and psychomotor)
- Successfully complete all criteria necessary for taking the CMA Exam. (cognitive and psychomotor)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# MUSIC

The Music program at Clark offers students an abundance of experiences in music theory, instrumental and vocal performance training, music appreciation and music history. Courses are designed to prepare the music major for advanced studies for transfer to a four-year bachelor's music degree while also providing an enriching experience to the non-music major with the skills and background to fully enjoy music as a cultural pursuit.

- Associate in Music DTA/MRP (Plan Code: MUSMUAA) (p. 90)

## Associate in Music DTA/MRP (Plan Code: MUSMUAA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
Communication Skills		
ENGL& 101	English Composition I	5
Take an additional five (5) credit from one of the following options: 5		
Option One		
ENGL& 102	English Composition II or ENGL& 23 Technical Writing	
Option Two		
BUS 211	Business Communications	
and		
CMST& 210	Interpersonal Communication or CMST& 22 Public Speaking or CMST& 23 Small Group Communication	
<i>Quantitative Skills</i>		
Course Options (p. 290)		5
<i>Humanities</i>		
MUSC& 141	Music Theory I	5
MUSC& 142	Music Theory II	5
Select five credits/units from other disciplines (p. 290)		5
<i>Social Sciences</i>		
Selected from at least two disciplines (p. 291) <sup>1</sup>		15
<i>Natural Sciences</i>		
Selected from at least two disciplines (p. 292) <sup>2</sup>		15
<b>Major Area Requirements</b> <sup>3</sup>		
MUSC& 121	Ear Training 1	1
MUSC& 122	Ear Training 2	1
MUSC& 123	Ear Training 3	1
MUSC& 221	Ear Training 4	1
MUSC& 222	Ear Training 5	1
MUSC& 223	Ear Training 6	1
MUSC& 143	Music Theory III	5
MUSC 101	Beginning Piano Class	2

MUSC& 231	Music Theory IV	3
MUSC& 232	Music Theory V	3
MUSC& 233	Music Theory VI	3
MUSC 201	Intermediate Piano Class	2
<i>Applied Instrument, Piano, or Voice</i>		6
<i>Major Performing Ensemble - Orchestra, Concert Band, Concert Choir, Treble Choir, Chorale, or Jazz Band</i>		12
<b>Total Credits/Units</b>		<b>102</b>

- <sup>1</sup> No more than 10 credits/units allowed from any one discipline.
- <sup>2</sup> No more than 10 credits/units allowed from any one discipline. At least 10 credits/units in Physical, Biological and/or Earth Sciences. Shall include at least one laboratory course.
- <sup>3</sup> In-house diagnostic testing and/or auditions might affect the credits/units accepted in theory and ear training. Students are advised to check with the receiving institution.
- <sup>4</sup> In-house auditions might affect the credits/units accepted in this area. Students are advised to check with the receiving institution.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Meet audition standards for any necessary proficiency exams in music theory for transfer to a four-year school of music.
- Perform a standard body of literature at a proficiency level relevant to pursuit of a BA or BM degree in music.
- Demonstrate musicality through participation in recorded performances.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# NETWORK TECHNOLOGY

Designed to meet the ever-changing needs of the IT (Information Technology) field, Clark's Network Technology programs include extensive hands-on, real-world scenario-based learning in planning, designing, implementing, maintaining, and troubleshooting small-to-large scale computer networks.

The Network Technology department provides in-demand training for careers as a Network Administrator, Network Engineer, and Network Support Specialist in all aspects of modern computer networks, including traditional data, video conference, Voice over Internet Protocol (VoIP) telephone, wireless networks, and network security.

We are a Cisco Network Academy authorized by Cisco Systems, a leader in the networking industry. The Network Technology department offers training towards obtaining several well-recognized industry certifications, including:

- Cisco CCNA
- Cisco CCNA Security
- Cisco CCNA Voice
- CompTIA A+ PC Technician
- CompTIA Network+
- CompTIA Server+
- Microsoft MCITP Server Administrator on Windows Server 2008
- Microsoft MCTS Windows Server 2008 Network Infrastructure
- Microsoft MCTS Windows Server 2008 Active Directory

Our various Network Technology programs are designed with entry points both for the student just starting a new career, as well as for the computer networking or telecommunications professional seeking to improve and update their skills and achieve industry certifications. Classes are offered at convenient times for working people: days, nights, weekends.

We invite you to visit our website for more information, contact us with your questions, and schedule a tour of our classroom and leading-edge lab facility.

Email: [dnet@clark.edu](mailto:dnet@clark.edu)

## Program Preparation

Math and English proficiency tests are required of all students before entry into the applied science degree program.

Students must complete all Major Area Requirements with a minimum grade of "C" or better in order to successfully complete the program and earn the award.

Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

- Cisco Technician (CA)(Plan Code: TETCTC20) (p. 92)
- Microsoft Technician (CA)(Plan Code: CSTMTC20) (p. 92)
- Network Technologies (AAT)(Plan Code: CSTNTAPT) (p. 93)

## Cisco Technician (CA)(Plan Code: TETCTC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
NTEC 103	IP Subnetting	3
NTEC 125	Introduction to Cybersecurity	3
NTEC 142	Cloud Computing Fundamentals	3
NTEC 151	Linux Essentials	3
NTEC 161	Network Scripting Fundamentals	5
NTEC 220	Deploying Linux Server Services	5
NTEC 221	Introduction to Networks	5
NTEC 222	Switching, Routing, and Wireless Essentials	5
NTEC 223	Enterprise Networking, Security, and Automation	5
<b>Total Credits/Units</b>		<b>37</b>

Note: Students will be required to have access to the Internet to complete their coursework.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Design converged networks to meet specific business needs.
- Implement converged networks to meet specific business needs.
- Maintain converged networks to meet specific business needs.
- Resolve common issues with converged networks.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Microsoft Technician (CA)(Plan Code: CSTMTC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
NTEC 103	IP Subnetting	3

NTEC 125	Introduction to Cybersecurity	3
NTEC 142	Cloud Computing Fundamentals	3
NTEC 151	Linux Essentials	3
NTEC 161	Network Scripting Fundamentals	5
NTEC 221	Introduction to Networks	5
NTEC 234	Windows Server Administration: Installation, Storage, Compute	5
NTEC 235	Windows Server Administration: Networking	5
NTEC 236	Windows Server Administration: Identity	5
<b>Total Credits/Units</b>		<b>37</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Design Microsoft networks and domain structures to meet specific business needs.
- Implement Microsoft networks and domain structures to meet specific business needs.
- Maintain Microsoft networks and domain structures to meet specific business needs.
- Resolve common issues with Microsoft networks and domain structures.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmmap.clark.edu/academics> (<https://programmmap.clark.edu/academics/>)

## Network Technologies (AAT)(Plan Code: CSTNTAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing <sup>1</sup>	5
	or ENGL& 101 English Composition I	
<i>Computational Skills</i>		
Any generally transferable computational course with Intermediate Algebra as a prerequisite		
	or	
PTCS 110	Professional Technical Computational Skills <sup>2</sup>	5
	or PHIL& 120 Symbolic Logic	
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2

and		
Course Options (p. 296)		3
<b>Major Area Requirements</b>		
NTEC 103	IP Subnetting	3
NTEC 125	Introduction to Cybersecurity	3
NTEC 142	Cloud Computing Fundamentals	3
NTEC 151	Linux Essentials	3
NTEC 161	Network Scripting Fundamentals	5
NTEC 220	Deploying Linux Server Services	5
NTEC 221	Introduction to Networks	5
NTEC 222	Switching, Routing, and Wireless Essentials	5
NTEC 223	Enterprise Networking, Security, and Automation	5
NTEC 225	Network Security	5
NTEC 234	Windows Server Administration: Installation, Storage, Compute	5
NTEC 235	Windows Server Administration: Networking	5
NTEC 236	Windows Server Administration: Identity	5
NTEC 242	Datacenter Virtualization Technology	5
NTEC 252	Linux Administration 1	5
NTEC 253	Linux Administration 2	5
NTEC 297	Capstone Experience: Network Technologies	3
<b>Total Credits/Units</b>		<b>90</b>

<sup>1</sup> PTWR 135 does not meet 100 level incoming/transfer credit requirements for a Bachelor Degree program.

<sup>2</sup> PTCS 110 does not meet 100 level incoming/transferring credit requirements for a Bachelor Degree program.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Design Windows and Linux networks to meet specific business needs.
- Implement Windows and Linux networks to meet specific business needs.
- Design converged networks to meet specific business needs.
- Implement converged networks to meet specific business needs.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmmap.clark.edu/academics> (<https://programmmap.clark.edu/academics/>)

# NURSING

The registered nurse is a licensed health care professional able to work in hospitals, clinics, acute care, physicians' offices, emergency centers, long-term care facilities, and home health care agencies. Registered nurses work with patients from birth through old age in a variety of health care settings, including medical/surgical, obstetrics, mental health, long-term care, and in the community. They design care plans, perform patient assessments, administer medications, give injections, serve as advocates for patients, and refer patients to the proper resources. Critical-thinking and decision-making ability, as well as a life-long commitment to learning, are important assets in this demanding but rewarding profession.

Graduates of the Associate Degree Nursing program receive an Associate in Arts Nursing DTA/MRP degree, and are qualified to take the National Council Examination for licensure as a Registered Nurse.

Clark College's Associate Degree in Nursing program is accredited by the Accreditation Commission for Education in Nursing (ACEN).

ACEN  
Accreditation Commission for Education In Nursing  
3343 Peachtree Road NE, Suite 850  
Atlanta, Georgia 30326  
www.acenursing.org (<http://www.acenursing.org>)

## About the Program

For Financial Aid purposes, the Associate Degree in Nursing DTA/MRP is open enrollment which enables all students who wish to pursue this degree to complete the "Nursing Degree Requirements" (courses in the areas of English, Biological Sciences, Psychology, etc.). The "Nursing Degree Requirements" provide the foundation for the subsequent "Nursing Core" classes (classes with "NURS" prefix). Due to clinical space limitations, although the program of study for the nursing transfer degree is open enrollment, there is a competitive application process for students to be able to begin the "Nursing Core" classes. The instructions in the Nursing Program Guide explain the nursing transfer degree requirements and the competitive application process to be able to begin the Nursing Core classes.

The Nursing Program Guide is posted on the Nursing website at [www.clark.edu/clarknursing](http://www.clark.edu/clarknursing) (<http://www.clark.edu/clarknursing/>).

## Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student's request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at Clark's Disability Support Services ([http://www.clark.edu/campus-life/student-support/disability\\_support/](http://www.clark.edu/campus-life/student-support/disability_support/)). Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

- Associates in Nursing MRP (Plan Code: RENDTAA) (p. 94)
- Pre-Nursing (DTA/MRP)(Plan Code: RENPNAS) (p. 95)

## Associates in Nursing MRP (Plan Code: RENDTAA)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Nursing Degree Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
Select an additional five credits/units (p. 290)		5
<i>Quantitative Skills</i>		
MATH& 146	Introduction to Stat	5
<i>Humanities</i> <sup>1</sup>		
Course Options (p. 290)		10
<i>Social Sciences</i>		
PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
<i>Natural Science</i> <sup>2</sup>		
CHEM& 121	Intro to Chemistry: Pre-Health	5
BIOL& 160	General Biology W/Lab	5
BIOL& 241 & BIOL& 242	Human Anatomy and Physiology I and Human Anatomy and Physiology II <sup>3</sup>	10
BIOL& 260	Microbiology	5
NUTR& 101	Nutrition	3
<b>Nursing Core Requirements</b>		
<i>First Term</i>		
NURS 110	Foundations of Nursing Concepts	2
NURS 111	Foundations of Clinical Nursing	2
ENGL 112	Ethics and Policy In Healthcare I	2
NURS 113	Lifespan Assessment Concepts	3
NURS 114	Nursing Skills Application I	1
NURS 115	Nursing Skills Lab I	2
<i>Second Term</i>		
NURS 122	Family-Centered Nursing	2
PSYC 122	Psychosocial Issues In Health Care I	1
NURS 123	Family-Centered Clinical Nursing	4
PSYC 124	Psychosocial Issues In Health Care II	2
NURS 127	Nursing Skills Application II	1
NURS 128	Nursing Skills Lab II	2
<i>Third Term</i>		
NURS 135	Medical Surgical Nursing Concepts 1	3
NURS 136	Medical-Surgical Clinical Nursing I	5
NURS 137	Nursing Skills Application III	1
NURS 138	Nursing Skills Lab III	2
NUTR 139	Nutrition In Healthcare I	1
<i>Fourth Term</i>		

NUTR 240	Nutrition In Healthcare II	1
NURS 241	Medical-Surgical Nursing Concepts II	3
NURS 242	Medical/Surgical Clinical Nursing II	8
<i>Fifth Term</i>		
NURS 251	Medical-Surgical Nursing Concepts III	2
NURS 252	Advanced Holistic Clinical Nursing	8
PSYC 253	Psychosocial Issues In Health Care III	2
<i>Sixth Term</i>		
NURS 261	Professional Leadership Transition to Practice	1
NURS 262	Professional Leadership in Practice	6
NURS 263	Professional Role in the Community	1
NURS 264	NCLEX-RN Preparation	1
ENGL 273	Ethics and Policy In Healthcare II	3
<b>Total Credits/Units</b>		<b>135</b>

<sup>1</sup> Maximum of 5 (five) credits/units of ENGL credits/units allowed.

<sup>2</sup> All Natural Science (NS) classes except BIOL& 160 must be seven years current upon program entry.

<sup>3</sup> Completion of BIOL& 251, BIOL& 252 and BIOL& 253 may be used in place of both BIOL& 241 and BIOL& 242.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Apply communication theory to demonstrate effective oral communication skills. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Teamwork and Interprofessional Collaboration: Model open communication, mutual respect and shared decision making.
- Knowledge: Integrate relevant theoretical and practical knowledge.
- Clinical Judgment: Demonstrate effective problem solving and decision making.
- Caring: Integrate principles of diversity, holism, stewardship, dignity, and respect to reflect an environment of caring.

- Professionalism: Demonstrate personal accountability, ethical practices and continuing competence in nursing.
- Patient Safety: Minimize risk of harm to patients and providers through both clinical system effectiveness and individual performance.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Pre-Nursing (DTA/MRP)(Plan Code: RENPNAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

This pathway is applicable to students planning to prepare for upper-division Bachelor of Science, Nursing (entry-to-practice/basic BSN pathway) by completing a broad selection of academic courses. Many students transfer to the BSN program after completing the Associate Degree Nursing (ADN) program (RN-to-BSN pathway); however, this agreement is not applicable to and does not alter those ADN-to-BSN articulation agreements.

This pathway streamlines preparation for the basic BSN pathway across the state. It does not, however, address the issue of significantly inadequate capacity (faculty, clinical opportunities, etc.) at the BSN level relative to workforce needs or current student interest. Due to high interest and limited space in BSN programs, admission to all BSN programs is highly competitive, with many qualified applicants finding themselves on waiting lists for admission.

This document represents an agreement between the following baccalaureate institutions offering an entry-to-practice/basic BSN program and the community and technical colleges system. Baccalaureate institutions party to this agreement include: University of Washington, Seattle; Washington State University; Northwest University; Seattle University; Seattle Pacific University; Pacific Lutheran University; St. Martin's University; and Walla Walla University. The Washington State University Intercollegiate College of Nursing (WSU-ICN) is a consortium whose members include Eastern Washington University, Gonzaga, and Whitworth. Associate degree transfers to WSU-ICN are admitted through WSU, but not through the other consortium institutions. EWU participated in the development of this agreement.

Though this degree does not require such, Clark College students should know that the standard Clark AA degree path has these differences from the MRP defined below:

1. Clark requires 3 credits of Health-Physical Education coursework, and
2. Clark's Social Science distribution requirement stipulates that students take courses from at least three different departments.

Students must also meet the residency requirements as established by Clark. While Clark College has approved offering the degree below, Clark

students should keep these requirements in mind should their transfer pathways change.

Students are responsible for researching and preparing for specific major requirements of baccalaureate institutions as early as possible prior to transferring.

## Clark College Equivalents

Code	Title	Credits/ Units
<b>Basic Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative/Symbolic Reasoning Requirement</i>		
MATH& 146	Introduction to Stat	5
<b>Distribution Requirements</b>		
<i>Humanities</i>		
CMST& 220	Public Speaking	5
or CMST 216	Intercultural Communication	
or CMST& 210	Interpersonal Communication	
Select 10 term credits/units of other Humanities, five of which can be CMST (p. 290)		
<i>Social Science</i>		
PSYC& 100	General Psychology	5
PSYC& 200	Lifespan Psychology	5
Choose one of the following options:		
ENGL 175	Introduction to LGBTQ Studies	5
or SOC& 101	Introduction to Sociology	
or SOC& 201	Social Problems: The Pursuit of Social Justice	
or WS 101	Introduction to Women's Studies	
or WS 220	Race, Class, Gender and Sexuality-Women's Studies	
or WS 225	Racism & White Privilege In The U.S.-Women's Studies	
<i>Natural Sciences</i>		
BIOL& 160	General Biology W/Lab	5
BIOL& 251	Human A & P I	15
& BIOL& 252	and Human A & P II	
& BIOL& 253	and Human A & P III	
or		
BIOL& 241	Human Anatomy and Physiology I	10
& BIOL& 242	and Human Anatomy and Physiology II	
BIOL& 260	Microbiology	5
CHEM& 121	Intro to Chemistry: Pre-Health	5
CHEM& 131	Intro to Organic/Biochem	5
NUTR& 101	Nutrition <sup>1</sup>	3
<b>Electives</b>		
Elective Courses (p. 293) <sup>2</sup>		10
<b>Total Credits Required</b>		<b>90</b>

<sup>1</sup> Students need to be aware that Clark College's nutrition class is only three credits/units, not the required five credits/units.

<sup>2</sup> Up to ten (10) additional credits/units of general electives can apply. Courses must be 100-level or higher. Physical Education activity credits are limited to a maximum of three (3) credits/units. Coursework

in FLPC cannot apply. Students should consult with the transfer institution to ensure courses are "fully transferable".

## Notes

### Basic Requirements

#### Quantitative/Symbolic Reasoning Requirement

UW Seattle and Seattle University require 10 credits in quantitative/symbolic reasoning with the additional class in college algebra or pre-calculus (at UW Seattle, a class in Logic also serves for the additional class).

Distribution Requirements

### Humanities

In order to better prepare for successful transfer, students are encouraged to consult with the institution(s) to which they wish to transfer regarding the humanities courses that best support or may be required as prerequisites to their nursing curriculum.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). Credits in the humanities distribution area provide one opportunity for such a curriculum.

### Social Sciences

Walla Walla requires a course in General Sociology

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). The credits/units in sociology provide one opportunity for such a curriculum.

### Natural Sciences

Introductory survey courses or review courses do not meet the content level expectations for these natural science requirements.

At the time of application, when some of the coursework may not yet be completed, UW Seattle requires a minimum GPA of 3.0 for 3 out of the 7 courses or 2.8 for 4 out of the 7.

Students need to be aware that Clark College's nutrition class is only 3 credits, not the required 5 credits.

## Electives

### Elective Courses

See notes under humanities, social science and natural science.

A curriculum that provides students with an understanding of and sensitivity to human diversity is encouraged (required by WSU). The elective credits provide one opportunity for such a curriculum. See the choices in the WSU "Diversity Course Identification Guidelines" for possible course selection or select courses that include minority, non-Western, ethnic or other "area" studies.

## Total Required Credits: 90

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:



- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Analyze patterns of power, privilege, and inequity in the United States. (GE)
- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Obtain, evaluate, and ethically use information. (GE)
- Evaluate claims about the natural world using scientific methodology. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Analyze and interpret quantitative information presented verbally, graphically, numerically, and/or symbolically. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Apply communication theory to demonstrate effective oral communication skills. (GE)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# PHARMACY TECHNICIAN

Pharmacy technicians in Washington and Oregon are employed in hospitals and outpatient facilities. They assist licensed pharmacists in dispensing medications, assist with compounding and IV drug preparation, take inventory, stock supplies, type prescription labels, and perform other assignments as allowed by law. Pharmacy technicians, by law, are employed under the direct supervision of a licensed pharmacist. Both chain and community retail pharmacies, as well as all hospitals, employ pharmacy technicians. The profession of pharmacy requires highly motivated and trained technicians to provide the drug preparation and distributive functions that support the medication management and pharmaceutical care duties of the pharmacist. Clark College's program consists of classroom and practicum education and training. Students learn the theory in class, practice in a mock pharmacy mini-lab, and then apply their knowledge in actual pharmacy practicum settings.

Graduates of the Clark College Pharmacy Technician program will be eligible for:

- Clark College Certificate of Proficiency
- Washington Board of Pharmacy Certificate
- Oregon Board of Pharmacy Registration
- National Pharmacy Technician Certification Exam

## About the Program

For Financial Aid purposes, the Certificate of Proficiency in Pharmacy Technician is open enrollment which enables all students who wish to pursue this program to complete the "Pharmacy Technician Program Requirements" (courses in the areas of English, Sciences, Medical Terminology, etc.). The "Pharmacy Technician Program Requirements" provide the foundation for the subsequent "Pharmacy Technician Core" classes (classes with "PHAR" prefix). Due to clinical space limitations, although the program of study for the pharmacy technician is open enrollment, there is an application process for students to be able to begin the "Pharmacy Technician Core" classes. The instructions in the Pharmacy Technician Program Guide explain the Pharmacy Technician requirements and the application process to be able to begin the Pharmacy Technician Core classes.

## Program Pathway

Clark College also offers an expanded Pharmacy Technician curriculum leading to an Associate in Applied Technology (AAT) degree in Pharmacy Technician Leadership. This degree program is intended for those students who would like to continue their education beyond the Pharmacy Technician Certificate of Proficiency. Courses offered for the AAT in Pharmacy Technician focus on developing skill sets in leadership, business relations, and professional development.

## Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student's request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at [www.clark.edu/dss](http://www.clark.edu/dss) (<http://www.clark.edu/dss/>). Once the student is qualified by DSS as having a disability, requested accommodations will be considered.

Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

- Pharmacy Technician (CP)(Plan Code: PTAPTC45) (p. 99)
- Pharmacy Technician Leadership (AAT)(Plan Code: PTAPTAPT) (p. 98)

## Pharmacy Technician Leadership (AAT)(Plan Code: PTAPTAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Foundational Courses</b>		
AH 110	Medical Terminology I <sup>1</sup>	3
AH 111	Medical Terminology II	3
AH 100	Basic Concepts of Anatomy and Physiology I	3
AH 101	Basic Concepts of Anatomy and Physiology II	3
AH 104	Health Care Delivery & Career Exploration	3
AH 120	Bloodborne Pathogens in Healthcare Settings	1
HLTH 124	Healthcare Provider CPR and First Aid	1
BUS 149	Computer Application Essentials	3
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
<i>Computational Skills</i>		
BUS 102	Business Math Applications (recommended)	5
<i>Human Relations</i>		
CMST& 210	Interpersonal Communication	5
	or CMST& 230 Small Group Communication	
<b>Major Area Requirements</b>		
PHAR 105	Introduction to Pharmacy	4
PHAR 110	Pharmacy Calculations	3
PHAR 112	Pharmacology I	5
PHAR 114	Pharmacy Practice and Technology	5
PHAR 118	Pharmacy Externship I	4
PHAR 119	Pharmacy Externship Seminar I	1
PHAR 122	Pharmacology II	5
PHAR 123	Pharmacy Law	2
PHAR 127	Pharmacy Compounding	5
PHAR 128	Pharmacy Externship II	4
PHAR 129	Pharmacy Externship Seminar II	1
PHAR 198	Pharmacy Advanced Simulation Lab	1
PHAR 189	Pharmacy Capstone	2
<b>Additional Requirements</b>		
BUS 110	Customer Service	3
BUS 148	Business Professional Self Development	3
MGMT 106	Motivation and Performance	3

MGMT 112	Conflict Management	2
MGMT 101	Principles of Management	3
MGMT 133	Production and Operations Management	3

**Additional Requirements**

Completion of ENGL 90 or equivalent with a grade of "C" or better (2.0) or placement into ENGL& 101 + ENGL 099. Completion of MATH 92, BUS 102, PTCS 110, MA 103 or equivalent with a grade of "C" (2.0) or higher or eligibility for MATH 096 (must be 7 years current upon program entry).

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**Total Credits/Units** **94**

<sup>1</sup> AH 100, AH 101, AH 110, and AH 111 must be seven years current upon program entry.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Successfully complete all criteria necessary for registration as a pharmacy tech in any state.
- Exhibit effective communication skills in interactions with patients and other healthcare professionals.
- Demonstrate knowledge of pharmacy processes and information technology to efficiently manage pharmacy staffing issues and activities.
- Demonstrate professional and clinical leadership skills in the work place while complying with laws, regulations, and ethical standards of practice.
- Demonstrate knowledge of pharmacy processes and information technology to accurately and safely prepare and dispense medications in a variety of pharmacy settings.
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Pharmacy Technician (CP)(Plan Code: PTAPTC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/Units
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**General Education Requirements***Communication Skills*

Eligibility for ENGL& 101 + ENGL 99

*Computational Skills*

PHAR 110	Pharmacy Calculations	3
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*Human Relations*

CMST& 210	Interpersonal Communication	5
	or CMST& 230 Small Group Communication	

**Program Requirements**

AH 110	Medical Terminology I <sup>1</sup>	3
AH 100	Basic Concepts of Anatomy and Physiology I	3
AH 101	Basic Concepts of Anatomy and Physiology II	3
AH 104	Health Care Delivery & Career Exploration	3
AH 111	Medical Terminology II	3
AH 120	Bloodborne Pathogens in Healthcare Settings	1
HLTH 124	Healthcare Provider CPR and First Aid	1
BUS 149	Computer Application Essentials	3

**Major Area Requirements**

PHAR 105	Introduction to Pharmacy	4
PHAR 112	Pharmacology I	5
PHAR 114	Pharmacy Practice and Technology	4
PHAR 118	Pharmacy Externship I	4
PHAR 119	Pharmacy Externship Seminar I	2
PHAR 122	Pharmacology II	5
PHAR 123	Pharmacy Law	2
PHAR 127	Pharmacy Compounding	4
PHAR 128	Pharmacy Externship II	4
PHAR 129	Pharmacy Externship Seminar II	2
PHAR 189	Pharmacy Capstone	2
PHAR 199		1

**Additional Requisite Requirements**

Completion of MATH 92, BUS 102, PTCS 110, MA 103 or equivalent with a grade of "C" or better (2.0) or higher, or placement into MATH 96 (Must be 7 years current upon program entry).

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**Total Credits/Units** **67**

<sup>1</sup> Must be seven years current upon program entry.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

- Exhibit effective communication skills in interactions with patients and other healthcare professionals.
- Demonstrate knowledge of pharmacy processes and information technology to accurately and safely prepare and dispense medications in a variety of pharmacy settings.
- Demonstrate professional clinical skills in the work place while complying with laws, regulations, and ethical standards of practice.
- Successfully complete all criteria necessary for registration as a pharmacy tech in any state.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# PHLEBOTOMY

Phlebotomy is the practice of drawing blood for analysis, donation or medical testing. A career as a Phlebotomy technician is a rewarding path for someone who desires to work directly with patients. In just two quarters, Clark's Phlebotomy Program prepares students for an entry-level position in a rapidly growing field. With hands-on training from highly experienced faculty, students gain competence in drawing blood using a variety of collection methods with adults, children, and infants. Coursework includes the handling and transportation of blood and non-blood specimens, safety and infection control, specimen processing, and performing CLIA-waived laboratory testing.

Clark's Phlebotomy curriculum places emphasis on quality and follows the most up-to-date Clinical and Laboratory Standards Institute (CLSI) guidelines for phlebotomy. The second quarter of the program includes a clinical practicum in a health care facility providing 'real world' training and direct experience as a medical laboratory team member.

Graduates of the Clark College Phlebotomy program will be eligible for:

- Clark College Certificate of Achievement
- Washington State Phlebotomy Licensure
- National Phlebotomy Certification Exam

## About the Program

The Certificate of Achievement in Phlebotomy is open enrollment which enables all students who wish to pursue this program to complete the "Phlebotomy Program Requirements" (courses in the areas of English, Sciences, Medical Terminology, etc.). The "Phlebotomy Program Requirements" provide the foundation for the subsequent "Phlebotomy Core" classes (classes with "PHLE" prefix). Due to clinical space limitations, although the program of study for the Phlebotomy is open enrollment, there is an application process for students to be able to begin the "Phlebotomy Core" classes. The instructions in the Phlebotomy Program Guide explain the Phlebotomy requirements and the application process to be able to begin the Phlebotomy Core classes.

The Phlebotomy Program Guide is posted on the Phlebotomy website at: [www.clark.edu/phlebotomy](http://www.clark.edu/phlebotomy) (<http://www.clark.edu/phlebotomy/>)

## Disability Statement for Health Occupations

In accordance with the Americans with Disabilities Act and the Rehabilitation Act of 1973, accommodations for students with disabilities will be considered at the student's request. The student may need to provide documentation of disability to the Disability Support Services Office to support his/her accommodation requests. Documentation guidelines and procedures can be found at [www.clark.edu/dss](http://www.clark.edu/dss) (<http://www.clark.edu/dss/>). Once the student is qualified by DSS as having a disability, requested accommodations will be considered. Accommodations for the classroom, laboratory, or clinical setting will be evaluated according to reasonableness. Accommodations that compromise patient care, or that fundamentally alter the essential functions of the program or activity, are not considered to be reasonable.

- Phlebotomy (CA)(Plan Code: PHLPHC20) (p. 101)

## Phlebotomy (CA)(Plan Code: PHLPHC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Phlebotomy Foundation</b>		
AH 110	Medical Terminology I <sup>1</sup>	3
AH 104	Health Care Delivery & Career Exploration	3
HLTH 124	Healthcare Provider CPR and First Aid	1
AH 120	Bloodborne Pathogens in Healthcare Settings	1
AH 100	Basic Concepts of Anatomy and Physiology I <sup>1</sup>	3
<b>Phlebotomy Core</b>		
<i>Select from one of the following:</i>		
CMST& 210	Interpersonal Communication	5
MA 124	Therapeutic Comm Skills for Health Prof	2
<i>Complete all of the following:</i>		
PHLE 115	Phlebotomy Education W/Lab	3
PHLE 116	Basic Laboratory for The Phlebotomist	3
PHLE 197	Phlebotomy Clinical Experience	5
PHLE 198	Phlebotomy Clinical Seminar	1
<b>Total Credits/Units</b>		<b>25-28</b>

<sup>1</sup> AH 100 and AH 101 must be seven (7) years current upon program entry.

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Accurately perform phlebotomy procedures in variable clinical environments.
- Identify the varying clinical conditions that require a different methodology of sample collection.
- Communicate effectively, accurately, and professionally, using verbal, non-verbal, and written language with diverse populations of patients and other healthcare providers.
- Conduct self in an ethical and professional manner to provide quality patient care.
- Apply safety and infection control standards in the health care environment.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

# SURVEYING & GEOMATICS

## Degree Requirements

The Surveying and Geomatics program is designed to meet entry-level field and office skills in a variety of land surveying and geomatics occupations. Training will utilize precision electronic surveying instruments, including Global Positioning System equipment and sophisticated computerized drafting, mapping, design, and analysis software.

An Associate in Applied Science degree will be awarded upon successful completion of the course requirements. All core and general education list requirements must be met, with any additional credits to be selected as electives. Students are encouraged to complete basic skills at the beginning of their education. Refer to the Degree & Certificate Requirements Section of the Clark College Catalog to identify the courses needed to satisfy the General Education Requirements.

Full-time students seeking an Associate in Applied Science degree typically complete this program in a minimum of six quarters, if basic skills and prerequisites are complete. Students interested in pursuing a baccalaureate degree in a Surveying or GIS field, a formal articulation agreement between Clark College and the Oregon Institute of Technology in Klamath Falls, Oregon is in place. Please consult with an advisor for additional requirements regarding this specific educational path.

## Student Preparation

It is recommended that students prepare for entrance into the program by emphasizing mathematics and science in high school. Two years of algebra and one year each of geometry, trigonometry, and physics are desirable prerequisites.

## Career Opportunities

Completion of this program prepares students for work as Surveying Technicians and can lead to a career as a Professional Land Surveyor. The employment forecast for graduates in this field are exceptional. As increasing number of licensed surveyors across the nation retire, a personnel shortage has been created within this profession.

- Surveying Geomatics Technician - Boundary (CP)(Plan Code: SUTBOC45) (p. 102)
- Surveying Geomatics Technician - GIS (CP)(Plan Code: SUTSGC45) (p. 103)
- Surveying/Geomatics (AAS)(Plan Code: SUTSGAPT) (p. 103)

## Surveying Geomatics Technician - Boundary (CP)(Plan Code: SUTBOC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
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### General Education Requirements

*Communication Skills*

PTWR 135	Introduction to Applied Technical Writing (recommended)	5
<i>Computational Skills</i>		
MATH 103	College Trigonometry	5
<i>Human Relations</i>		
CMST& 210	Interpersonal Communication (recommended)	5
<b>Major Area Requirements</b>		
CADD 140		4
or ENGR 140	Basic Autocad	
SURV 104	Survey Computation	5
SURV 121	Field Survey I	5
or ENGR 121	Field Survey I	
SURV 122	Field Survey II	5
SURV 123	Professional Ethics	1
SURV 163	Route Surveying	5
SURV 202	Boundary Surveys	4
SURV 203	Legal Descriptions	3
SURV 223	Boundary Law I	3
SURV 264	Survey Software Applications	4
<b>Total Credits/Units</b>		<b>54</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Apply problem solving skills as a member of a professional team in a field crew.
- Communicate in written form, verbally, and graphically with surveyors and engineers.
- Demonstrate use of modern technology, industry standard software, and tools to collect, analyze and interpret data for surveying solutions.
- Practice a code of ethics prescribed by the professional organizations and state codes.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Surveying Geomatics Technician - GIS (CP)(Plan Code: SUTSGC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
PTWR 135	Introduction to Applied Technical Writing (recommended)	5
<i>Computational Skills</i>		
MATH 103	College Trigonometry	5
<i>Human Relations</i>		
CMST& 210	Interpersonal Communication (recommended)	5
<b>Major Area Requirements</b>		
CADD 140		4
or ENGR 140	Basic Autocad	
SURV 104	Survey Computation	5
SURV 121	Field Survey I	5
or ENGR 121	Field Survey I	
SURV 122	Field Survey II	5
SURV 123	Professional Ethics	1
SURV 125	Introduction to GIS	3
SURV 163	Route Surveying	5
SURV 250	Arc GIS I	3
SURV 252		2
SURV 253	Introduction to GPS	2
<b>Total Credits/Units</b>		<b>50</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Communicate in written form, verbally, and graphically with surveyors and engineers.
- Demonstrate use of modern technology, industry standard software, and tools to collect, analyze and interpret data for surveying solutions.
- Practice a code of ethics prescribed by the professional organizations and state codes.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry

method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan. To view the current suggested map for your program please visit our website <https://programmap.clark.edu/academics> (<https://programmap.clark.edu/academics/>)

## Surveying/Geomatics (AAS)(Plan Code: SUTSGAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills (minimum 6 units required)</i>		
PTWR 135	Introduction to Applied Technical Writing (recommended)	5
<i>Course Options (p. 290)</i>		
<i>Health &amp; Physical Education (minimum 3 units required)</i>		
HPE 220	Occupational Wellness (recommended)	3
<i>Computational Skills (minimum 3 units required)</i>		
MATH 103	College Trigonometry	5
<i>Human Relations (minimum 3 units required)</i>		
CMST& 210	Interpersonal Communication (recommended)	5
<i>Humanities (minimum 3 units required)</i>		
<i>Course Options (p. 296)</i>		
<i>Social Sciences (minimum 3 units required)</i>		
<i>Course Options (p. 297)</i>		
<i>Natural Sciences (minimum 3 units required)</i>		
PHSC 101	General Physical Science (recommended)	
<b>Major Area Requirements</b>		
BUS 169	Introduction to Excel	3
ENGR& 104	Introduction to Design	5
ENGR 113	Engineering Sketching and Visualization	2
ENGR 140	Basic Autocad	4
MATH 110	College Algebra With Support (or higher)	5
MATH& 151	Calculus I (or higher)	5
or SURV 199	Cooperative Work Experience	
SURV 104	Survey Computation	5
SURV 121	Field Survey I	5
or ENGR 121	Field Survey I	
SURV 122	Field Survey II	5
SURV 123	Professional Ethics	1
SURV 125	Introduction to GIS	3
SURV 163	Route Surveying	5
SURV 202	Boundary Surveys	4
SURV 203	Legal Descriptions	3
SURV 223	Boundary Law I	3
SURV 225	Subdivision Planning and Platting	3
SURV 250	Arc GIS I	3
SURV 253	Introduction to GPS	2

SURV 255	Emerging Technology	3
SURV 264	Survey Software Applications	4
<b>Total Credits/Units</b>		<b>97-101</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Evaluate, analyze, and explain events, behaviors, and institutions using perspectives and methods in the Social Sciences. (GE)
- Apply a method of scientific inquiry, valid to the natural sciences, to evaluate claims about the natural world. (GE)
- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate progress toward healthier behaviors. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Interpret the human experience, within appropriate global and historical contexts, through evaluation, analysis, creation, or performance. (GE)
- Demonstrate use of modern technology, industry standard software, and tools to collect, analyze and interpret data for surveying solutions.
- Apply problem solving skills as a member of a professional team in a field crew.
- Communicate in written form, verbally, and graphically with surveyors and engineers.
- Solve applied mathematical problems related to land surveying.
- Prepare complete field records.
- Practice a code of ethics prescribed by the professional organizations and state codes.

Program maps are a suggested academic plan and should not be used in the place of regular academic advising appointments. Your student entry method, placement, course availability, and program requirements are subject to change and transfer credit(s) may change your map/plan.

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# TEACHER EDUCATION (BAS)

The Bachelor of Applied Science in Teaching Preschool – 3rd Grade (BASTE) is a two-year, career-oriented degree that combines technical, academic, and teaching method courses. Students also have the opportunity to endorse in Bilingual Teaching. This 90-credit program is designed for students who have completed an associate's degree, or applied science degree in ECE or higher. This program is limited entry and an additional program application is required. Please see advising for requirements.

- Teacher Education (BAS)(Plan Code: EETTEBAS) (p. 105)

## Teacher Education (BAS)(Plan Code: EETTEBAS)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>BAS General Education Requirements</b>		
<i>Communication Skills (WC)</i>		
ENGL& 101	English Composition I	5
ENGL& 102	English Composition II	5
<i>Quantitative Skills (Q)</i>		
MATH 122	Math for Elementary Teachers (recommended)	5
or		
Select one option: (p. )		5
<i>Humanities (HA/HB)</i>		
ART 330	Creative Arts in Teaching	5
Humanities Course Options (p. 290)		
<i>Social Sciences (SS)</i>		
SOC 360	Social Studies for Teachers	5
Social Sciences Course Options (p. 291)		5
<i>Natural Science (NS)</i>		
ENVS 300	Inquiry-Based Science for Teachers	5
Course Options (p. 292)		5
<i>Additional General Education Courses</i>		
<i>DTA Natural Science, Social Science and/or Humanities distribution list courses</i>		15
<i>ECE, EDUC, and ECED courses and/or General Education Courses</i>		27
<b>Major Area Requirements</b>		
ECED& 160	Curriculum Development	5
EDUC& 115	Child Development	5
EDUC& 130	Guiding Behavior	3
EDUC& 204	Inclusive Education	5
EDUC& 240	Diversity in Education	5
BASTE 301	Leadership and Supervision	3
BASTE 302	Integrated Health and Physical Education	2
BASTE 303	Language and Literacy Acquisition	5
BASTE 304	Effective and Meaningful Curriculum Design	5
BASTE 305	Observation and Assessment	5

BASTE 306	Law and Ethics	5
BASTE 307	Vision to Practice Anti-Bias Education	5
BASTE 401	Social Emotional Guidance and Trauma Informed Practices	5
BASTE 402	Meaningful Math Methods	5
BASTE 403	Bilingual Teaching	5
BASTE 404	Individualized Teaching	5
BASTE 405	Residency Teaching 1	8
BASTE 406	Seminar 1	4
BASTE 407	Residency Teaching 2	9
BASTE 408	Seminar 2	3
BASTE 409	Issues of Child Abuse in Education	1

**Total Credits/Units** **180**

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- **POWER, PRIVILEGE INEQUITY AND CULTURALLY RESPONSIVE PRACTICES:** The candidate demonstrates awareness and evaluates own cultural identity, biases and beliefs while maintaining an understanding of differences in perspectives and approaches; and creates and maintains learning environments that are culturally safe and responsive for a variety of students and their families where all feel safe and has a place
- **PEDAGOGICAL SKILLS:** The candidate will apply learning theories while incorporating a variety of evidence-based instructional strategies in teaching practices across disciplines that are culturally, linguistically, individually, and developmentally appropriate for students with a variety of learning needs, and includes navigation of technology and utilization of learning management systems;
- **AREAS OF CONTENT KNOWLEDGE:** The candidate will develop and implement central concepts of Language Arts, Science, Mathematics, Health and Fitness, Technology and Social Studies, Social and Emotional Development, all of which include 21st century skills such as critical thinking and identify resources the individual student needs for support, development and success;
- **CHILD DEVELOPMENT AND INDIVIDUALIZATION:** The candidate applies theory of child development, including awareness of cultural responsiveness and diverse learning needs in planning and implementing learning plans that support students for individual growth across all developmental domains including students who are second language learners;
- **SUPPORTIVE COMMUNITIES:** The candidate develops a teaching philosophy that includes the importance of relationships with students, families, colleagues and community resource agencies; creates and maintains those relationships to support the growth and development of individual students;
- **ASSESSMENT:** The candidate will analyze and implement a variety of culturally and developmentally appropriate assessments while evaluating progress in collaboration with colleagues and families in order to guide and development of each student and demonstrate ability to self-assess one's own teaching strategies;
- **GUIDANCE AND SUPPORT:** The candidate observes and analyzes the behavior of students, to develop and implement strategies that are

culturally, developmentally and effective in maximizing the success of each student and of the classroom while utilizing resources available within and outside of the classroom;

- PROFESSIONALISM: The candidate, in pursuit of developing their teaching identity, is familiar with and engages with on-going professional development in alignment with district, state and national standards and trends, both collaboratively and individually;
- ORGANIZATION AND COMPLIANCE: The candidate appraises, implements strategies and monitors the Individual Family Service Plan (IFSP), Individual Education Plan (IEP), and 504 plans in collaboration with teams that include families, professionals and teachers to provide support necessary for an individual student's success and has awareness of WAC's and other codes of which apply to teaching standards;
- PLANNING: The candidate will prepare lesson plans based in theory and will routinely analyze, evaluate and synthesize the results of their own teaching practices and make appropriate changes that respond more effectively to student growth and development, recognizing cultural, ability and language diversity, while including appropriate stakeholders in the process.\

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# WEB DEVELOPMENT

Gain foundational skills in web coding, multimedia, and web design practices that provide a well-rounded set of skills necessary for web developers to thrive in today's market.

- Web Development (CP)(Plan Code: WMMWDC45) (p. 107)
- Web Development (AAT)(Plan Code: WMMWDAPT) (p. 107)

## Web Development (CP)(Plan Code: WMMWDC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (or completed MATH course with C or better where prereq requirements are MATH 096 or higher.)	5
<i>Human Relations</i>		
CTEC 165	Business Web Practices	4
<b>Major Area Requirements</b>		
COLL 101	College Essentials: Introduction to Clark	2
CTEC 121	Intro to Programming & Problem Solving	5
CTEC 117	User Experience Design	4
CTEC 122	HTML Fundamentals	4
CTEC 126	JavaScript	5
CTEC 160	WordPress I	5
CTEC 166	Web Content and Social Media	5
CTEC 270	Web and Interface Design I	4
CTEC 271	Web and Interface Design II	4
DMA 101	Photoshop Raster Graphics	4
<b>Total Credits/Units</b>		<b>56</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)

- Apply fine art theory and design purposeful projects relevant to audience needs.
- Use written, verbal and visual means to effectively present and communicate web design projects.
- Demonstrate work and business ethics in web design practice.
- Synthesize multiple media assets with appropriate interactions and functions.
- Generate original ideas and utilize processes toward solving visual communication problems.
- Implement tools and technology to realize visual ideas.
- Interact, collaborate and implement projects with peers, clients or others in various work environments.
- Effectively organize and manage web design projects.

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## Web Development (AAT)(Plan Code: WMMWDAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
ENGL& 101	English Composition I	5
or PTWR 135	Introduction to Applied Technical Writing	
<i>Computational Skills</i>		
PTCS 110	Professional Technical Computational Skills (or completed MATH course with 'C' or better where prerequisite requirements are MATH 096 or higher)	5
<i>Human Relations</i>		
CTEC 165	Business Web Practices	4
COLL 101	College Essentials: Introduction to Clark	2
<b>Major Area Requirements</b>		
CTEC 121	Intro to Programming & Problem Solving	5
CTEC 117	User Experience Design	4
CTEC 122	HTML Fundamentals	4
CTEC 126	JavaScript	5
CTEC 127	PHP With SQL I	5
CTEC 134	Microsoft Database Admin	5
CTEC 145	Web Server Technology	5
CTEC 160	WordPress I	5
CTEC 166	Web Content and Social Media	5
CTEC 227	PHP With SQL II	5
CTEC 275	Emerging Technologies	5
or CTEC 135	Microsoft Software Development With C#	

CTEC 270	Web and Interface Design I	4
CTEC 271	Web and Interface Design II	4
CTEC 293	Web Skills Portfolio	5
DMA 101	Photoshop Raster Graphics	4
DMA 201	Video and Sound Production I	4
<b>Total Credits/Units</b>		<b>90</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- **Web Foundations:** Write, organize and publish well written content and code to engage web communities for personal and professional research, marketing, and interaction.
- **Web Media:** Create original visual graphics, audio, and integrated media design for the web.
- **Web Design:** Develop interactive websites from concept to design to execution with that provide an effective user experience and meet client needs.
- **Web Development:** Plan and execute industry standard code, web scripting, and server strategies to capture, integrate and manage data.
- **Professional Practices:** Demonstrate professional skills and business ethics to communicate and collaborate in various work environments.
- **Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)**
- **Demonstrate interpersonal/human relations skills. (GE)**
- **Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)**

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# WELDING TECHNOLOGY

The Welding Technology program prepares students for entry-level welder employment in production, job shop, or maintenance positions. Students master basic and advanced welding skills while operating heavy industrial fabrication equipment and state-of-the-art welding equipment. The curriculum places equal focus on the development of fabrication skills and techniques. Student will be expected to not only demonstrate their proficiency with various weld processes but their ability to fabricate projects within specified tolerances using those processes.

The multiple certificates and degree options available within this program allow students the option to stop-out and enter the workforce, and re-enter the program as needed, or complete their program of study without stopping. Students enrolled in a welding program will have the opportunity to earn multiple American Welding Society certifications.

- Flux Core Arc Welding (CA)(Plan Code: WETFCC20) (p. 109)
- Gas Metal Arc Welding (CA)(Plan Code: WETGMC20) (p. 109)
- Gas Tungsten Arc Welding (CA)(Plan Code: WETGTC20) (p. 110)
- Shielded Metal Arc Welding (CA)(Plan Code: WETSMC20) (p. 110)
- Welding Technician (CP) (Plan Code: WETWTC45) (p. 110)
- Welding Technologies (AAT)(Plan Code: WETWCAPT) (p. 111)

## Flux Core Arc Welding (CA)(Plan Code: WETFCC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 142	Flux Core Arc Welding	6
WELD 143	Flux Core Arc Fabrication	6
<b>Total Credits/Units</b>		<b>24</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terminology and safe practices related to Flux Core Arc Welding (FCAW) and cutting processes.
- Explain the use of FCAW electrodes.
- Demonstrate the functions of FCAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of FCAW weldments.

- Demonstrate Oxy Fuel Cutting and Plasma Arc Cutting principles of operation.
- Interpret blueprints and specifications.

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## Gas Metal Arc Welding (CA)(Plan Code: WETGMC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 140	Gas Metal Arc Welding	6
WELD 141	Gas Metal Arc Fabrication	6
<b>Total Credits/Units</b>		<b>24</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terms and safe practices related to Gas Metal Arc Welding (GMAW) and cutting processes.
- Explain the use of GMAW electrodes.
- Describe the functions of GMAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of GMAW weldments.
- Demonstrate Oxy/fuel Cutting and Plasma Arc Cutting principles of operation.
- Interpret blueprints and specifications.

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## Gas Tungsten Arc Welding (CA)(Plan Code: WETGTC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 240	Gas Tungsten Arc Welding	6
WELD 241	Gas Tungsten Arc Fabrication	6
<b>Total Credits/Units</b>		<b>24</b>

### Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terms and safe practices related to Gas Tungsten Arc Welding (GTAW) and cutting processes.
- Explain the use of GTAW electrodes.
- Describe the functions of GTAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of GTAW weldments.
- Demonstrate Plasma Arc Welding and Plasma Arc Cutting principles of operation.
- Interpret blueprints and specifications.

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## Shielded Metal Arc Welding (CA)(Plan Code: WETSMC20)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>Major Area Requirements</b>		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6

WELD 110	Welding Blueprint Reading	5
WELD 144	Shielded Metal Arc Welding	6
WELD 145	Shielded Metal Arc Fabrication	6
<b>Total Credits/Units</b>		<b>24</b>

### Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Demonstrate Welding Technology principles of operation, terms and safe practices related to Shielded Metal Arc Welding (SMAW) and cutting processes.
- Explain the use of SMAW electrodes.
- Describe the functions of SMAW power sources, electrical parameters, output characteristics and auxiliary controls.
- Describe the criteria for visual inspection of SMAW weldments.
- Demonstrate Plasma Arc Welding and Plasma Arc Cutting principles of operation.
- Interpret blueprints and specifications.

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## Welding Technician (CP) (Plan Code: WETWTC45)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
Course Options (p. 295)		3
Subtotal		3
<i>Computational Skills</i>		
Course Options (p. 296)		3
Subtotal		3
<i>Human Relations</i>		
Course Options (p. 296)		3
Subtotal		3
<b>Major Area Requirements</b>		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 140	Gas Metal Arc Welding	6
WELD 141	Gas Metal Arc Fabrication	6

WELD 142	Flux Core Arc Welding	6
WELD 143	Flux Core Arc Fabrication	6
WELD 144	Shielded Metal Arc Welding	6
WELD 145	Shielded Metal Arc Fabrication	6
WELD 156	Welding Certification Prep	2
WELD 240	Gas Tungsten Arc Welding	6
WELD 241	Gas Tungsten Arc Fabrication	6

**Total Credits/Units** 71

#### Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Demonstrate proficiency with basic shop drawings through assessments and sketching exercises. Identify and explain multi-view drawings, drawing line conventions, title blocks, bill of materials, dimensions and tolerances. Demonstrate the use and interpretation of welding symbols under AWS A2.4 standards, as they pertain to weld joint geometry.
- Demonstrate the ability to safely use all metal working shop equipment and perform safety inspections of said equipment.
- Demonstrate the ability to successfully weld and understand the processes and equipment used in manual and semi-automatic welding.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW & GMAW welding and cutting processes. Understand and explain the use of specialty wire feed equipment. Apply FCAW/GMAW in out of position welding. Describe the criteria for visual inspection of FCAW/GMAW weldments. Apply OFC and PAC principles of operation to weld assignments
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW welding and cutting processes. Understand and explain the use of FCAW electrodes. Describe the functions of FCAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of FCAW weldments. Describe OFC, PAC and CAG-A principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and explain the use of common hand tools. Apply GMAW in the assembly of layout projects. Describe the criteria for visual inspection of GMAW weldments. Apply OFC and PAC principles of operation to layout projects.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and explain the use of GMAW electrodes. Describe the functions of GMAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe

the criteria for visual inspection of GMAW weldments. Describe OFC and PAC principles of operation.

- Identify and describe Welding Technology principles of operation, terms and safe practices related to GTAW welding and cutting processes. Understand and explain the use of GTAW electrodes. Describe the functions of GTAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GTAW weldments. Describe PAW and PAC principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to OFC, CAC-A and SMAW welding and cutting processes. Understand and explain the use of SMAW electrodes. Describe the functions of SMAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of SMAW weldments. Describe OFC and CAC-A principles of operation.
- Identify and use Welding Technology principles of operation, terms and safe practices related to GMAW, FCAW, SAW welding, and OFC & PAC cutting processes. Understand and explain the use of wire electrodes in fabrication. Describe the functions of wire feed power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of wire feed weldments. Identify, select and proper use of layout tools.
- Identify and use Welding Technology principles of operation, terms and safe practices related to OFC, PAW and GTAW welding and cutting processes. Understand and explain the use of GTAW electrodes. Describe the functions of GTAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GTAW weldments. Identify, select and proper use of layout tools.
- Obtain or work towards AWS certifications in multiple process. Enhance skills in FCAW, SMAW, GTAW, GMAW, SAW, PAC and Oxy/fuel cutting processes.
- Recognize and respond to emergencies effectively. Assess a victim(s) condition and determine proper care. Administer rescue breathing and CPR to adults. Identify injury prevention strategies. Assess a victim(s) condition and preform appropriate first aid. Determine the appropriate and proper response to situational questions and select the best answer.
- Recognize the many types of metals and their use. Write and speak clearly about the characteristics of metals. Define and use metallurgical terminology on tests, for written and/or oral reports and during individual and group presentations. Analyze lab results and understand their close relationship to everyday living. Apply metallurgical knowledge to welding and machining metals as-well-as other trade uses. Assess the value of metals in everyday use.

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## Welding Technologies (AAT)(Plan Code: WETWCAPT)

Academic Plans, known as programs, include an overview description and a summary of program requirements. You can search the online

catalog via the Academic Plan links on the right for a desired program or a specific course information.

Code	Title	Credits/ Units
<b>General Education Requirements</b>		
<i>Communication Skills</i>		
Course Options (p. 295)		5
<i>Computational Skills</i>		
Course Options (p. 296)		5
<i>Human Relations</i>		
COLL 101	College Essentials: Introduction to Clark	2
Course Options (p. 296)		3
<b>Major Area Requirements</b>		
HLTH 120	Adult CPR and First Aid	1
WELD 102	Introduction to Welding	6
WELD 110	Welding Blueprint Reading	5
WELD 140	Gas Metal Arc Welding	6
WELD 141	Gas Metal Arc Fabrication	6
WELD 142	Flux Core Arc Welding	6
WELD 143	Flux Core Arc Fabrication	6
WELD 144	Shielded Metal Arc Welding	6
WELD 145	Shielded Metal Arc Fabrication	6
WELD 156	Welding Certification Prep	2
or WELD 157	Weld Fabrication Projects	
WELD 200	Applied Material Science	5
WELD 240	Gas Tungsten Arc Welding	6
WELD 241	Gas Tungsten Arc Fabrication	6
WELD 242	Advanced Wire Feed Welding	6
WELD 243	Advanced Wire Feed Fabrication	6
WELD 244	Advanced Gas Tungsten Arc Welding	6
WELD 245	Advanced Gas Tungsten Arc Fabrication	6
WELD 256	Weld Certification Test	1
<b>Total Credits/Units</b>		<b>107</b>

## Program Outcomes

Program outcomes are overarching skills that are emphasized and reinforced throughout several courses in a specific program; they are measurable statements that define what students should know or be able to do by the end of a certificate or degree at Clark College. After successful completion of this program, students will be able to:

- Articulate well-considered ideas and written claims to an academic audience, using effective rhetorical techniques, properly credited evidence, and a command of Standard English. (GE)
- Demonstrate and clearly explain an effective strategy to solve a quantitative problem. (GE)
- Demonstrate interpersonal/human relations skills. (GE)
- Recognize and respond to emergencies effectively. Assess a victim(s) condition and determine proper care. Administer rescue breathing and CPR to adults. Identify injury prevention strategies. Assess a victim(s) condition and perform appropriate first aid. Determine the appropriate and proper response to situational questions and select the best answer.
- Demonstrate the ability to safely use all metal working shop equipment and perform safety inspections of said equipment.
- Demonstrate the ability to successfully weld and understand the processes and equipment used in manual and semi-automatic welding.
- Demonstrate proficiency with basic shop drawings through assessments and sketching exercises. Identify and explain multi-view drawings, drawing line conventions, title blocks, bill of materials, dimensions and tolerances. Demonstrate the use and interpretation of welding symbols under AWS A2.4 standards, as they pertain to weld joint geometry.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and explain the use of GMAW electrodes. Describe the functions of GMAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GMAW weldments. Describe OFC and PAC principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to GMAW welding and cutting processes. Understand and explain the use of common hand tools. Apply GMAW in the assembly of layout projects. Describe the criteria for visual inspection of GMAW weldments. Apply OFC and PAC principles of operation to layout projects.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW welding and cutting processes. Understand and explain the use of FCAW electrodes. Describe the functions of FCAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of FCAW weldments. Describe OFC, PAC and CAG-A principles of operation.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to OFC, CAC-A and SMAW welding and cutting processes. Understand and explain the use of SMAW electrodes. Describe the functions of SMAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of SMAW weldments. Describe OFC and CAC-A principles of operation.
- Obtain or work towards AWS certifications in multiple process. Enhance skills in FCAW, SMAW, GTAW, GMAW, SAW, PAC and Oxy/fuel cutting processes.
- Identify and use Welding Technology principles of operation, terms and safe practices related to OFC, PAW and GTAW welding and cutting processes. Understand and explain the use of GTAW electrodes. Describe the functions of GTAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GTAW weldments. Identify, select and proper use of layout tools.
- Identify and describe Welding Technology principles of operation, terms and safe practices related to FCAW & GMAW welding and cutting processes. Understand and explain the use of specialty wire feed equipment. Apply FCAW/GMAW in out of position welding. Describe the criteria for visual inspection of FCAW/GMAW weldments. Apply OFC and PAC principles of operation to weld assignments.
- Identify and use Welding Technology principles of operation, terms and safe practices related to GMAW, FCAW, SAW welding, and OFC & PAC cutting processes. Understand and explain the use of wire electrodes in fabrication. Describe the functions of wire feed power sources, electrical parameters, output characteristics and auxiliary



controls. Describe the criteria for visual inspection of wire feed weldments. Identify, select and proper use of layout tools.

- Identify and describe Welding Technology principles of operation, terms and safe practices related to GTAW welding and cutting processes. Understand and explain the use of GTAW electrodes. Describe the functions of GTAW power sources, electrical parameters, output characteristics and auxiliary controls. Describe the criteria for visual inspection of GTAW weldments. Describe PAW and PAC principles of operation.
- Recognize the many types of metals and their use. Write and speak clearly about the characteristics of metals. Define and use metallurgical terminology on tests, for written and/or oral reports and during individual and group presentations. Analyze lab results and understand their close relationship to everyday living. Apply metallurgical knowledge to welding and machining metals as-well-as other trade uses. Assess the value of metals in everyday use.

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# COURSE DESCRIPTIONS

REQUISITES ARE NOT ACCURATE, PLEASE SEE SCHEDULE UNTIL FURTHER NOTICE.

## A

- Accounting (ACCT/ACCT&) (p. 115)
- Addiction Counselor Education (ACED) (p. 116)
- Allied Health (AH) (p. 118)
- American Sign Language (ASL/ASL&) (p. 119)
- Anthropology (ANTH/ANTH&) (p. 120)
- Art (ART/ART&) (p. 121)
- Astronomy (ASTR) (p. 125)
- Automotive Technology (AUTO) (p. 126)

## B

- BAS Applied Management (BASAM) (p. 130)
- BAS Human Services (BASHS) (p. 132)
- BAS Teacher Education (BASTE) (p. 133)
- Biology (BIOL/BIOL&) (p. 135)
- Business Administration (BUS/BUS&) (p. 138)

## C

- Chemistry (CHEM/CHEM&) (p. 140)
- College and Academic Preparation (CAP/CCAP) (p. 143)
- College Preparation (COLL) (p. 147)
- Communication Studies (CMST/CMST&) (p. 148)
- Computer Science & Engineering (CSE) (p. 149)
- Computer Technology (CTEC) (p. 150)
- Cuisine (CUIS) (p. 154)

## D

- Dental Hygiene (DH) (p. 156)
- Diesel Technology (DIES) (p. 160)
- Digital Media Arts (DMA) (p. 161)
- Drama (DRMA/DRMA&) (p. 162)

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# ACCOUNTING (ACCT/ACCT&)

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**Basic Accounting Procedures**  
ACCT 129 5 Credits/Units

5 hours of lecture

Analyze financial transactions using the accounting equation and concepts by journalizing, posting transactions to the general ledger, preparing adjustments and closing entries, preparing financial statements that complete the accounting cycle, use an accounting system that has subsidiary ledgers and special journals and post transactions of a merchandising operation using perpetual and periodic inventory systems. [GE]

**Accounting Applications**  
ACCT 136 3 Credits/Units  
3 hours of lecture

**Prerequisite:** ACCT 129 or (BUS 28 and BUS 29) (grades of "C" or higher). Compute the Cost of Inventories and Cost of Goods Sold using the periodic and perpetual inventory systems. Perform a bank reconciliation and a reconciliation of petty cash fund. Analyze the accounts and notes receivables and journalize for probable uncollectibles. Calculate due dates and interest due on notes receivable. Analyze long-term assets and calculate depreciation, depletion and amortization. Calculate payroll, payroll taxes and analyze current liabilities to determine adjustments. [GE]

**Principles of Accounting I**  
ACCT& 201 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) and MATH 92 (grade of "C" or higher) or placement into Math level 30. Accounting theory and practice including the entire accounting cycle, accounting for merchandising operations, receivables, and current liabilities. [GE, SE]

**Principles of Accounting II**  
ACCT& 202 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ACCT& 201 (grade of "C" or higher) Continuation of ACCT& 201 with emphasis on payroll, partnership and corporation accounting, statement of cash flow, analysis and interpretation of financial statements, plant assets, depreciation, time value of money, long-term liabilities, and investments. [GE, SE]

**Principles of Accounting III**  
ACCT& 203 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ACCT& 201 (grade of "C" or higher) Continuation of ACCT& 201 with emphasis on responsibility and departmental accounting, manufacturing operations, cost accounting, budgeting and standard costs, cost-volume-profit analysis, incremental analysis and capital budgeting. [GE, SE]

# ADDICTION COUNSELOR EDUCATION (ACED)

**Survey of Addictionology**  
ACED 101      3 Credits/Units

3 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Biological, psychological, and sociological theories of the use of major drugs of abuse, as well as addictive behaviors. Explores the distinction between use, abuse and addiction. For majors and non-majors. [GE, HR, SE, SS]

**Group Counseling in Addictions**  
ACED 125      3 Credits/Units

3 hours of lecture

Use of group process for modifying individual attitudes and actions.

Application of group counseling theories to an addiction client population. [GE]

**Introduction to Counseling Family Members**  
ACED 132      3 Credits/Units

3 hours of lecture

Knowledge and skills for working with significant persons in the addicted client's environment. Emphasis on counseling immediate family members. [GE]

**Law and Ethics in Addictions Counseling**  
ACED 136      3 Credits/Units

3 hours of lecture

Examination of state and federal laws governing the addictions field, including the Washington Administrative Code for CDP's. Legal and ethical duties in the client-counselor relationship. [GE]

**Addictions and Mental Illness**  
ACED 137      3 Credits/Units

3 hours of lecture

Differential and dual diagnosis. Use of current edition of Diagnostic and Statistical Manual. Referral and networking with mental health professionals; relapse prevention techniques; screening that includes comorbidity. [GE]

**Prevention and Education In The Community**  
ACED 138      3 Credits/Units

3 hours of lecture

Application of the Public Health and Social Development models to prevention activities. Knowledge of community resources in developing community education and prevention programs. [GE]

**Pharmacology of Drugs of Abuse**  
ACED 160      3 Credits/Units

3 hours of lecture

Pharmacological effects of alcohol and drugs on the human body and mind. [GE]

**Adolescent Addiction Assessment & Treatment**  
ACED 164      3 Credits/Units

3 hours of lecture

An examination of adolescent development and the detrimental impact of addiction on youth development. The assessment process and treatment modalities for adolescents are presented. [GE]

**Air- and Blood-Borne Pathogens**  
ACED 170      3 Credits/Units

3 hours of lecture

Skills to reduce impact of air- and blood-borne pathogens on addition clients. HIV/AIDS, pathogen, and suicidality brief risk intervention for the addiction client population. Community resources available to clients. [GE]

**Theories of Counseling**  
ACED 201      3 Credits/Units

3 hours of lecture

Introduces the major counseling theories and techniques focusing on individual counseling within a Human Services framework. Students are encouraged to develop a counseling orientation based on these theories which include their own personal and professional ethical orientation. For majors and non-majors. [GE, HR]

**Multi-Cultural Addictions Counseling**  
ACED 202      3 Credits/Units

3 hours of lecture

Culturally learned assumptions that shape a counseling interview. Culture as the heart of any counseling relationship. The impact of culture on treatment planning with an addiction client population. [GE]

**Case Management In Addiction Medicine**  
ACED 203      3 Credits/Units

3 hours of lecture

Requirements for managing cases in treatment clinics: treatment and aftercare plans, notes, testing, preparation of accurate reports and other documents, confidentiality, and advocacy. ASAM criteria and treatment. [GE]

**Introduction to Addiction Counseling Skills**  
ACED 204      3 Credits/Units

3 hours of lecture

**Prerequisite:** ACED 101 and ENGL& 101 (grades of "C" or higher). Covers the application of basic counseling theories and practices, including relapse prevention, to a chemical dependency client population. Practical application of counseling skills utilized. Group, individual, and family counseling are also addressed, as well as cultural issues. [GE]

**Advanced Techniques for Addiction Counsel**  
ACED 205      3 Credits/Units

3 hours of lecture

Development of skills needed to establish and maintain effective helping relationships with clients. Integration of relapse prevention counseling in treatment. [GE]

**Field Placement I**  
ACED 210      1-6 Credits/Units

18 hours of clinical

Ten or twenty hours weekly of on-the-job supervised experience applying counseling theories and practiced. Addiction Counselor Competencies are used as a framework for assessment. [GE]

**Field Placement II**  
ACED 211      1-6 Credits/Units

18 hours of clinical

Ten or twenty hours weekly of on-the-job supervised experience applying counseling theories and practices. Addiction Counselor Competencies will be used as a framework for assessment. [GE]

**Selected Topics**  
ACED 280 1-3 Credits/Units  
3 hours of lecture  
**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102  
Special topics in chemical dependence as listed in the term class schedule. May be repeated for credit. [GE]

**Special Projects**  
ACED 290 1-5 Credits/Units  
5 hours of lecture  
Opportunity to plan, organize, and complete special projects approved by the Instructional Unit. [GE]

# ALLIED HEALTH (AH)

## Basic Concepts of Anatomy and Physiology I

AH 100

3 Credits/Units

2 hours of lecture / 2 hours of lab

Introduction to basic anatomical and physiology concepts as they apply to allied health occupations (excluding nursing and dental hygiene). Basic overview of body systems including integumentary, musculoskeletal, cardiovascular, lymphatic, immune, and endocrine systems. Includes a laboratory component that is integral to the course concepts and skills. [GE]

## Basic Concepts of Anatomy and Physiology II

AH 101

3 Credits/Units

2 hours of lecture / 2 hours of lab

**Prerequisite:** AH 100 (grade of "C" or higher)

Introduction to basic anatomical and physiological concepts as they apply to allied health occupations (excluding nursing and dental hygiene). Basic overview of body systems including nervous, sensory, respiratory, digestive, urinary, and reproductive systems. Includes a laboratory component that is integral to the course concepts and skills. [GE]

## Health Care Delivery & Career Exploration

AH 104

3 Credits/Units

3 hours of lecture

Introduction to the healthcare delivery system in the United States and the many health professions available as career choices, as well as their academic, licensing, and certification requirements. [GE]

## Medical Terminology I

AH 110

3 Credits/Units

3 hours of lecture

Introduction to medical word building with common medical roots, prefixes and suffixes. Study of terms related to the body as a whole, as well as terms to human anatomy, pathology, diagnostic tests, clinical procedures, and abbreviations associated with each body system. Medical Terminology I covers the following body systems: integumentary, musculoskeletal, cardiovascular, lymphatic, immune, and endocrine systems. Includes spelling and pronunciation of terms. [GE]

## Medical Terminology II

AH 111

3 Credits/Units

3 hours of lecture

**Prerequisite:** AH 110 (grade of "C" or higher)

Continuation of Medical Terminology I, AH 110. Study of common medical roots, prefixes and suffixes and terms related to human anatomy, physiology, pathology, diagnostic tests, clinical procedures, and abbreviations associated with each body system. Medical Terminology II covers the following body systems: nervous, sensory, respiratory, digestive, urinary and reproductive systems. Course work will include spelling and pronunciation of terms. [GE]

## Bloodborne Pathogens in Healthcare Settings

AH 120

1 Credit/Unit

1 hours of lecture

Comprehensive study of primary bloodborne pathogens of concern in healthcare settings: HIV, hepatitis B, and hepatitis C. [GE]

## Statistics for Health Care Professionals

AH 261

3 Credits/Units

3 hours of lecture

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10

Introduction to statistical computations and analysis used in healthcare. Topics include patient census, occupancy, length of stay, mortality and morbidity statistics. [CP, GE, SE]

## Special Projects

AH 290

1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]

# AMERICAN SIGN LANGUAGE (ASL/ASL&)

**American Deaf Culture**  
ASL 125 5 Credits/Units  
5 hours of lecture  
This course will focus on topics in the culture of deaf people including studies of their beliefs, practices and language. [GE, HA, SE]

**Selected Topics**  
ASL 280 1-3 Credits/Units  
3 hours of lecture  
Course focuses on selected topics in American Sign Language. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE][PNP]

**Special Projects**  
ASL 290 1-5 Credits/Units  
5 hours of lecture  
Opportunity to plan, organize and complete special projects approved by the department. [GE]

**Am Sign Language I**  
ASL& 121 5 Credits/Units  
5 hours of lecture  
Introduction to American Sign Language emphasizing instruction and practice in expressive and receptive ASL skills. Focus on basic vocabulary, grammar, and cultural aspects of the deaf community. [GE, HA, SE]

**Am Sign Language II**  
ASL& 122 5 Credits/Units  
5 hours of lecture  
**Prerequisite:** ASL& 121 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.  
Continuation of ASL I, developing skills for the student with a basic knowledge of ASL. Focus on grammar, idioms, vocabulary building, culture and language. [GE, HA, SE]

**Am Sign Language III**  
ASL& 123 5 Credits/Units  
5 hours of lecture  
**Prerequisite:** ASL& 122 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.  
Continuation of ASL II, developing grammar and vocabulary skills, with emphasis on students expressive and receptive skills. Topics include abstract concepts of language and the deaf culture's values, attitudes, and community. [GE, HA, SE]

**Am Sign Language IV**  
ASL& 221 5 Credits/Units  
5 hours of lecture  
**Prerequisite:** ASL& 123 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.  
First of the second-year sequence in studying the language of Deaf Americans. Topics include developing receptive and expressive skill and fluency; correct formation of signs, movement, rhythm, phrasing and clarity; vocabulary building; developing proficiency in ASL grammar. Students will develop a respect for ASL as a language, including acceptance and appreciation of its diverse regional and personal applications within its culture. [GE, HA, SE]

**Am Sign Language V**  
ASL& 222 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ASL& 221 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.  
Second of second-year sequence in studying the language of Deaf Americans. Topics include developing receptive and expressive skills in dialogue; applying ASL informal discourse styles; vocabulary building; developing proficiency in ASL grammar for recreation, social services, government and the workplace. Students will develop a respect for ASL as a language, including acceptance and appreciation of its diverse regional and personal applications within its culture. [GE, HA, SE]

**Am Sign Language VI**  
ASL& 223 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ASL& 222 (grade of "C" or higher). Students with prior language experience can request consent of instructional unit.  
Third of second-year sequence in studying the language of Deaf Americans. Continuing development of receptive and expressive skills and fluency. Emphasis on increasing vocabulary, classifier, phrases and grammatical usage with a decrease dependency on English syntax structure. Students will be able to initiate and converse in topics such as technical fields of work, college level academic subjects, politics, and religion with consistent grammatical accuracy with native ASL users. [GE, HA, SE]

# ANTHROPOLOGY (ANTH/ ANTH&)

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**Selected Topics**  
 ANTH 280 1-3 Credits/Units  
 3 hours of lecture  
 Varying topics for anthropology as listed in the term class schedule. May be repeated for credit. [GE, SE]

**Special Projects**  
 ANTH 290 1-5 Credits/Units  
 5 hours of lecture  
 Opportunity to plan, organize, and complete special projects approved by the department. [GE]

**Introduction to Archaeology**  
 ANTH& 204 5 Credits/Units  
 5 hours of lecture  
 Study of ancient and prehistoric cultures of the world. Introduction to theories and techniques of archaeological investigation. [GE, SE, SS]

**Introduction to Cultural Anthropology**  
 ANTH& 206 5 Credits/Units  
 5 hours of lecture  
 The concept of culture, a study of cultures directed toward a broad understanding of how people view their world, cope with their environments, and organize their lives. [GE, SE, SS]

**Bioanthropology W/Lab**  
 ANTH& 215 5 Credits/Units  
 4 hours of lecture / 2 hours of lab  
 The biological study of human beings and primates, past and present: human genetics, biological adaptation and variation, evolutionary principles, the primate order, human origins, and applied biological anthropology. Fulfills social science or laboratory science (lab) distribution credit. [GE, NS, NS-LAB, SE, SS]

**Primateology**  
 ANTH& 245 5 Credits/Units  
 5 hours of lecture  
 Reviews current understandings of behavioral and biological diversity in the Primate order. Focus is on living primates and how they are distributed across the globe, the major biological differences between primate groups and what field and captive research has discovered regarding the range of social behaviors, group patterns, foods, communication systems and cognitive abilities they display. Students practice basic research techniques used to study primate behavior in the wild and examine the major challenges faced by modern conservation efforts in protecting wild primate habitats. [GE, NS, SE]



# ART (ART/ART&)

<b>2D Art and Design</b>		
ART 101		5 Credits/Units
3 hours of lecture / 4 hours of lab		
Foundational art course working with line, shape, value, color, and the principles of spatial organization. May include designing with computers. [GE, HB, SE][PNP]		
<b>Drawing I</b>		
ART 103		5 Credits/Units
3 hours of lecture / 4 hours of lab		
Introduction to drawing with a focus on expressive content and accurate seeing, measurement, and proportion. Assignments stress the use of line, gesture, value, and composition through observations of still life and the figure. Classes may include a nude model. [GE, HB, SE][PNP]		
<b>Observational Drawing</b>		
ART 104		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> ART 103 (grade of "C" or higher)		
Continuation of ART 103. Analysis and control of value, color, and composition using a variety of techniques and drawing materials. Emphasis on accurate seeing, measurement, and proportion through still life, landscape, and the figure. Classes may include a nude model. [GE, HB, SE][PNP]		
<b>Drawing for Comics</b>		
ART 105		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> ART 103 (grade of "C" or higher)		
Study and practice of creating comics and graphic narratives in a variety of genres and media. Emphasis is on form and process from ideation to finished art. Classes may include a nude model. [GE, HB, SE][PNP]		
<b>Creativity and Concept</b>		
ART 110		3 Credits/Units
2 hours of lecture / 2 hours of lab		
Introduction to creativity, conceptual thinking, and visual problem solving for artists, designers and other creative professionals. Focus on strategies and methods for developing original ideas such as brainstorming, sketching, automatic writing, etc; then translating those ideas to visual form using a variety of media and techniques. Hands-on studio activities contextualized by theoretical readings and in-class discussions. [GE, HB, SE]		
<b>Three-Dimensional Design</b>		
ART 117		5 Credits/Units
3 hours of lecture / 4 hours of lab		
Introduction to sculptural design concepts including volume, space and scale. Explores a variety of media and construction techniques, with a focus on creative problem solving in the context of sculptural objects. Introduction to 3D modeling software and applicable computer aided manufacturing technologies such as laser cutting, 3D scanning, and 3D printing. [GE, HB, SE][PNP]		

<b>Time-Based Art and Design</b>		
ART 118		5 Credits/Units
3 hours of lecture / 4 hours of lab		
Introduction to the concepts and tools of moving imagery including digital video, sound, animation, and elements of installation and performance. This course will explore the personal, cultural, formal, political, and historical aspects of the medium through readings, writings and critical reflection of relevant 20th and 21st century artworks. Activities include lectures, software and equipment tutorials, and studio time for experimental project development. [GE, HA, SE]		
<b>Printmaking I</b>		
ART 120		5 Credits/Units
3 hours of lecture / 4 hours of lab		
Introduction to basic materials, techniques, and concepts in a variety of printmaking processes. Special topics vary from term to term, but may include linocut, woodcut, screen printing, monotype, collagraph, drypoint, and various photo sensitive print processes. Stencils will be created through both hand drawn and digitally generated artwork. This is an introductory course, with no pre-requisite, however it will build on some drawing and design skills. [GE, HB, SE][PNP]		
<b>Printmaking II</b>		
ART 121		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> ART 120 (grade of "C" or higher)		
Builds on the skills learned in ART 120 Printmaking I, and will refine handling of basic materials and concepts in a variety of printmaking processes. Students are welcome to choose an area of concentration within different printing disciplines. [GE, HB, SE][PNP]		
<b>Printmaking III</b>		
ART 122		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> ART 121 (grade of "C" or higher)		
Builds on the skills learned in ART 120 Printmaking I, and ART 121 Printmaking II, and will refine handling of basic materials and concepts in a variety of printmaking processes. Projects are more self-directed and independent in this third class of the Printmaking sequence. [GE, HB, SE][PNP]		
<b>Photography I</b>		
ART 123		5 Credits/Units
3 hours of lecture / 4 hours of lab		
Basic camera handling of both digital and 35mm Single Lens Reflex (SLR) cameras including metering and exposure. Film processing, printing, and darkroom procedures will be taught, as well as basic digital workflow. Special emphasis on the elements of photographic composition design, ethical issues, aesthetic vocabulary, and the study of how images communicate. [GE, HB, SE][PNP]		
<b>Photography II</b>		
ART 124		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> ART 123 (grade of "C" or higher)		
Continuation of ART 123. Particular emphasis on self-expression, series, sequence, and narrative. Special topics vary from quarter to quarter, but may include medium and large format photography, various image transfer techniques, liquid photographic emulsions, studio lighting, and advanced digital editing. Practice small group discussion to demonstrate visual literacy and develop media specific vocabulary. [GE, HB, SE][PNP]		

<b>Photography</b>		<b>III</b>			
ART 125			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 124 (grade of "C" or higher)					
Continuation of ART 124. Opportunities to develop additional technical skill and continued exploration of self-expression. Projects are more self-directed and independent in this third class of Photography sequence. [GE, HB, SE][PNP]					
<b>Photographic</b>		<b>Storytelling</b>			
ART 131			3 Credits/Units		
2 hours of lecture / 2 hours of lab					
Introduction to photographic storytelling. Topics include: examining historical use of the medium, analysis of narrative photographic genres, and the creation of a personal photographic essay. Emphasis placed on seeing photographically and creating narrative. Includes field trip. Appropriate for non-majors and beginning photo students. Previous camera experience helpful, but not required. Student must provide digital camera. [GE, HA, SE]					
<b>Publication</b>		<b>Production</b>		<b>I</b>	
ART 170			3 Credits/Units		
6 hours of lab					
<b>Prerequisite:</b> ART 101 (grade of "C" or higher).					
First of two courses offering an opportunity to learn real-world design and production for publication. Intended for art and graphic design majors and those interested in the publishing field. Topics vary by quarter and may include: Adobe InDesign for layout, preparing artwork for print, editing and proofing copy, creating promotional materials including social media, working with printers, budgeting, managing the project and working with a team. [GE, HB, SE][PNP]					
<b>Graphic</b>		<b>Design</b>		<b>Exploration</b>	
ART 172			5 Credits/Units		
5 hours of lecture					
Survey of the discipline of graphic design and its cultural and historical context. Focus on how graphic design functions as a mode of visual communication and its role in society. Presented with a balance of theoretical and hands-on learning methods. Appropriate for non-majors. [GE, HB, SE]					
<b>Graphic</b>		<b>Design</b>		<b>Studio</b>	<b>I</b>
ART 173			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 101 and (DMA 101 or DMA 102) (grades of "C" or higher)					
Practical introduction to the discipline of graphic design. The elements and principles of design and the design process will be reviewed through a series of hands-on projects stressing visual literacy and unity of form, and utilizing common tools of the trade, including computers. [GE, HB, SE]					
<b>Typography</b>				<b>I</b>	
ART 174			5 Credits/Units		
4 hours of lecture / 2 hours of lab					
<b>Prerequisite:</b> DMA 102 (grade of "C" or higher)					
An introduction to the art and craft of designing and arranging type as applied to graphic design practice. Topics include the anatomy and nomenclature of letterforms, the history and classification of typefaces, choosing and combining fonts, using InDesign for typesetting, and may include the creation of original letterform designs. [GE, HB, SE]					
<b>Ceramics</b>				<b>I</b>	
ART 180			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
Working with clay. Hand-building techniques of pinch, coil, slab and press mold. Introduction to the potter's wheel. Basic glazing techniques. [GE, HB, SE][PNP]					
<b>Ceramics</b>				<b>II</b>	
ART 181			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 180 (grade of "C" or higher)					
Potter's wheel techniques of centering and throwing a variety of shapes, attaching handles and spouts, and fitting lids. Optional advanced hand-building assignments offered. Introduction to kiln stacking and firing. [GE, HB, SE][PNP]					
<b>Ceramics</b>				<b>III</b>	
ART 182			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 181 (grade of "C" or higher)					
Combining hand and wheel techniques to create original pieces as sculpture or for specific functions. Mold making, slip casting, underglazing, and kiln firing. [GE, HB, SE][PNP]					
<b>Metal</b>		<b>Arts</b>		<b>I</b>	
ART 189			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
Aesthetic expression within the context of applied design using metal. Design and technical skills will be equally emphasized. Fabrication and design of jewelry and other objects of metal. History of the fabrication of metal objects in other cultures and through other contemporary approaches. Techniques covered may include piercing, riveting, soldering, sizing jewelry, making chain, and use of hand tools. [GE, HB, SE][PNP]					
<b>Metal</b>		<b>Arts</b>		<b>II</b>	
ART 190			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 189 (grade of "C" or higher)					
Continuation of ART 189. Aesthetic expression within the context of applied design using metal. Design and technical skills will be equally emphasized. Fabrication and design of jewelry and other objects of metal. History of the fabrication of metal objects in other cultures and through other contemporary approaches. Techniques covered may include hinge fabrication, pillow-forming with the use of a hydraulic press, fold-forming, scoring and bending, and advanced patination work. [GE, HB, SE][PNP]					
<b>Metal</b>		<b>Arts</b>		<b>III</b>	
ART 191			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 190 (grade of "C" or higher)					
Continuation of ART 190. Aesthetic expression within the context of applied design using metal. Design and technical skills will be equally emphasized. Fabrication and design of jewelry and other objects of metal. History of the fabrication of metal objects in other cultures and through other contemporary approaches. Techniques covered may include casting and attachment connections such as tabs, forming, stitching and weaving metal. [GE, HB, SE][PNP]					
<b>Cooperative</b>		<b>Work</b>		<b>Experience</b>	
ART 199			1-5 Credits/Units		
15 hours of clinical					
Supervised work experience in art or photography. Completion of specific learning objectives and employer evaluation. [GE]					

<b>The Human Figure I</b>	<b>Art History: Baroque-Modern</b>
ART 203 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> ART 103 (grade of "C" or higher) Working from the male and female form in a variety of drawing media. Emphasis on accurate seeing, measuring, and proportion of the human body in space. Classes include a nude model. [GE, HB, SE]	ART 222 5 hours of lecture Survey of the visual arts and architecture of Baroque through Modern Europe, ca. 1600-1914 CE. Topics include why art and architecture exist, and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. [GE, HA, SE]
<b>The Human Figure II</b>	<b>Art History: 20th Century</b>
ART 204 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> ART 203 (grade of "C" or higher) Working from the male and female form in a variety of drawing media. Emphasis on expressive power and individual development. Classes include a nude model. [GE, HB, SE]	ART 223 5 hours of lecture Survey of visual arts and architecture of the Modern and Postmodern periods and beyond. Topics include how art and architecture were influenced by rapidly changing technologies in Europe and the Americas: how artists use iconography, composition, materials, technique and style to achieve their effects; the impact of art criticism; and artists' reflections on contemporary events and ideologies. We also explore the role of race and gender in the business of art. [GE, HA, SE]
<b>Digital Painting &amp; Illustration</b>	<b>Art History: Asian Art</b>
ART 208 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> DMA 101 (formerly CGT 101) and DMA 102 (formerly CGT 102) (grades of "C" or higher). Developing digital illustration skills by using Adobe Illustrator and Photoshop software, as well as some traditional media, with a focus on developing a personal voice, and exploring various styles and techniques. Activities include a series of hands-on creative projects. Intended for the student with some previous Adobe experience. [GE, HB, SE]	ART 225 5 hours of lecture Survey of the visual arts and architecture of India, China, and Japan. Topics include why art and architecture exist, and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. [GE, HA, SE]
<b>Portfolio Development</b>	<b>Women Artists Through History</b>
ART 215 2 hours of lecture / 2 hours of lab Preparation and presentation of individual portfolio for submission to potential employers, galleries and educational institutions. Topics include traditional and digital portfolio formats, photographing, writing, critiquing, and speaking about artwork. Activities include selecting, refining, and incorporating projects from the entire program into portfolios. Instructors play advisory role, culminating with formal portfolio reviews by instructors, peers, and industry professionals. [GE, SE]	ART 250 5 hours of lecture Historical survey exploring themes in women's art and challenges women artists faced as professionals within their respective cultures; in-depth study of women artists working in Western traditions. [GE, HA, PPI, SE]
<b>Art History: Ancient to Late Antique</b>	<b>Painting I</b>
ART 220 5 hours of lecture Survey of visual arts in the Mediterranean, the Near East, and in Northern Europe, covering the first arts of ancient humans through the Late Antique, 40,000 BCE-600 CE. Topics include why art and architecture exist and how they function in society; how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture; how art and architecture achieve their effects, using materials, technique, style, and composition. [GE, HA, SE]	ART 257 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> ART 101, ART 103 or ART 115 (grade of "C" or higher) Introduction to the principles and practice of painting through basic theory, composition, and color. Assignments approach painting observationally through still life, landscape, and the figure with conceptual prompts encouraging expression and criticality. Classes may include a nude model. [GE, HB, SE]
<b>Art History: Medieval-Renaissance</b>	<b>Painting II</b>
ART 221 5 hours of lecture Survey of visual arts and architecture of Early Medieval through Late Renaissance Europe. 500-1600 CE. Topics include why art and architecture exist and how they function in society, how religion, culture, artistic tradition, and patronage create, support, and influence art and architecture, how art and architecture achieve their effects, using materials, technique, style, and composition. [GE, HA, SE]	ART 258 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> ART 257 (grade of "C" or higher) Intermediate approach to principles and practice of painting through formal and conceptual study. Emphasis is on methods of abstraction and new modes of seeing using line, color, and pattern as expressive elements. Classes may include a nude model. [GE, HB, SE]
	<b>Painting III</b>
	ART 259 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> ART 258 (grade of "C" or higher) Advanced study in principles and practice of contemporary painting through the development of a body of work. Emphasis is on a focused independent practice including written artist statement and show proposals. Classes may include a nude model. [GE, HB, SE]

<b>Watercolor</b>	<b>I</b>				
ART 260		5 Credits/Units			
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 103 (grade of "C" or higher)					
Introduction to materials and methods of watercolor painting techniques. Topics include color theory, vocabulary, and composition; working in realistic and abstract styles. Activities include in-class critique and discussion. [GE, HB, SE]					
<b>Watercolor</b>	<b>II</b>				
ART 261		5 Credits/Units			
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 260 (grade of "C" or higher)					
Intermediate level exploration of watercolor painting. Continued development of skills in color mixing and composition with an emphasis on fostering content and a personal creative voice through the material. Activities include in-class critique and discussion. [GE, HB, SE]					
<b>Watercolor</b>	<b>III</b>				
ART 262		5 Credits/Units			
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 261 (grade of "C" or higher)					
Advanced level exploration of watercolor painting, with emphasis on developing one's own visual language through the material, experimentation and innovation with wet media and its expressive potential; student-initiated research and the creation of a unique body of work suitable for portfolio presentation. Activities include in-class critique and discussion. [GE, HB, SE]					
<b>Publication</b>	<b>Production</b>				
ART 270		3 Credits/Units			
6 hours of lab					
<b>Prerequisite:</b> ART 170 (grade of "C" or higher).					
Second of two courses offering the opportunity to learn real-world design and production for publication. Intended for art and graphic design majors and those interested in the publishing field. Topics vary by quarter and may include: Adobe InDesign for layout, preparing artwork for print, editing and proofing copy, creating promotional materials including social media, working with printers, budgeting, managing the project and working with a team. [GE, HB, SE][PNP]					
<b>Typography</b>	<b>II</b>				
ART 271		5 Credits/Units			
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 174 (grade of "C" or higher)					
Continuation of ART 174 with a focus on typesetting as applied to the discipline of graphic design. Topics include technical exercises using Adobe InDesign and its typographic tools, a survey of various publication formats, an introduction to using grids and proportional systems for designing page layouts, analyzing and applying legibility and readability factors, and culminating in an individual book project with a heavy emphasis on conveying a unique voice. [GE, HB, SE]					
<b>Graphic</b>	<b>Design</b>	<b>History</b>			
ART 272			5 Credits/Units		
5 hours of lecture					
A survey of influential individuals, artifacts, technologies and intellectual thought in graphic design from its origins to contemporary practice. Emphasis on the development of a visual vocabulary and providing historical and cultural context for design practice. Appropriate for non-majors. Fulfills PPI distribution requirement. [GE, HA, SE][PNP]					
<b>Graphic</b>	<b>Design</b>	<b>Studio</b>	<b>II</b>		
ART 273			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 173 and DMA 102 (grades of "C" or higher)					
Continuation of ART 173 with a focus on layout, messaging, technical and functional constraints for various types of communication design disciplines such as packaging design, persuasive design, infographics, and branding and identity. Topics include ethical considerations related to graphic design such as sustainability, public service, consumerism, and universal design. [GE, HB, SE]					
<b>Graphic</b>	<b>Design</b>	<b>Studio</b>	<b>III</b>		
ART 274			5 Credits/Units		
3 hours of lecture / 4 hours of lab					
<b>Prerequisite:</b> ART 273 (grade of "C" or higher)					
Focus on real-world design tasks and discussion of professional practices to prepare the student for employment and/or upper division coursework. Portfolio-quality graphic design work will be produced and may include a personal identity and self-promotional package. [GE, HB, SE]					
<b>Selected</b>			<b>Topics</b>		
ART 280				1-5 Credits/Units	
5 hours of lecture					
Course focuses on selected topics in art. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE, SE]					
<b>Special</b>			<b>Projects</b>		
ART 290				1-6 Credits/Units	
6 hours of lecture					
Opportunity to plan, organize and complete special projects approved by the department. [GE, HB]					
<b>Creative</b>	<b>Arts</b>	<b>in</b>	<b>Teaching</b>		
ART 330				5 Credits/Units	
3 hours of lecture / 4 hours of lab					
An exploration of principles, methods and materials for teaching young children art through process-oriented experiences. Explores theory, technique, and curriculum design to offer a variety of developmentally appropriate art media to children. [GE]					
<b>Art</b>		<b>Appreciation</b>			
ART& 100				5 Credits/Units	
5 hours of lecture					
The visual arts with which we come in contact every day. Ways contemporary and historic creative expression have influenced and continue to influence and reflect living and thinking. Content includes art forms including, but not limited to, painting, sculpture and architecture. The class emphasis is on building a general appreciation of the techniques, styles, themes in art, and the history of art. Some hands-on experience. Especially for non-majors. [GE, HA, SE]					

# ASTRONOMY (ASTR&)

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**Introduction to Astronomy**  
ASTR& 101 5 Credits/Units  
4 hours of lecture / 2 hours of lab  
Survey of astronomy designed primarily for non-science majors. Includes study of the sun, solar system, stellar evolution, galaxies and cosmology. Evening observation sessions required. [GE, NS, NS-LAB, SE]

# AUTOMOTIVE TECHNOLOGY (AUTO)

**Automotive**      **Bridge**      **Program**      **Readiness**  
 AUTO 140      2 Credits/Units  
 2 hours of lecture  
 Basic skills and knowledge necessary for success in automotive program courses. Topics include college information technology systems access and use, written communication, computational processes, automotive shop safety, and entry level soft skills required in the automotive industry. This course provides foundational information students will utilize in subsequent program offerings. [GE, HR]

**Introduction**      **to**      **Toyota**  
 AUTO 150      7 Credits/Units  
 2 hours of lecture / 10 hours of lab  
**Prerequisite:** T-Ten Program Acceptance. See your advisor for more information.

Introduction to safety, service procedures and responsibilities as a Toyota automotive service professional. Focus on soft skills used in daily customer interactions, technical skills needed to be successful in the current Toyota dealership environment. Emphasis on performing Toyota minor, intermediate, and major maintenance operations. Acceptance into the T-Ten Program. [GE]

**Toyota**      **Electrical**      **I**  
 AUTO 151      7 Credits/Units  
 2 hours of lecture / 10 hours of lab  
 First of two courses introducing basic electrical properties, circuits and testing. Major focus on the proper use of the DVOM in voltage drop diagnosis with an introduction to chassis electrical systems operation and testing. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

**Toyota**      **Electrical**      **II**  
 AUTO 152      7 Credits/Units  
 2 hours of lecture / 10 hours of lab  
 Second of two courses exploring electrical properties, circuits and testing. Major focus on the proper use of the DVOM in voltage drop diagnosis of multiplexed circuits used in Toyota vehicles with an introduction to computer controlled electrical systems operation and testing using a DSO. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

**Toyota**      **Brakes**  
 AUTO 153      7 Credits/Units  
 2 hours of lecture / 10 hours of lab  
 Theory and hands-on training in the operation, diagnostics, and service of Toyota vehicle braking systems. Initial focus on performing basic brake service procedures and diagnosis. Specific emphasis on the correct diagnostic strategies to locate and repair faults in ABS, VSC and VDIM systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

**Toyota**      **Internship**      **I**  
 AUTO 154      8 Credits/Units  
 4 hours of lecture / 8 hours of lab  
 First managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the first term of automotive instruction, including performing basic maintenance and diagnosing/repairing electrical and braking systems. Emphasis on developing strong customer-service and teamwork skills. Students required to document and share these experiences while working towards ASE and Toyota Certification. Acceptance and good standing in the T-Ten Program. [GE]

**Toyota**      **Steering**      **and**      **Suspension**  
 AUTO 155      7 Credits/Units  
 2 hours of lecture / 10 hours of lab  
 Theory and hands-on training in the operation, diagnosis, and service of Toyota vehicle steering and suspension systems. Initial focus on performing basic tire, suspension and steering service procedures and diagnosis. Specific emphasis on the correct diagnostic strategies to locate and repair faults in TPMS and EPS systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]

**Toyota**      **Engine**      **Performance**      **I**  
 AUTO 156      7 Credits/Units  
 2 hours of lecture / 10 hours of lab  
 First of two courses on operation, inspection, diagnosis, service and repair of Toyota Engine Management systems. Focus on the operation and testing of the internal combustion engine and engine-and fuel-management systems. Emphasis on ignition, fuel delivery, and computer input sensor diagnosis. Necessary knowledge of diagnostic strategies and tools used daily in the dealership to repair drivability-related and/or engine performance-related issues. Acceptance and good standing in the T-Ten Program. [GE]

**Toyota**      **Engine**      **Performance**      **II**  
 AUTO 157      7 Credits/Units  
 2 hours of lecture / 10 hours of lab  
 Second of two courses on operation, diagnosis, service and repair of Toyota Engine Management Systems. Focus on advanced level diagnostics including fuel trim, DTC's drivability, Mode \$06 scan tool usage, and emissions control systems. Acceptance and good standing in the T-Ten Program. [GE]

**Introduction**      **to**      **Dealership**      **Operations**  
 AUTO 160      7 Credits/Units  
 2 hours of lecture / 10 hours of lab  
**Prerequisite:** HiTECC Program Acceptance. See your advisor for more information.

Introduction to safety, service procedures and responsibilities as a dealership automotive service professional. Initial focus will be soft skills used in daily customer interactions and will continue with technical skills needed to be successful in the current dealership environment. Finally, emphasis will be placed on performing minor, intermediate and major maintenance operations. Remain in good standing in the HiTECC Program. [GE]

**Electrical**      **I**  
 AUTO 161      7 Credits/Units  
 2 hours of lecture / 10 hours of lab  
 Introduction to basic electrical properties, circuits and testing. Major focus will be placed on the proper use of the DVOM in voltage drop diagnosis. Will also offer an introduction to Chassis Electrical Systems operation and testing. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]

<b>Electrical</b>	<b>II</b>			<b>Engine</b>	<b>Performance</b>	<b>II</b>	
AUTO 162			7 Credits/Units	AUTO 167			7 Credits/Units
2 hours of lecture / 10 hours of lab				2 hours of lecture / 10 hours of lab			
Second in a series exploring electrical properties, circuits and testing. Major focus will be placed on the proper use of the DVOM in voltage drop diagnosis of multiplexed circuits used in Toyota vehicles. Will also include an introduction to computer controlled electrical systems operation and testing using a DSO. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]				Instruction regarding the operation, diagnosis, service and repair of engine management systems. Focus on advanced level diagnostics including fuel trim, no DTC's drivability, mode \$06 scan tool usage, and emissions control system diagnosis and repair. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]			
<b>Brakes</b>				<b>Automotive</b>	<b>Processes</b>		
AUTO 163			7 Credits/Units	AUTO 170			3 Credits/Units
2 hours of lecture / 10 hours of lab				3 hours of lecture			
Provides theory and hands-on training in the operation, diagnostics, and service of vehicle braking systems. Specific emphasis will be placed on the correct diagnostic strategies to locate and repair faults in ABS, VSC and VDIM systems. Initial focus will be placed on performing basic brake service procedures and diagnosis. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]				Introduction to and exploration of the automotive industry, with specific focus on vehicle service operations from a business standpoint. Students will complete a research assignment, write a paper, and deliver a presentation on their findings. [GE]			
<b>Internship</b>	<b>I</b>			<b>Mechanical</b>	<b>Processes</b>		
AUTO 164			8 Credits/Units	AUTO 171			5 Credits/Units
4 hours of lecture / 8 hours of lab				4 hours of lecture / 2 hours of lab			
Provides students with a managed internship experience in an automotive dealership. Students will focus on practicing skills learned throughout their first term of automotive instruction, including performing basic maintenance and diagnosing/repairing electrical and braking systems. Students will be required to document and share these experiences as they work toward ASE Certification. Emphasis will also be placed on developing strong customer service and teamworking skills. Remain in good standing in the HiTECC Program. [GE]				Expands on Automotive Process through demonstration and practice of vehicle servicing methods. Students will prepare vehicles for service and perform basic maintenance procedures in accordance with manufacturer's recommendations. Emphasis on safety, using proper equipment, and overall vehicle systems. Combination lecture/lab format will be utilized for instruction. [GE]			
<b>Steering</b>	<b>and</b>	<b>Suspension</b>		<b>Maintenance</b>	<b>Processes</b>		
AUTO 165			7 Credits/Units	AUTO 172			8 Credits/Units
2 hours of lecture / 10 hours of lab				4 hours of lecture / 8 hours of lab			
Provides theory and hands-on training in the operation, diagnosis, and service of vehicle steering and suspension systems with specific emphasis on the correct diagnostic strategies to locate and repair faults in TPMS and EPS systems. Initial focus will be placed on performing basic tire, suspension and steering service procedures and diagnosis. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]				Emphasis on maintenance procedures and processes performed in express service environments. Particular attention paid to practice of comprehensive vehicle inspection and preventative maintenance operations. Introduction to tire service procedures also included in the course. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. [GE]			
<b>Engine</b>	<b>Performance</b>	<b>I</b>		<b>Undercar</b>	<b>Service</b>	<b>and</b>	<b>Repair</b>
AUTO 166			7 Credits/Units	AUTO 173			15 Credits/Units
2 hours of lecture / 10 hours of lab				10 hours of lecture / 10 hours of lab			
Instruction related to the operation, diagnosis, service and repair of engine management systems. Initial focus is on the operation and testing of the internal combustion engine then progress to engine and fuel management systems. Emphasis will be placed on ignition, fuel delivery, and computer input sensor diagnosis. Students will gain necessary knowledge of diagnostic strategies and tools used daily in the dealership to repair drivability and/or engine performance related issues. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]				Undercar maintenance processes with addition of light chassis repair procedures. Inspection and repair of brake systems, including minor diagnosis of common customer concerns, will be practiced. In addition, steering/suspension inspection and service will be presented. Continuation of tire servicing related to wheel alignment also included in course. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. [GE]			
<b>Underhood</b>	<b>Service</b>	<b>and</b>	<b>Repair</b>	<b>Underhood</b>	<b>Service</b>	<b>and</b>	<b>Repair</b>
AUTO 174			15 Credits/Units	AUTO 174			15 Credits/Units
10 hours of lecture / 10 hours of lab				10 hours of lecture / 10 hours of lab			
Underhood maintenance processes with addition of light engine repair procedures. Minor diagnosis of common cylinder sealing faults and engine leak repair will be practiced. Introduction to engine controls and minor system diagnosis included. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. [GE]				Underhood maintenance processes with addition of light engine repair procedures. Minor diagnosis of common cylinder sealing faults and engine leak repair will be practiced. Introduction to engine controls and minor system diagnosis included. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. [GE]			
<b>Professionalism</b>	<b>in</b>	<b>Automotive</b>		<b>Professionalism</b>	<b>in</b>	<b>Automotive</b>	
AUTO 180			5 Credits/Units	AUTO 180			5 Credits/Units
3 hours of lecture / 6 hours of clinical				3 hours of lecture / 6 hours of clinical			
Focus on developing professionalism and technical proficiency while concurrently participating in a paid internship. [GE, HR]				Focus on developing professionalism and technical proficiency while concurrently participating in a paid internship. [GE, HR]			

<b>Cooperative</b> AUTO 199 15 hours of clinical Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]	<b>Work</b>	<b>Experience</b> 1-5 Credits/Units	<b>Climate</b> AUTO 260 2 hours of lecture / 10 hours of lab <b>Prerequisite:</b> AUTO 165, AUTO 166 and AUTO 167 (grades of "C" or higher) Instruction in automotive heating and air conditioning systems used in vehicles. Covers refrigerant handling, climate control system components, temperature system controls, refrigerant system diagnosis, recovery-recycling-recharging a/c systems, safety requirements for hybrid vehicles and dealership service. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]	<b>Control</b> 7 Credits/Units
<b>Toyota</b> AUTO 250 2 hours of lecture / 10 hours of lab Introduction to automotive heating and air conditioning systems used in Toyota vehicles. Topics include refrigerant handling, climate control system components, temperature system controls, refrigerant system diagnosis, recovery-recycling-recharging a/c systems, safety requirements for hybrid vehicles and dealership service. Acceptance and good standing in the T-Ten Program. [GE]	<b>Climate</b>	<b>Control</b> 7 Credits/Units	<b>Internship</b> AUTO 261 2 hours of lecture / 4 hours of lab Provides students with a managed internship experience in a dealership. Students will focus on practicing skills learned throughout their term quarter of automotive instruction performing repairs to Steering/Suspension, Climate Control, and Engine Management Systems. Students will be required to document and share these experiences as they work towards ASE certification. Emphasis will also be placed on developing strong customer service and teamworking skills. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]	<b>II</b> 4 Credits/Units
<b>Toyota</b> AUTO 251 2 hours of lecture / 4 hours of lab Second managed internship experience in a Toyota/Lexus dealership, with focus on practicing skills learned throughout the second term of automotive instruction. Skills include performing repairs to braking, steering/suspension, and engine management systems. Emphasis on developing strong customer-service and teamwork skills. Students required to document and share these experiences while working towards ASE and Toyota Certification. Acceptance and good standing in the T-Ten Program. [GE]	<b>Internship</b>	<b>II</b> 4 Credits/Units	<b>Engine</b> AUTO 262 2 hours of lecture / 10 hours of lab Instruction regarding the operation, diagnosis, service and repair of internal combustion engines. Focus on the tear down and inspection of internal engine components. Emphasis will be placed on precision measurements and components failure identification. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]	<b>Mechanical</b> 7 Credits/Units
<b>Toyota</b> AUTO 252 2 hours of lecture / 10 hours of lab Operation, diagnosis, service and repair of a Toyota internal-combustion engine with focus on the tear-down and inspection of internal engine components. Emphasis on precision measurements and component failure identification. Acceptance and good standing in the T-Ten Program. [GE]	<b>Engine</b>	<b>Mechanical</b> 7 Credits/Units	<b>Manual</b> AUTO 263 2 hours of lecture / 10 hours of lab Instruction in automotive manual transmissions and drivetrains. Students will explore the principles of torque multiplication, engine braking, and gear ratios. Emphasis will be placed on the diagnosis and repair of clutch assemblies, manual transmissions, transfer cases, and vehicle drivetrains. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]	<b>Transmission</b> 7 Credits/Units
<b>Toyota</b> AUTO 253 2 hours of lecture / 10 hours of lab Introduction to automotive manual transmissions and drivetrains. Topics include the principles of torque multiplication, engine braking, and gear ratios. Emphasis on the diagnosis and repair of clutch assembly, manual transmission, transfer cases, and drivetrains of Toyota vehicles. Acceptance in and good standing in the T-Ten Program. [GE]	<b>Manual</b>	<b>Transmission</b> 7 Credits/Units	<b>Automatic</b> AUTO 264 2 hours of lecture / 10 hours of lab Theory and hands-on training in the operation, diagnostics, and service of automatic transmissions and transaxles. Specific emphasis will be placed on the correct diagnostic strategies to locate and repair faults in automatic transmission control systems. Initial focus will be placed on performing basic automatic transmission service procedures and diagnosis. This course is a prerequisite for all future HiTECC courses. Remain in good standing in the HiTECC Program. [GE]	<b>Transmissions</b> 7 Credits/Units
<b>Toyota</b> AUTO 254 2 hours of lecture / 10 hours of lab Theory and hands-on training in the operation, diagnostics, and service of Toyota automatic transmissions and transaxles. Initial focus on performing basic automatic transmission service procedures and diagnosis with specific emphasis on the correct diagnostic strategies to locate and repair faults in automatic transmission control systems. This course is a prerequisite for all future Toyota courses. Acceptance and good standing in the T-Ten Program. [GE]	<b>Automatic</b>	<b>Transmissions</b> 7 Credits/Units	<b>Advanced</b> AUTO 266 2 hours of lecture / 10 hours of lab Advanced electrical applications with a focus on Hybrid/Electric Vehicle (HEV) drivetrain diagnosis and repair. Develop diagnostic skills for other new and advanced technologies not covered in previous courses, such as ADAS (Advanced Driver Assistance Systems), Stop/Start Technology, and others. Successful completion will prepare students to sit for the Automotive Service Excellence (ASE) L3 - Advanced Hybrid/Electric Vehicle Certification Test. [GE]	<b>Electrical</b> 7 Credits/Units



**Driver Comfort and Convenience Systems**  
 AUTO 271 15 Credits/Units

10 hours of lecture / 10 hours of lab

HVAC and safety system maintenance and service processes. Some light repair procedures will be practiced. Also includes body electrical diagnosis using diagrams, DMMs, and scan tools. While a combination lecture/lab will be utilized for instruction, course will be delivered primarily through lab activities. [GE]

**Advanced Diagnostic Strategies**  
 AUTO 272 15 Credits/Units

10 hours of lecture / 10 hours of lab

Vehicle electronic systems inspection, diagnosis and repair processes using advanced diagnostic tools. Focus on troubleshooting processes that lead to identification of root cause failures. Also, introduction to vehicle stability control and supplemental restraint systems included. While a combination of lecture/lab will be utilized for instruction course will be delivered primarily through lab activities. [GE]

**Capstone New Technology**  
 AUTO 273 4 Credits/Units

1 hours of lecture / 6 hours of lab

An alternative to a internship in which students will study a new automotive technology of their choice. Final project will vary with each instructor. [GE]

**Internship**  
 AUTO 274 4 Credits/Units

1 hours of lecture / 9 hours of clinical

Managed field experience course designed to provide reflective activities aimed at assisting students in creating a professional development plan. Students will participate in online activities coupled with periodic on-site evaluations. This option provided for students with an automotive service position and ready to work. Course will be delivered primarily through online interface with several worksite visits by instructor. [GE]

**Selected Topics**  
 AUTO 280 1-8 Credits/Units

8 hours of lecture

Selected topics in Auto. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the term class schedule. [GE]

**Special Projects**  
 AUTO 290 1-3 Credits/Units

3 hours of lecture

For automotive majors only. Opportunity to plan, organize and complete special projects approved by the department. [GE]

# BAS APPLIED MANAGEMENT (BASAM)

## Foundations of Management

BASAM 301 5 Credits/Units

5 hours of lecture

Serves as the core and foundation for the Bachelor of Applied Science in Applied Management Program. It merges both theories and management practices to serve as a practical tool for managers. Stresses good management practices and higher-level decision making, by ensuring that current changes in industry and technology are applied to problem-solving and innovative sources for the growth and survival of an organization. [GE]

## Social Media in Business

BASAM 305 5 Credits/Units

5 hours of lecture

With the growth of Internet and the popularity of social media among consumers, companies now communicate with consumers in what is becoming the new wave. Covers the knowledge and theories of these growing areas by illustrating topics such as E-commerce, E-marketing strategy, social media marketing strategy, social consumers in digital communities, and measuring the impact of social media marketing. Primary focus is to understand how marketing activities can be implemented, via Internet and social media, to reach target customers and strategic objectives. [GE]

## Business Research Applications

BASAM 320 5 Credits/Units

5 hours of lecture

Introduces to quantitative and qualitative research methods. Topics include customized research methodology to fit specific types and sizes of businesses and organizations, application of the research results for informed and relevant management decisions, and an examination of ethical research standards. Case methods will be applied to practical situations. [GE]

## Business Principles

BASAM 325 5 Credits/Units

5 hours of lecture

Provides a study of various facets of business from economic systems to forms of business ownership to considerations for running a business. Financial topics are introduced, including accounting, money and banking, and securities markets. Also included are discussions of business ethics, social responsibility, and decision making. [GE]

## Accounting Principles for Managers

BASAM 330 5 Credits/Units

5 hours of lecture

This is a BASAM foundation course in accounting theory and principles, applications, and language, with emphasis from a manager's perspective for the requirement to measure and control. Students will analyze balance sheets, income statements, cash flow statements, cost behavior, financial statement interrelationships, financial analysis, product costing, and budgetary control systems. Topics include information reporting for planning, coordinating, and monitoring the performance of an organization. [GE]

## Legal Issues in Management

BASAM 335 5 Credits/Units

5 hours of lecture

Provides a basic understanding of several specific legal areas in business and management. Guides the student through the structure of the U.S. legal system and reviews management-specific areas. Helps to identify potential legal problems, create policies and practices that avoid problems and become efficient and effective consumers of legal services. Gives specific understanding and appreciation of the legal system, particularly as it relates to the conduct of business management. [GE]

## Marketing for Managers

BASAM 340 5 Credits/Units

5 hours of lecture

Develops the marketing knowledge and skills necessary for a successful manager of a profit business firm or a non-profit organization. Helps students identify and satisfy customers' needs and wants. Focuses on key aspects of marketing for firms both large and small, such as marketing research; target market planning and segmentation; product planning, pricing, promoting, and placement (general distribution); international marketing; and the development of general marketing goals, strategies, and their implementation, with a view toward quality societal standards. Students will develop a comprehensive marketing plan. [GE]

## Human Resource Management

BASAM 400 5 Credits/Units

5 hours of lecture

Designed to develop an understanding of the functions and skills needed by supervisors and managers concerning the human resource environment; acquiring, training, and developing human resources; assessing and improving performance; compensation; and other human resource functions. Recognize and apply functions to ensure success in managerial and leadership situations. [GE]

## Principles of Project Management

BASAM 410 5 Credits/Units

5 hours of lecture

Studies the concepts, issues, and approaches important in effectively managing projects, as standardized by the Project Management Body of Knowledge (PMBOK). Includes project selection, project planning and documentation, negotiation, budgeting, scheduling, resource allocation, project control, project auditing, and project closure. Topics are reviewed from a managerial perspective. [GE]

## Financial Management

BASAM 415 5 Credits/Units

5 hours of lecture

Shows managers how to interface with accounting and finance departments, facilitating their understanding of how firms meet their financial objectives, utilizing financial decision making. Describes financial tools and techniques which can be used to help firms maximize value by improving decisions relating to capital budgeting, capital structure, and working capital management. Topics also include multinational financial management, risk management, mergers, and acquisitions. [GE]

**Operations and Logistics**  
 BASAM 425 5 Credits/Units

5 hours of lecture

Studies the physical movement and storage of goods, such as raw materials, semi-finished and finished goods, and all the associated managerial activities that are important for effective control. Close attention is paid to managerial concepts and responsibilities such as transportation, inventory, warehousing, packaging, materials handling, network design, and customer service. Covers the importance of interrelationships between logistics and production, marketing, financial management, and quality control. [GE]

**Capstone: Strategic Management & Policy**  
 BASAM 440 5 Credits/Units

5 hours of lecture

Focuses on the key aspects that must be addressed for sustained organizational success, effective problem solving, and the capture of opportunities from the perspective of the general manager or the entrepreneur. Topics include strategic issues facing organizations such as the global economy, regulatory changes, competitive pressures, challenges from non-traditional competitors, and the identification and realization of new products; financial analysis, decision-making, communications, and the leadership required to affect and sustain positive organizational change. Complex case studies of both commercial and non-profit entities will be used to immerse the students in the integrated complexities that general managers face. [GE]

**Applied Management Internship**  
 BASAM 450 5 Credits/Units

2 hours of lecture / 9 hours of clinical

Designed to provide students with major-related, supervised, and evaluated practical training work experiences which may be paid or voluntary. Students will be graded on the basis of the quality of documented learning acquired through hands-on, new experiences in an actual work setting. The course-related outcomes will be designed and agreed to by the student, the organization providing the internship, the faculty member teaching this course, and the BASAM program lead-faculty member. (Four credits application/one credit seminar). [GE]

# BAS HUMAN SERVICES (BASHS)

## Introduction to Human Services BASHS 301 5 Credits/Units

5 hours of lecture

Overviews the role of the Human Services worker including the various settings, types of Human Services for specific populations and the history of the helping professions. Desirable skills and knowledge and personal characteristics for Human Services workers are also discussed. An emphasis on self-awareness required for Human Services workers are discussed with an emphasis placed on self-awareness. [GE]

## Systems and Social Justice BASHS 302 5 Credits/Units

5 hours of lecture

Designed to improve student knowledge of power, privilege, inequity, and social justice. Students will learn to identify their own social location in relation to others. They will also apply class concepts to case studies in Human Services in order to analyze the impact of systemic oppression on potential clients, learn appropriate methods of resistance and intervention, and develop strategies for implementing social justice. [GE]

## Ethics In Human Services BASHS 303 5 Credits/Units

5 hours of lecture

Explores the concepts of self-awareness in ethical decision-making, including theories of ethical decision making. Provides an overview of federal and state laws pertaining to specific populations and situations in the Human Services field. [GE]

## Practical Family Therapy BASHS 304 5 Credits/Units

5 hours of lecture

Explores practical perspectives on marital and family counseling including an examination of family advocacy, assessment techniques, treatment planning strategies, and use of techniques. Focuses on an integration of family theory and practice. [GE]

## Advanced Co-Occurring Disorders Treatment BASHS 305 5 Credits/Units

5 hours of lecture

Provides clinical experience in assessing accurately the various aspects of common co-occurring disorders encountered in the behavioral health field including: personality disorders, mood disorders, bipolar, trauma disorders and other associated DSM-V disorders. [GE]

## Trauma, Grief & Loss BASHS 306 5 Credits/Units

5 hours of lecture

Provides a theoretical and practical framework for working with traumatized and grieving populations and individuals in a broad Human Services context. [GE]

## Multicultural Counseling In HS BASHS 401 5 Credits/Units

5 hours of lecture

Presents current theories and practices for working with clients of various cultural, racial, economic, and ethnic backgrounds and subcultures. [GE]

## Human Services Intervention BASHS 402 5 Credits/Units

5 hours of lecture

**Prerequisite:** ACED 201 and ACED 204 (grades of "C" or higher).

Practical application of theory in counseling and advocacy for Human Services populations in various settings. Emphasis is on developing a personal awareness of strengths and personal challenges in counseling and advocacy and integrating responding skills and theoretical orientations. [GE]

## Research & Evaluation Methodologies In HS BASHS 403 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH& 146 (grade of "C" or higher)

Focuses on critical understanding of qualitative and quantitative research methods and program evaluation employed in the fields of Human Services that empower and promote social and economic justice and respect for cultural and social diversity. Students will gain an understanding of the various research methods, program evaluation techniques, qualitative quantitative data analysis techniques, data management skills, and ethical issues around research. [GE]

## Advanced Case Management In HS BASHS 404 5 Credits/Units

5 hours of lecture

Explores the clinical practice of working from an accurate psych-social assessment to the necessary steps in the development of an appropriate treatment plan. A previous knowledge of ASAM and the use of the DSM-V is recommended. [GE]

## Human Services Field Placement I BASHS 410 5 Credits/Units

15 hours of clinical

Experiential learning in a Human Services environment. Students will assist in providing direct therapeutic, educational, referral, support and outreach services to those clients and family members of that service provider. [GE]

## Human Services Field Placement II BASHS 411 5 Credits/Units

15 hours of clinical

Experiential learning in a Human Services environment. Students will assist in providing direct therapeutic, educational, referral, support and outreach services to those clients and family members of that service provider. [GE]

# BAS TEACHER EDUCATION (BASTE)

**Leadership and Supervision**  
BASTE 301 3 Credits/Units  
3 hours of lecture

Develop skills needed to effectively collaborate with others including school personnel, community partners personnel, students and their families to support student learning preschool to third grade who are culturally, linguistically, and ability diverse. Supervision of assistants and paraprofessionals will also be specifically addressed. [GE]

**Integrated Health and Physical Education**  
BASTE 302 2 Credits/Units  
2 hours of lecture

Prepares pre-service educators to teach health and fitness to young learners including strategies for integrating culturally responsive health and physical education experiences into the classroom. Topics: nutrition, movement for fitness and joy, body image, current issues in health, and issues in access and discrimination in wellness. [GE]

**Language and Literacy Acquisition**  
BASTE 303 5 Credits/Units  
5 hours of lecture

Examine current research, including theories of first and second language acquisition, for supporting the development of literacy and language skills for children, birth through elementary age. A variety of culturally and developmentally appropriate assessments are introduced and analyzed as part of the comprehensive continuum of literacy and language acquisition. The study of curriculum, instruction, intervention and exemplary classroom practices is the focus of this course [GE]

**Effective and Meaningful Curriculum Design**  
BASTE 304 5 Credits/Units  
4 hours of lecture / 3 hours of clinical

Examines diverse pedagogical approaches for teaching in educational settings that are meaningful and representative, including ability, culturally and linguistically diverse learners. Emphasizes curriculum theory, design, practice, evaluation, as well as diverse approaches to learning and dispositions, Integrates Washington State Common Core Standards and Developmental Guidelines. [GE]

**Observation and Assessment**  
BASTE 305 5 Credits/Units  
4 hours of lecture / 3 hours of clinical

Using a variety of observation skills, select, administer, score and interpret formal assessment tools. Evaluate students for placement or resources needed for learning. Understand Individual Education Plans (IEPs) and Individual Family Service Plans (IFSPs and 504 plans for children who are culturally, linguistically, and ability diverse and their families). [GE]

**Law and Ethics**  
BASTE 306 5 Credits/Units  
5 hours of lecture

Provide a clear understanding of how special education standards, principles, and procedures impact service implementation for students with disabilities. Topics addressed: issues, trends, and implementation of special education as well as historical perspectives of disability. [GE]

**Vision to Practice Anti-Bias Education**  
BASTE 307 5 Credits/Units

5 hours of lecture  
An approach to expectations of Anti-bias education that sets forth actions against bias and unfairness that shifts from the theoretical ideal of addressing bias to the implementation of anti-bias curriculum. Objective: to create education that supports dismantling a systemic oppression through an increase in children's understanding of social problems and to equip teachers with applicable strategies to improve the equitable learning experiences of their students including those students who are linguistically, culturally and ability diverse. [GE]

**Social Emotional Guidance and Trauma Informed Practices**  
BASTE 401 5 Credits/Units  
5 hours of lecture

A foundational understanding of social emotional learning (SEL) standards and practices, positive behavior guidance, and tools to support the development of executive functioning. Includes: SEL competencies for students and adults, creating an inclusive culturally responsive classroom climate, consideration of adverse childhood experiences, and trauma informed approaches. [GE]

**Meaningful Math Methods**  
BASTE 402 5 Credits/Units  
5 hours of lecture

Examine spatial and mathematical learning across all content strands using state early learning guidelines and standards for children preschool through 3rd grade and their families who are culturally, linguistically, and ability diverse. [GE]

**Bilingual Teaching**  
BASTE 403 5 Credits/Units  
5 hours of lecture

A comprehensive survey of bilingual education through the lens of the three pillars of dual language education (bilingualism/biliteracy, high academic achievement, and sociocultural competence). [GE]

**Individualized Teaching**  
BASTE 404 5 Credits/Units  
5 hours of lecture

Fundamental knowledge and experiences for designing and implementing Individualized Education Programs. Additional topics: effective use of assessments, successful collaboration, provision of specially designed instruction, evidence-based supports and strategies, accommodation and modifications and considerations for inclusion. [GE]

**Residency Teaching 1**  
BASTE 405 8 Credits/Units  
24 hours of clinical

Candidates will demonstrate all Professional Educator Standards Board (PESB) competencies required for the endorsement they are seeking. [GE]

**Seminar 1**  
BASTE 406 4 Credits/Units  
4 hours of lecture

Reflection on residency experience in school settings with children who are culturally, linguistically, and ability diverse. [GE]

**Residency Teaching 2**  
BASTE 407 9 Credits/Units  
27 hours of clinical

Candidates will demonstrate all Professional Educators Standards Board (PESB) competencies required for the endorsement they are seeking. [GE]

**Seminar** **2**  
BASTE 408 3 Credits/Units  
3 hours of lecture  
Student candidates will reflect on their residency experience in their school setting with children who are culturally, linguistically, and ability diverse. [GE]

**Issues of Child Abuse in Education**  
BASTE 409 1 Credit/Unit  
1 hours of lecture  
Scope and problems of child abuse, including, but not limited to neglect, family violence, community violence and/or exploitation, and behaviors exhibited by abused and neglected children. Includes identification and reporting procedures, the legal and professional responsibilities of the educator and other mandated reporters (nurses, social workers, etc.). Methods of teaching personal safety will also be addressed including ways to evaluate appropriate curriculum. [GE]

# BIOLOGY (BIOL/BIOL&)

**Environ Biol Conf/Lab**  
BIOL 101 5 Credits/Units

3 hours of lecture / 4 hours of lab

Overview of basic concepts and issues related to the interaction between humans and their environment. Topics include population growth, loss of biodiversity, global climate change, ozone depletion, energy consumption and various types of pollution. This course is intended for non-majors and fulfills the laboratory science distribution requirement. It is also required for WSU-Vancouver Environmental Science/Regional Planning majors. [GE, NS, NS-LAB, SE]

**The Process of Discovery**  
BIOL 102 5 Credits/Units

3 hours of lecture / 4 hours of lab

Introduction to the processes of discovery used in the natural and social sciences. Includes authentic research on factors that contribute to college student success, studied in social, psychological, and physiological contexts. Research topics include hypothesis development, experimental design, literature searches, data analysis, research ethics and human subjects research considerations. Course fulfills COLL 101: College Essentials outcomes including goal setting, personal management skills, developing an academic plan, developing cultural competence and communication skills, financial literacy, and an introduction to student resources at the college. [GE, NS, NS-LAB, SE, SS] [PNP]

**Small World Antibiotics Research 1**  
BIOL 105 5 Credits/Units

3 hours of lecture / 4 hours of lab

Investigative course involving authentic research to discover potentially new antibiotics. Overview of basic concepts and issues in biology including the cellular basis of life, metabolism, principles of inheritance, evolution and ecology as they relate to soil microbiology and human disease processes and treatment. Strong emphasis on scientific inquiry including critical thinking, laboratory research methodology, and communication abilities. This course is intended for non-biology majors and fulfills the laboratory science requirements or as a recommended course for other biology courses. English writing skills are highly recommended. [GE, NS, NS-LAB, SE][PNP]

**Small World Antibiotics Research 2b**  
BIOL 106 5 Credits/Units

3 hours of lecture / 4 hours of lab

Focuses on research to discover new antibiotics to help alleviate the current worldwide crisis of antibiotic-resistant bacteria including microbial cell structure, growth, genetics and antibiotic production, DNA sequencing, PCR, nanopore-based genome sequencing, and bioinformatic analysis. Lab work will focus on determining, analyzing and 'mining' the genome sequence of antibiotic-producing bacteria isolated in BIOL 105, with the aim of discovering novel antibiotics. Strong emphasis on scientific inquiry including critical thinking, laboratory research methodology, and communication abilities. [GE, NS, NS-LAB, SE][PNP]

**Introduction to Wildlife**  
BIOL 139 3 Credits/Units

3 hours of lecture

Wildlife conservation and management in the U.S. and throughout the world. Examines the social and political aspects of wildlife conservation and management, challenges to management of biodiversity, wildlife population management, and ecosystem management. [GE, NS, SE]

**Mammals of The Northwest**  
BIOL 140 3 Credits/Units

3 hours of lecture

Important mammals of the Pacific Northwest. Their identification, classification, life histories, ecology, current status, and management. [GE, NS, SE]

**Birds of The Pacific Northwest**  
BIOL 141 3 Credits/Units

3 hours of lecture

Important Birds of the Pacific Northwest. Their identification, classification, life histories, ecology, current status, and management. [GE, NS, SE]

**Freshwater Fishes of The Pacific Northwest**  
BIOL 142 3 Credits/Units

3 hours of lecture

Important fishes of the Pacific Northwest. Identification, classification, and basic biology of freshwater fishes of the Pacific Northwest. Introduction to fishery management concepts. Overview of factors affecting salmon in the Columbia River Basin. [GE, NS, SE]

**Reptiles & Amphibians of The Pacific NW**  
BIOL 145 3 Credits/Units

3 hours of lecture

Introduction to the biology, ecology, evolution, and geographic distribution of Pacific Northwest reptiles and amphibians. [GE, NS, SE]

**Marine Biology**  
BIOL 150 5 Credits/Units

3 hours of lecture / 4 hours of lab

The marine environment (physical and chemical properties), its plants, bacteria, animal life (vertebrates, invertebrates), ecosystems, fisheries and pollution. [GE, NS, NS-LAB, SE]

**Human Genetics**  
BIOL 167 3 Credits/Units

3 hours of lecture

An introduction to a variety of genetics topics for non-science majors. Topics include: basic cell biology, DNA structure function, mutations, inherited diseases, home genetic/ancestry testing, pedigree analysis, forensic sciences, gene therapy, cloning, eugenics, and realized and/or potential societal impacts. Gain greater knowledge understanding of genetics and how it does/can impact you. [GE, NS, SE][PNP]

**Bioethics**  
BIOL 180 3 Credits/Units

3 hours of lecture

Study of biological science and ethics. Ethical principles and theories are used in solving bioethical dilemmas. Concepts studied include genetic engineering, inherited disorders, cloning, physician assisted suicide, allocation of health resources, organ donation, and environmental ethics. [GE, NS, SE][PNP]

**Cooperative Work Experience**  
BIOL 199 1-5 Credits/Units

15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

<b>Field</b> BIOL 208 2 hours of lecture / 16 hours of lab <b>Prerequisite:</b> Completion of a 100- or 200-level Biology course (BIOL, BIOL) grade of "C" or higher For students interested in biology. An ecological approach with a diversity of habitats being visited (marine in winter, Great Basin Desert and marsh lands in spring). Credits for BIOL 208 are accumulated for each trip with a total of 15 credits possible for all trips. [GE, NS, NS-LAB, SE]	<b>Studies</b>	<b>In</b>	<b>Biology</b> 1-10 Credits/Units	<b>Human</b> BIOL& 175 4 hours of lecture / 2 hours of lab Introductory owner's manual to the human body for non-science majors. Gain greater knowledge of how your body works and more confidence when you encounter information about human biology or communicate with doctors. Topics: fundamentals of chemistry, cell structure/function, anatomy/physiology of selected organ systems (e.g. digestive, circulatory, respiratory, endocrine, reproductive, etc.), and examples of health issues associated with respective organ systems. Lab simulations and activities reinforce and extend lecture topics. [GE, NS, NS-LAB, SE]	<b>Biology</b>	<b>w/</b>	<b>Lab</b> 5 Credits/Units
<b>Flowering</b> BIOL 224 3 hours of lecture / 4 hours of lab Identification and ecology of local wildflowers through the use of taxonomic keys, preparation of specimens and field trips to study native species in their habitats. For forestry, wildlife, recreation, botany and non-biology majors interested in learning to recognize local wildflowers. [GE, NS, NS-LAB, SE]	<b>Plants</b>	<b>of</b>	<b>The Pacific Northwest</b> 5 Credits/Units	<b>Majors</b> BIOL& 221 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> BIOL& 100 (grade of "B" or higher) or BIOL& 222 (grade of "C" or higher) Third course of three introductory courses for life science majors. Covers Mendelian genetics, evolution, adaption, specialization, biodiversity, and ecology. BIOL& 222 is the first course in the three-course series for majors, to be taken prior to BIOL& 223 and BIOL& 221. [GE, NS, NS-LAB, SE]	<b>Ecology/Evolution</b>		5 Credits/Units
<b>Human</b> BIOL 275 6 hours of lab Dissection of the muscular, circulatory, nervous, digestive and reproductive systems. [GE, SE]	<b>Cadaver</b>		<b>Dissection</b> 1-6 Credits/Units	<b>Majors</b> BIOL& 222 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> Concurrent enrollment in, or completion of CHEM& 121, CHEM& 139 or CHEM& 141 (grade of "C" or higher) First course of three introductory courses for life science majors. Includes organic chemistry, cell structure, DNA structure and replication, gene expression, cell division, organismal development, molecular genetics and biotechnology. BIOL& 222 is the first course in the three-course series for majors: to be taken prior to BIOL& 223 and BIOL& 221. [GE, NS, NS-LAB, SE]	<b>Cell/Molecular</b>		5 Credits/Units
<b>Selected</b> BIOL 280 5 hours of lecture Selected topics in Biology. Topics vary, and course contents change to reflect new topics. Because the course varies in content it is repeatable for credit for different topics. [GE, SE]		<b>Topics</b>	1-5 Credits/Units	<b>Majors</b> BIOL& 223 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> BIOL& 222 (grade of "C" or higher) Second course of three introductory courses for life science majors. Covers the physiology of major animal and plant organ systems. BIOL& 222 is the first course in the three-course series for majors, to be taken prior to (second) BIOL& 223 and (third) BIOL& 221. [GE, NS, NS-LAB, SE]	<b>Organismal</b>		5 Credits/Units
<b>Special</b> BIOL 290 5 hours of lecture Opportunity to plan, organize, and complete special projects approved by department. [GE]		<b>Projects</b>	1-5 Credits/Units	<b>Majors</b> BIOL& 241 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> BIOL& 160 (grade of "C" or higher) The first in a two-term sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, terminology, histology, the integumentary, skeletal, articular, muscular, nervous, and endocrine systems. [GE, NS, NS-LAB, SE]	<b>Anatomy and Physiology</b>	<b>I</b>	5 Credits/Units
<b>Survey</b> BIOL& 100 3 hours of lecture / 4 hours of lab Overview of basic concepts and issues in biology including the cellular basis of life, metabolism, principles of inheritance, evolution and diversity. Strong emphasis on the process of scientific inquiry using critical thinking and communication abilities. This course is intended for non-biology majors and fulfills the laboratory science requirements or as a recommended course for other biology courses. English writing skills are highly recommended. Required for psychology majors. [GE, NS, NS-LAB, SE]	<b>of</b>		<b>Biology</b> 5 Credits/Units	<b>Human</b> BIOL& 241 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> BIOL& 160 (grade of "C" or higher) The first in a two-term sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, terminology, histology, the integumentary, skeletal, articular, muscular, nervous, and endocrine systems. [GE, NS, NS-LAB, SE]	<b>Anatomy and Physiology</b>	<b>I</b>	5 Credits/Units
<b>General</b> BIOL& 160 3 hours of lecture / 4 hours of lab Introduction to the study of the cell, the basic component of all living organisms. Emphasis on cell chemistry, structure, metabolism, energetics, cell division and genetic principles. Intended for students seeking a two-year degree in the health occupations. Lab work is required. [GE, NS, NS-LAB, SE][PNP]	<b>Biology</b>		<b>W/Lab</b> 5 Credits/Units				



**Human Anatomy and Physiology II**  
BIOL& 242 5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** BIOL& 241 (grade of "C" or higher)

The second in a two-term sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include endocrine, cardiovascular, respiratory, digestive, urinary, and reproductive systems and fluid and electrolyte balance. [GE, NS, NS-LAB, SE]

**Human A & P I**  
BIOL& 251 5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** BIOL& 100 or BIOL& 160 or (BIOL 164 and BIOL 165), or BIOL& 221 or CHEM& 121 or CHEM& 141 (grade of "C" or higher)

The first in a three-term sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, terminology, cells, protein synthesis, DNA replication, histology, the integumentary, skeletal, articular, and muscular systems, and bone, muscle and membrane physiology. [GE, NS, NS-LAB, SE]

**Human A & P II**  
BIOL& 252 5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** BIOL& 251 (grade of "C" or higher)

The second in a three-term sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, neural tissue, the spinal cord and spinal nerves, the brain and cranial nerves, integration of neural function, the special senses, the endocrine and reproductive systems, development and inheritance. [GE, NS, NS-LAB, SE]

**Human A & P III**  
BIOL& 253 5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** BIOL& 252 (grade of "C" or higher)

The third in a three-term sequence exploring the relationships between structure and function in the human body. The sequence is intended as a prerequisite for students planning to major in Nursing, Dental Hygiene or other allied health programs, or as life science credit for non-biology majors. Topics include homeostasis, the cardiovascular, lymphatic, digestive, respiratory and urinary systems, cellular metabolism, and fluid and electrolyte balance. [GE, NS, NS-LAB, SE]

**Microbiology**  
BIOL& 260 5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** BIOL& 160 (grade of "C" or higher)

History of microbiology and a survey of organisms included in the study of microbiology with emphasis on bacteria. Physiology, morphology, genetics, growth and reproduction of bacteria. Experiments stress lab techniques and organisms that are a factor in clinic and hospital environments. [GE, NS, NS-LAB, SE]

# BUSINESS ADMINISTRATION (BUS/BUS&)

**Business**  
BUS 102  
5 hours of lecture  
**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10

**Math**  
5 Credits/Units

**Applications**  
5 Credits/Units

Application of mathematics in common business situations. Emphasis is on practical applications and problem-solving skills for the business professional as well as the consumer and investor. Topics include: trade and cash discounts, simple and compound interest, mark up and mark down, and consumer credit. [CP, GE, SE]

**Keyboarding**  
BUS 104  
1 hours of lecture / 4 hours of lab  
Introduction to the keyboard, development of touch typing, speed and accuracy, and basic word processing skills for formatting simple letters, memos, tables, and reports. [GE][PNP]

**&**  
1-3 Credits/Units

**Word**  
1-3 Credits/Units

**Processing**  
1-3 Credits/Units

**Introduction to International Business**  
BUS 105  
3 hours of lecture  
A survey course, as well as a preparatory course for advanced study, of globalization and international business issues discussed include the history and development of international business, international institutions, regional alliances, sociocultural and political forces, national resources and environmental sustainability, labor forces, and the development of international competitive strategy. [GE]

**Business**  
3 Credits/Units

**Office English**  
BUS 107  
5 hours of lecture  
Develop proficiency in the language skills necessary for business writing. Strong emphasis placed on grammar, punctuation, sentence structure, capitalization, subject/verb agreement, and editing. [CA, CT, GE, SE]

**English**  
5 Credits/Units

**Customer Service**  
BUS 110  
3 hours of lecture  
Introduction to customer-centered business organization. Topics include the principles and practices of customer relations, the history of consumerism and customer relations departments, and methods to develop internal/external customer service skills, including identifying and responding to their needs, improving skills in providing information, dealing with conflict situations, and developing a positive customer relations climate. [GE][PNP]

**Service**  
3 Credits/Units

**Small Business Management**  
BUS 115  
5 hours of lecture  
Designed to help students explore the elements of starting and managing a small business. Topics include conducting a feasibility analysis, finding sources of capital, acquiring critical human resources, managing assets, and dealing with various internal and external factors, including stakeholders. The foundation of the course will enable students to develop a coherent business plan as well as connect with business owners. [GE][PNP]

**Business**  
5 Credits/Units

**Management**  
5 Credits/Units

**Advertising**  
BUS 117  
3 hours of lecture  
Introduction to advertising. Topics include the problems faced by advertisers and their agencies, along with the policies and procedures for solutions in the development of advertising objectives and strategies, selection of media, determination of budgeting methods, and preparation of copy and layout for effective results. [GE][PNP]

3 Credits/Units

**Computerized Accounting**  
BUS 130  
3 hours of lecture  
**Prerequisite:** Added ACCT 129 in addition to BUS28/29 or ACCT& 201. Computerized accounting techniques in the basic areas of financial accounting, including the processes of analyzing, recording, reporting and interpreting accounting data in a business environment. A systems approach with real world applications of the general ledger, accounts receivable, accounts payable, purchasing, cash receipts, accounting for sales, payroll, and month and year-end closing for both a service and a merchandising business. QuickBooks software is utilized in this course. [GE][PNP]

**Accounting**  
3 Credits/Units

**Business Professional Self Development**  
BUS 148  
3 hours of lecture  
An overview of the job search process and exploration of the importance of developing and using soft skills in a business setting. Professional business concepts and communication skills for employees or prospective employees who wish to improve their professional relations and growth potential. [GE, HR][PNP]

**Professional**  
3 Credits/Units

**Self**  
3 Credits/Units

**Development**  
3 Credits/Units

**Computer Application Essentials**  
BUS 149  
3 hours of lecture  
Fundamentals of common business applications: word processing, spreadsheet, presentation software, and file management. [GE][PNP]

**Application**  
3 Credits/Units

**Essentials**  
3 Credits/Units

**Computer Business Applications**  
BUS 150  
5 hours of lecture  
Introduction to creating business projects using MS Office that emphasize critical thinking and problem-solving skills. Assignments include managing files/folders, creating and formatting Word documents, Excel workbooks, PowerPoint presentations, Access databases, and in teams, creating and giving a presentation based on research. [GE]

**Business**  
5 Credits/Units

**Applications**  
5 Credits/Units

**Personal Finance**  
BUS 160  
5 hours of lecture  
Buying insurance (life, health, property, and auto), buying and financing a home, minimizing Federal income tax, borrowing, saving, and investing. [GE][PNP]

**Finance**  
5 Credits/Units

**Introduction to Excel**  
BUS 169  
3 hours of lecture  
Skills to create, edit, format, and print spreadsheets, tables, graphs and charts using Microsoft Excel; skills to create and edit formulas and simple functions; skills to create, sort, and filter worksheet databases; skills to use PivotTables, templates, and manage multiple worksheets and workbooks. Prior experience with keyboard and/or ten-key by touch and logical thinking are extremely helpful. [GE][PNP]

**to**  
3 Credits/Units

**Excel**  
3 Credits/Units

<b>Excel</b>	<b>for</b>	<b>Business</b>	<b>Business</b>	<b>Communications</b>
BUS 170			BUS 211	
3 hours of lecture			3 hours of lecture	
<b>Prerequisite:</b> BUS 102 and (BTEC 169 or BUS 169) (grades of "C" or higher)			<b>Prerequisite:</b> ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102	
Advanced Microsoft Excel skills including creating, editing, and printing professional workbooks, using advanced formulas and charts, auditing and validating worksheet data, and solving complex problems with Excel. Integrating Excel with other office applications and understanding how technology is critical to solving business problems. An introduction to Visual Basics for Applications (VBA), macros, and making an application in Excel. [GE][PNP]			Developing proficiency in written and oral communications appropriate for business by composing, organizing, and editing documents such as letters, reports, memos, emails, and presentations from a variety of business cases and managerial interviews. Emphasis on team work, collaboration, diversity, intercultural communication, and the delivery of oral presentations, using specialized software. [CA, CT, GE, SE, WC]	
<b>Cooperative</b>	<b>Work</b>	<b>Experience</b>	<b>Professional</b>	<b>Selling</b>
BUS 199			BUS 251	
15 hours of clinical			3 hours of lecture	
Up to 5 credits for supervised work training in an approved job. [GE][PNP]			Introduction to personal selling concepts for the relationship era of business. Focus on selling stages, including prospecting, qualifying, developing rapport, overcoming objections, closing techniques, and following up with customer service. Focus on personal, retail, and organizational selling. [GE][PNP]	
<b>Descriptive</b>		<b>Statistics</b>	<b>Principles</b>	<b>of</b>
BUS 203			BUS 260	<b>Marketing</b>
3 hours of lecture			5 hours of lecture	
<b>Prerequisite:</b> MATH 96 (grade of "C" or higher) or placement into Math level 50.			Introduction to concepts of marketing, with practical emphasis on the research, evaluation, and segmentation of markets. Focus on behavior of consumer and organizational buyers. Activities include developing a marketing plan to include product planning, pricing, promoting, and placement. [GE][PNP]	
Application of statistics to practical business problems. Includes summarizing and presenting data in tables and graphs, calculating and using common descriptive statistics, determining probabilities and using the binomial, Poisson, and normal probability distributions. Knowledge of Excel highly recommended. [GE, SE]				
<b>Principles</b>	<b>of</b>	<b>Finance</b>	<b>I</b>	
BUS 206				
5 hours of lecture				
<b>Prerequisite:</b> ACCT& 201 (grade of "C" or higher)				
Finance theory and practice through the lens of Time Value of Money by examining the financial health of a company based on market conditions, risk, and profitability; evaluate sources of financing based on risk, cost, terms and valuation; and analyze asset structure and financing framework. [GE]				
<b>Principles</b>	<b>of</b>	<b>Finance</b>	<b>II</b>	
BUS 207				
5 hours of lecture				
<b>Prerequisite:</b> BUS 206 (grade of "C" or higher).				
A continuation of Principles of Finance I to investigate finance theory and practice through the lens of Time Value of Money by examining the mix of debt and equity to fund assets as well as dividend distributions, apply measurement tools to make informed capital budgeting decisions, evaluate factors influencing the risk of an investment, and identify capital markets. [GE]				
<b>Introduction</b>	<b>to</b>	<b>E-Business</b>		
BUS 210				
5 hours of lecture				
Introduction to e-Business includes topics such as email, EFT (electronic fund transfers), barcoding, etc.. This will be a 5 credit course that deals with the fundamentals of conducting business online. This course will help assist students better understand the strategies on conducting business online. Other issues include, international standards, ethics, business strategy, electronic marketing. Examination of e-Business in altering the structure of entire industries, and how it affects business processes including electronic transactions, supply chains, decision making and organizational performance. The exponential growth in the last few years of the Internet and its related technologies has created new ways of communication and trading. [GE][PNP]				
			<b>Business</b>	<b>Law</b>
			BUS& 201	
			5 hours of lecture	
			<b>Prerequisite:</b> Sophomore Standing (completion of 45 credits or more)	
			Practical applications of the law of contracts, agency, employment, real and personal property, and bailments in the business world and in one's personal affairs. Legal reasoning and illustrative case problems. [GE, SE]	

# CHEMISTRY (CHEM/CHEM&)

Please see corrections page (<https://catalog.clark.edu/corrections/course-corrections/>) for update to CHEM& 105

**Small World Antibiotics Research 2a**  
CHEM 106 5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** BIOL 105 (grade of "C" or higher)

Investigates authentic research to discover potentially new antibiotics. Overview of basic chemical concepts including a chemical history of antibiotics, their sources and discovery, and modes of action in bacteria. Strong emphasis on scientific inquiry including critical thinking, laboratory research methodology, and communication abilities. [GE, NS, NS-LAB, SE][PNP]

**Cooperative Work Experience**  
CHEM 199 1-5 Credits/Units

15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

**Selected Topics**  
CHEM 280 1-5 Credits/Units

5 hours of lecture

**Special Projects**  
CHEM 290 1-6 Credits/Units

6 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

**Chemical Concepts: Your Intricate Environment**  
CHEM& 105 5 Credits/Units

5 hours of lecture

Designed to increase scientific literacy in non-science majors, with little or no scientific background. Together we will explore your world through the lens of chemistry. You will be introduced to basic chemical concepts, the laws that govern them, and use that foundation to explore the connection between human actions and the state of the environment. This course is distinct from CHEM& 110 in both content and practice; since it uses a relatively non-mathematical approach it does not serve as a prerequisite to other CHEM courses. [GE, NS, SE]

**Chemical Concepts W/Lab**  
CHEM& 110 5 Credits/Units

4 hours of lecture / 2 hours of lab

Introductory chemistry course to fulfill the General Education Science with Laboratory requirement, intended for non-science majors who will not take additional chemistry. Focus on unit factor and equation problem solving skills as related to chemical concepts, also stoichiometry and stoichiometric problem solving skills. Topics include the structure of the atom, chemical reactions, and chemical and physical properties to describe matter. [GE, NS, NS-LAB, SE]

**Intro to Chemistry: Pre-Health**  
CHEM& 121 5 Credits/Units

4 hours of lecture / 2 hours of lab

**Prerequisite:** MATH 96 (grade of "C" or higher), placement into Math level 45, or concurrent enrollment in MATH 6.

Topics in general chemistry applicable to students seeking a 2-year degree in the health-occupations fields. Unit-factor method is applied to problem solving. Topics covered include units of measurement, atomic structure, chemical bonding, energy, the mole concept, nomenclature of inorganic compounds, writing and balancing equations, properties of gases, solutions and colloids, reaction rates and equilibrium, acids, bases and salts, radiation and health. Completion of elementary algebra recommended. [GE, NS, NS-LAB, SE]

**Intro to Organic/Biochem**  
CHEM& 131 5 Credits/Units

4 hours of lecture / 2 hours of lab

**Prerequisite:** CHEM& 121 (grade of "C" or higher)

Aspects of organic and biochemistry emphasizing how chemicals affect functioning of the human body. Applicable to students seeking a 2-year degree in the health-occupations fields. Topics covered include aliphatic and aromatic compounds, alcohols, ethers, amines, aldehydes, ketones, carboxylic acids and their derivatives, carbohydrates and carbohydrate metabolism, lipids and lipid metabolism, proteins and protein metabolism, enzymes and hormones, nucleic acids and the chemistry of heredity, body fluids and the human circulation system and nutrition. [GE, NS, NS-LAB, SE]

**General Chemistry Preparation**  
CHEM& 139 4 Credits/Units

4 hours of lecture

**Prerequisite:** MATH 96 (grade of "C" or higher) or placement into Math level 50.

For students who need additional background in applied mathematics and chemistry to enroll in the CHEM& 141-142-143 sequence for science and engineering majors. Topics include scientific methods of measurement, significant figures, nomenclature, properties of elements, compounds, and solutions, the periodic table, writing and balancing chemical equations, and focused (extensive) practice on stoichiometric problem solving. [GE, SE]

**General Chemistry I**  
CHEM& 141 4 Credits/Units

4 hours of lecture

**Prerequisite:** Both CHEM& 141 and CHEM& 151 must be in your shopping cart to register. (Eligibility for College Algebra (Math Level 50)) and (CHEM& 139 (grade of "C" or higher) or rec. score on chem placement test), and (concurrent enrollment in CHEM141 and CHEM151).

First of a 3-term sequence designed for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include systems of measurement, atomic structure, chemical bonding and shape, stoichiometric calculations, properties of gases, nomenclature of inorganic compounds, and writing and balancing equations. [GE, NS, SE]

**General Chemistry II**  
CHEM& 142 4 Credits/Units  
4 hours of lecture

**Prerequisite:** CHEM& 141 and CHEM& 151 (grades of "C" or higher), and concurrent enrollment in CHEM& 142 and CHEM& 152  
Second of a 3-term sequence designed for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include properties of liquids and solids, solutions, equilibria, reaction kinetics, acid-base theories, ionic equilibria and an introduction to organic chemistry. [GE, NS, SE]

**General Chemistry III**  
CHEM& 143 4 Credits/Units  
4 hours of lecture

**Prerequisite:** CHEM& 142 and CHEM& 152 (grades of "C" or higher). Concurrent enrollment in CHEM& 153 is recommended.  
Third of a three-term sequence designed for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include ionic equilibria, thermodynamics, nuclear chemistry, electrochemistry, transition metal chemistry, and applications of all chemical concepts to the elements on the periodic table. [GE, NS, SE]

**General Chemistry Laboratory I**  
CHEM& 151 1 Credit/Unit  
2 hours of lab

**Prerequisite:** Both CHEM& 141 and CHEM& 151 must be in your shopping cart to register. (Eligibility for College Algebra (Math Level 50)) and (CHEM& 139 (grade of "C" or higher) or rec. score on chem placement test), and (concurrent enrollment in CHEM141 and CHEM151).  
First of a 3-term lab sequence designed for science and engineering majors, to coincide with CHEM& 141 General Chemistry I. Applications of the scientific method by correlating theory with experimental observation. Topics include systems of measurement, observing and affecting chemical reactions, energy considerations, chemical behavior of aqueous systems, the nature of chemical bonding, gas laws, graphing techniques, using technological interfaces to collect and manipulate data, and mathematical calculations to support chemical observations. Students must register for CHEM& 141, or consent of Instructional Unit. [GE, NS, NS-LAB, SE]

**General Chemistry Laboratory II**  
CHEM& 152 1 Credit/Unit  
2 hours of lab

**Prerequisite:** CHEM& 141 and CHEM& 151 (grades of "C" or higher), and concurrent enrollment in CHEM& 142 and CHEM& 152  
Second of a 3-term lab sequence designed for science and engineering majors, to coincide with CHEM& 142 General Chemistry II. Applications of the scientific method by correlating theory with experimental observation. Topics include phenomena of solid and liquid states, colligative properties of aqueous and non-aqueous systems, reaction kinetics, general equilibria, acid/base equilibria, graphing techniques, using technological interfaces to collect and manipulate data, and mathematical calculations to support chemical observations. [GE, NS, NS-LAB, SE]

**General Chemistry Laboratory III**  
CHEM& 153 2 Credits/Units  
1 hours of lecture / 2 hours of lab

**Prerequisite:** CHEM& 142 and CHEM& 152 (grades of "C" or higher), and concurrent enrollment in CHEM& 143 and CHEM& 153  
Third of a 3-term lab sequence to coincide with CHEM& 143 General Chemistry III for science and engineering majors. Applications of the scientific method by correlating theory with experimental observation. Topics include chemical and ionic equilibria, acid-base theories of aqueous solutions and selected principles of electrochemistry, gravimetric analysis, coordination chemistry, volumetric analysis, inorganic synthesis, and the statistical handling of data. [GE, NS, NS-LAB, SE]

**Organic Chemistry I**  
CHEM& 241 4 Credits/Units  
4 hours of lecture

**Prerequisite:** CHEM& 143 and CHEM& 153 (grades of "C" or higher) and concurrent enrollment in CHEM& 241 and CHEM& 251  
First of a 3-term sequence designed for science and engineering majors, or students seeking a career in the health professions. Topics include mechanistic approach applied to hydrocarbons and alkenes, spectroscopic methods, molecular orbitals, hybridization, resonance, acid/base theory, nomenclature, structure and reactivity, kinetic and thermodynamic theories of reactions. [GE, NS, SE]

**Organic Chemistry II**  
CHEM& 242 4 Credits/Units  
4 hours of lecture

**Prerequisite:** CHEM& 241 and CHEM& 251 (grades of "C" or higher) and concurrent enrollment in CHEM& 242 and CHEM& 252  
Second of a 3-term sequence designed for science and engineering majors, or students seeking careers in the health professions. Topics include organic synthesis and mechanistic approach applied to polar molecules; topics may include alcohols, ethers, organometallic compounds, aromatic systems, aldehydes and ketones. [GE, NS, SE]

**Organic Chemistry III**  
CHEM& 243 4 Credits/Units  
4 hours of lecture

**Prerequisite:** CHEM& 242 and CHEM& 252 (grades of "C" or higher) and concurrent enrollment in CHEM& 243 and CHEM& 253  
Third of a 3-term sequence designed for science and engineering majors, or students seeking careers in the health professions. Topics include mechanistic and synthetic approach applied to polar molecules; topics may include reactions of carboxylic acids and derivatives, dicarbonyl compounds, amines, conjugated systems, polymer systems and an introduction to biomolecules. [GE, NS, SE]

**Organic Chemistry Laboratory I**  
CHEM& 251 1 Credit/Unit  
4 hours of lab

**Prerequisite:** CHEM& 143 and CHEM& 153 (grades of "C" or higher) and concurrent enrollment in CHEM& 241 and CHEM& 251  
First of a 3-term laboratory sequence designed for science and engineering majors, or students seeking a career in the health professions. Focus on basic organic laboratory techniques such as recrystallizations, melting points, distillations, reflux, extractions, chromatography, and spectroscopy; laboratory notebook-keeping skills and scientific writing methods. [GE, NS, NS-LAB, SE]

**Organic Chemistry Laboratory II**  
CHEM& 252 1 Credit/Unit  
4 hours of lab

Concurrent enrollment in CHEM& 242, or consent of Instructional Unit.

**Prerequisite:** CHEM& 241 and CHEM& 251 (grades of "C" or higher) and concurrent enrollment in CHEM& 242 and CHEM& 252

Second of a 3-term laboratory sequence designed for science and engineering majors, or students seeking a career in the health professions. Focus on organic laboratory techniques, spectroscopic characterization of molecules, and introduction to synthetic techniques, including multi-step syntheses and handling moisture- or air-sensitive compounds. [GE, NS, NS-LAB, SE]

**Organic Chemistry Laboratory III**  
CHEM& 253 2 Credits/Units  
1 hours of lecture / 4 hours of lab

**Prerequisite:** CHEM& 242 and CHEM& 252 (grades of "C" or higher) and concurrent enrollment in CHEM& 243 and CHEM& 253

Third of a 3-term sequence designed for science and engineering majors, or students seeking careers in the health professions. Advanced synthetic techniques, project-based experiments and identification. CHEM& 253 replaces CHEM 214. [GE, NS, NS-LAB, SE]

# COLLEGE AND ACADEMIC PREPARATION (CAP/CCAP)

**Educational** **Interviewing**  
CAP 1 1 Credit/Unit

1 hours of lecture

For students who are new to Transitional Studies. Students will be assessed and advised into appropriate classes, set goals and create an educational plan. [PNP]

**Technology** **for** **Pathways**  
CAP 3 1 Credit/Unit

1 hours of lecture

For students who need to improve their technology skills, especially navigating Canvas. Students will improve these skills while learning about the career pathways leading from Transitional Studies to college completion. Successful completion of the course will provide .5 Occupational Educational credit toward the HS21+ diploma. [PNP]

**Jumpstart:** **Reading** **&** **Writing**  
CAP 5 1-6 Credits/Units

6 hours of lecture

Development of standards-based reading and writing skills in the contexts of science and social studies to successfully transition into appropriate High School 21 courses.

**Intensive** **Fast** **Track** **1:** **Portfolio**  
CAP 11 2 Credits/Units

2 hours of lecture

Improve the ability to listen actively, speak so others can understand, read with understanding, and convey ideas in writing while developing a career portfolio. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma.

**Intensive** **Fast** **Track** **1:** **Written** **Communication**  
CAP 12 6 Credits/Units

6 hours of lecture

Improve the ability to read with understanding and convey your ideas in writing. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma.

**Intensive** **Fast** **Track** **1:** **Oral** **Communication**  
CAP 13 3 Credits/Units

3 hours of lecture

Improve the ability to listen actively and speak so others can understand. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma.

**Intensive** **Fast** **Track** **1:Technology**  
CAP 14 3 Credits/Units

3 hours of lecture

Improve the ability to use technology. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma.

**Intensive** **Fast** **Track** **1:** **Study** **Skills**  
CAP 15 2 Credits/Units

2 hours of lecture

Strengthen study skills and reflect on various strategies and characteristics of successful college students. Upon successful completion of Intensive Fast Track 1, students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma.

**Fast** **Track** **1:** **Oral** **Communication/Technology**  
CAP 16 6 Credits/Units

6 hours of lecture

Development of computer skills to support your ability to listen actively and speak so others can understand in the context of college and work. Upon successful completion of Fast Track 1 (both CAP 016 and CAP 018), students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma.

**Fast** **Track** **1:** **Written** **Communication/Technology**  
CAP 18 6 Credits/Units

6 hours of lecture

Development of computer skills as you improve your ability to read with understanding and convey your ideas in writing. Upon successful completion Intensive Fast Track 1 (both CAP 016 and CAP 018), students will have gained the study skills as well as the academic skills to transition into Fast Track 2, Integrated English CAP coursework or I-BEST. HS21+ students will also receive Occupational Education credit toward their HS21+ diploma.

**Fast** **Track2:** **Written** **Communication** **for** **College**  
CAP 21 6 Credits/Units

6 hours of lecture

Development of written communication skills, focusing on college readiness. Students will improve written fluency as well as accuracy in writing, grammar, and vocabulary use. Upon successful completion of Fast Track 2, students will have gained the skills to transition into Integrated English CAP coursework. Successful completion of the course will provide elective credit toward the HS+ diploma.

**Fast** **Track** **2:** **Oral** **Communication** **for** **College**  
CAP 22 6 Credits/Units

6 hours of lecture

Development of oral communication skills, focusing on college readiness. Students will improve listening comprehension as well as fluency and accuracy in speaking. Successful completion of the course will provide elective credit toward the HS+ diploma.

**On-Ramp to Healthcare**  
CAP 23 6 Credits/Units  
6 hours of lecture

Development of oral and written communication skills both face-to-face and on-line in the context of healthcare. Upon successful completion of On-Ramp to Healthcare, students will have gained the skills to transition into job training and college courses. HS21+ students will also receive credit toward their HS21+ diploma. [PNP]

**Integrated English and Business**  
CAP 24 7 Credits/Units  
7 hours of lecture

Earn credits toward HS+ diploma and/or improve skills to transition to college-level courses. Integrates business concepts with critical reading and writing skills. Successful completion of the course will provide 1-3 credits of English 1 credit of Occupational Education. [PNP]

**Civics**  
CAP 27 3 Credits/Units  
3 hours of lecture

Preparation for GED or HS+ diploma: study of our national government, constitution, and rights and responsibilities of citizenship at federal, state, and local levels. Topics: federal, state, tribal, and local government organization procedures; current issues addressed at each level of government; electoral issues, including elections, ballot measures, initiatives, and referenda; study and completion of the civics component of the federally administered naturalization test required of persons seeking to become naturalized citizens; and character traits and basic values of living in a free society. HS+ students will earn 1 Civics credit toward the HS+ diploma.

**Ecology Basics**  
CAP 28 3 Credits/Units  
3 hours of lecture

Elements of life science that are focused on ecological understanding. Explore relationships between living organisms and relate these relationships to ecological issues locally and globally. HS+ students will earn 1 lab science credit toward the high school diploma.

**Lab Science**  
CAP 29 3 Credits/Units  
3 hours of lecture

**Prerequisite:** Eligibility for CAP 042.

Introduces concepts from biology, chemistry and physics. Explore the scientific method through designing, implementing, and sharing a project using scientific inquiry as well as complete several labs throughout the quarter. Successful completion of CAP 029 will provide 1 credit for a Lab Science toward the HS21+ diploma. [PNP]

**Fine Arts**  
CAP 30 3 Credits/Units  
3 hours of lecture

For students who want to earn credit toward their HS21+ diploma, prepare for the GED test or improve their skills to transition to college-level courses. Students will gain a deeper understanding of the arts and how to evaluate the impressions gained by exposure to different forms of media. Successful completion of the course will provide 1 Fine Arts credit toward the HS21+ diploma. [PNP]

**Washington State History**  
CAP 31 3 Credits/Units  
3 hours of lecture

For students who want to prepare for the GED or the HS21+ diploma in order to enhance the students' lives in an adult secondary education ABE Washington State history course. Provides a social, political, economic history of the Pacific Northwest with particular emphasis on the state of Washington, including Native American history and gender/ethnic history. Successful completion of the course will award 1 credit for WA State History toward the HS21+ diploma.

**Washington State History & Fine Arts**  
CAP 32 7 Credits/Units  
7 hours of lecture

For students who want to earn credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Students will gain a deeper understanding of WA State History and how it relates to Fine Arts. Successful completion of the course will provide 1 credit for WA State History and 1 credit for Fine Arts toward the HS21+ diploma.

**US History & Government**  
CAP 33 7 Credits/Units  
7 hours of lecture

For students who want to earn credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Students will gain a deeper understanding of US history and government. Successful completion of the course will provide 1 credit for US History and Government toward the HS21+ diploma.

**Science & Contemporary World Problems**  
CAP 34 7 Credits/Units  
7 hours of lecture

For students who want to earn credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Students will gain a deeper understanding of the sciences and how they relate to current world problems. Successful completion of the course will provide 1 credit for Science and 1 credit for Contemporary World Problems toward the HS21+ diploma.

**Transitional Studies Math Support**  
CAP 49 1-3 Credits/Units  
3 hours of lecture

Designed to provide additional instruction and support for student success in CAP Math classes. Reviews important concepts and skills introduced during CAP Math classes.

**Integrated English & Wa State History/Fine Arts**  
CAP 64 7 Credits/Units  
7 hours of lecture

For students who want to earn credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Integrates WA State history and Fine Arts with critical reading and writing skills. Successful completion of the course will provide 1-3 credits for English, 1 credit for WA State History and 1 credit for Fine Arts toward the HS21+ diploma.



<b>Integrated</b> CAP 74	<b>English</b>	<b>&amp;</b>	<b>Science/CWP</b>	<b>Occupational</b> CAP 94	<b>Education</b>	1-2 Credits/Units
7 Credits/Units 7 hours of lecture For students who want to earn credits toward their High School 21 diploma, prepare for the GED test or improve their skills to transition to college-level courses. Integrates Science and CWP with critical reading and writing skills. Successful completion of the course will provide 1-3 credits for English, 1 credit for Science and 1 credit for Contemporary World Problems toward the HS21+ diploma.				2 hours of lecture For students who need to earn occupational education credit for the HS21+ diploma. Students will gain a deeper understanding of preparing for a job and working successfully with co-workers. Successful completion of the course will provide occupational education credit toward the HS21+ diploma.		
<b>CAP</b> CAP 80	<b>Special</b>	<b>Topics</b> 1-10 Credits/Units		<b>Physical</b> CAP 95	<b>Education</b>	1-2 Credits/Units
10 hours of lecture Variable topics in Basic Education Career and Academic Prep. Content to reflect the selected topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule. Outcomes are determined by level of placement into the course and are based on the Washington State Basic Education Learning Indicators. Students must attempt a CASAS post-test after 45 hours of attendance in this course.				2 hours of lecture For students who need to earn physical education credit for the HS21+ diploma. Students will gain a deeper understanding of physical education by creating a personalized self-directed exercise plan. Successful completion of the course will provide physical education credit toward the HS21+ diploma.		
<b>Academic</b> CAP 88	<b>Grammar</b>		1-4 Credits/Units	<b>Electives</b> CAP 96 2 Credits/Units 2 hours of lecture For students who need to earn elective credit for the HS21+ diploma. Students will work on independent projects in a variety of subject areas. Successful completion of the course will provide .5-2 elective credits toward the HS21+ diploma.		
4 hours of lecture Development of writing skills for academic purposes that will emphasize concepts such as sentence types, sentence structure, clauses, phrases and verb tenses. Students will apply academic English conventions to their own writing. Successful completion of the course will provide elective credit toward the HS+ diploma.				<b>CAP</b> <b>Special</b> <b>Projects</b> CAP 99 1-10 Credits/Units 10 hours of lecture CAP Special Projects		
<b>Integrated</b> CAP 90	<b>English/CWP</b>	<b>(PP&amp;I)</b> 7 Credits/Units		<b>Science</b> CCAP 27 1-3 Credits/Units 3 hours of lecture <b>Prerequisite:</b> Eligible for CCAP 27 Competency-based course designed to earn Science credit for the HS+ diploma. Explore the scientific method in the areas of ecology, sustainability and the environment. Demonstrated achievement of competencies will award 1 Science credit toward the HS+ diploma.		
7 hours of lecture For students who want to prepare for the GED, HS21+ diploma and/or college coursework. Students will gain a deeper understanding of the systems of power, privilege, and inequity and how they relate to current world problems. This is an advanced CAP writing course that will emphasize college-prep reading and writing skills. Successful completion of this course will provide 1 credit for Contemporary World Problems and 1 elective credit toward the HS21+ diploma. [PNP]				<b>Contemporary</b> <b>World</b> <b>Problems</b> CCAP 28 1-3 Credits/Units 3 hours of lecture <b>Prerequisite:</b> Eligible for CCAP 28		
<b>I-BEST</b> CAP 91	<b>Seminar</b>		1-5 Credits/Units	This competency-based course is designed for students who need to earn CWP credit for the HS+ diploma. Evaluation of major world events and human activity in order to better understand human impacts on our world. Evaluation of global civil rights movements and exploitation of resources to further understand the implications of human activity on local and global environments. Demonstrated achievement of the competencies will award 1 credit of CWP toward the HS+ diploma. [PNP]		
5 hours of lecture Designed to provide additional instruction and support for student success in I-BEST designated classes. Reviews important concepts and vocabulary introduced during I-BEST classes and skills to communicate clearly and accurately using vocabulary and expressions commonly used in the I-BEST academic, work place and job search environment. Offers activities to strengthen basic skills while studying in an I-BEST program. Students must be concurrently enrolled in an I-BEST designated class.				<b>Lab</b> <b>Science</b> CCAP 29 1-3 Credits/Units 3 hours of lecture <b>Prerequisite:</b> Eligible for CCAP 29		
<b>Health</b> CAP 93	1-2 Credits/Units		Competency-based course designed to earn Lab Science credit for the HS+ diploma. Introduction of concepts from biology, chemistry and physics. Explore the scientific method through designing, implementing, and sharing a project using scientific inquiry. Demonstrated achievement of competencies will award 1 Lab Science credit toward the HS+ diploma.			
2 hours of lecture For students who need to earn health credit for the HS21+ diploma. Students will gain a deeper understanding of a healthy lifestyle. Successful completion of the course will provide health credit toward the HS21+ diploma.						

**US History & Government**

CCAP 33 1-3 Credits/Units

3 hours of lecture

**Prerequisite:** Eligible for CCAP 31

This competency-based course is designed for students who need to earn US History and Government credit. Demonstrated achievement of the competencies will award 1 credit of US History 1 credit of Government toward the HS+ diploma, or 1 elective credit if Government credit is not needed. This course will analyze key events and time periods in US history to develop a more informed understanding of why and how the US exists today. [PNP]

**Algebra**

CCAP 41 1-6 Credits/Units

6 hours of lecture

**Prerequisite:** Eligible for CCAP 41

Competency-based course designed to earn Algebra credit for the HS+ diploma. Topics: how equations work, factoring, graphing linear equations, solving inequalities and simplifying polynomials with various operations. Demonstrated achievement of the competencies will award 1 Algebra credit toward the HS+ diploma.

**Geometry**

CCAP 43 1-6 Credits/Units

6 hours of lecture

**Prerequisite:** Eligible for CCAP 43

Competency-based course designed earn Geometry credit for the HS+ diploma. Topics: geometry properties, area, perimeter, surface area, volume, and various transformations. Demonstrated achievement of the competencies will award 1 Geometry credit toward the HS+ diploma.

**Algebra****2**

CCAP 45 1-6 Credits/Units

6 hours of lecture

Competency-based course designed to earn Algebra 2 credit for the HS+ diploma. Topics: graph solve inequalities, linear and exponential equations; simplify, add, subtract, multiply, divide and factor polynomials; solve quadratic equations; solve and simplify logarithms; identify functions; and solve graph system of equations problems. Demonstrated achievement of competencies will award 1 Algebra 2 credit toward the HS+ diploma.

**Applied****English**

CCAP 63 1-6 Credits/Units

6 hours of lecture

**Prerequisite:** Eligible for CCAP 63

Competency-based course designed to earn English credit for the HS+ diploma. Emphasis on critical reading and analytical writing skills. Demonstrated achievement of the competencies will award 1-3 credits of English toward the HS+ diploma.

**CCAP****Special****Topics**

CCAP 80 1-12 Credits/Units

10 hours of lecture

Variable topics in Career and Academic Preparation. Content to reflect the selected topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule. Outcomes are determined by level of placement into the course.

**Health**

CCAP 93 1-2 Credits/Units

2 hours of lecture

**Prerequisite:** Eligible for CCAP 93

This competency-based course is designed for students who need to earn Health credit for the HS+ diploma. Students will gain a deeper understanding of a healthy lifestyle. Demonstrated achievement of the competencies will award 1 Health credit toward the HS+ diploma. [PNP]

**Physical Education & Fitness**

CCAP 95 1-2 Credits/Units

2 hours of lecture

**Prerequisite:** Eligible for CCAP 95

Competency-based course designed to earn physical education credit for the HS+ diploma. Gain a deeper understanding of physical education by creating a personalized self-directed exercise plan. Demonstrated achievement of the competencies will award 1.5 physical education credits toward the HS+ diploma. [PNP]

**Electives**

CCAP 96 1-2 Credits/Units

2 hours of lecture

**Prerequisite:** Eligible for CCAP 96

This competency-based course is designed for students who need to earn elective credit for the HS+ diploma. Students will work on independent projects in a variety of subject areas in order to fulfill graduation requirements for a high school diploma. Demonstrated achievement of the competencies will provide .5-1 electives credits toward the HS+ diploma.

# COLLEGE PREPARATION (COLL)

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**College Essentials: Introduction to Clark**  
COLL 101 2 Credits/Units

2 hours of lecture  
Introduction to Clark College for new students, focusing on making a successful transition to college life. Topics include goal setting, personal management skills, developing an academic plan, developing cultural competence and communication skills, financial literacy, and an introduction to student resources at the college. [GE, HR, SE][PNP]

# COMMUNICATION STUDIES (CMST/CMST&)

## Professional Communication and Technology CMST 103 3 Credits/Units

3 hours of lecture

Professional use of current communication technology in a variety of settings. Examination of internet profile and development of communication competence in social media environments. Course concepts taught and assessed using a variety of communication technology tools and applications. [GE, HA, HR, SE]

## Cooperative Work Experience CMST 199 1-5 Credits/Units

15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

## Intercultural Communication CMST 216 5 Credits/Units

5 hours of lecture

Examination of the impact of culture on communication. Analysis of patterns of communications which affect the ability to establish clear understanding and effective interpersonal relationships. Skills to improve communication across cultural boundaries. [GE, HA, SE]

## Selected Topics CMST 280 1-5 Credits/Units

5 hours of lecture

The course focuses on selected topics in Communication Studies. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule. [GE, SE]

## Special Projects CMST 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

## Organizational Communication CMST 310 5 Credits/Units

5 hours of lecture

**Prerequisite:** CMST& 210, CMST& 220, or CMST& 230 (grade of "C" or higher).

Introduction to the communication dynamics of an organization. Analyzes relationships between structural variables in the organization and informal communication channels, organizational culture, and strategic communication. Covers the major theories of organizational communication, identifying and defining primary concepts, applying them to discussions of real-world situations. Topics include public and human relations, conflict resolution, organizational structure, motivation, coaching, leadership, informal communication networks, corporate culture, socialization, globalization, the role of technology, and external communication as they relate to organizations. Theory and research are made more applicable through case studies of actual organizational problems/issues. [GE, SE, WC]

## Intro to Mass Media CMST& 102 5 Credits/Units

5 hours of lecture

Survey of the various major communication media, their primary functions and social impact. Explores the ways in which various mass media impact us and how we impact the mass media. Focuses on critical analysis of issues regarding the mass media to help students develop their own personal and informed approach toward the dynamics of mass communication in society and increase their media literacy. [GE, HA, SE]

## Interpersonal Communication CMST& 210 5 Credits/Units

5 hours of lecture

Person-to-person communication emphasizing theoretical principles and their application. How self-concept, perception, verbal and non-verbal attributes and attitudes influence communication within the family, between friends, and at work. [GE, HA, HR, OC, SE]

## Public Speaking CMST& 220 5 Credits/Units

5 hours of lecture

Introduction to speechmaking based primarily on a traditional public speaking approach. Aids students in developing theoretical understanding and practical application of oral communication skills. Techniques in controlling speech anxiety, how to structure and organize information to present to a variety of audiences; and physical and vocal delivery skills. [GE, HA, OC, SE]

## Small Group Communication CMST& 230 5 Credits/Units

5 hours of lecture

**Prerequisite:** ENGL& 101 or PTWR 135 (grade of "C" or higher)  
Small group communication emphasizing theoretical principles and their application, enabling students to become more comfortable and competent participants in the group communication process. Emphasis will be on the study and application of the dynamics of group development, problem solving methodologies, and the use of power, including leadership and conflict. Formerly titled CMST 201. Credit not allowed for both CMST 201 and CMST& 230. [GE, HA, HR, OC, SE, SS]

# COMPUTER SCIENCE & ENGINEERING (CSE)

## Engineering and Computer Science Orientation

CSE 101 1 Credit/Unit  
2 hours of lab

Orientation for students interested in Engineering and Computer Science. Topics include exposure to Engineering and Computer Science educational/career opportunities and challenges, with emphasis on effective planning, communication, teamwork appropriate to these career fields. [GE, SE]

**Introduction to Electrical/Computing**  
CSE 120 5 Credits/Units  
4 hours of lecture / 3 hours of lab

**Prerequisite:** A grade of 'C' or better in College Trigonometry. Introduction to electrical/computer science and engineering processes, principles, problem-solving techniques, and contemporary tools. Applies in-class learning to hands-on projects and explores current industry trends and implications. [GE, SE]

**Introduction to C**  
CSE 121 5 Credits/Units  
5 hours of lecture

**Prerequisite:** A grade of 'C' or better in MATH& 151 (MATH 113), ENGR 120, CSE 120, ENGR 109 (ENGR 111) or CTEC 121; or consent of Instructional Unit.

Introduction to the C programming language. Emphasis on program design, verification, and testing. Programming related concepts in computer science will be covered. [GE, SE]

**Discrete Structures**  
CSE 215 5 Credits/Units  
5 hours of lecture

**Prerequisite:** CSE 121 and ENGR 250 (grades of "C" or higher) Discrete structures and analysis techniques for computing by building on students' skills in programming and logic. Topics include: functions, relations and their properties; sets, sequences and tuples; probability, counting (permutations and combinations); propositional logic and logical connectives; introduction to predicate logic and its limitations; formal proof strategies (counterexample, contraposition); contradiction, recursion, computational complexity; trees, graphs and traversal strategies; modeling computation (finite state turing machines). [GE, SE]

**Introduction to Data Structures**  
CSE 222 5 Credits/Units  
5 hours of lecture

**Prerequisite:** CSE 121 and CSE 224 (grades of "C" or higher) Fundamentals of data structures and advanced programming techniques used in high-level languages such as C. Topics: trees, heaps, hash tables, sorting, searching, recursion, and algorithm analysis. [GE, SE]

**Data Structures & Object-Oriented Programming**  
CSE 223 5 Credits/Units  
5 hours of lecture

**Prerequisite:** CSE 215 and CSE 222 (grades of "C" or higher) Study of data structures and the analysis of algorithms, object-oriented programming, concurrency, memory management. [GE, SE]

**Programming Tools**  
CSE 224 5 Credits/Units

5 hours of lecture  
**Prerequisite:** CSE 121 (grade of "C" or higher)  
Study of tools and techniques that facilitate programming and debugging, including debuggers, profilers, and scripting. [GE, SE]

**Selected Topics**  
CSE 280 1-5 Credits/Units  
2 hours of lecture  
Varying topics. May be repeated for credit. [GE]

**Special Projects**  
CSE 290 1-5 Credits/Units  
5 hours of lecture  
Opportunity to plan, organize, and complete special projects approved by the department. [GE]

# COMPUTER TECHNOLOGY (CTEC)

**Computing Essentials**  
CTEC 101 2 Credits/Units  
2 hours of lecture

**Prerequisite:** Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Introduction to basic skills and problem solving involved with computer hardware, operating systems, and application programs with a special emphasis on conventions and skills universal to a variety of computing settings and skills which promote portability between systems and applications. Provides an overview of key skills in a variety of operating system environments and digital interactive settings. Skills and topics include: essential interactions in major operating system environments, basic hardware components of a personal computer system, an overview of file formats and management with an emphasis on backup and portable document strategies, basic interactions in email and worldwide web including how to document and save web pages, and a survey of the purposes of various types of application programs. [GE]

**IT Support**  
CTEC 104 3 Credits/Units  
3 hours of lecture

**Prerequisite:** Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Communication skills for working in a technical environment. Topics covered: professional ethics and behavior, health and safety issues, and developing a service attitude. [GE, HR, SE]

**Information Technology Fundamentals**  
CTEC 106 5 Credits/Units  
5 hours of lecture

**Prerequisite:** Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Provides foundational skills utilized in information and computer technology and a functional understanding of information technology-related careers. Topics include hardware and software technologies, configuring and setting up workstations, network fundamentals and computer security. Course is based on CompTIA IT Fundamentals certification. [GE]

**Powershell Fundamentals**  
CTEC 111 3 Credits/Units  
3 hours of lecture

**Prerequisite:** Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Provides skills and experience in the Windows PowerShell command line environment for preparation towards careers in computer and information technology related fields. Topics include command line syntax, file system interactions and managing network systems in PowerShell, scripting, functions and using PowerShell with Active Directory. [GE]

**Internet Research and Living Online**  
CTEC 115 3 Credits/Units  
3 hours of lecture

**Prerequisite:** Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Introduction to global networking and the Internet with an emphasis on the basic skills for interacting and utilizing the Internet for research. Topics include strategies for locating, analyzing and evaluating information, as well as network fundamentals, Internet origins, social, legal and ethical issues regarding Internet interactions. [GE]

**User Experience Design**  
CTEC 117 4 Credits/Units  
2 hours of lecture / 4 hours of lab

**Prerequisite:** Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Investigation into the field of user experience design, web usability and interaction design. Focus on strategies and best practices to better understand how to create successful user experiences. Topics include fundamentals of user centered design, user research, the role of design thinking in user experience design, user testing, information architecture and interface design. Students will design and conduct usability testing. [GE]

**Intro to Programming & Problem Solving**  
CTEC 121 5 Credits/Units  
5 hours of lecture

**Prerequisite:** Eligibility for ENGL& 101 and (PTCS 110 (grade of "C" or higher), or placement into Math Level 50).

Fundamental concepts related to designing and writing computer programs and procedures. Topics include: problem-solving techniques, program design, coding, de-bugging, testing and documentation. Students will use the Python programming language to write simple programs while being exposed to concepts common to all programming. The course serves as an available prerequisite pathway for further studies in programming. [CP, GE, SE]

**HTML Fundamentals**  
CTEC 122 4 Credits/Units  
4 hours of lecture

**Prerequisite:** Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Introduction to website development through the mastery of the fundamentals of HTML, XHTML, and CSS coding for web pages. Intended to give the student the basic skills required to hand-code web pages from scratch. A website will be developed in compliance with current web standards, practices, and usability. Topics include: XHTML, HTML5, CSS, CSS#, web server organization and structure, text editors, images, links, lists, forms, tables, and code validation. [GE, SE]

**JavaScript**  
CTEC 126 5 Credits/Units  
5 hours of lecture

**Prerequisite:** (CTEC 112, CTEC 121 or CSE 121) and CTEC 122 (grades of "C" or higher)

Introduction to the fundamentals and concepts of JavaScript including web scripting with jQuery, AJAX, and related libraries. Student will create dynamic websites and code demonstrating for debugging and testing JavaScript based design and code functionality. [GE]

<b>PHP</b>	<b>With</b>	<b>SQL</b>	<b>I</b>	<b>Microsoft</b>	<b>Database</b>	<b>Admin</b>
CTEC 127			5 Credits/Units	CTEC 134		5 Credits/Units
5 hours of lecture						
<b>Prerequisite:</b> (CTEC 112, CTEC 121 or CSE 121) and CTEC 122 (grades of "C" or higher)						
This course is an introduction to the server-side programming language PHP and its use in creating dynamic web applications, providing students with a functional knowledge of database design, SQL statements, dynamic web applications, and the methods implemented in PHP for manipulating MySQL databases. [GE]						
<b>Microsoft</b>	<b>Windows</b>	<b>OS</b>	<b>Fundamentals</b>			
CTEC 130			3 Credits/Units			
3 hours of lecture						
<b>Prerequisite:</b> Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).						
Fundamental Windows interactions and key skills and issues important in providing support for Windows users. Topics include basic interactions with Windows, system configuration, installing and upgrading systems, managing devices, system maintenance and other support issues. Course is based on the Windows Operating System Microsoft Technology Associate (MTA) Certification, which students will have an opportunity to earn as a component of the course curriculum. [GE]						
<b>Microsoft</b>	<b>Networking</b>		<b>Fundamentals</b>			
CTEC 131			3 Credits/Units			
3 hours of lecture						
<b>Prerequisite:</b> Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).						
Foundational concepts and skills associated with computer networking. Topics include basics of local area networking and wide area networks, the OSI Model, wired and wireless networks, Internet Protocol/ Transmission Control Protocol (TCP/IP), and network security. Course is based on the Networking Fundamentals Microsoft Technology Associate (MTA) Certification which students will have an opportunity to earn as a part of the course curriculum. [GE]						
<b>Microsoft</b>	<b>Windows</b>	<b>Server</b>	<b>Fundamentals</b>			
CTEC 132			4 Credits/Units			
4 hours of lecture						
<b>Prerequisite:</b> NTEC 103 (grade of "C" or higher)						
Foundational skills associated with Windows server installation, performance management and server maintenance. Topics include roles of servers, active directory and storage. Course is based on the Windows Network Administration Server Microsoft Technology Associate (MTA) Certification, which students will have an opportunity to earn as a component of the course curriculum. [GE]						
<b>Microsoft</b>	<b>Security</b>		<b>Fundamentals</b>			
CTEC 133			3 Credits/Units			
3 hours of lecture						
<b>Prerequisite:</b> Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).						
Introduces concepts and fundamentals of network security. Topics include security layers, operating system security, network security and security software. Course is based on the Security Fundamentals Microsoft Technology Associate (MTA) Certification, which students will have an opportunity to earn as a component of the course curriculum. [GE]						
				<b>Microsoft</b>	<b>Software</b>	<b>Development</b>
				CTEC 135		<b>With C#</b>
				5 Credits/Units		
				5 hours of lecture		
				<b>Prerequisite:</b> CTEC 121 or CSE 121 (grade of "C" or higher) and eligibility for ENGL 90.		
				Fundamental concepts related to developing desktop and web applications with the Microsoft C# programming language including the use of Microsoft SQL relational database management system. Topics covered include: program design, object-oriented and procedural coding, debugging, testing and documentation. Opportunity to earn the Microsoft Software Development Fundamentals Microsoft Technology Associate (MTA) certification as a component of the curriculum. [GE]		
				<b>Web</b>	<b>Server</b>	<b>Technology</b>
				CTEC 145		5 Credits/Units
				5 hours of lecture		
				<b>Prerequisite:</b> Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).		
				Foundations of web server technologies with a focus on skills useful for web development. Topics include installation and configuration of Apache, MySQL, and PHP, and best practices in security. Interact with UNIX using basic commands in command line and GUI environments, administrate and maintain web hosting accounts. [GE]		
				<b>WordPress</b>		<b>I</b>
				CTEC 160		5 Credits/Units
				5 hours of lecture		
				<b>Prerequisite:</b> Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).		
				An overview of the WordPress platform for individuals seeking to create websites for personal or professional use. Basics on WordPress use, installation, content management, and configuration as well as intermediate and more advanced areas such as WordPress Themes, Plugins, and use of advanced settings. Prior web publishing experience not required. Familiarity with web browsers and email is highly recommended. [GE]		

**Business Web Practices**  
CTEC 165 4 Credits/Units  
4 hours of lecture

**Prerequisite:** Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Business Web Practices surveys business standards and professional best practices for professions associated with web content creation, web design, and web development. Topics include distinctions between freelance, contracted and salaried work environments, web production practices in content strategy, project management, workflow and version control, current practices in marketing, web analytics and search engine optimization, and legal and ethical issues. [GE]

**Web Content and Social Media**  
CTEC 166 5 Credits/Units  
5 hours of lecture

**Prerequisite:** CTEC 122, CTEC 160 and (ENGL101 or PTWR 135) (grades of "C" or higher)

Exploration and survey of best practices relating to the creation, curation and promotion of web content. Topics include: audience analysis, interaction design, content strategy and marketing, legal and ethical consideration, social media interactions, web accessibility and professional standards for written communications and design. [GE]

**Cooperative Work Experience**  
CTEC 199 1-5 Credits/Units  
15 hours of clinical  
Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

**Help Desk Technician I**  
CTEC 200 3 Credits/Units  
1 hours of lecture / 6 hours of clinical

**Prerequisite:** CTEC 104 (grade of "C" or higher)

Technical support work experience for a real world learning environment that supports technology needs for the local community. All areas of customer technology support environments are emphasized including communication, networking, customer tracking, troubleshooting, documentation and customer relations. Activities include help desk service projects and professional development activities. [GE]

**Help Desk Technician II**  
CTEC 201 3 Credits/Units  
1 hours of lecture / 6 hours of clinical

**Prerequisite:** CTEC 200 (grade of "C" or higher)

Continuation of CTEC 200 Help Desk Technician I. Technical support work experience for a real world learning environment that supports technology needs for the local community with opportunities and experience to serve in project supervisory roles. All areas of customer technology support environments are emphasized including communication, networking, customer tracking, troubleshooting, documentation and customer relations. Activities include help desk service projects, professional development activities, meeting attendance and managing a help desk. [GE]

**Introduction to Managed Information Systems**  
CTEC 205 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ENGL& 101 or PTWR 135 (grade of "C" or higher)

Overview of the role of management information systems in business by supporting a wide range of organizational functions from routine organizational transactions to managerial strategic decision making. Emphasis is on terminology associated with IT and hands-on lab work utilizing common business and IT applications. Familiarity and prior experience with Microsoft Excel spreadsheets and Access databases is highly recommended. [GE]

**CompTIA A+ Fundamentals**  
CTEC 213 4 Credits/Units  
4 hours of lecture

**Prerequisite:** CTEC 106 (grade of "C" or higher) and eligibility for ENGL 99  
Covers the skills required to install, configure and troubleshoot PC operating systems and networking software for desktop computers and mobile devices. Course is based on outcomes and objectives related to the CompTIA A+ certifications. [GE][PNP]

**CompTIA A+ Operating Systems & Networking**  
CTEC 214 4 Credits/Units  
4 hours of lecture

**Prerequisite:** CTEC 106 (grade of "C" or higher) and eligibility for ENGL 99  
Covers the skills required to install, configure and troubleshoot PC operating systems and networking software for desktop computers and mobile devices. Course is based on outcomes and objectives related to the CompTIA A+ certification. [GE][PNP]

**PHP With SQL II**  
CTEC 227 5 Credits/Units  
5 hours of lecture

**Prerequisite:** CTEC 127 (grade of "C" or higher)

A continuation of the CTEC 127, PHP I course, extending PHP skills with object-oriented programming, API management, PHP security, AJAX integration, and version control. Current best practices in the commercial web industry will be emphasized. [GE]

**CompTIA Security+**  
CTEC 233 5 Credits/Units  
5 hours of lecture

**Prerequisite:** CTEC 131 (grade of "C" or higher) and eligibility for ENGL 99  
Covers the essential principles for network security and risk management. Topics include cloud security, expansion of Virtualization and how to secure it, mobile device security and analysis of metrics obtained from monitoring and tracking tools. Course is based on, and is intended for, students to prepare for the CompTIA Security+ certification. [GE]

**CompTIA Cybersecurity**  
CTEC 235 5 Credits/Units  
5 hours of lecture

**Prerequisite:** CTEC 233 (grade of "C" or higher) and eligibility for ENGL 99  
Covers critical knowledge and skills that are required to prevent, detect and combat cybersecurity threats. Covers tools such as packet sniffers, intrusion detection systems (IDS) and security information and event management (SIEM) systems. The class is based on the CompTIA Cybersecurity Analyst (CSA+) certification. [GE]



**Web and Interface Design I**  
CTEC 270 4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** CTEC 122 (grade of "C" or higher)

Fundamentals of web design and site development. Students learn web authoring standards, tools and techniques to conceive, design, produce and publish web sites. Topics include client and marketing analysis, information architecture, conceptual and visual design, workflow and team process, coding, content integration and website testing. [GE]

**Web and Interface Design II**  
CTEC 271 4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** CTEC 270 (grade of "C" or higher)

Further study in web design and site development. Focus on web authoring trends and strategic methodology to better understand how to extend website functionality and value. Topics include strategies such as cross platform and browser compatibility, content management, search engine optimization, site statistics, accessibility, project management and maintenance planning. [GE]

**Emerging Technologies**  
CTEC 275 5 Credits/Units

5 hours of lecture

**Prerequisite:** CSE 121 or CTEC 121 (grade of "C" or higher).

Overview of robotics, artificial intelligence and 3D printing. Topics: interactive review of statistics, machine learning, artificial intelligence, review of the Python programming, security in robotics, and big data analysis. Apply programming skills for robotic devices, Artificial Intelligence and machine learning services. Develop 3D models that will be generated on 3D printers. [GE]

**Selected Topics**  
CTEC 280 1-6 Credits/Units

6 hours of lecture

Varying topics. May be repeated for credit. [GE]

**Special Projects**  
CTEC 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

**Web Skills Portfolio**  
CTEC 293 5 Credits/Units

15 hours of clinical

Capstone projects and activities for Web Development AAT. Create a website and an online presence that will demonstrate proficiency in various skill sets of web development. Develop resume and professional branding, perform job research, develop job search strategies, and make contacts with potential employers. [GE]

**Capstone Experience**  
CTEC 295 3 Credits/Units

3 hours of lecture

Capstone experience for CTEC degree and certificate, to assess and refine final skill set. Focus on developing and engaging in learning experiences to demonstrate and expand workplace skills and abilities. Development of employment-package resources and job-acquisition strategies. [GE]

# CUISINE (CUIS)

**Culinary Fundamentals I**  
CUIS 110 5 Credits/Units

2 hours of lecture / 6 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in CUIS 110 and CUIS 111.

Introduction to fundamentals of cooking. Includes history of food service industry, professionalism in the workplace, kitchen safety and sanitation, nutrition, equipment, kitchen math, weights and measures, knife skills, aromatics and flavorings. Theory of cooking methods, stocks and sauces. [GE]

**Professional Cooking I**  
CUIS 111 8 Credits/Units

16 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in CUIS 110 and CUIS 111.

Hands-on preparation of product utilizing those skills introduced in culinary fundamentals I. Emphasizes kitchen safety, knife skills, basic cooking preparations, sanitation, stock preparation, basic meat/protein fabrication. Production for customer service and application of techniques through kitchen station rotation. [GE]

**Culinary Fundamentals II**  
CUIS 120 5 Credits/Units

2 hours of lecture / 6 hours of lab

**Prerequisite:** CUIS 110 and CUIS 111 (grades of "C" or higher), and concurrent enrollment in CUIS 120 and CUIS 121.

Continuation of Culinary Fundamentals I with greater emphasis on cooking techniques, specific food and flavoring identification, nutrition with healthy cooking techniques, breakfast cookery, salads, cold dressings and sauces. Introduction to regional and international fare. [GE]

**Professional Cooking II**  
CUIS 121 8 Credits/Units

16 hours of lab

**Prerequisite:** CUIS 110 and CUIS 111 (grades of "C" or higher), and concurrent enrollment in CUIS 120 and CUIS 121.

Hands-on preparation of product utilizing those skills introduced in Culinary Fundamentals I and II through kitchen station rotation. Emphasis on breakfast cookery, healthy cooking, regional and international dishes for customer service. Apply cooking techniques and refine customer service through kiosk service and station rotation. [GE]

**Culinary Fundamentals III**  
CUIS 130 5 Credits/Units

2 hours of lecture / 6 hours of lab

**Prerequisite:** CUIS 120 and CUIS 121 (grades of "C" or higher), and concurrent enrollment in CUIS 130 and CUIS 131

Introduction to restaurant-level cooking, menu planning, preparing/producing complete meals, restaurant and dining organization. Focus on recipe conversions, yields, and yield grades, fabrication, plate presentation, inventory and cost controls. [GE]

**Professional Cooking III**  
CUIS 131 8 Credits/Units

16 hours of lab

**Prerequisite:** CUIS 120 and CUIS 121 (grades of "C" or higher), and concurrent enrollment in CUIS 130 and CUIS 131

Hands on preparation of product utilizing those skills introduced in culinary fundamentals theory through kitchen station rotation. Emphasis on breakfast cookery, healthy cooking, regional and international dishes for customer service. Apply cooking techniques and refine customer service through kiosk service and station rotation. [GE]

**Classic and Modern Soups and Sauces**  
CUIS 140 2 Credits/Units

1 hours of lecture / 2 hours of lab

**Prerequisite:** CUIS 110 and CUIS 111 (grades of "C" or higher)

Hands-on exploration of classic soups and sauces and their advancement into the modern cuisine. Create updated versions to reflect today's culture and healthy lifestyle. [GE]

**Meat Cutting and Fabrication**  
CUIS 141 3 Credits/Units

1 hours of lecture / 4 hours of lab

**Prerequisite:** CUIS 110 and CUIS 111 (grades of "C" or higher)

Identification of carcass and boxed meats and their fabrication into restaurant cuts. Cutting of poultry, beef, hog, lamb, fish and introduction to sausage production. [GE]

**Wine, Beer, Spirits and Food Pairings**  
CUIS 142 2 Credits/Units

1 hours of lecture / 2 hours of lab

**Prerequisite:** CUIS 110 and CUIS 111 (grades of "C" or higher)

Gain an understanding of how to choose a wine, beer or spirit to compliment a dish. Discuss flavor profiles and how incorporating beverages can elevate the dining experience. Hands on use of beverages in production of a variety of flavorful dishes. [GE]

**Restaurant Baking**  
CUIS 143 2 Credits/Units

1 hours of lecture / 2 hours of lab

**Prerequisite:** CUIS 110 and CUIS 111 (grades of "C" or higher)

Introduction of restaurant style baking including yeast breads, biscuits, scones, muffins, cookies, pies, quick breads, plated desserts and sauces. Basic understanding of baking science. [GE]

**Banquet and Buffet Planning and Execution**  
CUIS 144 2 Credits/Units

1 hours of lecture / 2 hours of lab

**Prerequisite:** CUIS 110 and CUIS 111 (grades of "C" or higher)

Effective planning and execution of banquet and buffet operations including service, buffet settings, menu design, yields, and cooking techniques. Includes hors d'oeuvres production and basic garniture. [GE]

**Wine Appreciation**  
CUIS 145 3 Credits/Units

3 hours of lecture

A course designed for the student to understand the components necessary to becoming a competent and consistent wine taster and appreciator, a valuable asset for the wine enthusiast. [GE]

**Culinary Essentials**  
CUIS 146 5 Credits/Units

3 hours of lecture / 4 hours of lab

A hands-on approach of learning basic kitchen skills. Emphasizes kitchen safety, knife skills, basic cooking preparations, sanitation, stock preparation, basic meat/protein fabrication. This course is designed for both beginners and those who want to enhance their cooking skills. [GE]

<b>Barbeque</b> CUIS 147 2 hours of lecture / 4 hours of lab <b>Prerequisite:</b> CUIS 110 and CUIS 111 (grades of "C" or higher) A hands-on approach of learning basic barbecue and grilling techniques. Emphasizes kitchen safety, knife skills, basic rub, marinade and sauce preparation, sanitation, indirect cooking, basic meat/protein fabrication, cold smoking and preservation. This course is designed for both beginners and those who want to enhance their barbecue and grilling skills. [GE]	<b>Basics</b> 4 Credits/Units	<b>Management and Banquet Theory</b> CUIS 220 2 hours of lecture / 6 hours of lab <b>Prerequisite:</b> CUIS 210 and CUIS 211 (grades of "C" or higher), and concurrent enrollment in CUIS 220 and CUIS 221 Explores the expectations of a kitchen manager through numerous aspects of the position including leadership, safety and sanitation, training, production and service, menu and sales analysis and cost control. Banquet and catering practices. Identify and arrange internship with a local food service vendor. Plan activities in preparation of final quarter capstone project. [GE]	5 Credits/Units
<b>Advanced</b> CUIS 148 1 hours of lecture / 2 hours of lab <b>Prerequisite:</b> CUIS 110 and CUIS 111 (grades of "C" or higher) Hands-on practical application of Garde Manger applications including garnishes, carvings and classic chaud froid. [GE]	<b>Garde Manger</b> 2 Credits/Units	<b>Management Practices</b> CUIS 221 16 hours of lab <b>Prerequisite:</b> CUIS 210 and CUIS 211 (grades of "C" or higher), and concurrent enrollment in CUIS 220 and CUIS 221 Utilizing acquired skills, supervise workers in food service settings. Manage product ordering, inventory and control for selected menu. Display proper execution of the entire menu including preparation, personnel management, service, menu and sales analysis. [GE]	8 Credits/Units
<b>Selected</b> CUIS 180 5 hours of lecture Selected topics in Cuisine. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule.	<b>Topics</b> 1-5 Credits/Units	<b>Cuisine Capstone</b> CUIS 230 1 hours of lecture / 10 hours of lab <b>Prerequisite:</b> CUIS 220 and CUIS 221 (grades of "C" or higher), and concurrent enrollment in CUIS 230 and CUIS 231 In conjunction with the management of assigned kitchen stations, students in their final quarter shall plan and execute one or more restaurant dinner service, and/or banquet service to include menu planning, inventory and requisition, kitchen management and function execution. [GE]	6 Credits/Units
<b>CAREER</b> CUIS 200 1 hours of lecture / 16 hours of lab <b>Prerequisite:</b> CUIS 130 and CUIS 131 (grades of "C" or higher). Apply acquired knowledge providing food service to the campus community through Kiosk cookery and an industry internship. Rotate within various cooking stations to hone culinary skills preparation of second year curriculum. Take part in the first of two internships, supervised on-the-job work experience at an approved industry location, preferably a Career Launch partner, with specific learning objectives and employer evaluation. Apply and hone culinary skills, as well as, further develop employment skills within industry. [GE]	<b>EXPLORATIONS</b> 9 Credits/Units	<b>Industry Internship</b> CUIS 231 12 hours of clinical <b>Prerequisite:</b> CUIS 220 and CUIS 221 (grades of "C" or higher), and concurrent enrollment in CUIS 230 and CUIS 231 Supervised on-the-job work experience at an approved industry location in the local community with specific learning objectives and employer evaluation. Students will apply and hone their culinary skills, as well as, further develop employment skills within industry. [GE]	4 Credits/Units
<b>Advanced</b> CUIS 210 2 hours of lecture / 6 hours of lab <b>Prerequisite:</b> CUIS 130, CUIS 131 and CUIS 200 (grades of "C" or higher), and concurrent enrollment in CUIS 210 and CUIS 211. Advanced theory with emphasis on international and regional cuisine including terminology, nutrition discussion, menu feasibility and ingredient identification, international cooking methods and adaptations. Advanced plate presentation, garnitures, menu writing and recipe study. Understanding of management skills focusing on team leadership. Introduction to banquet and buffet. [GE]	<b>Culinary Fundamentals</b> 5 Credits/Units	<b>Selected Topics</b> CUIS 280 5 hours of lecture Selected topics in Cuisine. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. [GE]	1-5 Credits/Units
<b>Advanced</b> CUIS 211 16 hours of lab <b>Prerequisite:</b> CUIS 130, CUIS 131 and CUIS 200 (grades of "C" or higher), and concurrent enrollment in CUIS 210 and CUIS 211. Utilizing skills and knowledge gained, focusing on international and regional cuisine, prepare meals for campus service. Build management skills by supervision of students in skills and teamwork to achieve food service goals through rotation within the food service areas and/or banquet and buffet settings applying appropriate customer relations. [GE]	<b>Culinary Practices</b> 8 Credits/Units	<b>Special Projects</b> CUIS 290 6 hours of lecture Opportunity to plan, organize and complete special projects approved by the department. [GE]	1-6 Credits/Units

# DENTAL HYGIENE (DH)

**Selected Topics Lab**  
DH 281 1-5 Credits/Units

10 hours of lab

Selected topics in dental hygiene. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit.

**Pharmacology I**  
DH 282 1 Credit/Unit

1 hours of lecture

Introduction to the classification, pharmacodynamics, dosages, and therapeutic effects of drugs most commonly encountered or prescribed by the dental office. Topics include drugs of abuse, autonomic nervous system, gastrointestinal, respiratory, vitamin, and minerals. [GE]

**Clinical Dental Hygiene Techniques I**  
DH 283 6 Credits/Units

3 hours of lecture / 6 hours of lab

Basic theory and pre-clinical practice at the introductory level in patient assessment, care planning, management, and periodontal therapy. Includes prevention and control of oral disease and proper safety and infection control procedures. [GE]

**Oral Medicine**  
DH 284 2 Credits/Units

2 hours of lecture

Introduction to the evaluation of medical/dental histories in preparation for dental hygiene treatment. Includes the most commonly encountered oral and systemic diseases, pertinent drugs, and introduction in managing dental/medical emergencies. [GE]

**Periodontics I**  
DH 285 3 Credits/Units

2 hours of lecture / 2 hours of lab

Introduction to histological and clinical characteristics of normal and diseased periodontium. Introduction to tooth accumulated materials and preventive oral aids. [GE]

**Dental Anatomy**  
DH 286 3 Credits/Units

3 hours of lecture

Anatomy, embryology, and histology of the human dentition and surrounding oral structures as they apply to the practice of dental hygiene. Emphasis on tooth development and associated vocabulary, tooth identification and differentiation, and tooth numbering systems. [GE]

**Special Projects**  
DH 290 1-15 Credits/Units

15 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE][PNP]

**Introduction to Digital Management Systems**  
DH 292 1 Credit/Unit

2 hours of lab

An introduction to axiUm - the digital management system designed for dental patient records, student clinical assessments, and radiography. Students will learn to navigate the system, enter data pertaining to clinical patient treatment, and track clinical skills assessments. [GE]

**Introduction to Dental Materials/Assisting**  
DH 301 3 Credits/Units

2 hours of lecture / 2 hours of lab

Introduction to properties and manipulation of basic restorative materials including resin, bases, liners, varnishes, cements, and sealants. Introduction to four-handed chairside assisting, study model preparation, and pit and fissure sealant application. Clinical practice through assisting in restorative situations. [GE]

**Head and Neck Anatomy**  
DH 303 3 Credits/Units

3 hours of lecture

Embryological, histological, and anatomical development of the head and neck as it applies to the practice of dental hygiene. [GE]

**Educational Theory and Application**  
DH 304 2 Credits/Units

2 hours of lecture

Survey of principles and concepts of teaching and learning and use of motivational techniques as they apply to both group and individual education and cultural differences. Students will develop skills as a dental health educator and dental health resource person. [GE]

**Clinical Dental Hygiene Techniques II**  
DH 313 5.5 Credits/Units

2 hours of lecture / 8 hours of lab

Emphasis on the principles of instrumentation and patient management. Clinical practice in oral prophylaxis, preventive procedures, and patient management at the introductory level. [GE]

**Clinical Dental Hygiene Techniques III**  
DH 314 5.5 Credits/Units

2 hours of lecture / 8 hours of lab

Clinical practice at the introductory and developmental levels in patient assessment, care planning, management, and periodontal therapy. Includes prevention and control of oral disease and proper safety and infection control procedures. [GE]

**Clinical Dental Hygiene Techniques IV**  
DH 321 4 Credits/Units

8 hours of lab

Clinical practice at the introductory and developmental levels in patient assessment, care planning, management, and periodontal therapy. Includes prevention and control of oral disease and proper safety and infection control procedures. [GE]

**Oral Radiology I**  
DH 323 3 Credits/Units

2 hours of lecture / 2 hours of lab

Radiographic theory, equipment, patient safety, and techniques for exposing, processing, and mounting dental radiographs. [GE]

**Oral Radiology II**  
DH 324 1 Credit/Unit

2 hours of lab

Second in a series on radiographic theory application and radiographic image interpretation. Continued experience in exposing, processing and mounting, and critiquing dental radiographs. [GE]

<b>Oral Radiology</b>	<b>III</b>	<b>Pharmacology</b>	<b>III</b>
DH 331	2 Credits/Units	DH 384	1 Credit/Unit
2 hours of lecture		1 hours of lecture	
Third in a series on radiographic theory application and image interpretation. Includes principles of radiation biology, quality assurance, radiation health and protection. Introduction of principles of contemporary panoramic radiographic techniques and comprehensive analysis of panoramic images. [GE]		Continuation of the classification, pharmacodynamics, dosages, and therapeutic effects for drugs most commonly encountered or prescribed by the dental office. Topics include endocrine, psychotherapeutic, sedative/hypnotic, anti-anxiety, anticonvulsants, ophthalmic, anti-neoplastic, immune function, anti-Parkinson, and Alzheimer's disease medications. [GE]	
<b>General and Oral Pathology</b>	<b>3 Credits/Units</b>	<b>Special Projects</b>	<b>1-9 Credits/Units</b>
DH 344		DH 390	
3 hours of lecture		9 hours of lecture	
Fundamentals of oral pathology including the inflammatory processes, tumor development, metabolic pathways and developmental disturbances. [GE]		Opportunity to plan, organize and complete special projects approved by the department. [GE][PNP]	
<b>Ethics and The Profession</b>	<b>1 Credit/Unit</b>	<b>Clinical Dental Hygiene Techniques II Lab</b>	<b>0.5 Credits/Units</b>
DH 353		DH 393	
1 hours of lecture		1 hours of lab	
Basic ethical principles and ethical problem solving methods. Includes the Principles of Ethics of the American Dental Hygienist Association and Washington State Laws applicable to the practice of dental hygiene. These elements will enable the student to apply professional attitudes and judgments when treating clinical patients. [GE]		Clinical practice at an introductory level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments. [GE]	
<b>Local Anesthesia &amp; Pain Control</b>	<b>4 Credits/Units</b>	<b>Clinical Dental Hygiene Techniques III Lab</b>	<b>0.5 Credits/Units</b>
DH 364		DH 394	
2 hours of lecture / 3 hours of lab		1 hours of lab	
Integration of anatomy, physiology, pharmacology and the most commonly encountered emergency procedures as they apply to the administration of local anesthesia. Clinical practice in the administration of local anesthesia is a required component of the course. Weekly clinical lab practice focuses on the 8 most commonly administered injections. [GE]		Clinical practice at a developmental level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments. [GE]	
<b>Cariology</b>	<b>2 Credits/Units</b>	<b>Dental Public Health - Research Methods I</b>	<b>2 Credits/Units</b>
DH 373		DH 402	
2 hours of lecture		1 hours of lecture / 2 hours of lab	
Presentation of cause, progression, and prevention of dental caries with an emphasis on fluoride and other remineralization strategies. [GE]		A systematic approach to the prevention and control of dental disease and the promotion of oral health through organized community efforts. Practical application of public health techniques in the assessment of the community to establish what types of oral health programs are needed. Basic principles of research and the development of the skills required for evaluation of professional research. [GE]	
<b>Selected Topics</b>	<b>1-9 Credits/Units</b>	<b>Dental Public Health - Research Methods II</b>	<b>2 Credits/Units</b>
DH 380		DH 403	
9 hours of lecture		1 hours of lecture / 2 hours of lab	
Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. Please refer to course syllabus for details. [GE, SE]		Continuation of Dental Public Health - Research Methods I. Advanced application of public health concepts to plan, implement and evaluate oral health programs that prevent and control dental disease and promote oral health for a designated population. Basic principles of research and the development of the skills required for evaluation of professional research. [GE]	
<b>Pharmacology</b>	<b>II</b>	<b>Dental Public Health - Research Methods III</b>	<b>1 Credit/Unit</b>
DH 383	1 Credit/Unit	DH 404	
1 hours of lecture		2 hours of lab	
Continuation of the classification, pharmacodynamics, dosages, and therapeutic effects for drugs most commonly encountered or prescribed by the dental office. Topics include antimicrobial, antifungal, and antiviral medications, opioid and non-opioid analgesics, and cardiovascular medications. [GE]		Continuation of Dental Public Health - Research Methods II. Implementation and evaluation of oral health programs at a variety of community settings. Basic principles of research and the development of the skills required for evaluation of professional research. [GE]	

<b>Behavior</b>	<b>Modification</b>				<b>Restorative</b>	<b>Dentistry</b>	<b>III</b>
DH 410	1 Credit/Unit				DH 433	2.5 Credits/Units	
2 hours of lab					1 hours of lecture / 3 hours of lab		
Fundamentals of behavior modification strategies to help patients progress toward healthier lifestyles. Develop a collaborative, patient-centered communication style and motivational skills to use while applying health behavior change theory. Communication skills involve using motivational interviewing, compassionate communication and goal setting to evoke change. [GE]							
<b>Clinical</b>	<b>Dental</b>	<b>Hygiene</b>	<b>Techniques</b>	<b>V</b>	<b>Restorative</b>	<b>Dentistry</b>	<b>IV</b>
DH 412	8 Credits/Units				DH 434	1.5 Credits/Units	
16 hours of lab					1 hours of lecture / 1 hours of lab		
Introduction to development level of advanced instrumentation and patient treatment techniques. [GE]							
<b>Clinical</b>	<b>Dental</b>	<b>Hygiene</b>	<b>Techniques</b>	<b>VI</b>	<b>Restorative</b>	<b>Dentistry</b>	<b>III</b>
DH 413	8 Credits/Units				DH 443	1.5 Credits/Units	
16 hours of lab					3 hours of lab		
Developmental level of advanced instrumentation and patient treatment techniques. [GE]							
<b>Clinical</b>	<b>Dental</b>	<b>Hygiene</b>	<b>Techniques</b>	<b>VII</b>	<b>Restorative</b>	<b>Dentistry</b>	<b>IV</b>
DH 414	8 Credits/Units				DH 444	1.5 Credits/Units	
16 hours of lab					3 hours of lab		
Demonstration and integration of advanced skills and knowledge with an emphasis on preparation for the practice of dental hygiene. [GE]							
<b>Clinical</b>	<b>Dental</b>	<b>Hygiene</b>	<b>Techniques</b>	<b>V</b>	<b>Lab</b>		
DH 422	1 Credit/Unit						
2 hours of lab							
Clinical practice at a developmental level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments. [GE]							
<b>Clinical</b>	<b>Dental</b>	<b>Hygiene</b>	<b>Techniques</b>	<b>VI</b>	<b>Lab</b>		
DH 423	1 Credit/Unit						
2 hours of lab							
Clinical practice at a developmental to DISK level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments [GE]							
<b>Clinical</b>	<b>Dental</b>	<b>Hygiene</b>	<b>Techniques</b>	<b>VII</b>	<b>Lab</b>		
DH 424	1 Credit/Unit						
2 hours of lab							
Clinical practice at a DISK level, evaluating the potential treatment needs of a diverse community including reviewing medical histories, current medications, and general oral and systemic health assessments. [GE]							
<b>Restorative</b>	<b>Dentistry</b>			<b>I</b>			
DH 431				2 Credits/Units			
1 hours of lecture / 2 hours of lab							
Introduction to restorative techniques with emphasis on placement of amalgam and clinical experience with sealant application. [GE]							
<b>Restorative</b>	<b>Dentistry</b>			<b>II</b>			
DH 432				5 Credits/Units			
2 hours of lecture / 6 hours of lab							
Laboratory practice in expanded duties as allowed by Washington State law. Emphasis on placement of amalgam and composite restorations. [GE]							
<b>Restorative</b>	<b>Dentistry</b>			<b>III</b>			
DH 433				2.5 Credits/Units			
1 hours of lecture / 3 hours of lab							
Clinical and laboratory practice in expanded duties as allowed by Washington State law. Topics include restorative dentistry and associated procedures, dental analgesia, local anesthetic, current dental material evaluation and product selection for use in clinical practice. [GE]							
<b>Restorative</b>	<b>Dentistry</b>			<b>IV</b>			
DH 434				1.5 Credits/Units			
1 hours of lecture / 1 hours of lab							
Mastery of restorative skills to include clinical and lab practice in expanded duties as allowed by Washington State law. Completion of restorative capstone project, encompassing depth and breadth of knowledge acquired from supportive course work. [GE]							
<b>Restorative</b>	<b>Dentistry</b>			<b>III</b>	<b>Lab</b>		
DH 443				8 Credits/Units			
3 hours of lab							
Clinical practice at an introductory to developmental level, treating a diverse population of community members. Skills include placing and finishing restorations, practicing local anesthesia, and evaluating dental materials for use in the clinical setting. [GE]							
<b>Restorative</b>	<b>Dentistry</b>			<b>IV</b>	<b>Lab</b>		
DH 444				1.5 Credits/Units			
3 hours of lab							
Clinical practice at a developmental to Demonstration-and-Integration-of-Skills-and-Knowledge (DISK) level, treating a diverse population of community members. Skills include placing and finishing restorations, practicing local anesthesia, and evaluating dental materials for use in the clinical setting. [GE]							
<b>Special</b>	<b>Needs</b>	<b>Populations</b>			<b>I</b>		
DH 451					1 Credit/Unit		
1 hours of lecture							
Issues regarding techniques and strategies for identifying, assessing, and treating patients with special needs and developing technological expertise to access special needs information through various media. [GE]							
<b>Special</b>	<b>Needs</b>	<b>Populations</b>			<b>II</b>		
DH 452					1 Credit/Unit		
1 hours of lecture							
Researching academic, behavioral, and clinical techniques to determine the performance necessary in all phases of patient treatment for a population with special needs. In-depth independent research on a special needs population, as it relates to dental hygiene care. [GE]							
<b>Nitrous</b>	<b>Oxide</b>				<b>Sedation</b>		
DH 471						1 Credit/Unit	
1 hours of lecture							
Exploration of nitrous oxide sedation as it applies to the practice of dentistry and dental hygiene. Emphasis on patient evaluation, pharmacodynamics, and administration methods and safety issues. Minimum of three clinical patient inductions and recoveries required. Meets multi state licensure requirements for the provisions of nitrous oxide and includes 10 hours of lecture, 3 clinical, and 1 hour written final for a total of 14 hours. [GE][PNP]							

**Periodontics** **II**  
 DH 472 2 Credits/Units  
 2 hours of lecture  
 Etiological factors in the periodontal disease process including host response, contributing and risk factors, classifications of periodontal diseases, and HIV and periodontitis. Current methods used to assess and evaluate periodontal disease in a patient will be covered. [GE]

**Periodontics** **III**  
 DH 473 2 Credits/Units  
 2 hours of lecture  
 Evidence-based periodontal disease treatment modalities including non-surgical procedures, modulation of the host response, antimicrobials, lasers, and reevaluation and maintenance procedures. [GE]

**Selected** **Topics**  
 DH 480 1-9 Credits/Units  
 9 hours of lecture  
 Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. Please refer to course syllabus for details. [GE]

**Capstone**  
 DH 484 3 Credits/Units  
 3 hours of lecture  
 The capstone course is an opportunity for students to demonstrate that they have achieved the learning outcomes established by the Clark College Dental Hygiene program. Designed to assess ethical, cognitive, affective, and psychomotor learning in a learner-centered and learner-directed manner. Students will create a resume and cover letter as well as develop their interview skills. The capstone course requires an e-portfolio, which serves as an instrument of program assessment. [GE]

**Special** **Projects**  
 DH 490 1-9 Credits/Units  
 9 hours of lecture  
 Opportunity to plan, organize and complete special projects approved by the department. [GE][PNP]

# DIESEL TECHNOLOGY (DIES)

<b>Diesel</b>	<b>Fundamentals</b>		
DIES 111		5 Credits/Units	
5 hours of lecture			
<b>Prerequisite:</b> CAP 42 (grade of "C" or higher) or placement into Math level 10, and eligibility for ENGL 99.			
Introduction to diesel engine construction and principles of operation. Basics of physics and engineering as related to operation of diesel engines. Basic shop tools and safety. [GE]			
<b>Diesel</b>	<b>Procedures</b>		
DIES 112		10 Credits/Units	
5 hours of lecture / 10 hours of lab			
<b>Prerequisite:</b> CAP 42 (grade of "C" or higher) or placement into Math level 10, and eligibility for ENGL 99.			
Disassembly, inspection, assembly, and adjustment of various diesel engines used in highway and off-highway vehicles. [GE][PNP]			
<b>Diesel</b>	<b>Engines/Fuel</b>	<b>Systems</b>	
DIES 113		5 Credits/Units	
5 hours of lecture			
<b>Prerequisite:</b> DIES 111 and DIES 112 (grades of "C" or higher)			
Repair, adjustment and testing procedures for diesel engines, components and systems. Introduction to fuel systems used and electronic controls used on modern diesel engines. [GE]			
<b>Diesel</b>	<b>Procedures</b>		
DIES 114		10 Credits/Units	
5 hours of lecture / 10 hours of lab			
<b>Prerequisite:</b> DIES 111 and DIES 112 (grades of "C" or higher)			
Test, adjust, and diagnostics of engines and maintenance practices. [GE][PNP]			
<b>Drive</b>	<b>Trains</b>		
DIES 115		5 Credits/Units	
5 hours of lecture			
<b>Prerequisite:</b> DIES 113 and DIES 114 (grades of "C" or higher)			
Principles of operation and basic construction of drive train components used in on- and off-highway equipment. [GE]			
<b>Diesel</b>	<b>Procedures</b>		
DIES 116		10 Credits/Units	
5 hours of lecture / 10 hours of lab			
<b>Prerequisite:</b> DIES 113 and DIES 114 (grades of "C" or higher)			
Disassembly, inspection, assembly, and adjustments of drive train components. [GE][PNP]			
<b>Basic</b>	<b>Electrical</b>		
DIES 120		3 Credits/Units	
2 hours of lecture / 2 hours of lab			
<b>Prerequisite:</b> CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in DIES 112.			
Introduction to basic electrical fundamentals needed by technicians to diagnose and repair vehicle electrical systems. [GE]			
<b>Electronic</b>	<b>Engine</b>	<b>Management</b>	<b>Systems</b>
DIES 121			3 Credits/Units
2 hours of lecture / 2 hours of lab			
<b>Prerequisite:</b> DIES 120 (grade of "C" or higher), and concurrent enrollment in DIES 114			
Introduction to electronic engine management systems and emission technology. [GE]			

<b>Electronic</b>	<b>Vehicle</b>	<b>Control</b>	<b>Systems</b>
DIES 122			3 Credits/Units
2 hours of lecture / 2 hours of lab			
<b>Prerequisite:</b> DIES 121 (grade "C" or higher), and concurrent enrollment in DIES 116			
Introduction to electronic controls used in diesel and heavy equipment. [GE]			
<b>Electrical/Electronic</b>		<b>Systems</b>	
DIES 221			5 Credits/Units
5 hours of lecture			
<b>Prerequisite:</b> CAP 42 (grade of "C" or higher) or placement into Math level 10, and eligibility for ENGL 99.			
Charging, starting, lighting, and control circuits and components used on heavy equipment and highway trucks. [GE]			
<b>Diesel</b>		<b>Procedures</b>	
DIES 222			6 Credits/Units
3 hours of lecture / 6 hours of lab			
<b>Prerequisite:</b> CAP 42 (grade of "C" or higher) or placement into Math level 10, and eligibility for ENGL 99.			
Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE][PNP]			
<b>Hydraulic</b>		<b>Systems</b>	
DIES 223			5 Credits/Units
5 hours of lecture			
<b>Prerequisite:</b> DIES 221 and DIES 222 (grades of "C" or higher)			
Theory and principles of operation of mobile hydraulic systems. [GE]			
<b>Diesel</b>		<b>Procedures</b>	
DIES 224			10 Credits/Units
5 hours of lecture / 10 hours of lab			
<b>Prerequisite:</b> DIES 221 and DIES 222 (grades of "C" or higher)			
Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE][PNP]			
<b>Brakes,</b>	<b>Steering,</b>	<b>and</b>	<b>Suspension</b>
DIES 225			5 Credits/Units
5 hours of lecture			
<b>Prerequisite:</b> DIES 223 and DIES 224 (grades of "C" or higher)			
Hydraulic and air brake systems, steering and suspension used on highway trucks, and heavy equipment. [GE]			
<b>Diesel</b>		<b>Procedures</b>	
DIES 226			10 Credits/Units
5 hours of lecture / 10 hours of lab			
<b>Prerequisite:</b> DIES 223 and DIES 224 (grades of "C" or higher)			
Repair and maintenance of diesel and heavy equipment. Students will participate in customer repair projects. [GE][PNP]			
<b>Selected</b>		<b>Topics</b>	
DIES 280			1-5 Credits/Units
5 hours of lecture			
The course focuses on selected topics in Diesel. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule. [GE][PNP]			
<b>Special</b>		<b>Projects</b>	
DIES 290			1-5 Credits/Units
5 hours of lecture			
Opportunity to plan, organize and complete special projects approved by the department. [GE]			



# DIGITAL MEDIA ARTS (DMA)

**Photoshop Raster Graphics**  
DMA 101 4 Credits/Units

2 hours of lecture / 4 hours of lab  
Fundamentals of digital imaging using Adobe Photoshop. Focus on visual problem solving and software techniques to capture, correct, create and combine images for print and digital media. Topics include image sourcing, resolution, tone and color correction, retouching, painting, image manipulation, compositing, animated graphics, design and production considerations. [GE]

**Illustrator Vector Graphics**  
DMA 102 4 Credits/Units

2 hours of lecture / 4 hours of lab  
Fundamentals of vector drawing using Adobe Illustrator. Focus on visual problem solving and software techniques to draw, trace, transform and create graphics for print and digital media. Topics include drawing tools, path editing, shape manipulation, object layering, line styling, brush textures, typography, gradient shading, patterns, design and production considerations. [GE]

**Motion Graphics and Animation I**  
DMA 104 4 Credits/Units

2 hours of lecture / 4 hours of lab  
Introduction to motion design and 2D animation principles. Use digital tools to create visual content and messaging for digital media communications. Focus on concept ideation, narrative structure, animated storytelling, motion infographics, dynamic typography, integration of audio/visual and special effects. Includes design and production considerations. [GE]

**Professional Practices and Portfolio I**  
DMA 114 4 Credits/Units

2 hours of lecture / 4 hours of lab  
Examination of the digital media arts industry and practical experience in creating a personalized plan and portfolio. Gain a comprehensive understanding of the creative business market, professional practices, jobs, trends, technologies and opportunities. Activities include research, guest speakers, field trips, interviews, networking, online or in-person events, mid-program assessment, action planning, presentations and portfolio review. [GE]

**Cooperative Work Experience**  
DMA 199 1-4 Credits/Units

12 hours of clinical  
Supervised, work-based learning experience that enables students to demonstrate specialized occupational skills and knowledge. Specific learning objectives are developed by the College and the employer. Upon completion, employer and student evaluations are discussed. [GE]

**Video and Sound Production I**  
DMA 201 4 Credits/Units

2 hours of lecture / 4 hours of lab  
Introduction to video and sound production for online, mobile or digital media communication. Learn all aspects of the digital video workflow from pre-production context (concept, message, storyboard, scriptwriting) to production roles, methods and styles (narrative, documentary, persuasive, experimental) to post-production practices (video editing, audio and media integration, optimization and delivery platforms). [GE]

**Video and Sound Production II**  
DMA 202 4 Credits/Units

2 hours of lecture / 4 hours of lab  
**Prerequisite:** DMA 201 or CGT 201 (grade of "C" or higher)  
Further study in digital video and sound production. Develop advanced proficiency to plan, produce and publish videos that tell a compelling story, provide informative or educational value and/or encourage a call to action. Focus on conceptual thinking, video composition, lighting design, audio editing, professional practices and promotional strategies. May include client projects or team-based experience. [GE]

**Motion Graphics and Animation II**  
DMA 204 4 Credits/Units

2 hours of lecture / 4 hours of lab  
**Prerequisite:** DMA 104 or CGT 104 (grade of "C" or higher)  
Further study in motion design and 2D animation strategies. Develop advanced proficiency to convey message and meaning through storytelling and integrated motion media presentations. Focus on conceptual thinking, information design, professional practices and workflow, visual messaging and marketing considerations. May include client projects or team-based experience. [GE]

**Professional Practices and Portfolio II**  
DMA 214 4 Credits/Units

2 hours of lecture / 4 hours of lab  
**Prerequisite:** DMA 114 or CGT 214 (grade of "C" or higher) and Consent of Instructional Unit  
Continuation of professional practices and portfolio assessment. Industry research and strategic planning to develop individualized career paths or targeted higher education goals. Students learn about business considerations for freelancing or contract work, job search and employment strategies, and best practices for self-promotion and portfolio presentation. [GE]

**Professional Studio Experience**  
DMA 215 4 Credits/Units

2 hours of lecture / 4 hours of lab  
Students gain practical experience working as freelancers or on collaborative teams to produce digital media solutions for real-world clients, such as community or campus organizations and non-profit work. Students seek out client projects, engage in critical thinking and problem-solving, present and pitch ideas, write proposals, communicate with clients, facilitate the iterative design and production process and evaluate quality and user feedback. [GE]

# DRAMA (DRMA/DRMA&)

**Acting I - Drama**  
 DRMA 140 4 Credits/Units  
 3 hours of lecture / 2 hours of lab  
 Techniques and principles of acting. [GE, HB, SE]

**Acting II - Theatre**  
 DRMA 141 4 Credits/Units  
 3 hours of lecture / 2 hours of lab  
**Prerequisite:** DRMA 140 (grade of "C" or higher)  
 Continuation of DRMA 140. Emphasis on scene study, characterization, and period styles of acting. [GE, HB, SE]

**Basic Stagecraft**  
 DRMA 150 4 Credits/Units  
 2 hours of lecture / 4 hours of lab  
 Principles and techniques of scenery construction and painting. Students will also learn the use of shop tools. [GE, HB, SE]

**Stage Make-Up**  
 DRMA 152 3 Credits/Units  
 3 hours of lecture  
 Design and application of stage make-up. Formerly THEA 152. [GE, HB, SE]

**Introduction to Cinema**  
 DRMA 154 5 Credits/Units  
 5 hours of lecture  
 An introductory course in film history, production techniques, aesthetics, and the social impact of the American film industry from 1900 to the present. [GE, HA, SE]

**Cooperative Work Experience**  
 DRMA 199 1-5 Credits/Units  
 15 hours of clinical  
 Supervised work experience in the community, completion of specific learning objectives and employer evaluation. [GE]

**Stage Lighting Design**  
 DRMA 250 3 Credits/Units  
 3 hours of lecture  
 Techniques and principles of stage and TV lighting design. Use of instruments and light control systems with a special emphasis on computerized light control. [GE, HB, SE]

**Introduction to Script Analysis**  
 DRMA 254 5 Credits/Units  
 5 hours of lecture  
 Close analysis and study of dramatic literature texts in terms of structure, genre, style, character, themes, language, and dramatic action. Plays are examined from the point of view of the actor, director, designer, producer, critic, scholar, writer, and audience. [GE, SE][PNP]

**Selected Topics**  
 DRMA 280 1-3 Credits/Units  
 3 hours of lecture  
 Varying topics in theatre, as listed in the term class schedule. May be repeated for credit. [GE, SE]

**Special Projects**  
 DRMA 290 1-5 Credits/Units  
 5 hours of lecture  
 Opportunity to plan, organize and complete special projects approved by the department in the areas of stage direction, scene lighting, costume design, make-up design, production or theatre history. [GE]

**Introduction to Theatre**  
 DRMA& 101 3 Credits/Units  
 3 hours of lecture  
 Overview of theatre. Roles of the actor, director, designers, and playwrights. Evolution of theatre through the ages. [GE, HA, SE]

# EARLY CHILDHOOD EDUCATION (ECE)

## Child Development: Birth to Six

ECE 100

3 Credits/Units

3 hours of lecture

Online course in child growth and development from birth to age six years, including physical, emotional, cultural, cognitive, and creative age-related changes. Application to early childhood programs in centers and homes. [GE]

## Science and Mathematics for Young Children

ECE 102

3 Credits/Units

3 hours of lecture

Explores the theories, issues and applications of science and math concepts in activities and environments for preschool aged children. Investigates the strategies of teaching through the discovery and use of science and math curriculums in their surroundings. [GE]

## Early Childhood Education Workshops

ECE 111

1-3 Credits/Units

3 hours of lecture

In-service and special topic seminars for those currently working with groups of young children. Each 3-week session is offered for one credit. Students may take any or all of the sessions. A maximum of six credits of ECE 111 may be applied to major area requirements for a degree in Early Childhood Education. [GE]

## Literature and Storytelling for Children

ECE 116

2 Credits/Units

2 hours of lecture

Introduction to the value of storytelling and the use of literature as tools in the development of children. Literature and storytelling has the ability to speak to our 'souls' and it is the intent of this class to reclaim for some and validate for others the value of literature as a tool with children and for ourselves. Through small and large group discussions as well as diverse experiences, co-learners will have an opportunity to develop an understanding of book selection, delivery styles, bibliotherapy, and community resources for acquiring literature and networking with professionals in the field of Early Childhood Education. [GE]

## Partnerships With Families In Early Care & Educ

ECE 135

3 Credits/Units

3 hours of lecture

Developing effective partnerships with families in early care and education programs. Topics include family-centered theories and practices related to welcoming families and building relationships, communicating, working through conflicts, honoring diversity, family involvement and support, and parent education. [GE]

## Cooperative Work Experience

ECE 199

1-3 Credits/Units

9 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluations. Completion of, or concurrent in, HDEV 195, 198, or 200 required. [GE]

## Learning Experiences for Young Children II

ECE 211

3 Credits/Units

3 hours of lecture

**Prerequisite:** ECED& 160 (grade of "C" or higher), and concurrent enrollment in ECE 212

Further develop curriculum planning processes with a special emphasis on scheduling and project approach planning using observations of children's play and knowledge of child development. Areas of study include science, math, group experiences, music/movement, and outdoors. Conduct case studies and provide peer support and feedback. [GE]

## Learning Experiences for Young Children II Lab

ECE 212

2 Credits/Units

4 hours of lab

**Prerequisite:** ECED& 160 (grade of "C" or higher), and concurrent enrollment in ECE 211

Lab experience in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 211. [GE]

## Learning Experiences for Young Children III

ECE 213

3 Credits/Units

3 hours of lecture

**Prerequisite:** ECE 211 (grade of "C" or higher), and concurrent enrollment in ECE 214

Further develop curriculum planning processes with special emphasis on emergent and integrated thematic approaches while applying knowledge of multiple intelligences. Areas of study include parent/teacher relationships, teacher development stages, staff communication and relationships. In-depth study of individual and cultural diversity as related to knowledge of child development. [GE]

## Learning Experiences for Young Children III Lab

ECE 214

2 Credits/Units

4 hours of lab

**Prerequisite:** ECE 212 (grade of "C" or higher), and concurrent enrollment in ECE 213

Lab experiences in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 213. [GE]

## Early Childhood Seminar

ECE 215

2 Credits/Units

2 hours of lecture

**Prerequisite:** ECE 214 (grade of "C" or higher), and concurrent enrollment in ECE 199

Seminar on professionalism, ethics and issues in teaching and administration. 15 hours per week required as field placement for students in teaching degree program. [GE]

## Learning Experiences Lab Sec

ECE 222

1 Credit/Unit

2 hours of lab

**Prerequisite:** Concurrent enrollment in, or completion of ECE 212 (grade of "C" or higher)

Lab experience in Early Childhood Education Laboratory School. Plan, implement and analyze plans in relation to relevant topics in ECE 211. [GE][PNP]

<b>Learning</b>	<b>Experience</b>	<b>Lab</b>	<b>Section</b>
ECE 224			1 Credit/Unit
2 hours of lab			
<b>Prerequisite:</b> Concurrent enrollment in, or completion of ECE 212 (grade of "C" or higher)			
[GE]			

<b>Selected</b>	<b>Topics</b>		
ECE 280			1-3 Credits/Units
3 hours of lecture			
Selected topics in Early Childhood Education as listed in the term class schedule. May be repeated for credit. [GE]			

<b>Special</b>	<b>Projects</b>		
ECE 290			1-3 Credits/Units
3 hours of lecture			
Opportunity to plan, organize and complete special projects approved by the department. [GE]			

# EARLY CHILDHOOD EDUCATION (ECED/ECED&)

## Introduction to Early Childhood Education

ECED& 105 5 Credits/Units

5 hours of lecture

**Prerequisite:** Concurrent enrollment in ECED& 105 and ECED& 120  
Explore the foundations of early childhood education. Examine theories defining the field, issues, trends, best practices, and program models. Observe children, professionals and programs in action. [GE, SE]

## Health/Safety/Nutrition

ECED& 107 5 Credits/Units

5 hours of lecture

Introduction to implementation of equitable health, safety and nutrition standards for the growing child in group care. Focus on federal Child Care Block Grant funding (CCDF) requirements, WA state licensing and Head Start Performance standards. Develop skills necessary to keep children healthy safe, report abuse neglect, and connect families to community resources. [GE]

## Practicum-Nurturing Rel

ECED& 120 2 Credits/Units

1 hours of lecture / 2 hours of lab

**Prerequisite:** Concurrent enrollment in ECED& 105 and ECED& 120  
In an early learning setting, engage in establishing nurturing, supportive relationships with all children and professional peers. Focus on children's health safety, promoting growth development, and creating a culturally responsive environment. [GE, SE]

## Infants/Toddler Care

ECED& 132 3 Credits/Units

3 hours of lecture

Examine the unique developmental needs of infants and toddlers. Study the role of the caregiver, relationships with families, developmentally appropriate practices, nurturing environments for infants and toddlers, and culturally relevant care. [GE]

## Family Care Management

ECED& 134 3 Credits/Units

3 hours of lecture

Learn how to manage a family childcare program. Topics include: licensing requirements, record-keeping, relationship building, communication strategies, guiding behavior, and promoting growth and development. [GE]

## Administration of ECE

ECED& 139 3 Credits/Units

3 hours of lecture

Develop administration skills required to develop, operate, manage and improve early childhood education and care programs. Acquire basic business management skills. Explore resources and supports for meeting Washington State licensing and professional NAEYC standards. [GE]

## Curriculum Development

ECED& 160 5 Credits/Units

5 hours of lecture

Investigate learning theory, program planning, tools and methods for curriculum development promoting language, fine/gross motor, social-emotional, cognitive and creative skills and growth in children birth through age 8 utilizing developmentally appropriate and culturally responsive practice. [GE]

## Learning

ECED& 170

3 hours of lecture

Focuses on the adult's role in designing, evaluating, and improving indoor and outdoor environments that ensure quality learning, nurturing experiences, and optimize the development of young children. [GE]

## Environments

3 Credits/Units

## Language and Literacy

ECED& 180

3 hours of lecture

Teaching strategies for language acquisition and literacy skill development examined at each developmental stage (birth-age 8) through the four interrelated areas of speaking, listening, writing, and reading. [GE]

3 Credits/Units

## Observation and Assessment

ECED& 190

3 hours of lecture

Practice collecting and presenting observation data of children, teaching practices and learning centers in an early childhood setting. [GE]

3 Credits/Units

# ECONOMICS (ECON)

**Introduction to Economics**  
ECON 101 3 Credits/Units

3 hours of lecture

Survey of economics. Key topics include current economic issues and processes related to ways individuals, groups, and whole societies produce, distribute, and utilize economic resources. This course is good preparation for the advanced Microeconomics and Macroeconomics courses. [GE, SE, SS][PNP]

**Introduction to The Global Economy**  
ECON 110 5 Credits/Units

5 hours of lecture

Introduction to economic concepts and their use in the global economy. Topics include basic microeconomics and macroeconomics, international trade, balance of payments, exchange rates, international institutions, energy, war, and terrorism. Intended for economics and non-economics majors. This course is an alternative for Economics 101, with additional topics including in-depth study of international economic issues. [GE, SE, SS]

**International Economics**  
ECON 120 3 Credits/Units

3 hours of lecture

**Prerequisite:** ECON 101 (grade of "C" or higher)

International economics, for both economics majors and non-economic majors, emphasizes the fundamental economic concepts for understanding today's global economy. Topics include the basic concepts and tools of international economic analysis, including trade, trade policy, trading blocs, protectionism, exchange rate determination, managing currencies, multi-national corporations, labor, developing countries, and the environment. [GE, SE, SS]

**Selected Topics**  
ECON 280 1-5 Credits/Units

5 hours of lecture

Focus on selected topics in Economics. Because the course varies in theme and content, it is repeatable for credit. [GE, SE]

**Special Projects**  
ECON 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

**Managerial and Global Economics**  
ECON 405 5 Credits/Units

5 hours of lecture

Reviews basic issues in microeconomics, macroeconomics, and global economics. Topics include allocation of resources, economic systems, economic institutions and incentives, market structures and prices, and productivity. Also included are issues related to the global marketplace, aggregate supply and demand, and governmental policy towards business. [GE, SE, SS]

**Micro Economics**  
ECON& 201 5 Credits/Units

5 hours of lecture

**Prerequisite:** ECON 101, ECON 110, ECON 120, or MATH 96 (grade of "C" or higher) or placement into Math level 45.

Essential market processes, structures, issues, and variables governing how individuals, firms and governmental entities allocate resources, produce and distribute goods and services, determine prices, evaluate trade-offs and effectively compete and grow. [GE, SE, SS]

**Macro Economics**  
ECON& 202 5 Credits/Units

5 hours of lecture

**Prerequisite:** ECON 101, ECON 110, ECON 120, or MATH 96 (grade of "C" or higher) or placement into Math level 45.

Broad economic principles, issues, structures, processes, and variables governing the dynamics of the United States and global economies. Problems of economic organization, market processes, role of government in the economy and society, money and banking processes and issues, measurement and determination of economic aggregates, fiscal and monetary policies, economic growth and development and international trade. [GE, SE, SS]

# EDUCATION (EDUC/EDUC&)

**Cooperative Work Experience**  
 EDUC 199 1-5 Credits/Units  
 15 hours of clinical  
 Supervised work experience in education. Completion of specific learning objectives and employer evaluation. [GE]

**Selected Topics**  
 EDUC 280 1-5 Credits/Units  
 5 hours of lecture  
 Course focuses on selected topics in Education. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedule. [GE]

**Child Development**  
 EDUC& 115 5 Credits/Units  
 5 hours of lecture  
 Build foundation for explaining how children develop in all domains, conception through early adolescence. Explore various developmental theories, methods for documenting growth, and impact of brain development. Topics addressed stress, trauma, culture, race, gender identity, socioeconomic status, family status, language, and health issues. [GE]

**Guiding Behavior**  
 EDUC& 130 3 Credits/Units  
 3 hours of lecture  
 Examine the principles and theories promoting social competence in young children and creating safe learning environments. Develop skills promoting effective interactions, providing positive individual guidance, and enhancing group experiences. [GE]

**School Age Care**  
 EDUC& 136 3 Credits/Units  
 3 hours of lecture  
 Develop skills to provide developmentally appropriate and culturally relevant activities/care for children ages 5-12 in a variety of settings. Topics include: implementation of curriculum, preparation of environments, building relationships, guiding cognitive and social emotional development, and community outreach. [GE]

**Child, Family, Community**  
 EDUC& 150 3 Credits/Units  
 3 hours of lecture  
 Integrate the family and community contexts in which a child develops. Explore cultures and demographics of families in society, community resources, strategies for involving families in the education of their child, and tools for effective communication. [GE, HR, SE]

**Inclusive Education**  
 EDUC& 204 5 Credits/Units  
 5 hours of lecture  
 Introductory course in recognition and identification of exceptionality in children from birth through high school. Includes policies and regulations concerning state and federal provisions of special education and related services, as well as adaptations for serving students with special needs in general education classrooms. [GE]

**Diversity in Education**  
 EDUC& 240 5 Credits/Units  
 5 hours of lecture  
 Students will explore diversity and social justice issues influencing educational settings. Students will examine in depth the historical and current impact of children's, teachers', and families' cultural, social and political context in schools. [GE, PPI, SE]

# EMERGENCY MEDICAL TECHNICIAN (EMT)

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**Emergency Medical Technician (Accelerated)**  
EMT 103 12 Credits/Units

7 hours of lecture / 10 hours of lab

Training in pre-hospital emergency care with clinical education experience. An accelerated EMT program that provides for supervised practice of skills taught in each lesson. As required by Washington State Department of Health, this course is under the supervision of a Medical Program Director and Senior EMS Instructor. Meets the requirements of NREMT certification. [GE]

**Selected Topics**  
EMT 280 1-12 Credits/Units

Course focuses on selected topics in Emergency Medical Training. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics.

**Special Projects**  
EMT 290 1-4 Credits/Units  
4 hours of lecture  
[GE]



# ENGINEERING (ENGR/ENGR&)

## Engineering and Computer Science Orientation

ENGR 101

1 Credit/Unit

2 hours of lab

Orientation for students interested in Engineering and Computer Science. Topics include effective planning, communication, teamwork, and exposure to Engineering and Computer Science educational/career opportunities and challenges. [GE, SE][PNP]

## Wheeler Innovation Lab Qualifications

ENGR 105

2 Credits/Units

1 hours of lecture / 2 hours of lab

A series of online training and hands on learning activities to learn how to use equipment in the Wheeler Innovation Lab. You will earn proficiency qualifications for at least two pieces of equipment and complete a project of your own design. [GE, SE][PNP]

## Intro to Aerospace Engineering

ENGR 107

2 Credits/Units

1 hours of lecture / 2 hours of lab

**Prerequisite:** College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher and concurrent enrollment in, or completion of College Algebra (MATH 110 or MATH 111) grade of "C" or higher  
For students interested in pursuing a degree in aerospace engineering. Topics include history of aviation and spaceflight, careers in aerospace, foundations of physical principles that underlies aerodynamics, dynamic pressure, the standard atmosphere, and lift and drag coefficients. The course includes a team design project. [GE, SE]

## Introduction to Engineering

ENGR 109

5 Credits/Units

5 hours of lecture

**Prerequisite:** College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher and concurrent enrollment in, or completion of College Algebra (MATH 110 or MATH 111) grade of "C" or higher  
Introduction to the engineering profession: its branches, principles, and practices. Engineering problem-solving, methods of analysis and design, and an introduction to engineering fundamentals. [GE, SE]

## Engineering Sketching and Visualization

ENGR 113

2 Credits/Units

1 hours of lecture / 2 hours of lab

**Prerequisite:** MATH 96 (grade of "C" or higher) or placement into Math level 50.

Engineering communication and graphics through freehand sketching. Visualization and development of orthographic theory, scales, and lettering. [GE, SE]

## Geometric Dimensioning and Tolerancing

ENGR 115

2 Credits/Units

1 hours of lecture / 2 hours of lab

**Prerequisite:** ENGR 113 and (CADD 150 or ENGR 150) (grades of "C" or higher)

Basics of geometric dimensioning and tolerancing: what it is and why use it, GDT symbols and their use, maximum and least material conditions, datums, and geometric characteristics. AutoCAD will be used to dimension drawings using GDT. [GE, SE]

## Intro to Electrical/Computer Sci & Engineering

ENGR 120

5 Credits/Units

4 hours of lecture / 3 hours of lab

**Prerequisite:** College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher and concurrent enrollment in, or completion of College Algebra (MATH 110 or MATH 111) grade of "C" or higher

Introduction to electrical engineering, computer science and engineering processes, principles, problem-solving techniques, and contemporary tools. Application of in-class learning to hands-on projects and exploration of current industry trends and implications. [GE, SE]

## Field Survey I

ENGR 121

5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** MATH& 151 (grade of "C" or higher) or placement into Math Level 90

Basic theory of surveying, measurement and calculation. Topics include: measurement and determination of boundaries, areas, and shapes; location through traversing techniques; error theory; compass adjustments; public land system; use of programmable calculators; and principles of measurements of distances, elevation and angles. [GE, SE]

## Basic Autocad

ENGR 140

4 Credits/Units

2 hours of lecture / 5 hours of lab

Basic operations of the current version of AutoCAD. Screen features, drawing and editing objects, working with 2D, using both model space and layouts, dimensioning and dimension styles, using blocks, attributes, and xrefs, opening and saving files, and using templates. [GE]

## Basic Solidworks

ENGR 150

4 Credits/Units

2 hours of lecture / 5 hours of lab

Parametric solids modeling with SolidWorks, covering the breadth of the software at a basic level. Create part, assembly, and drawing files, including design tables and multiple configurations. [GE, SE]

## Cooperative Work Experience

ENGR 199

1-5 Credits/Units

15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200. [GE]

## Fundamentals of Flight

ENGR 208

3 Credits/Units

2 hours of lecture / 2 hours of lab

**Prerequisite:** ENGR 107 and MATH& 151 and (CADD 150 or ENGR 150) (grades of "C" or higher)

Introduction to the fundamentals of the flight of air and space craft. Topics include review of basic fluid flow and aerodynamics, circulation theory of lift, finite wings, aerodynamic performance, stability and control, propulsion, and space flight. The course includes a team design project. [GE, SE]

## Introduction to Gas Dynamics

ENGR 209

3 Credits/Units

2 hours of lecture / 2 hours of lab

**Prerequisite:** Concurrent enrollment in, or completion of ENGR 207 and MATH& 152 (grades of "C" or higher)

Introduction to compressible flow as applied to aerodynamics of aerospace systems. Topics include review of foundational principles, control volume analysis, compressible flow, normal and oblique shocks, Prandtl-Meyer flow, and overview of Fanno and Reyleigh flow. The course includes a team design project. [GE, SE]

<b>Integrated</b>	<b>Computational</b>	<b>Design</b>	<b>Signals</b>	<b>and</b>	<b>Systems</b>
ENGR 216		3 Credits/Units	ENGR 253		5 Credits/Units
1 hours of lecture / 4 hours of lab			4 hours of lecture / 3 hours of lab		
<b>Prerequisite:</b> Concurrent enrollment in, or completion of, ENGR 150 and ENGR& 214 (grades of "C" or higher)			<b>Prerequisite:</b> ENGR 252 (grade of "C" or higher)		
Use computational SolidWorks Simulation CADD applications in the design and analysis of engineering problems. Also, integrated surface/solid modeling techniques, motion analysis, and use of CADD in documentation of designs and analyses. [GE]			Concepts and applications in signal processing and linear system theory. Utilization of Fourier Analysis in both continuous and discrete time signals and systems. Role of sampling and the process of reconstructing a continuous-time signal from its samples and basics of communication systems. Application of Laplace transform and Z-transform. [GE, SE]		
<b>Materials</b>	<b>Science</b>		<b>Digital</b>	<b>Systems</b>	<b>and</b>
ENGR 221		5 Credits/Units	ENGR 270		5 Credits/Units
5 hours of lecture			4 hours of lecture / 3 hours of lab		
<b>Prerequisite:</b> CHEM& 142 (grade of "C" or higher)			<b>Prerequisite:</b> ENGR 250 and CSE 121 (grades of "C" or higher)		
Basic structure and properties of materials. Phase equilibrium and transformations. Mechanical properties, electronic structure, thermal, electrical, and magnetic properties. [GE, SE]			Continuation of the Digital Design sequence. Covering synchronous/asynchronous state machines, shift registers, arithmetic circuits and devices, microprocessor internal and system architecture, design and subsystem interfacing, assembly language, and programmable logic devices, design for test, documentation standards, and use of computer-based tools. [GE, SE]		
<b>Manufacturing</b>	<b>Processes</b>		<b>Selected</b>	<b>Topics</b>	
ENGR 239		5 Credits/Units	ENGR 280		1-5 Credits/Units
3 hours of lecture / 4 hours of lab			5 hours of lecture		
Introduction to manufacturing processes, emphasizing methods and practices used when machining, welding, and fabricating metals and related materials. [GE, SE]			The course focuses on selected topics in Engineering. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE, SE]		
<b>Applied</b>	<b>Numerical</b>	<b>Methods</b>	<b>for</b>	<b>Engineers</b>	
ENGR 240				4 Credits/Units	
3 hours of lecture / 3 hours of lab					
<b>Prerequisite:</b> MATH& 153 and ENGR 109 or ENGR 120 (grades of "C" or higher)					
Numerical solutions to problems in engineering and science using modern scientific computing tools. Application of mathematical judgment in selecting computational algorithms and communicating results. Use of MATLAB programming for numerical computation. Completion or concurrent enrollment in MATH 215. [GE]					
<b>Digital</b>	<b>Logic</b>	<b>Design</b>	<b>Introduction</b>	<b>to</b>	<b>Design</b>
ENGR 250		5 Credits/Units	ENGR& 104		5 Credits/Units
4 hours of lecture / 3 hours of lab			4 hours of lecture / 3 hours of lab		
<b>Prerequisite:</b> ENGR 120 (grade of "C" or higher)			Introduction to the engineering method of problem solving through guided Engineering design projects. Focus on developing group skills, understanding the effects of different learning styles, producing strategies for innovation, and fostering creativity in problem solving. [GE, NS, NS-LAB, SE]		
Digital logic design, testing and implementation, including Boolean Algebra, Karnaugh map and design of logic circuits to solve practical problems using sequential/combinational/synchronous/asynchronous circuits, application of standard SSI/MSI/LSI logic systems, design/test/implement development cycle and Hardware Description Language (HDL). [GE]			<b>Electrical</b>	<b>Circuits</b>	
<b>Electrical</b>	<b>Circuits</b>	<b>and</b>	<b>Signals</b>		
ENGR 252			5 Credits/Units		
4 hours of lecture / 3 hours of lab					
<b>Prerequisite:</b> ENGR& 204 (grade of "C" or higher)					
Continuation of Electrical Circuits. Analysis and design of RLC circuits in sinusoidal steady state, complex-frequency domain of linear and lumped parameter circuits, active/passive filter circuits, poly phase and two-port circuits. Application of Fourier series, Fourier transforms and computer tools in circuit analysis. [GE, SE]					
<b>Electrical</b>	<b>Circuits</b>	<b>and</b>	<b>Statics</b>		
ENGR 252			ENGR& 214		5 Credits/Units
4 hours of lecture / 3 hours of lab			5 hours of lecture		
<b>Prerequisite:</b> ENGR& 204 (grade of "C" or higher)			<b>Prerequisite:</b> MATH& 152 (grade of "C" or higher) or placement into Math Level 100		
Continuation of Electrical Circuits. Analysis and design of RLC circuits in sinusoidal steady state, complex-frequency domain of linear and lumped parameter circuits, active/passive filter circuits, poly phase and two-port circuits. Application of Fourier series, Fourier transforms and computer tools in circuit analysis. [GE, SE]			Solution of two and three dimensional vector systems using vector algebra notation and free-body diagrams. Friction, centroids, moment of inertia, radius of gyration, and loads involved in structures, machines, and trusses. [GE, SE]		

**Dynamics**

ENGR&amp; 215 5 Credits/Units

5 hours of lecture

**Prerequisite:** ENGR& 214 and MATH& 152 (grades of "C" or higher)

Kinematics and kinetics of particles, systems of particles and rigid bodies. Force/acceleration, work/energy and impulse/momentum problem solving techniques will be applied to two and three dimensional systems. [GE, SE]

**Thermodynamics**

ENGR&amp; 224 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH152 and PHYS241 (grades of "C" or higher)

Explores the fundamentals of thermodynamics. Investigates the thermodynamic properties of matter with emphasis on ideal and real gases and introduces the concepts of heat and work. Defines the first and second laws of thermodynamics and explores their impact with examples. Uses thermodynamic cycles to apply the concepts of learned and relates the principles to applications. [GE, SE]

**Mechanics of Materials**

ENGR&amp; 225 5 Credits/Units

5 hours of lecture

**Prerequisite:** ENGR& 214 and MATH& 152 (grades of "C" or higher)

Concepts of stress and strain for deformable objects. Axial, torsional and bending loading, combined loadings. Column loading and stability with other applied topics. [GE, SE]

# ENGLISH (ENGL/ENGL&)

**Intro to College Writing and Critical Reading**  
ENGL 90 6 Credits/Units

5 hours of lecture

**Prerequisite:** Eligibility for ENGL 90 (CAP 64, CAP 70, or CAP 74 (grade of "C" or higher), recommending score on placement test, or qualifying HS GPA).

Integrated approach to reading, critical thinking, and writing in academic settings. Topics include reading and writing as processes; thinking critically; summarizing, analyzing, and responding to texts; editing for clarity and coherence; and practicing metacognition and Productive Persistence

**College Writing and Critical Reading Seminar**  
ENGL 99 1 Credit/Unit

**Prerequisite:** Eligible for ENGL& 101 Plus 99

Corequisite instruction in college-level writing, critical thinking, and critical reading to support achievement of ENGL& 101 student learning outcomes as well as support success in other 100-level courses, using Productive Persistence and collaborative learning strategies. Course emphasis will be targeted to the requirements of each group of students.

**Ethics and Policy in Healthcare I**  
ENGL 112 2 Credits/Units

2 hours of lecture

**Prerequisite:** Acceptance into the clinical portion of the program, and concurrent enrollment in NURS 110, NURS 111, ENGL 112, NURS 113, NURS 114 and NURS 115.

ENGL 112 explores values, ethics, and legal decision-making frameworks and policies used to support the well-being of people and groups within the context of the healthcare professions. Foundational concepts are introduced and discussed in the context of a first year nursing student. [GE, HA, SE]

**Introduction to Creative Writing**  
ENGL 121 5 Credits/Units

5 hours of lecture

Introduction to and practice at least two of the following genres: fiction, creative nonfiction, scriptwriting, and poetry. Develop polished pieces of original work, read and analyze of diverse examples of the genres, participate in class discussion and written critiques of student and published writing, and undertake writing exercises to develop key elements of craft, strategies for editing and revision. [GE, HB, SE]

**Fiction Writing**  
ENGL 125 5 Credits/Units

5 hours of lecture

Exploration of fiction writing, with an emphasis on literary short fiction. Development of polished pieces of short fiction, reading and analysis of diverse examples of the genre; class discussion and written critiques of student and published writing; writing exercises to develop key elements of craft; strategies for editing and revision. [GE, HB, SE]

**Poetry Writing**  
ENGL 126 5 Credits/Units

5 hours of lecture

Exploration of poetry writing, focusing on using literary devices to craft and revise original work through discussion of diverse examples of the genre and through written critiques of student and published writing. [GE, HB, SE]

**Creative Nonfiction Writing**  
ENGL 127 5 Credits/Units

5 hours of lecture

Exploration of creative nonfiction writing, with an emphasis on writing from personal experience. Development of polished pieces of nonfiction; reading and analysis of diverse examples of the genre; class discussion and written critiques of student and published writing; writing exercises to develop key elements of craft; strategies for editing and revision. [GE, HB, SE][PNP]

**Graphic Fiction Writing**  
ENGL 128 5 Credits/Units

5 hours of lecture

Exploration of comic writing, with an emphasis on scripting conventions. Development of polished pieces of original fiction for visual rendering; reading and analysis of diverse examples of the medium; class discussion and written critiques of student and published writing; writing exercises to develop key elements of craft; strategies for editing and revision. [GE, HB, SE][PNP]

**Introduction to Short Fiction**  
ENGL 133 5 Credits/Units

5 hours of lecture

Study of short fiction, including classic and contemporary examples, with an emphasis on developing critical reading skills as well as how short fiction represents diverse cultural perspectives. Introduction to the language and principles of literary analysis. [GE, HA, SE][PNP]

**Science Fiction and Fantasy**  
ENGL 143 5 Credits/Units

5 hours of lecture

Study of speculative fiction from fantasy to hard science with attempts to define its particular qualities and place in modern literature. Emphasizes developing critical reading skills as well how science fiction and fantasy reflect issues in contemporary culture such as xenophobia, apocalyptic fear, definitions of humanity, politics, religion, and power, and late capitalism. Introduction to the language and principles of literary analysis. [GE, HA, SE][PNP]

**Detective Fiction**  
ENGL 145 5 Credits/Units

5 hours of lecture

Introduction to detective fiction, its typical styles and techniques, its interactive nature, and its capacity for social critique, with an emphasis on developing critical reading skills. Study of the ways in which detective fiction represents diverse culture perspectives, covering topics including early detective authors and the evolution of the popular image of the detective in American and British cultures. Introduction to the language and principles of literary analysis. [GE, HA, SE][PNP]

**Introduction to Mythology**  
ENGL 150 5 Credits/Units

5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Study of significant world myths, including their sources and literary expressions. Introduces methods and vocabulary of mythological analysis to build close reading skills. [GE, HA, SE][PNP]

**Introduction to the Novel**  
ENGL 156 5 Credits/Units  
5 hours of lecture

Exploration of how the novel as a genre reflects cultures and societies. Emphasis on developing close reading skills and textual analysis of novels of varying lengths and types that present a diverse range of perspectives. [GE, HA, SE][PNP]

**Popular Culture**  
ENGL 173 5 Credits/Units  
5 hours of lecture

Introduction to American Popular Culture using methodology and theory from various disciplines: graphic arts, design, social media, music, television and cinema studies, advertising, communication studies, literature, and history. Central questions will focus on the ways popular culture serves not simply as a reflection of a culture's beliefs and values, but also as a site of conversation between the various sub-groups that thrive in America. [GE, HA, SE]

**Introduction to LGBTQ Studies**  
ENGL 175 5 Credits/Units  
5 hours of lecture

An interdisciplinary survey of lesbian, gay, bisexual, and trans issues in the sciences, social science, and humanities with an emphasis on the period from 1900 to the present in the United States. Introduction to the most compelling aspects of modern cultural representation of and discourse on sexual and gender identity. [GE, HA, PPI, SE, SS]

**Nature and the Humanities**  
ENGL 176 5 Credits/Units  
5 hours of lecture

Interdisciplinary study of historical and current ways of 'constructing' and relating to nature in the Humanities. Topics include how cultures value nature, derive ethics and aesthetics from it, and interact with it in the creation of literature, art, architecture, social environments, social commentary, and legislation. Emphasis on 19th and 20th Century American cultures, with background in Asian, European, and Early American perspectives on nature. Can be linked with specific courses in the following departments for an integrated learning project: ART, BIOL, ENGL, ENVS, GEOL, MUSC, and PE. [GE, HA, PPI, SE]

**Cooperative Work Experience**  
ENGL 199 1-5 Credits/Units  
15 hours of clinical

For students interested in careers that emphasize writing, co-op work experience offers credit for supervised work in writing-related jobs. [GE]

**Literature By Women**  
ENGL 240 5 Credits/Units  
5 hours of lecture

**Prerequisite:** A grade of 'C' or better in ENGL& 101. Literature survey class that studies diverse fiction, nonfiction, drama, poetry, and relevant secondary theory by women authors reflecting a range of women's narratives. Focus on written interpretation and essay-length analysis using concepts of power, privilege, and inequity. [GE, HA, PPI, SE][PNP]

**Native American Literature**  
ENGL 242 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102  
Study of Native American literature as a lens for the experience, culture, and history of Native people within larger American historical contexts. By integrating active learning strategies, coursework focuses on the multicultural nature of Native American literature and on the strategies with which Native writers mediate imbalances of power and systems of oppression within the Americas. [GE, HA, SE] [PNP]

**Queer Literature**  
ENGL 243 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102  
An introductory survey of literature relevant to the gay, lesbian, bisexual, and trans communities and their historical predecessors from 1800 to the present. Emphasis on critical reading skills, analysis of power, privilege, and inequity, and written interpretation employing the principles and vocabulary of literary analysis. [GE, HA, PPI, SE][PNP]

**American Multiethnic Lit**  
ENGL 267 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102  
Survey of American multiethnic writing from Civil Rights era to the present. Emphasis on writings as 'windows' to American ethnic experiences, cultures, and histories within larger American historical contexts. By building close reading, literary analysis, and writing skills, encourages students to develop understanding of political, social, and historic climate as it helps shape and is shaped by literature. [GE, HA, PPI, SE][PNP]

**Pacific Northwest Literature**  
ENGL 271 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102  
Focus on reading and writing about literature from the Pacific Northwest to explore how the region is defined, imagined, and represented in literature through an emphasis on close reading and literary analysis. Explores the development of regionalism, national and regional histories and other identity-producing media in diverse cultural contexts. [GE, HA, SE][PNP]

**Shakespeare**  
ENGL 272 5 Credits/Units  
5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102  
Readings of Shakespeare's works including (but not limited to) selected tragedies, comedies, and historical plays. Shakespeare's works are read within their historical and cultural settings. Students will also learn methods of literary analysis and apply them in written papers. [GE, HA, SE]

**Ethics and Policy In Healthcare II**  
ENGL 273 3 Credits/Units

3 hours of lecture

Explores values, ethics and legal decision-making frameworks and policies used to support the well-being of people and groups within the context of the healthcare professions including nurse practice acts, and state and federal laws. The role of the professional nurse is examined in relation to policy and ethics with analysis of case studies allowing for application of concepts in the health care setting. [GE, HA, SE]

**Advanced Fiction Writing**  
ENGL 275 5 Credits/Units

5 hours of lecture

**Prerequisite:** ENGL 121, ENGL 125, or ENGL 127 (grade of "C" or higher)

Continuation of introductory creative writing courses, with an emphasis on writing short fiction and advancing fundamental fiction writing skills. Further development of reading and analysis of diverse examples of fiction; class discussion and written critiques of student and published writing; writing exercises to continue to develop key elements of craft; strategies for editing and revision; participation in the larger literary world through an introduction to publication, literary readings, and other appropriate literary events. [GE, HB, SE]

**Advanced Poetry Writing**  
ENGL 276 5 Credits/Units

5 hours of lecture

**Prerequisite:** ENGL 121 or ENGL 126 (grade of "C" or higher)

Exploration of poetry writing and publication strategies, focusing on using literary devices to craft and revise original work through discussion of diverse examples of the genre, and through written critiques of student and published poetry. [GE, HB, SE]

**Literary Publication**  
ENGL 277 1-5 Credits/Units

5 hours of lecture

**Prerequisite:** Eligibility for ENGL101 (CAP 90, ENGL 90, or IELP 90 (grade of "B" or higher) or eligibility through multiple measures placement.)

Exploration of publication strategies with a focus on selecting and editing short fiction, poetry, and creative non-fiction for Clark's art and literary journal. Topics include study of current literary journals, reading and analysis of diverse examples of published writing, development of original writing and interviews, collaborative work on design and layout, and participation in promotion and marketing for the journal. Intended for Clark's literary journal staff, creative writing students, and others interested in literary publication and editing. [GE, HB, SE][PNP]

**Selected Topics**  
ENGL 280 1-3 Credits/Units

3 hours of lecture

Course focuses on selected topics in English. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE, SE]

**Special Projects**  
ENGL 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

**English Composition I**  
ENGL& 101 5 Credits/Units

5 hours of lecture

**Prerequisite:** Eligibility for ENGL101 (CAP 90, ENGL 90, or IELP 90 (grade of "B" or higher) or eligibility through multiple measures placement.) Integrated college reading and writing, emphasizing deep comprehension, critical thinking in response to texts from various genres, and writing for a variety of purposes and audiences in a range of modalities. Strengthens skills through rhetorical awareness, application of genre knowledge, and reflection on past and future writing tasks to enable skill transfer to new situations in college, workplaces, and communities. Reading and writing processes emphasized. [CA, CT, GE, SE, WC]

**English Composition II**  
ENGL& 102 5 Credits/Units

5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Studies in exposition and argumentation emphasizing the research paper and its conventions. Focus on developing genre awareness with respect to discipline-specific research, reading, composition, and documentation. Analysis and synthesis of discipline-appropriate texts in the context of supporting a focused position or recommendation on an issue in an area of study. [CA, CT, GE, SE, WC]

**Intro to Poetry**  
ENGL& 113 5 Credits/Units

5 hours of lecture

Study of poetry and poetic forms, including classic and contemporary examples, with an emphasis on developing critical reading skills as well how poetry represents diverse cultural perspectives. Introduction to the language and principles of literary analysis. [GE, HA, SE][PNP]

**Intro to Drama**  
ENGL& 114 5 Credits/Units

5 hours of lecture

Revised course description: Study of drama as both literature and theater, from historical, philosophical, and artistic perspectives. Introduces methods and vocabulary of literary analysis to build close reading skills. [GE, HA, SE][PNP]

**British Literature I**  
ENGL& 226 5 Credits/Units

5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Classics of British literature from the eighth to the seventeenth century. Literature is read within its historical and cultural settings. Students will also learn methods of literary analysis and apply them in written essays. [GE, HA, SE][PNP]

**British Literature II**  
ENGL& 227 5 Credits/Units

5 hours of lecture

**Prerequisite:** ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102

Classics of British literature from the seventeenth to the nineteenth century. Literature is read within its historical and cultural setting with an emphasis on written interpretation employing the principles and vocabulary of literary analysis. [GE, HA, SE][PNP]

<b>British Literature</b>	<b>III</b>	<b>World Literature</b>	<b>II</b>
ENGL& 228 5 hours of lecture	5 Credits/Units	ENGL& 255 5 hours of lecture	5 Credits/Units
<b>Prerequisite:</b> ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102 Classics of British literature from the nineteenth century to the present. Literature is read within its historical and cultural settings. Students will also learn methods of literary analysis and apply them in written essays. [GE, HA, SE][PNP]		<b>Prerequisite:</b> ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102 Surveys the literary, cultural, and human significance of influential works of international Western and non-Western literary traditions from the 11th to the 18th centuries. Approaches cultural diversity through a critical study of selected world masterpieces and their historical, social, political and philosophical frameworks through reading, reflection, and literary analysis. Interprets world literature in relation to global contexts. [GE, HA, SE][PNP]	
<b>Technical Writing</b>	<b>III</b>	<b>World Literature</b>	<b>III</b>
ENGL& 235 5 hours of lecture	5 Credits/Units	ENGL& 256 5 hours of lecture	5 Credits/Units
<b>Prerequisite:</b> ENGL& 101, ENGL 135 or PTWR 135 (grade of "C" or higher) Study of advanced writing skills for typical work-world documents in a business/technical environment, with emphasis on document format, audience analysis, correspondence, formal and informal reports, research, and documentation. [CA, CT, GE, SE, WC][PNP]		<b>Prerequisite:</b> ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102 Surveys the literary, cultural, and human significance of influential works of international Western and non-Western literary traditions from the 19th to the 20th centuries. Approaches cultural diversity through a critical study of selected world masterpieces and their historical, social, political and philosophical frameworks through reading, reflection, and literary analysis. Evaluates in writing world literature in relation to global contexts. [GE, HA, SE][PNP]	
<b>American Literature</b>	<b>I</b>		
ENGL& 244 5 hours of lecture	5 Credits/Units		
<b>Prerequisite:</b> ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102 Survey of American writing from the beginnings to 1865. Literature of all genres is read within historical and cultural settings. Students develop critical reading skills, identify diverse cultural perspectives, and make use of the language and principles of literary analysis to respond in writing to both canonical and non-canonical texts. [GE, HA, SE][PNP]			
<b>American Literature</b>	<b>II</b>		
ENGL& 245 5 hours of lecture	5 Credits/Units		
<b>Prerequisite:</b> ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102 Survey of American writing from the Civil War through World War I. Literature of all genres is read within historical and cultural settings. Students develop critical reading skills, identify diverse cultural perspectives, and make use of the language and principles of literary analysis to respond in writing to both canonical and non-canonical texts. [GE, HA, SE] [PNP]			
<b>American Literature</b>	<b>III</b>		
ENGL& 246 5 hours of lecture	5 Credits/Units		
<b>Prerequisite:</b> ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102 Survey of American writing World War I through the present. Literature of all genres is read within historical and cultural settings. Students develop critical reading skills, identify diverse cultural perspectives and make use of the language and principles of literary analysis to respond in writing to both canonical and non-canonical texts. [GE, HA, SE][PNP]			
<b>World Literature</b>	<b>I</b>		
ENGL& 254 5 hours of lecture	5 Credits/Units		
<b>Prerequisite:</b> ENGL& 101 (grade of "C" or higher) or eligibility for ENGL& 102 Surveys the literary, cultural, and human significance of influential works of international Western and non-Western literary traditions from the ancient world through the 10th century. Approaches cultural diversity through a critical study of selected world masterpieces and their historical, social, political and philosophical frameworks through reading, reflection, and literary analysis. Interprets world literature in relation to global contexts. [GE, HA, SE][PNP]			

# ENGLISH AS A SECOND LANGUAGE (ESL)

**ESL Educational Interviewing Levels 4-6**  
 ESL 3 1-2 Credits/Units  
 2 hours of lecture  
 For new ESL students only; assessing new students in basic skills and learning styles; identifying barriers to their student success; helping students understand Clark College and Basic Education.

**Intensive Foundations: Problem-Solving/Technology**  
 ESL 7 7 Credits/Units  
 7 hours of lecture  
 Use basic problem-solving and technology to listen actively, read with understanding, and convey ideas in writing. Upon successful completion of both ESL 007 and ESL 009, skills for higher level Transitional Studies courses will be gained.

**Intensive Foundations: Communication**  
 ESL 9 9 Credits/Units  
 9 hours of lecture  
 Learn to listen actively, speak so others can understand, read with understanding, and convey ideas in writing. Upon successful completion of both ESL 007 and ESL 009, skills for higher level Transitional Studies courses will be gained.

**ESL I-DEA**  
 ESL 10 1-18 Credits/Units  
 18 hours of lecture  
 This class will help you to improve your English skills in listening, speaking, reading, and writing. You will learn new skills to help you in your everyday life. You will learn about technology by using a computer to do some of your schoolwork. I-DEA is a blended course; half of your class time will be face-to-face (in the classroom with teacher and students), and half will be online (on the computer). Your teachers can help you with online work during lab time, after the face-to-face class time.

**Foundations: Communication**  
 ESL 13 6 Credits/Units  
 6 hours of lecture  
 Learn how and/or improve ability to listen, speak, read, and write basic English with the support of two teachers. Upon successful completion of Foundations (ESL 013): Communications and Foundations (ESL 015): Problem-solving and Technology, students will have gained the skills for higher level Transitional Studies courses.

**Foundations: Problem-Solving and Technology**  
 ESL 15 6 Credits/Units  
 6 hours of lecture  
 Learn to apply numeracy and collaborative reading for basic problem-solving and use technology to improve listening, reading, writing and numeracy skills. Upon successful completion of ESL 15 and ESL 16, students will have gained the skills for higher level Transitional Studies courses.

**Pronunciation for College & Career**  
 ESL 19 2 Credits/Units  
 2 hours of lecture  
 Introduction and development of key features of English pronunciation, focusing on common problems non-native speakers of English experience in understanding and producing consonant sounds, vowel sounds, stress, intonation, rhythm, and reduced speech in the context of college and career.

**Intensive Explorations: Study Skills**  
 ESL 45 2 Credits/Units  
 2 hours of lecture  
 Introduction and development of study skills plus reflection on various strategies of successful college students. Upon successful completion of Intensive Explorations, students will have gained the technology (especially computer) and study skills as well as the oral and written communication skills to transition into Fast Track one.

**EXPLORATIONS: ORAL COMMUNICATIONS/TECH**  
 ESL 46 6 Credits/Units  
 6 hours of lecture  
 Introduction and development of technology (especially computer) skills to support oral communication. Development and practice of speaking and listening communication skills appropriate to ESL L4 (Intermediate ESL), and sufficient to prepare students for Fast Track 1. Upon successful completion of Explorations: Oral Communication/Tech., students will have gained the technology (especially compute) and study skills as well as the oral communication skills to transition into Fast Track 1.

**Intensive Explorations: Oral Communication/Tech**  
 ESL 47 7 Credits/Units  
 7 hours of lecture  
 Introduction and development of technology (especially computer) skills to support oral communication. Development and practice of speaking and listening communication skills appropriate to Intermediate ESL, and sufficient to prepare students for Fast Track 1 (both Intensive and Stand-alone courses). Upon successful completion of Intensive Explorations, students will gain the technology (especially computer) and study skills as well as the oral and written communication skills to transition into Fast Track 1 (both Intensive and Stand-alone courses).

**EXPLORATIONS: WRITTEN COMMUNICATIONS/TECH**  
 ESL 48 6 Credits/Units  
 6 hours of lecture  
 Introduction and development of technology (especially computer) skills to support written communication. Development and practice of reading and writing communication skills appropriate to Intermediate ESL and sufficient to prepare students for Fast Track One. Upon successful completion of Explorations, students will have gained the technology (especially computer) and the oral and written communication skills to transition into Fast Track One.

**Intensive Explorations: Writtencommunication/Tech**  
 ESL 49 7 Credits/Units  
 7 hours of lecture  
 Introduction and development of technology (especially computer) skills to support oral communication. Development and practice of reading and written communication skills appropriate to Intermediate ESL, and sufficient to prepare students for Fast Track One. Upon successful completion of Foundations Plus, students will gain the technology (especially computer) and study skills as well as the oral and written communication skills to transition into Fast Track One.

**Jumpstart Reading/Writing 1-4**  
 ESL 76 1-6 Credits/Units  
 6 hours of lecture  
 Covers basic strategies to learn to read and comprehend words and word groups in simple text. Also covers basic strategies to write short, structured sentences on familiar topics with some effort but with few errors. Both skills will help students to independently accomplish simple, well-defined, and structured reading and writing activities in a few comfortable and familiar settings.



**ESL Selected Topics**  
 ESL 80 1-10 Credits/Units  
 10 hours of lecture  
 Course will focus on selected ESL topics. Course theme and content will change to reflect the new topic. Because of the variations, this course is repeatable for credit for different topics.

**ESL LITERACY SUPPORT**  
 ESL 90 1-2 Credits/Units  
 2 hours of lecture  
 Learn how and/or improve ability to read with understanding and convey ideas in writing. Upon successful completion of ESL Literacy Support, students will have gained skills to improve performance on ESL reading/writing assessments.

**ESL Math for Transition**  
 ESL 93 1-2 Credits/Units  
 2 hours of lecture  
 Math such as fractions, decimals, operations, will be contextualized in real-life contexts, so students can transfer the skills outside of the classroom while they are preparing to transition to CAP Math. [PNP]

**Reading, Speaking and US Citizenship**  
 ESL 95 3 Credits/Units  
 3 hours of lecture  
 Learn reading, writing and oral communication strategies including critical thinking to actively participate in various aspects of Civics including basic knowledge of US history and government, and incorporation of on-line resources for effective US Citizenship interview preparation and engaged citizenship.

# ENVIRONMENTAL SCIENCE (ENVS/ENVS&)

**Integrated Environmental Science**  
ENVS 109 5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10

Introduction to scientific inquiry using the foundations of physical, earth and life sciences. Focus on developing the skills to answer basic questions about scientific phenomena through scientific investigations and the ability to assist and guide others through this process. Outdoor field activities are included. Designed for non-science majors and addressing the curriculum needs of early childhood educators. [GE, NS, NS-LAB, SE]

**Global Climate Change**  
ENVS 200 5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10

An introduction to climate change for non-science majors. Learn what climate means, what makes it change and the techniques scientists use to study it. Use data collection and measurements to see for yourself! Investigate how we can slow climate change, consider how we can live in this new climate and learn to better communicate to others what climate change means. Credit can not be granted for both METR 201 and ENVS 200.

**Introduction to Soils: A Living System**  
ENVS 201 5 Credits/Units

3 hours of lecture / 4 hours of lab

An introduction to soils, including biological, chemical and physical properties. Examine the fundamentals of soil ecology, including soil-plant-water interactions, soil fertility, and soil formation. Topics will integrate the study of physical, chemical, geologic, atmospheric and biological systems. Human-soil interactions will be explored in the context of agricultural and ecological systems. [GE, NS, NS-LAB, SE]

**Native Plant Propagation: Principles & Practice**  
ENVS 202 3 Credits/Units

3 hours of lecture

Plant propagation techniques, emphasizing native plants, propagation for restoration projects, and unique problems associated with providing appropriate plant material for restoration or conservation purposes. Emphasizes greenhouse and fieldwork, and includes lectures, field trips, and a class project. [GE, NS, SE]

**Field Studies In Environmental Science**  
ENVS 208 1-8 Credits/Units

2 hours of lecture / 12 hours of lab

**Prerequisite:** Completion of a 100- or 200-level BIOL, BIOL, ENVS, ENVS, GEOL or GEOL course (grade of "C" or higher)

Experiential hands-on learning focusing on ecological relationships and environmental quality of the locations visited. Gain valuable and exciting first-hand experience using scientific and field equipment to take measurements and collect field data. Engage in a current issue pertaining to the area and participate in mock town hall meeting to learn about stakeholders and perspectives. Learn about various state and federal agencies and their approach to land management. Check the schedule to see which locations will be visited and the format for the exploration i.e. extended camping trip, day trips etc. Check schedule to see additional fees that cover food, lodging and transportation. [GE, NS, NS-LAB, SE]

**Introduction to Ecological Restoration**  
ENVS 218 5 Credits/Units

3 hours of lecture / 4 hours of lab

Learning field techniques required for ecological restoration, interacting with agency personnel and others working in the field of restoration. Participating in the collection, analysis and interpretation of data pertaining to ecological health of various habitats. Projects vary depending upon field locations and agency partnerships. [GE, NS, NS-LAB, SE]

**Environmental Politics**  
ENVS 231 5 Credits/Units

5 hours of lecture

Examines the relationship between industrial civilization and the natural environment by exploring underlying ecological philosophies and the economic and political processes by which environmental decisions are made. Emphasis on critical thinking and evaluating alternative points of view. Credit not allowed for both ENVS 231 and POLS 231. [GE, SE, SS]

**Selected Topics**  
ENVS 280 1-5 Credits/Units

5 hours of lecture  
[GE]

**Special Projects**  
ENVS 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

**Inquiry-Based Science for Teachers**  
ENVS 300 5 Credits/Units

3 hours of lecture / 4 hours of lab

A survey of earth, physical, and life sciences for early childhood teachers. Exploration of scientific phenomena and engineering design using inquiry-based learning. [GE]

**Sustainability & Environmental Practices**  
ENVS 430 5 Credits/Units

4 hours of lecture / 2 hours of lab

Investigate how environmental problems have arisen due to human activities (global warming, air pollution, waste disposal) and their impact on corporate practices, to include the corporate mission, competitive strategy, technology choices, production development decisions, production processes, and corporate responsibilities. Regulations and permits will be reviewed from the perspective of local planning departments. Changes to the environment by using resources at rates that exceed the system's ability to replenish them will also be covered. [GE, NS, SE]

**Introduction to Environmental Science**  
ENVS& 101 5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30

Introduction to current topics in environmental science and fundamental principles of ecology. Topics include human population growth, natural resource use, biodiversity, climate change, species interactions, habitat alteration and fragmentation, ecosystem services, carrying capacity and sustainability. Labs will be hands-on investigations of the local environment where students will get an opportunity to collect samples and analyze the environmental quality through the study of soils, biodiversity and water. Many of the labs will be conducted in the field. This course is primarily intended for students majoring or minoring in environmental science or environmental studies. [GE, NS, NS-LAB, SE]

# GEOGRAPHY (GEOG/GEOG&)

## Physical Geography

GEOG 205 5 Credits/Units

5 hours of lecture

Foundation for the understanding of fundamental concepts and current ideas in physical geography. The systematic study of patterns and processes that have shaped the Earth's surface by understanding our natural environment, earth-sun-moon relationships, cartography, weather and climate, landforms, soils, oceans, and water and biotic resources. Survey continents, countries, natural resources as well as major physical features of our current global landscape. [GE, NS, SE, SS]

## The Geopolitics of The Middle East

GEOG 220 5 Credits/Units

5 hours of lecture

Geo-political survey of the Middle East, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of the Middle East on the rest of the world, as well as the impact and influence of the rest of the world on the Middle East. Credit not allowed for both GEOG 220 and POLS 220. [GE, SE, SS]

## The Geopolitics of Africa

GEOG 221 5 Credits/Units

5 hours of lecture

Geo-political survey of Africa, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of Africa on the rest of the world, as well as examine the impact and influence of the rest of the world on Africa. Credit not allowed for both GEOG 221 and POLS 221. [GE, SE, SS]

## The Geopolitics of Asia and Oceania

GEOG 222 5 Credits/Units

5 hours of lecture

Geo-political survey of Asia and Oceania, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of Asia and Oceania on the rest of the world, as well as examine the impact and influence of the rest of the world on this region. Credit not allowed for both GEOG 222 and POLS 222. [GE, SE, SS]

## The Geopolitics of Eurasia

GEOG 223 5 Credits/Units

5 hours of lecture

Geo-political survey of Europe, Russia and Central Asia, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. Examines the importance and impact of Eurasia on the rest of the world, as well as examine the impact and influence of the rest of the world on Eurasia. Credit not allowed for both GEOG 223 and POLS 223. [GE, SE, SS]

## Geopolitics of Latin America and Caribbean

GEOG 224 5 Credits/Units

5 hours of lecture

Geo-political survey of Latin America and the Caribbean, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. Examines the importance and impact of Latin America and the Caribbean on the rest of the world, as well as examine the impact and influence of the rest of the world on the countries in this region. Credit not allowed for both GEOG 224 and POLS 224. [GE, SE, SS]

## Selected Topics

GEOG 280 1-5 Credits/Units

5 hours of lecture

Course focuses on selected topics in Geography. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE, SE]

## Special Projects

GEOG 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

## Introduction to Geography

GEOG& 100 5 Credits/Units

5 hours of lecture

Survey of our natural environment, earth-sun-moon relationships, cartography, weather and climate, landforms, soils, oceans, and water and biotic resources. Survey of the countries and major features of the world as well as geographic aspects of culture, including the past and present social, political and economic factors that are related to human perception, organization and use of the environment. [GE, SE, SS]

## World Regional Geography

GEOG& 102 5 Credits/Units

5 hours of lecture

Fundamental geographic concepts and examination of different world regions and the various physical, social, cultural, and political processes that create, shape, and affect them. Survey of several different world regions, such as Sub-Saharan Africa, Europe, the Middle East, Latin American and Southeast Asia, by examination of the environmental, cultural, historical, and economic processes that make each region unique, as well as its connections and commonalities with other world regions. [GE, SE, SS]

**Human Geography**  
GEOG& 200 5 Credits/Units  
5 hours of lecture  
The course provides a foundation for the understanding of fundamental concepts and current ideas in Human Geography. The purpose of the course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will gain a broad understanding of the development of cultural, social, political and economic spaces at a variety of scales and the interaction of human societies with the biophysical environment. The significance of spatial and temporal scales will be introduced, and a consideration of ethics and values developed. [GE, SE, SS]

**Economic Geography**  
GEOG& 207 5 Credits/Units  
5 hours of lecture  
Broad patterns, courses, and consequences of interrelationships between economic and geographic forces, processes, and resources. Location of economic activity, population dynamics, strategic resources, global economic flashpoints, patterns/consequences of regional integration. [GE, SE, SS][PNP]

# GEOLGY (GEOL/GEOL&)

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**Intro to Geology II Lab**  
 GEOL 102 5 Credits/Units

3 hours of lecture / 4 hours of lab

Plate tectonics and the origin of ocean basins and continents. Mass wasting, glaciation, streams, groundwater, deserts, shorelines and deep sea sediments. One day field trip required. [GE, NS, NS-LAB, SE]

**Northwest Geology**  
 GEOL 109 5 Credits/Units

5 hours of lecture

Geologic evolution of the Pacific Northwest emphasizing the development of the Cascades, Columbia River Plateau, Coast Ranges, Puget-Willamette Lowlands, San Juan Islands, High Lava Plains and the Okanogan Highlands. Field trips required. This class is a non-lab science. [GE, NS, SE]

**Cooperative Work Experience**  
 GEOL 199 1-3 Credits/Units

9 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

**Field Studies In Geology**  
 GEOL 218 1-6 Credits/Units

2 hours of lecture / 8 hours of lab

**Prerequisite:** 10 units in Geology (GEOL, GEOL) grades of "C" or higher  
 Field trip program to study the geologic evolution of an area. Emphasis on interpretation of rocks and their structure. Duration, scope and field trip localities will vary. Food and personal gear provided by student. Maxivans provided for travel. Day hikes may be required. [GE, NS, NS-LAB, SE]

**Special Projects**  
 GEOL 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

**Introduction to Physical Geology**  
 GEOL& 101 5 Credits/Units

3 hours of lecture / 4 hours of lab

A dynamic earth, geologic time, origin and identification of minerals and rocks. Volcanoes, earthquakes and the structure of earth in light of plate tectonic theory. One day field trip required. [GE, NS, NS-LAB, SE]

**Historical Geology: The Earth Through Time**  
 GEOL& 103 5 Credits/Units

3 hours of lecture / 4 hours of lab

Physical, chemical, and biologic evolution of the earth as determined from the rock record. Interpretation of ancient environments through stratigraphy and biostratigraphy. Plate tectonics, earth history, and fossil identification. Field trips required. [GE, NS, NS-LAB, SE]

# HEALTH & PHYSICAL EDUCATION (HPE)

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## Occupational

HPE 220

## Wellness

3 Credits/Units

2 hours of lecture / 2 hours of lab

Study of wellness and work-life balance. Focusing on developing personalized behavior change strategies aimed at making progress toward optimal wellness in any occupation. Content includes time management, coping with workplace stress, building relationships with coworkers, wellness on a budget, disease prevention and injury prevention. Participating in physical activities is required. In addition to activities that improve strength, flexibility and cardiovascular fitness, other activities may include breathing, stress management, corrective exercise and lifting techniques. Fulfills the Health and Physical Education general education requirement. [GE, HPE, SE]

## Fitness-Wellness

HPE 258

3 Credits/Units

2 hours of lecture / 2 hours of lab

Exploration of the connection between fitness and health. Focusing on nutrition, stress, and developing a personalized health plan for lifelong physical activity. Participating in physical activity is required. Activities focus on improving flexibility, strength and cardiovascular fitness. [GE, HPE, SE]

## Mind

## Body

## Health

HPE 266

3 Credits/Units

2 hours of lecture / 2 hours of lab

Exploration of the mind/body connection. Focusing on health, illness, healing, and developing personalized behavior change strategies to advanced health. Participating in movement activities is required. Activities may include meditation, yoga, tai chi and breathing techniques in addition to activities that improve strength and cardiovascular fitness. [GE, HPE, SE][PNP]

## Selected

## Topics

HPE 280

1-5 Credits/Units

5 hours of lecture

Varying topics in Health Physical Education and sports, as listed in the term class schedule. May be repeated for credit. [GE, SE]

## Special

## Projects

HPE 290

1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

# HEALTH (HLTH)

**Food and Your Health**  
HLTH 100 2 Credits/Units

2 hours of lecture

Exploration of the connection between food choices and health with an emphasis on whole foods. Focus on developing personalized healthy strategies to advance health. [GE, HE, SE][PNP]

**Health for Adult Living**  
HLTH 101 3 Credits/Units

3 hours of lecture

Exploration of the connection between personal choices and health across multiple dimensions of wellness. Focus on developing personalized behavior change strategies to advance health. [GE, HE, SE]

**Environmental Health**  
HLTH 103 2 Credits/Units

2 hours of lecture

Exploration of the connection between personal choices, human health, and the environment. Focus on developing personalized behavior change strategies to advance health. [GE, HE, SE]

**Happiness and Your Health**  
HLTH 108 2 Credits/Units

2 hours of lecture

Exploration of the connection between happiness and your health. Focuses on science-based strategies to increase happiness, including gratitude, social connections, mindfulness, and stress management. Students will develop personalized behavior change strategies to advance well-being. [GE, HE, SE]

**Adult CPR and First Aid**  
HLTH 120 1 Credit/Unit

1 hours of lecture

Introduction to adult CPR and general first aid skills that will prepare the student to recognize emergencies, make first aid decisions, and provide care. Upon successful completion of the course, students will receive Adult CPR and Standard First Aid certification. [GE]

**Pediatric First Aid & CPR**  
HLTH 123 1 Credit/Unit

1 hours of lecture

First aid preparation to prevent injuries and respond to emergencies involving children and infants. Skills include child and infant CPR, use of an AED, first aid, and injury prevention. Successful completion of the course includes certification for first aid, child and infant CPR and AED. [GE]

**Healthcare Provider CPR and First Aid**  
HLTH 124 1 Credit/Unit

1 hours of lecture

Cardiopulmonary resuscitation and first aid and for health care providers as required by the Washington Occupation and Health Act. Designed specifically for health care providers. Upon successful completion of the course, students will receive Basic Life Support for the Healthcare Provider and First Aid Certifications from the American Heart Association. Students are required to purchase the required text and workbook (available at Clark College Bookstore) and bring to class. [GE][PNP]

**Cooperative Work Experience**  
HLTH 199 1-3 Credits/Units

9 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

**Human Sexuality**  
HLTH 206 2 Credits/Units

2 hours of lecture

Exploration the connection between personal choices and sexual health through the life cycle. Using multiple perspectives, focuses on social, cultural, and historical influences on human sexuality. Topics include sexual biology, gender identity, gender expression, and physical and emotional attraction as well as the development of personalized behavior change strategies to promote safety and advance sexual health. [GE, HE, SE]

**Women's Health**  
HLTH 207 3 Credits/Units

3 hours of lecture

Exploration of women-specific health issues across the lifespan using a multidimensional approach. Students will evaluate the impact of individual, institutional, and cultural influences on women's health in the United States. Personalized behavior change strategies to advance health well be developed. [GE, HE, PPI, SE]

**Multicultural Health**  
HLTH 210 3 Credits/Units

3 hours of lecture

Exploration the complex interactions between culture, ethnicity, religion, gender, socioeconomic status, sexual orientation, age, social class, and ability as they relate to health behavior and outcomes. Develop personalized behavior change strategies to advance health. [GE, HE, PPI, SE]

**Cannabis and Your Health**  
HLTH 212 2 Credits/Units

2 hours of lecture

Explores the connection between cannabis and health with a focus on comparing marijuana and hemp, examining scholarly peer-reviewed research findings for medicinal and recreational use, discussing local legalization issues and developing behavior change strategies to advance health. [GE, HE, SE]

**Selected Topics**  
HLTH 280 1-3 Credits/Units

3 hours of lecture

Course focuses on selected topics in health. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE,SE]

**Special Projects**  
HLTH 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]



# HEALTH INFORMATION MANAGEMENT (HIM)

## Legal & Ethical Aspects of Healthcare

HIM 101

3 Credits/Units

3 hours of lecture

**Prerequisite:** Concurrent enrollment in, or completion of HIM 114 (grade of "C" or higher). Credit cannot be earned for this course and BMED 140. Introduction to legal and ethical concepts with particular focus on health information management. General overview of US legal system as it pertains to healthcare. Highlighted information on HIPAA, ARRA, HITECH, and Federal Trade Commission's Red Flag Rule. Topics include liability of hospital and providers of care as well as current pertinent legislation, legal status of medical staff, access to health information, laws relating to ethical issues, and court orders. [GE]

## Introduction to Pathophysiology

HIM 112

3 Credits/Units

3 hours of lecture

**Prerequisite:** AH 100, AH 104, and AH 110 (grades of "C" or higher) Introduction to the general mechanisms of systemic disease including etiology, physical signs and symptoms. Etiology focus will include infectious mechanisms, hereditary contributions, external physical agents and autoimmune conditions. Discussions of differences between disease and illness to include basic principles of pharmacology laboratory and diagnostic tests, overview of common therapies, prognosis and public health issues. [GE]

## Pharmacology

HIM 113

3 Credits/Units

3 hours of lecture

**Prerequisite:** AH 110 (grade of "C" or higher). Introduction to the basics of medication administration including trade and generic names of prescription and over-the-counter medications commonly prescribed, medication classifications, routes of administration, dosages, effects and implications and appropriate methods of documentation. [GE]

## Medical Office Administrative Procedures

HIM 114

4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** AH 100, AH 104, and AH 110 (grades of "C" or higher) Introduction to medical office administrative positions. Gain introductory administrative competencies compliant with health information management standards. The lab portion includes medical office competencies and relevant electronic medical records software. [GE]

## Medical Coding I

HIM 130

4 Credits/Units

4 hours of lecture

**Prerequisite:** AH 100 and AH 110 (grades of "C" or higher) Introductory instruction and practice of diagnostic and procedural coding for outpatient health care settings. Exploration of guidelines, conventions, symbols, terminology, medical necessity, and methods of ICD and CPT code sets. Step-by-step guidance provided through health record case studies. [GE]

## Revenue Cycle Management

HIM 131

4 Credits/Units

4 hours of lecture

**Prerequisite:** AH 100 and AH 110 (grades of "C" or higher)

A comprehensive study of the revenue cycle management, health insurance terminology, insurance plans, health insurance claim forms, and reimbursement methodologies for outpatient and inpatient healthcare services. Topics include, introducing how medical coding is part of the reimbursement cycle, HIPAA compliance issues, fraud and abuse. Step by step guidance for proper completion of billing forms by means of homework exercises and case studies. [GE]

## Health Information Governance

HIM 201

5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** HIM 114 and HIM 232 (grades of "C" or higher). Introduction to foundational concepts of health information management and data content structures standards. Topics include: clinical vocabularies classification system; health record documentation requirements; data accuracy integrity; data integration interoperability; and the needs for data, information standards and data management policies procedures. [GE]

## Health Care Quality

HIM 202

3 Credits/Units

3 hours of lecture

**Prerequisite:** HIM 201 (grade of "C" or higher).

Introduction to the principles, processes and procedures associated with measuring, managing and improving quality in the delivery of health care, health services and health care management. Presenting various national efforts, systems and tools used in quality assessment, performance, improvement and measurement. [GE]

## Medical Office Practicum

HIM 206

3 Credits/Units

1 hours of lecture / 6 hours of clinical

**Prerequisite:** HIM 101, HIM 130, HIM 131, and HIM 232 (grades of "C" or higher).

Practicum experience in medical office administrative and/or revenue cycle management functions utilizing medical record technologies in a classroom simulation and/or under the direct supervision of facility personnel in local health care facilities. [GE]

## Health Informatics, Analytics, and Data Use

HIM 211

5 Credits/Units

3 hours of lecture / 4 hours of lab

**Prerequisite:** BUS 169, HIM 201 and MATH& 146 (grades of "C" or higher).

Introduction to health informatics, the application of computers, communication and information technologies combined with systems used in problem solving, decision making to improve health and health care. Topics include a survey of history, basic knowledge of health informatics, data management, standards and tools used in the support of health care delivery. Emphasis on impact of information technology on the health care industry and vice versa. Intended as a survey of the emerging field of health informatics to learn its significance, its breadth, and its opportunities. Group activities around data mining and analyzing. [GE]

**Health Organization, Management & Leadership**  
HIM 215 3 Credits/Units

3 hours of lecture

**Prerequisite:** HIM 211 (grade of "C" or higher).

Introduction to managerial skills and behaviors applied to components of health care organizations at several levels including: individual, interpersonal, group, intergroup, system, and inter-organization; managerial challenges faced by health care managers and skills essential for successfully planning, organizing, directing, and controlling. Topics include strategic and operational planning, human resource management, motivation, communication, conflict resolution, organizational structures, health care budgeting and finance. [GE]

**Professional Practice Experience**  
HIM 226 3 Credits/Units

1 hours of lecture / 6 hours of clinical

**Prerequisite:** HIM 201, HIM 202, and HIM 211 (grades of "C" or higher).

Practicum experience in health information management functions utilizing medical record technologies in a classroom simulation and/or under the direct supervision of facility personnel in local health care facilities. [GE]

**Medical Coding II**  
HIM 232 5 Credits/Units

5 hours of lecture

**Prerequisite:** HIM 112 and HIM 130 (grades of "C" or higher).

Intermediate application of diagnostic and procedural coding systems ICD, CPT, and HCPCS. Continuation of concepts covered in Medical Coding I, HIM 130. Topics include content and structure of diagnostic and procedural coding systems, steps for abstracting information from health records, coding problem solving, and compliance with national coding guidelines. [GE]

**Medical Coding III & Coding Exam Prep**  
HIM 233 5 Credits/Units

5 hours of lecture

**Prerequisite:** HIM 113 and HIM 232 (grades of "C" or higher).

Advanced application of diagnostic and procedural coding systems. In depth application of ICD, CPT, HCPCS, and PCS. Topics include medical coding problem solving and measures for data quality and compliance, diagnostic related groups (DRGs), and other prospective payment systems. Credentialing exam prep is integrated throughout the course with emphasis on body systems, pathophysiology and pharmacology. [GE]

**Selected Topics**  
HIM 280 1-4 Credits/Units

4 hours of lecture

Course focuses on selected topics in Health Information Management. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE]

# HISTORY (HIST/HIST&)

**Cooperative Work Experience**  
HIST 199 1-3 Credits/Units

9 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

**East Asian History**  
HIST 221 5 Credits/Units

5 hours of lecture

Survey of Far Eastern history from 1800 to the present. Primary emphasis will be placed on Far East - United States diplomacy and the emergence of the Far East in the modern world. [GE, SE]

**History of Genocide**  
HIST 231 5 Credits/Units

5 hours of lecture

Examination of several incidences of genocide beginning with the extermination of the Herero of Namibia in the late 19th century. Topics include: the definition of genocide developed by Raphael Lemkin and adopted by the United Nations; when and where genocide has occurred, based on reading and lectures; recognizing a genocide in the making; actions for extending the lessons of the course. Culmination is a research project focusing on a particular incidence of genocide chosen from a list provided. [GE, SE, SS]

**Women In World History I**  
HIST 251 5 Credits/Units

5 hours of lecture

Exploring the role of women in world history from pre-historical times up to the pre-Industrial Age. Included within these parameters is the role of women in the family, economy, culture, religion and political structures of their given societies. Topics include: the development of patriarchy and misogyny; women's contributions to Eastern, Middle Eastern and Judeo-Christian religious experiences; and women's roles in Africa and South America. [GE, SE, SS]

**Women In World History II**  
HIST 252 5 Credits/Units

5 hours of lecture

Exploring the role of women in World History from the pre-Industrial Age to modern times. Included within these parameters is the role of women in the family, economy, culture, religion and political structures of their given societies. Topics include: the role of women in an industrial society and their influence in major movements such as the Scientific Revolution and the Enlightenment; origins of feminism; and the equal rights movement as it applies to voting, property ownership and areas of marriage and divorce. [GE, SE, SS]

**American Diplomatic History**  
HIST 255 5 Credits/Units

5 hours of lecture

The development of America's relationship with other governments and the global community from WWI to the First Gulf War, looking for specific patterns of behavior, such as isolationism, neutral rights, market expansion, brinkmanship and foreign intervention to explain how America's role and image in the world has changed over time. Topics include: World War I, The Good Neighbor Policy, World War II, The Cold War, The Vietnam War, Detente, and The First Gulf War. [GE, SE]

**African History**  
HIST 260 5 Credits/Units

5 hours of lecture

Survey of the period from gathering/hunting societies through African independence, with focus on major events from an African perspective, including Africa's discovery of Europe, and resistance to colonialism. [GE, SE][PNP]

**African-American History**  
HIST 275 5 Credits/Units

5 hours of lecture

Survey of the history of the African-American experience from 1619 to the present. [GE, SE][PNP]

**Selected Topics**  
HIST 280 1-5 Credits/Units

5 hours of lecture

Selected topics in History as listed in the term class schedule. May be repeated for credit. [GE, SE]

**History of Latin America**  
HIST 285 5 Credits/Units

5 hours of lecture

Survey of Latin American history, examining social, economic, political, cultural and intellectual trends and developments from ancient civilizations to the present Latin America in transition. [GE, SE]

**Special Projects**  
HIST 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

**World Civilizations I**  
HIST& 126 5 Credits/Units

5 hours of lecture

The beginnings of civilization, c. 3500 BCE to the High Middle Ages, c. 950 CE. Areas to be covered include the ancient Near East, Egypt, India, China, Greece, Rome, and early medieval Europe. [GE, SE, SS]

**World Civilizations II**  
HIST& 127 5 Credits/Units

5 hours of lecture

The High Middle Ages through the Late Middle Ages, the Renaissance and Reformation eras, the emergence of early modern society, witchcraft, the Enlightenment, the formation of nation-states and continued historical development in Europe, China, India, Africa, the Near East, plus Central and South America. [GE, SE, SS]

**World Civilizations III**  
HIST& 128 5 Credits/Units

5 hours of lecture

The French Revolution through modern times. Incorporated into this framework are the political, military, economic, social, cultural and religious manifestations throughout the various regions of the world. [GE, SE, SS]

**US History I**  
HIST& 146 5 Credits/Units

5 hours of lecture

Pre-Columbian era, colonial settlements and foundations of American institutions, seeds of revolution, Confederation and Constitution, federalism and states' rights, Jacksonian era. [GE, SE, SS]

**US History II**  
 HIST& 147 5 Credits/Units  
 5 hours of lecture  
 Antebellum reform, Manifest Destiny, roots of Southern secession, Civil War and Reconstruction, rise of big business and organized labor, immigration and assimilation, American Imperialism, Progressive reform movement and World War I. [GE, SE, SS]

**US History III**  
 HIST& 148 5 Credits/Units  
 5 hours of lecture  
 The Twenties, the Great Depression and the New Deal, World War II, the Cold War consensus, Vietnam and the Watergate era, globalization and the 21st century. [GE, SE, SS]

**Pacific NW History**  
 HIST& 214 5 Credits/Units  
 5 hours of lecture  
 Survey of the political, cultural, economic and social development of the Pacific Northwest with special emphasis on Washington State history. [GE, SE][PNP]

**Women In US History**  
 HIST& 215 5 Credits/Units  
 5 hours of lecture  
 The role of women in America from the Native American women up to today. Included within these parameters will be women's contributions and status within the family, the economy, the religious communities, the legal and political systems, and the culture. [GE, SE, SS][PNP]

**Native American History**  
 HIST& 219 5 Credits/Units  
 5 hours of lecture  
 A survey of Native American history from the pre-Columbian era to the Twentieth century. Topics include Indian cultures, treaty making and breaking, Indian patriots, and law and Indian rights. [GE, SE, SS]

# HONORS (HONS)

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<b>Selected</b>	<b>Topics</b>	
HONS 280		1-5 Credits/Units

5 hours of lecture

The study of a single theme from a multi-disciplinary perspective. Students should come to understand the interdisciplinary nature of education, and the relevance of education to contemporary issues.

The goal of the seminar is to provide students with information, methodologies, and experience beyond their major field of study.

Admission to the Honors Program required. [GE, SE]

<b>Special</b>	<b>Projects</b>	
HONS 290		1-6 Credits/Units

6 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]



# INTENSIVE ENGLISH LANGUAGE PROGRAM (IELP)

**Essential** **Portfolio**  
IELP 11 2 Credits/Units  
2 hours of lecture

For learners of English language at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English study, rather than true beginners. Development of the ability to listen actively, speak so others can understand, read with understanding, and convey ideas in writing while developing a career portfolio.

**Essential** **Written** **Communication** **Skills**  
IELP 12 6 Credits/Units  
6 hours of lecture

For learners of English language who need to develop/improve writing skills at the beginning to low-intermediate level of academic English. Designed for students who have some prior English study, rather than true beginners. Development of writing skills in the context of college and career, with emphasis on sentence and paragraph level writing.

**Essential** **Oral** **Communication** **Skills**  
IELP 13 3 Credits/Units  
3 hours of lecture

For learners of English language who need to develop oral communication skills at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English Instruction, rather than true beginners. Development of skills and strategies to listen actively and speak so others can understand in the context of college and career. Includes tasks such as one-one conversations, small group/class discussion and a group presentation.

**Essential** **Technology** **Skills**  
IELP 14 3 Credits/Units  
3 hours of lecture

For learners of English language at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English study, rather than true beginners. Development of technology skills in the context of college and career.

**Essential** **Study** **Skills**  
IELP 15 2 Credits/Units  
2 hours of lecture

For learners of English language at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English study, rather than true beginners. Strengthen study skills and reflect on various strategies and characteristics of successful college students.

**Essential** **Pronunciation**  
IELP 19 2 Credits/Units  
2 hours of lecture

For learners of English language who need to develop oral communication skills at the beginning to low-intermediate level of academic English. Designed for students who have had some prior English Instruction, rather than true beginners. Introduction and development of key features of English pronunciation, focusing on common problems non-native speakers of English experience in understanding and producing consonant sounds, vowel sounds, stress, intonation, rhythm, and reduced speech in the context of college and career.

**Intermediate** **Written** **Communication** **Skills**  
IELP 31 6 Credits/Units

6 hours of lecture  
For learners of English language who need to improve writing skills at the intermediate level of academic English. Development of writing skills for academic purposes that focuses on college readiness. Students will improve written fluency as well as accuracy in writing, grammar, and vocabulary use.

**Intermediate** **Oral** **Communication** **Skills**  
IELP 32 6 Credits/Units

6 hours of lecture  
For learners of English language who need to improve oral communication skills at the intermediate level of academic English. Focus on college readiness. Students will improve listening comprehension as well as fluency and accuracy in speaking.

**Intermediate** **English** **&** **Health**  
IELP 33 6 Credits/Units

6 hours of lecture  
For learners of English language who need to improve writing skills at the intermediate level of academic English. Development of writing skills for academic purposes that focuses on college readiness in the context of health (health assessment, improvement plans, body functions, nutrition and healthy life practices).

**Advanced** **English** **&** **US** **History/Government**  
IELP 51 7 Credits/Units

7 hours of lecture  
For learners of English language who need to improve writing skills at the advanced level of academic English. Development of writing skills for academic purposes. Critical reading and writing skills are taught in the context of US history and government.

**Advanced** **English** **&** **Science/CWP**  
IELP 52 7 Credits/Units

7 hours of lecture  
For learners of English language who need to improve writing skills at the advanced level of academic English. Development of writing skills for academic purposes. Critical reading and writing skills are taught in the context of Science and Contemporary World Problems.

**Advanced** **Academic** **Grammar**  
IELP 53 4 Credits/Units

4 hours of lecture  
For learners of English language who need to improve accuracy in their writing at the advanced level of academic English. Development of writing skills for academic purposes that will emphasize concepts such as sentence types, sentence structure, clauses, phrases and verb tenses. Students will apply academic English conventions to their own writing.

**UpperAdvanced** **English/Contemporary** **WorldProblem**  
IELP 90 7 Credits/Units

7 hours of lecture  
For learners of English language who need to improve writing skills at the upper advanced level of academic English. Development of writing skills for academic purposes that will emphasize college-level reading and writing skills for direct transition into college-level English composition. Students will improve written fluency as well as accuracy in writing, grammar and vocabulary as they gain a deeper understanding of the systems of power, privilege, and inequity and how they relate to current world problems.

**Selected**

**Topics**

IELP 99

1-8 Credits/Units

8 hours of lecture

Various topics, themes, content in intensive English language studies.

Because the content varies, this course is repeatable for credit for different topics. [PNP]



# JAPANESE (JAPN/JAPN&)

**Japanese Culture and Society**  
JAPN 171 5 Credits/Units

5 hours of lecture

Introductory study of Japanese culture and society with various topics, including education, gender roles, and family structure. Emphasis on traditional elements that have shaped Japanese values such as history, religion, and art, as well as social changes and current social issues. Hands-on study is included such as Japanese etiquette, tea ceremony and calligraphy. [GE, SE]

**Cooperative Work Experience**  
JAPN 199 1-8 Credits/Units

24 hours of clinical

Summer cooperative work experience in Japan. Requires use of Japanese language. Enroll in this course Spring quarter prior to participation abroad. [GE, SE]

**Selected Topics**  
JAPN 280 1-5 Credits/Units

5 hours of lecture

Course focuses on selected topics in Japanese. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE, SE]

**Special Projects**  
JAPN 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

**Japanese I**  
JAPN& 121 5 Credits/Units

5 hours of lecture

Primary emphasis on oral communication with additional practice in basic reading and writing. Not open to native speakers except with instructor's permission. [GE, HA, SE]

**Japanese II**  
JAPN& 122 5 Credits/Units

5 hours of lecture

**Prerequisite:** JAPN& 121 (grade of "C" or higher)

Continuation of JAPN& 121. Not open to native speakers except with instructor's permission. [GE, HA, SE]

**Japanese III**  
JAPN& 123 5 Credits/Units

5 hours of lecture

**Prerequisite:** JAPN& 122 (grade of "C" or higher)

Continuation of JAPN& 122. Not open to native speakers except with instructor's permission. [GE, HA, SE]

**Japanese IV**  
JAPN& 221 5 Credits/Units

5 hours of lecture

**Prerequisite:** JAPN& 123 (grade of "C" or higher)

Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [GE, HA, SE]

**Japanese V**  
JAPN& 222 5 Credits/Units

5 hours of lecture

**Prerequisite:** JAPN& 221 (grade of "C" or higher)

Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [GE, HA, SE]

**Japanese VI**  
JAPN& 223 5 Credits/Units

5 hours of lecture

**Prerequisite:** JAPN& 222 (grade of "C" or higher)

Continuation of First-Year Japanese: speaking, reading and writing with primary emphasis on oral communication. [GE, HA, SE]

# JOURNALISM (JOUR)

**Introduction to Journalism**  
 JOUR 101 5 Credits/Units  
 5 hours of lecture

**Prerequisite:** Eligibility for ENGL101 (CAP 90, ENGL 90, or IELP 90 (grade of "B" or higher) or eligibility through multiple measures placement.)  
 Introduction to skills fundamental to journalism and newswriting, as well as an understanding of the role and significance of journalists and their work. Topics include the evolution in media and news today, ethical challenges, shifts in audience involvement and technological advances. Writing-intensive activities to master a clear, concise, accurate style. [GE, HA, SE]

**College News Production**  
 JOUR 110 1-3 Credits/Units  
 6 hours of lab

**Prerequisite:** JOUR 101 (grade of "C" or higher)  
 Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]

**Digital News**  
 JOUR 111 5 Credits/Units  
 5 hours of lecture

**Prerequisite:** JOUR 101 (grade of "C" or higher)  
 Writing-intensive instruction and training in digital news, including an introduction to and practice in online news delivery tools, including audio and video reporting and editing, social media, data visualization, blogs and others. Emphasis on ethical issues. Considerable hands-on work requiring high motivation to work independently as well as collaboratively with classmates and instructor. [GE, HA, SE]

**College News Production**  
 JOUR 120 1-3 Credits/Units  
 6 hours of lab

**Prerequisite:** JOUR 110 (grade of "C" or higher)  
 Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]

**College News Production**  
 JOUR 130 1-3 Credits/Units  
 6 hours of lab

**Prerequisite:** JOUR 120 (grade of "C" or higher)  
 Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]

**Cooperative Work Experience**  
 JOUR 199 1-5 Credits/Units  
 15 hours of clinical  
 Supervised work experience in newspaper or other journalism position. Completion of specific learning objectives and employer evaluation. [GE]

**Advanced Newswriting**  
 JOUR 201 3 Credits/Units  
 3 hours of lecture  
**Prerequisite:** JOUR 101 (grade of "C" or higher)  
 Continuation of JOUR 101. Focus on longer, more complex stories, including features and opinion writing. Students will complete a short research project. [GE]

**College News Production**  
 JOUR 210 1-3 Credits/Units  
 6 hours of lab

**Prerequisite:** JOUR 130 (grade of "C" or higher)  
 Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]

**College News Production**  
 JOUR 220 1-3 Credits/Units  
 6 hours of lab

**Prerequisite:** JOUR 210 (grades of "C" or higher)  
 Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]

<b>College</b>	<b>News</b>	<b>Production</b>
JOUR 230		1-3 Credits/Units
6 hours of lab		
<b>Prerequisite:</b> JOUR 220 (grade of "C" or higher)		
Apply and expand upon the skills and lessons acquired in JOUR 101 to produce the Clark College newspaper, 'The Independent.' Develop new expertise and insight in multimedia reporting and editing; photojournalism; digital production and delivery of news; workplace professionalism; ethics; teamwork; advanced reporting, writing and story development; critique; alternative story forms; and project and time management. Besides lectures and lessons, the format includes field work (research) and writing, collaborative problem-solving, exercises, quizzes and production of the final news product. [GE, SE]		
<b>Selected</b>	<b>Topics:</b>	
JOUR 280		1-3 Credits/Units
3 hours of lecture		
The course focuses on selected topics in Journalism. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedule. [GE]		
<b>Special</b>	<b>Projects</b>	
JOUR 290		1-5 Credits/Units
5 hours of lecture		
Opportunity to plan, organize, and complete special projects approved by the department. [GE]		

# MANAGEMENT (MGMT)

## Principles of Management

MGMT 101 3 Credits/Units  
3 hours of lecture

Introduction to management theory, functions, and topics to include diversity, leading change, decision making, and team work. Focus on practical applications, useful to both new and experienced managers. [GE, HR, SE]

## Applied Management Skills

MGMT 103 3 Credits/Units  
3 hours of lecture

Developing concepts and skills in employee motivation, communication, and supervisory leadership. Promoting effective relations and performance in the work group. Case discussions and role situations develop understanding of individual and group problems encountered by the supervisor. [GE]

## Motivation and Performance

MGMT 106 3 Credits/Units  
3 hours of lecture

Review of motivational factors of human relations used to enhance motivation and interpersonal communications; focus on the ways motivation impacts the success or failure of organizations. [GE, HR, SE]

## Supervisory Communication, I, Written

MGMT 107 3 Credits/Units  
3 hours of lecture

Review of writing mechanics covering grammar, punctuation, and sentence and paragraph structure. Students practice writing effective business letters, documentation, supervisory reports, office memoranda, and bulletins. [CA, GE, SE]

## Creative Problem Solving

MGMT 110 3 Credits/Units  
3 hours of lecture

Review of the creative and analytical thinking necessary for effective problem-solving in the workplace. Concepts include left/right brain thinking, stages in the creative process, habits that hinder thinking and producing ideas, the role of criticism, and effective communication of solutions. [GE, HR, SE]

## Conflict Management

MGMT 112 2 Credits/Units  
2 hours of lecture

Study of the factors causing conflicts and ways to resolve them. Conflict with individuals and groups, conflict management styles, and win-win situations. [GE, HR, SE][PNP]

## Supervisor As A Trainer Coach

MGMT 120 3 Credits/Units  
3 hours of lecture

Study of the supervisor's role in the training and professional development of employees. Topics include identifying training needs, selecting the appropriate type of training, distinguishing between training and coaching situations, and supporting employees to improve performance. Activities include practical training and coaching techniques. [GE, HR, SE]

## Introduction to Project Management

MGMT 126 4 Credits/Units  
4 hours of lecture

Introduction to current practices in successful project management and in creating a quality project plan. Case examples provide the opportunity for first-hand practice in developing the individual steps of a project cycle, using current software in project management. [GE]

## Human Resources Management

MGMT 128 3 Credits/Units  
3 hours of lecture

Developing an understanding of the functions and skills needed by supervisors concerning employment recruitment, selection and placement, staff planning and development, job descriptions and analysis, promotions, transfers, separations, wage and salary administration, and EEO requirements. [GE, HR, SE]

## Legal Issues In Employee Relations

MGMT 132 3 Credits/Units  
3 hours of lecture

Study of human resource topics such as employment law, hiring, discrimination, employment-at-will, drug testing, health insurance, unemployment, worker's compensation, wages and hours; and civil rights. Focus on due process for both public and private employees, including labor relations and collective bargaining. [GE, HR, SE]

## Production and Operations Management

MGMT 133 3 Credits/Units  
3 hours of lecture

Techniques for improving productivity and quality and reducing waste. Topics include measuring quality and productivity, process definition and control, problem-solving, continuous improvement, and personal productivity for the production and service environment. [GE]

## Project Management Standards and Planning I

MGMT 226 5 Credits/Units  
5 hours of lecture

**Prerequisite:** MGMT 126 (grade of "C" or higher). Studies the concepts, issues, and approaches important in effectively managing projects as standardized by the Project Management Body of Knowledge (PMBOK). Topics include project initiation, project selection, project planning and documentation, negotiation, budgeting, and scheduling. Topics are viewed from a managerial perspective. Use of industry-standard software for project management is actively applied throughout the course. [GE]

## Project Management Standards and Planning II

MGMT 227 5 Credits/Units  
5 hours of lecture

**Prerequisite:** MGMT 226 (grade of "C" or higher). Studies the concepts, issues, and approaches important in effectively managing projects as standardized by the Project Management Body of Knowledge (PMBOK). Continuing from MGMT 226, topics include project charter updates, project quality and communication documentation, resource allocation and management plan, in-project management and control, project auditing, and project closure and finalization. Topics are viewed from a managerial perspective. Use of industry-standard software for project management is actively applied throughout the course. [GE]

## Introduction to Hospitality Systems

MGMT 240 5 Credits/Units  
5 hours of lecture

Management functions relating to the planning and operational policies of various hotel and restaurant departments. [SE]

**Selected Topics**  
MGMT 280 1-5 Credits/Units  
5 hours of lecture  
Varying topics in supervisory management, as listed in the term class schedule. May be repeated for credit. [GE]

**Special Projects**  
MGMT 290 1-5 Credits/Units  
5 hours of lecture  
Opportunity to plan, organize and complete special projects approved by the department. [GE]

# MATHEMATICS (MATH/ MATH&)

**Support for Finite Math**  
MATH 4 1 Credit/Unit

Designed to help successfully learn the course material in Finite Math with Support (MATH 104). Includes prerequisite topics, success skills, and course content support. Meets for three hours a week. Must be enrolled with the linked section of Finite Math with Support (MATH 104) to take this course.

**Support for Introduction to Statistics**  
MATH 6 2 Credits/Units

2 hours of lecture

**Prerequisite:** MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30

Develops vocabulary and numeration skills to support student success in Math 146. College success strategies are integrated throughout the course. Students must be enrolled with the linked section of Introduction to Statistics (Math 146) in order to take this course.

**Support for Math in Society**  
MATH 7 2 Credits/Units

2 hours of lecture

**Prerequisite:** MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30

Develops numeration and algebra skills to support student success in Math 107. College success strategies are integrated throughout the course. Students must be enrolled with the linked section of Math in Society (Math 107) in order to take this course.

**Support for College Algebra**  
MATH 10 1 Credit/Unit

Designed to help successfully learn the course material in College Algebra with Support (MATH 110). Includes prerequisite topics, success skills, and course content support. Meets for three hours a week. Must be enrolled with the linked section of College Algebra with Support (MATH 110) to take this course.

**Elementary Algebra**  
MATH 90 5 Credits/Units

5 hours of lecture

**Prerequisite:** CAP 42 (grade of "C" or higher), or placement into Math level 20.

Primarily intended for STEM and Business programs requiring college-level coursework such as College Algebra, College Trigonometry, or Finite Mathematics. Also suitable as a program prerequisite. Provides a foundation in elementary algebra skills and preparation for Intermediate Algebra (Math 095). Topics include: Numeric and algebraic expressions, linear equations and inequalities in one variable, the coordinate plane, lines, systems of linear equations in two variables, functions, integer exponents, polynomials.

**Applied Elementary Algebra**  
MATH 92 5 Credits/Units

5 hours of lecture

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10

Primarily intended for programs that require college-level coursework such as Math in Society, Statistics, or Mathematics for Elementary Teachers. Also suitable as a program prerequisite. Provides a foundation in elementary algebra skills applications and preparation for Applied Intermediate Algebra (Math 096). Topics include: numeracy; mathematical thinking; proportional reasoning; algebraic expressions; linear equations and inequalities in one variable; the coordinate plane; linear equations in two variables and graphing; systems of linear equations; and dimensional analysis. College success strategies are integrated throughout the course. [CP, GE, SE]

**Intermediate Algebra**  
MATH 95 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 90 (grade of "C" or higher), or placement into Math level 40.

A continuation of Math 090. Primarily intended for STEM and Business programs that require college-level coursework such as College Algebra, College Trigonometry, or Finite Mathematics. Also suitable as a program prerequisite. Provides a foundation in intermediate algebra skills and preparation for college-level coursework. Topics include: Factoring, rational expressions, radical expressions, rational exponents, quadratic equations, exponential and logarithmic functions. [CP, GE, SE]

**Applied Intermediate Algebra**  
MATH 96 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30

A continuation of Math 092. Primarily intended for programs that require college-level coursework such as Math in Society, Statistics, or Mathematics for Elementary Teachers. Also suitable as a program prerequisite. Covers intermediate algebra skills applications and prepares students for college-level mathematics. Topics include: functions; exponent rules; polynomial operations and basic factoring; defining and solving quadratic, rational and radical equations; and basic exponential and logarithmic equations and functions. Applications of these techniques to modeling and solving real-world problems are emphasized. College success strategies are integrated throughout the course. [CP, GE, SE]

**College Trigonometry**  
MATH 103 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 95 (grade of "C" or higher) or placement into Math level 60.

Trigonometric ratios, right angle trigonometry, law of sines, law of cosines, radian measure, trigonometric identities, inverse trigonometric functions, trigonometric equations, graphs of trigonometric functions, polar coordinates, and two-dimensional vectors. This is a challenging and technical course primarily intended for those majoring in Mathematics, Physical Science or Engineering. It is a preparatory class for the four-term Calculus series. The Mathematics Division highly recommends that students who need BOTH College Algebra (MATH 111 or MATH 110) AND College Trigonometry (MATH103) complete College Algebra first. [CP, GE, Q, SE]

**Finite Math with Support**  
MATH 104 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 96 (grade of "C" or higher) or placement into Math level 50 and concurrent enrollment in MATH 4.

Covers the same topics as Finite Mathematics (MATH 105), paired with a linked support course (MATH 004). This course allows students who are placed near but not at college readiness to take Finite Math, and provides support for students who complete MATH 096 and choose to change majors. Topics include; lines; linear systems; matrices; linear programming using geometric and simplex methods; mathematics of finance; polynomial, rational, exponential and logarithmic functions and models. [CP, GE, Q, SE]

**Finite Mathematics**  
MATH 105 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 95 (grade of "C" or higher) or placement into Math level 60.

Lines; linear systems; matrices; linear programming using geometric and simplex methods; mathematics of finance; polynomial, rational, exponential and logarithmic functions and models. [CP, GE, Q, SE]

**College Algebra With Support**  
MATH 110 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 96 (grade of "C" or higher) or placement into Math level 50.

Covers the same topics as college algebra (MATH 111), paired with a linked course (MATH 010). This allows students who are placed near but not at college readiness to take College Algebra, and provides support for students who complete MATH 096 and choose to change majors. An introduction to functions from symbolic, numerical, and graphical points of view. Topics include linear, polynomial, rational, radical, logarithmic, and exponential functions, systems of equations, conic sections, and mathematical modeling. This is a challenging and technical course primarily intended for those majoring in Mathematics, Physical Science or Engineering. It is a preparatory class for the four-term Calculus series. [CP, GE, Q, SE]

**College Algebra**  
MATH 111 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 95 (grade of "C" or higher) or placement into Math level 60.

An introduction to functions from symbolic, numerical, and graphical points of view. Topics include polynomial; logarithmic, and exponential functions; inequalities, absolute value equations and inequalities, systems of equations, conic sections, and mathematical modeling. This is a challenging and technical course primarily intended for those majoring in Mathematics, Physical Science or Engineering. It is a preparatory class for the four-term Calculus series. The Mathematics Division highly recommends that students who need BOTH College Algebra (MATH 111 or MATH 110) AND College Trigonometry (MATH 103) complete College Algebra first. [CP, GE, Q, SE]

**Math for Elementary Teachers**  
MATH 122 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 96 (grade of "C" or higher) or placement into Math level 50.

The first of a three-term sequence of courses designed for prospective elementary school teachers. Focus on problem solving, set theory, numeration systems, whole number arithmetic, and fractions. [CP, GE, Q, SE]

**Math for Elementary Teachers**  
MATH 123 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 122 (grade of "C" or higher)

The second of a three-term sequence of courses designed for prospective elementary school teachers. Focus on geometric shapes, measurement, triangle congruence and similarity, coordinate geometry, transformations, trigonometry and geometric problem solving. May be taken concurrently with MATH 124, the third course in the sequence. [CP, GE, Q, SE]

**Math for Elementary Teachers**  
MATH 124 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 122 (grade of "C" or higher)

The third of a three-term sequence of courses designed for prospective elementary school teachers. Focus on integers, decimals, number theory; elementary statistics, combinatorics and probability; functions and their graphs. Study of data analysis and probability including problem solving techniques and concepts in algebra. May be taken concurrently with MATH 123, the second course in the sequence. [CP, GE, Q, SE]

**Calculus for Life Sciences**  
MATH 140 6 Credits/Units

6 hours of lecture

**Prerequisite:** MATH 110 or MATH 111 and MATH 103 (grades of "C" or higher) or placement into Math level 80.

Survey of differentiation and integration with applications to problems in Biology and Environmental Science. [CP, GE, Q, SE]

**Statistics II**  
MATH 147 3 Credits/Units

3 hours of lecture

**Prerequisite:** MATH& 146 (grade of "C" or higher)

Inference techniques involving two or more populations; regression inference, analysis of variance (ANOVA), and Chi-square tests are included among other statistical topics with applications to fields of nursing, science, engineering, and social science. [CP, GE, Q, SE]

**Cooperative Work Experience**  
MATH 199 1-5 Credits/Units

15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

**Linear Algebra**  
MATH 215 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH& 152 (grade of "C" or higher) or placement into Math Level 100

An introduction to Linear Algebra. This course is intended primarily for students of Mathematics, the Physical Sciences, or Engineering. Topics include systems of linear equations, matrices, linear transformations, vectors, vector spaces, eigenvalues, and orthogonality. Applications will also be explored. [CP, GE, Q, SE]

<b>Differential Equations</b>					
MATH 221			5 Credits/Units		
5 hours of lecture					
<b>Prerequisite:</b> Concurrent enrollment in, or completion of MATH& 254 (grade of "C" or higher)					
Elementary theory and applications of ordinary differential equations. Linear equations, linear systems, Laplace transforms, boundary value problems, series and iterative methods. [CP, GE, Q, SE]					
<b>Selected Topics</b>					
MATH 280			1-5 Credits/Units		
5 hours of lecture					
Selected topics in mathematics. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Individual topics are listed in the term class schedules. [GE, SE]					
<b>Special Projects</b>					
MATH 290			1-5 Credits/Units		
5 hours of lecture					
Opportunity to plan, organize and complete special projects approved by the department. [GE]					
<b>Math In Society</b>					
MATH& 107			5 Credits/Units		
5 hours of lecture					
<b>Prerequisite:</b> CAP 46 or MATH 96 (grade of "C" or higher), placement into Math level 45, or concurrent enrollment in MATH 7					
A study of a variety of mathematical topics including mathematical models, finance, statistics, and probability. Additional topics may include number theory, geometry, voting theory, networks, apportionment and other topics. For students who do not plan to take additional mathematics. [CP, GE, Q, SE]					
<b>Introduction to Stat</b>					
MATH& 146			5 Credits/Units		
5 hours of lecture					
<b>Prerequisite:</b> MATH 96 (grade of "C" or higher), placement into Math level 45, or concurrent enrollment in MATH 6.					
Descriptive statistical methods, probability, binomial and normal probability distributions, estimation of parameters, tests of hypotheses, and regression analysis are included among other statistical topics with applications to fields of nursing, science, engineering, and social science. [CP, GE, Q, SE]					
<b>Business Calculus</b>					
MATH& 148			5 Credits/Units		
5 hours of lecture					
<b>Prerequisite:</b> MATH 104, MATH 105, MATH 110, or MATH 111 (grade of "C" or higher) or placement into Math level 70.					
Introductory calculus with applications for business, life sciences, and social sciences. Differential, integral, and elementary multivariate calculus. [CP, GE, Q, SE]					
<b>Calculus I</b>					
MATH& 151			5 Credits/Units		
5 hours of lecture					
<b>Prerequisite:</b> MATH 110 or MATH 111 and MATH 103 (grades of "C" or higher) or placement into Math level 80.					
First course in the four term calculus sequence intended primarily for students of mathematics, the physical sciences, or engineering. Covers the foundations of calculus of a single variable. Topics include limits, differentiation, applications of differentiation to properties of functions and their graphs, solving real-world problems, and the basics of integration. [CP, GE, Q, SE]					
<b>Calculus II</b>					
MATH& 152			5 Credits/Units		
5 hours of lecture					
<b>Prerequisite:</b> MATH& 151 (grade of "C" or higher) or placement into Math Level 90					
Second course in the four term calculus sequence intended primarily for students of mathematics, the physical sciences, or engineering. Topics include techniques of integration, applications of integration, conics, parametric equations, polar coordinates, and polar equations. [CP, GE, Q, SE]					
<b>Calculus III</b>					
MATH& 153			5 Credits/Units		
5 hours of lecture					
<b>Prerequisite:</b> MATH& 152 (grade of "C" or higher) or placement into Math Level 100					
Third course in the four term calculus sequence intended for students of mathematics, the physical sciences, or engineering. Topics include sequences and series, three-dimensional vectors and lines, planes, cylindrical and spherical coordinates; and vector valued functions and their derivatives, integrals, and applications. [CP, GE, Q, SE]					
<b>Calculus IV</b>					
MATH& 254			5 Credits/Units		
5 hours of lecture					
<b>Prerequisite:</b> MATH& 153 (grade of "C" or higher) or placement into Math Level 110					
Fourth course in the four term calculus sequence intended primarily for students of mathematics, the physical sciences, or engineering. Covers the calculus of functions of several variables. Topics include limits; partial derivatives, iterated integrals, and their applications, vector fields; gradient; divergence and curl; line and surface integrals; and classic vector calculus theorems. [CP, GE, Q, SE]					



# MECHATRONICS (MTX)

**Industrial Safety**  
MTX 100 1 Credit/Unit

1 hours of lecture

Introduction to the general safety practices and information needed while working in a manufacturing setting. Material will include federal safety regulations, safe operations and practices in the technical crafts of the industry. [GE]

**DC Fundamentals**  
MTX 101 3 Credits/Units

1 hours of lecture / 4 hours of lab

**Prerequisite:** MTX 100 and MTX 103 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). Fundamentals of DC circuits with emphasis on algebraic analysis of resistive networks. Includes hands-on experience in DC circuit construction, measurement and troubleshooting. [GE]

**AC Fundamentals**  
MTX 102 4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** MTX 101, MTX 106, and MTX 180 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). Fundamentals of AC resistive, capacitive and inductive networks with emphasis placed on methods of analysis and circuit characteristics. Includes hands-on experience in AC circuit construction, measurement, and troubleshooting. [GE]

**Basic Measurement Tools**  
MTX 103 2 Credits/Units

1 hours of lecture / 2 hours of lab

Fundamentals of measurement tools. Topics include basic measurement, S.I. and U.S. customary measurement, precision measurement tools and dimensional gauging. [GE]

**Fluid Power Systems**  
MTX 106 4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** MTX 100 and MTX 103 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). Explore the fundamentals of fluid power systems, both compressible and non-compressible fluid types. Engage in various hands-on activities to solidify their understanding of fluid power concepts, components and circuit configuration and design. [GE]

**Electric Motor Control** 1  
MTX 110 4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** MTX 102, MTX 130, and MTX 132 (grades of "C" or higher). Fundamentals of electric motor control. Topics include electrical safety, control transformers, overload protection, ladder logic, control relays, electronic sensors, and other topics related to the fundamental operation of electronic motor control. [GE]

**Semiconductors** I  
MTX 121 3 Credits/Units

1 hours of lecture / 4 hours of lab

**Prerequisite:** MTX 110 and MTX 140 (grades of "C" or higher). Fundamentals and applications of diodes, transistors and special-purpose semiconductor devices. Includes hands-on experience in semiconductor circuit construction, measurement and troubleshooting. [GE]

**Programmable Logic Controllers** 1  
MTX 130 4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** MTX 101, MTX 106, and MTX 180 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). Introduction to programmable logic controllers. Topics include basic programming of PLCs, PLC motor control methods, discrete I/O interfacing, event sequencing, timers, counters and program control instructions. [GE]

**Siemens PLC Lvl I**  
MTX 132 4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** MTX 101, MTX 106, and MTX 180 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). Introduction to Siemens programmable logic controllers. Topics include basic programming of PLCs, PLC motor control methods, discrete I/O interfacing, event sequencing, timers, counters and program control instructions. Exposure to the Sieman STEP 7 programming. May prepare them for Siemens PLC Level 1 certification. [GE]

**Robotic Systems**  
MTX 140 4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** MTX 102, MTX 130, and MTX 132 (grades of "C" or higher). Fundamentals of the pick and place robots using the SMC system. Topics include pneumatic robotic systems, preventive maintenance and troubleshooting as well as pneumatic robot control. Introduction to the articulated arm servo robot using the SMC system including basic robot operation, teach point programming, PC software programming, application development, flexible manufacturing cells, quality control and production control. [GE]

**Electrical Power & Distribution Systems**  
MTX 145 4 Credits/Units

2 hours of lecture / 4 hours of lab

**Prerequisite:** MTX 110 and MTX 140 (grades of "C" or higher). Fundamentals of residential, commercial, and industrial electrical wiring as it relates to mechatronics. Topics include an introduction to raceways, conduit bending, rigid conduit, flexible conduit, conductors, disconnects, overcurrent protection, conduit sizing, wire pulling techniques, electrical prints, electrical panels, wiring between panels, wire color coding, control system wiring, and wire bundling. [GE]

**Mechatronics Systems Fundamentals**  
MTX 175 3 Credits/Units

2 hours of lecture / 2 hours of lab

**Prerequisite:** MTX 110 and MTX 140 (grades of "C" or higher). Fundamentals of mechatronic systems troubleshooting. Topics include mechatronics safety, automation operations, open and closed-loop control systems, system block diagrams, block diagram transfer functions, system troubleshooting using block diagrams down to component level, manual operation methods used to troubleshoot automated systems, component adjustments, applications with pneumatic and electric integrated pick and place robot systems. [GE]

<b>Mechanical</b>	<b>Systems</b>		<b>Laser</b>	<b>Alignment</b>	
MTX 180		5 Credits/Units	MTX 230		2 Credits/Units
2 hours of lecture / 6 hours of lab			1 hours of lecture / 2 hours of lab		
<b>Prerequisite:</b> MTX 100 and MTX 103 (grades of "C" or higher) and (PTCS 110 (grade of "C" or higher) or Placement into Math Level 30). Topics include mechanical power transmission safety, machine installation, motor mounting, shaft speed measurement, torque and power measurement, v-belt, chain and spur gear drives, heavy-duty v-belts, v-belt selection and maintenance, synchronous belt drives, lubrication concepts, precision shaft alignment techniques and heavy duty chain drives, various bearing types as used in mechanical drive systems as well as advanced gear drives, plain bearings, ball bearings, roller bearings and anti-friction bearings, as well as gaskets and seals. Advantages and disadvantages of each system type will be discussed and compared. [GE]			<b>Prerequisite:</b> MTX 110 and MTX 140 (grades of "C" or higher). Introduction to the concept and proper practices of laser alignment. Topics include laser shaft alignment, including rough and precision alignment, soft foot correction and analysis. [GE]		
<b>Cooperative</b>	<b>Work</b>	<b>Experience</b>	<b>Digital</b>	<b>Electronics</b>	<b>Fundamentals</b>
MTX 199		1-5 Credits/Units	MTX 232		3 Credits/Units
15 hours of clinical			1 hours of lecture / 4 hours of lab		
Work-based learning experience that enables students to apply specialized occupational theory, skills and concepts. Specific objectives are developed by the College and the employer. [GE]			<b>Prerequisite:</b> MTX 221, MTX 224, and MTX 250 (grades of "C" or higher) Fundamentals and system applications of digital integrated circuits. Digital integrated circuit fundamentals consisting of: numbering systems, number conversion and coding, digital logic gates, combinational logic, flip-flops, counters, shift registers, and memory devices, with circuit applications. Digital circuit building, operation, and troubleshooting, ending with an introduction to microprocessor architecture, instructions, and operation. [GE]		
<b>Mechatronics</b>	<b>2</b>		<b>Process</b>	<b>Control</b>	<b>Systems</b>
MTX 216		5 Credits/Units	MTX 240		6 Credits/Units
3 hours of lecture / 4 hours of lab			3 hours of lecture / 6 hours of lab		
<b>Prerequisite:</b> MTX 221, MTX 224, and MTX 250 (grades of "C" or higher) Advanced concepts of manufacturing stations of the SMC system as it applies to mechatronics. Topics include flexible materials handling, robot workstations, inventory control, serial robot communications, PLC communications, barcode pallet tracking, manufacturing execution systems, manufacturing management and simulation, ethernet operation and applications. [GE]			<b>Prerequisite:</b> MTX 216, MTX 232, and MTX 275 (grades of "C" or higher). Process control system measurement, control and adjustment. Topics include process control concepts, safety, sight gauges, instrument tags, piping and instrumentation diagrams, loop controllers, final control elements, level management, liquid level control, methods of automatic control thermal energy, temperature control elements, and various sensors, and transmitters and their calibration including inside environment control techniques, concepts and controls. [GE]		
<b>Semiconductors</b>	<b>2</b>		<b>Advanced</b>	<b>Programmable</b>	<b>Logic</b>
MTX 221		3 Credits/Units	MTX 250		4 Credits/Units
1 hours of lecture / 4 hours of lab			2 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> MTX 121, MTX 145, MTX 175, and MTX 230 (grades of "C" or higher). Fundamentals and system applications of integrated circuit operational amplifiers (op-amp). Op-amp fundamentals consisting of: the input differential amplifier, data sheet parameters, circuit configuration with negative feedback, impedances, troubleshooting, closed and open loop response, positive feedback and stability, op-amp compensation, with circuit applications. Op-amp inverting, non-inverting, comparator, summing amplifier, integrator, differentiator, instrumentation, trans-conductance current-to-voltage converter, trans-impedance voltage-to-current converter, peak detector, timer, voltage regulator, and active filter circuit operation and troubleshooting. [GE]			<b>Prerequisite:</b> MTX 121, MTX 145, MTX 175, and MTX 230 (grades of "C" or higher). Intermediate concepts of Programmable Logic Controls. Topics include analog input and output modules, analog scaling, network concepts, an introduction to Panelview and remote I/O concepts. [GE]		
<b>Motor</b>	<b>Drive</b>	<b>Systems</b>	<b>Advanced</b>	<b>Fluid</b>	<b>Power</b>
MTX 224		5 Credits/Units	MTX 275		5 Credits/Units
2 hours of lecture / 6 hours of lab			2 hours of lecture / 6 hours of lab		
<b>Prerequisite:</b> MTX 121, MTX 145, MTX 175, and MTX 230 (grades of "C" or higher). Introduction to DC drives and Variable Frequency AC speed control systems. Topics include DC motion control, SCR control, DC spindle drives, DC axis drives, DC pulse width modulations drives, variable frequency AC drives, VFD speed and torque, VFD acceleration, deceleration, braking, VFD fault diagnostics and troubleshooting SCR motor control systems. [GE]			<b>Prerequisite:</b> MTX 221, MTX 224, and MTX 250 (grades of "C" or higher) Advanced concepts of electronically controlled fluid power and vacuum systems. Topics include electrical control systems, basic control devices, power devices, control relays, sequencing, timer and pressure control and circuit applications. Advanced concepts of pneumatics and vacuum troubleshooting as they apply to industry including moving loads pneumatically, vacuum systems, air compressors, air preparation troubleshooting, troubleshooting pneumatic cylinders, motor and rotary actuator troubleshooting, vacuum system troubleshooting and other topics. [GE]		
			<b>Selected</b>	<b>Topics</b>	
			MTX 280		1-5 Credits/Units
			5 hours of lecture		
			Selected topics in mechatronics. Topics vary and course theme and content change to reflect new topics. Because the course varies in contents it is repeatable for credit. Individual topics are listed in the class schedules. [GE, SE]		

**Special Projects**  
 MTX 290 1-5 Credits/Units  
 5 hours of lecture  
 Opportunity to plan, organize, and complete special projects approved by the department. [GE]

**Special Projects-Lab**  
 MTX 291 1-5 Credits/Units  
 10 hours of lab  
 Opportunity to plan, organize, and complete special projects approved by the department. [GE]

**Manufacturing System Principles**  
 MTX 292 4 Credits/Units  
 3 hours of lecture / 2 hours of lab  
**Prerequisite:** MTX 216, MTX 232, and MTX 275 (grades of "C" or higher).  
 Introduction to the enterprise system: topics include technology sectors, team concepts, product design and engineering impacts, business presentation and business presentation software, enterprise economics, and marketing basics. [GE]

**Capstone/Final Project**  
 MTX 296 4 Credits/Units  
 1 hours of lecture / 6 hours of lab  
**Prerequisite:** MTX 216, MTX 232, and MTX 275 (grades of "C" or higher).  
 Work as a team and create a manufacturing scenario using the SMC FMS-200 flexible manufacturing system equipment OR work independently on a final project that incorporates the prior coursework in Mechatronics Technology. [GE]

# MEDICAL ASSISTING (MA)

**Math for Medical Assistants**  
MA 103 3 Credits/Units  
3 hours of lecture

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10

Prepares medical assistants to understand and master the mathematics encountered in the medical assistant profession. Mathematical concepts will relate to both administrative procedures and dosage calculations for the physician's office and/or medical care facility. Cannot receive credit for both BMED 103 and MA 103. [CP, GE, SE]

**Medical Office Administrative Procedures**  
MA 104 6 Credits/Units  
3 hours of lecture / 6 hours of lab

Introduction to administrative positions in the medical field. Students gain introductory administrative competencies. The lab portion of the class prepares the student in medical office competencies and relevant software. Encompasses coding, financial tasks, accounting practices, office management, and human resource duties. Strong teamwork and time management skills are necessary to be successful in this rigorous course. [GE, HR, SE]

**Medical Reimbursement**  
MA 114 4 Credits/Units  
4 hours of lecture

Comprehensive study of the revenue cycle, health insurance terminology, insurance plans, claim forms, and reimbursement methodologies for outpatient and inpatient health care services. Topics include, study of standard industry claim forms, introduction to medical coding, HIPAA compliance, fraud and abuse issues. Step by step guidance for proper completion and processing of billing forms by means of homework exercises and case studies. [GE, HR, SE]

**Legal Aspects of The Medical Office**  
MA 123 3 Credits/Units  
3 hours of lecture

Introduction to medical law, ethics and bioethics. Topics will include: ethics and bioethics in the practice of medicine, professional codes of ethics, an introduction to law, legal guidelines and the practice of medicine including professional liability, public duties, consents, advance directives, anatomy of a malpractice case, legal aspects of medical records, confidentiality, security of patient information and the release of patient information, patient access to their own medical records, and responding to subpoena duces tecum of medical records. [GE]

**Therapeutic Comm Skills for Health Prof**  
MA 124 2 Credits/Units  
2 hours of lecture

Identify and describe the basic components of the communication model, the various types of communication, and the role communication plays to satisfy needs. Techniques for encouraging a therapeutic and helping relationship with the patient, providers, and families. Includes an overview of the psychosocial development of a person, from birth to death. [GE]

**Introduction to Pathophysiology**  
MA 201 5 Credits/Units  
5 hours of lecture

Introduction to the general mechanisms of systemic disease including etiology, physical signs, and symptoms. Etiology focus will include infectious mechanisms, hereditary contributions, external physical agents and autoimmune conditions. Discussions of differences between disease and illness to include basic principles of pharmacology laboratory and diagnostic tests, overview of common therapies, prognosis and public health issues. [GE]

**Ma Assistant Examination Review**  
MA 202 2 Credits/Units  
2 hours of lecture

Review of Medical Assistant administrative and clinical competencies. Cognitive knowledge review of all major concepts necessary for students in preparation to take the CMA (AAMA) examination. Discussion of studying and test taking techniques to prepare for the CMA certification. [GE]

**Medical Office Clinical Procedures**  
MA 211 6 Credits/Units  
3 hours of lecture / 6 hours of lab

Principles of medical office clinical procedures including preparing a patient for assisting a physician with examinations, procedures, and components of patient history. It includes patient charting, vital signs, sterile setups, universal blood precautions, methods of asepsis and sterilization, collecting blood, processing specimens, equipment preparation and operation, electrocardiography (EKG), and medication administration. Topics also include techniques in patient interviewing and education. Lab provides the opportunity for practice and to demonstrate proficiency in procedures. [GE]

**Pharmacology for Medical Assistants**  
MA 212 3 Credits/Units  
2 hours of lecture / 2 hours of lab

Introduction to the basics of medication administration including trade and generic names of prescription and over-the-counter medications commonly prescribed, medication classifications, routes of administration, dosages, effects and implications and appropriate methods of documentation. Cannot receive credit for both HEOC 130 and MA 212. [GE]

**Medical Office Laboratory Procedures**  
MA 221 6 Credits/Units  
2 hours of lecture / 8 hours of lab

Introduction to specimen collection and processing. Performing basic CLIA waived hematology, chemistry and immunology testing; microscopic urine tests including gram smears; basic culture techniques and blood typing. Equipment use and maintenance, re-agent storage and handling. Continued practice in blood specimen collection and injections. Quality control measures are taught and implemented. Lab safety emphasized. [GE]

**Medical Assistant Practicum**  
MA 222 6 Credits/Units  
17 hours of clinical

Supervised medical assistant experience in a health care facility. Provides students with the opportunity to apply knowledge and skill in performing administrative and clinical procedures and in developing professional attitudes for interacting with other professionals and consumers. [GE, HR, SE]

**Medical Assistant Seminar**  
 MA 232 1 Credit/Unit  
 1 hours of lecture  
 Develop skills that provide an edge in the health care job market and develop the soft skills - the personal qualities, habits, attitudes, and social graces necessary to be high functioning employees in various health care environments. [GE]

**Medical Coding for Medical Assistants**  
 MA 241 4 Credits/Units  
 4 hours of lecture  
 Introduction to procedural and diagnostic coding in ambulatory settings using current diagnostic and procedural coding systems. Introduction to the symbols, terminology and methods of both diagnostic and procedural coding used by physicians and third parties and is guided step-by-step through various coding scenarios by means of workbook exercises and actual case studies. The format and guidelines of the ICD, CPT, and HCPCS code sets are reviewed to include E/M codes and modifiers. [GE]

**Patient Advocacy and Care Navigation**  
 MA 251 3 Credits/Units  
 3 hours of lecture  
 Introduction to the knowledge, skills, and attitudes necessary to apply care navigation for the benefit of the patient. The content focuses on the healthcare systems, patient profiles and needs, communication basics, an introduction to chronic illness, and health coaching. [GE]

**Statistics for Health Care Professionals**  
 MA 261 2 Credits/Units  
 2 hours of lecture  
 Introduction to statistical computations and analysis used in healthcare. Topics include patient census, occupancy, length of stay, mortality and morbidity statistics. Cannot receive credit for both BMED 105 and MA 261. [GE]

**Selected TOPICS**  
 MA 280 1-4 Credits/Units  
 4 hours of lecture  
 Topics in Medical Assisting vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedules. [GE]

**Special Projects**  
 MA 290 1-5 Credits/Units  
 5 hours of lecture  
 Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]

# METEOROLOGY (METR)

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## **Atmosphere and The Environment**

METR 101 5 Credits/Units

4 hours of lecture / 2 hours of lab

Fundamental theories in meteorology and current topics in the atmospheric sciences are developed conceptually for non-science students interested in the changing environment. Topics include atmospheric structure and composition, global circulation and atmospheric motions, clouds and precipitation, weather patterns and weather prediction, tornadoes, hurricanes, the greenhouse effect, atmospheric ozone, air pollution, and El Nino. [GE, NS, NS-LAB, SE]

## **Special Projects**

METR 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan and complete special projects approved by the Instructional Unit. [GE]

# MUSIC (MUSC/MUSC&/MUSCA)

**Beginning Piano Class**  
MUSC 101 2 Credits/Units  
2 hours of lecture  
Beginning-level study of the piano. [GE, HB, SE]

**Beginning Guitar Class**  
MUSC 110 2 Credits/Units  
2 hours of lecture  
Beginning-level study of the guitar. [GE, HB, SE]

**Beginning Voice Class**  
MUSC 115 2 Credits/Units  
1 hours of lecture / 2 hours of lab  
Basic technique and knowledge about singing. No previous experience or music study required. [GE, HB, SE]

**Music History: Middle Ages to Baroque**  
MUSC 116 5 Credits/Units  
5 hours of lecture  
Music of the Middle Ages, Renaissance and Baroque studied in context of its cultural and historical environment. Recordings of Gregorian chant, polyphonic music of the Renaissance (des Pres and Palestrina) and Baroque music (Bach, Frescobaldi, Corelli, Monteverdi, and Handel) listened to and studied. [GE, HA, SE]

**Music History: Classical/Romantic**  
MUSC 117 5 Credits/Units  
5 hours of lecture  
Music of the classical and romantic eras studied in context of its cultural and historical environment. Recordings of Haydn, Mozart, Beethoven, Schubert, Wagner, Brahms, and others listened to and studied. [GE, HA, SE]

**Music History: Twentieth Century**  
MUSC 118 5 Credits/Units  
5 hours of lecture  
Music of the twentieth century studied in context of its cultural and historical environment. Recordings and live performances. Debussy, Stravinsky, Schoenberg, Berg, Hindemith, Stockhausen, and others listened to and studied in context of 20th century culture. [GE, SE, HA]

**Rock Music**  
MUSC 125 3 Credits/Units  
3 hours of lecture  
Rhythm, melody, harmony, timbre, text uses, and form in current rock music. Problems and definitions of these elements with illustrations from various styles of rock music. [GE, HA, SE]

**World Folk Music**  
MUSC 127 3 Credits/Units  
3 hours of lecture  
Folk music in selected cultures beginning with the Anglo-American folk song. Music and cultural values. Role of music in folk cultures. Appreciation of differences in music styles as they relate to their social settings. [GE, HA, SE]

**Jazz Appreciation**  
MUSC 135 3 Credits/Units  
3 hours of lecture

Jazz Appreciation is intended to provide students with relevant and compelling facts about jazz that illustrate its colorful history, its mixture of ethnic diversity, and the impact the music has had on American popular culture. The class utilizes multimedia presentations and music examples to guide students through an interactive process of learning how to listen to jazz, a chronology of significant jazz periods, the societal events that impact each period, and the biographies and significance of key musicians. [GE, HA, SE]

**Clark College Chorale**  
MUSC 137 1-2 Credits/Units  
1 hours of lecture / 2 hours of lab  
The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]

**Clark College Chorale**  
MUSC 138 1-2 Credits/Units  
1 hours of lecture / 2 hours of lab  
The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]

**Clark College Chorale**  
MUSC 139 1-2 Credits/Units  
1 hours of lecture / 2 hours of lab  
The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]

**Orchestra**  
MUSC 150 1-2 Credits/Units  
1 hours of lecture / 2 hours of lab  
Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]

**Orchestra**  
MUSC 151 1-2 Credits/Units  
1 hours of lecture / 2 hours of lab  
Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]

**Orchestra**  
MUSC 152 1-2 Credits/Units  
1 hours of lecture / 2 hours of lab  
Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]

**Treble Ensemble**  
MUSC 153 1-2 Credits/Units  
1 hours of lecture / 2 hours of lab  
Performance of choral music from a variety of periods and styles written for women's voices. [GE, HB, SE][PNP]

<b>Treble</b>	<b>Ensemble</b>		<b>Concert</b>	<b>Band</b>	
MUSC 154		1-2 Credits/Units	MUSC 181		1-2 Credits/Units
1 hours of lecture / 2 hours of lab			1 hours of lecture / 2 hours of lab		
Performance of choral music from a variety of periods and styles written for women's voices. [GE, HB, SE][PNP]			Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]		
<b>Treble</b>	<b>Ensemble</b>		<b>Concert</b>	<b>Band</b>	
MUSC 155		1-2 Credits/Units	MUSC 182		1-2 Credits/Units
1 hours of lecture / 2 hours of lab			1 hours of lecture / 2 hours of lab		
Performance of choral music from a variety of periods and styles written for women's voices. [GE, HB, SE][PNP]			Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]		
<b>Applied</b>	<b>Voice</b>		<b>Concert</b>	<b>Band</b>	
MUSC 170		1 Credit/Unit	MUSC 183		1-2 Credits/Units
1 hours of lecture			1 hours of lecture / 2 hours of lab		
Private voice lessons. [GE, HB, SE]			Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]		
<b>Applied</b>	<b>Voice</b>		<b>Concert</b>	<b>Choir</b>	
MUSC 171		1 Credit/Unit	MUSC 184		1-2 Credits/Units
1 hours of lecture			1 hours of lecture / 2 hours of lab		
Private voice lessons. [GE, HB, SE]			The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]		
<b>Applied</b>	<b>Voice</b>		<b>Concert</b>	<b>Choir</b>	
MUSC 172		1 Credit/Unit	MUSC 185		1-2 Credits/Units
1 hours of lecture			1 hours of lecture / 2 hours of lab		
Private voice lessons. [GE, HB, SE]			The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]		
<b>Applied</b>	<b>Piano</b>		<b>Concert</b>	<b>Choir</b>	
MUSC 173		1 Credit/Unit	MUSC 186		2 Credits/Units
1 hours of lecture			1 hours of lecture / 2 hours of lab		
<b>Prerequisite:</b> MUSC 201 (grade of "C" or higher)			Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [GE, HB, SE]		
Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]			Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [GE, HB, SE]		
<b>Applied</b>	<b>Piano</b>		<b>Jazz</b>	<b>Improvisation</b>	
MUSC 174		1 Credit/Unit	MUSC 186		2 Credits/Units
1 hours of lecture			1 hours of lecture / 2 hours of lab		
<b>Prerequisite:</b> MUSC 201 (grade of "C" or higher)			Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [GE, HB, SE]		
Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]			Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [GE, HB, SE]		
<b>Applied</b>	<b>Piano</b>		<b>Concert</b>	<b>Choir</b>	
MUSC 175		1 Credit/Unit	MUSC 185		1-2 Credits/Units
1 hours of lecture			1 hours of lecture / 2 hours of lab		
<b>Prerequisite:</b> MUSC 201 (grade of "C" or higher)			The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]		
Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]			The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]		
<b>Concert</b>	<b>Band</b>		<b>Concert</b>	<b>Choir</b>	
MUSC 180		1-2 Credits/Units	MUSC 185		1-2 Credits/Units
1 hours of lecture / 2 hours of lab			1 hours of lecture / 2 hours of lab		
Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]			The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]		
<b>Concert</b>	<b>Band</b>		<b>Jazz</b>	<b>Improvisation</b>	
MUSC 180		1-2 Credits/Units	MUSC 186		2 Credits/Units
1 hours of lecture / 2 hours of lab			1 hours of lecture / 2 hours of lab		
Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]			Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [GE, HB, SE]		
<b>Concert</b>	<b>Band</b>		<b>Jazz</b>	<b>Improvisation</b>	
MUSC 180		1-2 Credits/Units	MUSC 186		2 Credits/Units
1 hours of lecture / 2 hours of lab			1 hours of lecture / 2 hours of lab		
Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]			Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [GE, HB, SE]		
<b>Concert</b>	<b>Band</b>		<b>Jazz</b>	<b>Improvisation</b>	
MUSC 180		1-2 Credits/Units	MUSC 186		2 Credits/Units
1 hours of lecture / 2 hours of lab			1 hours of lecture / 2 hours of lab		
Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]			Improvisation on one or more of the traditional jazz band instruments or through vocal interpretation. [GE, HB, SE]		



<b>Jazz</b>	<b>Band</b>		<b>Clark</b>	<b>College</b>	<b>Chorale</b>
MUSC 196		1-2 Credits/Units	MUSC 239		1-2 Credits/Units
1 hours of lecture / 2 hours of lab Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [GE, HB, SE]			1 hours of lecture / 2 hours of lab The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]		
<b>Jazz</b>	<b>Band</b>		<b>Orchestra</b>		
MUSC 197		1-2 Credits/Units	MUSC 250		1-2 Credits/Units
1 hours of lecture / 2 hours of lab Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [GE, HB, SE]			1 hours of lecture / 2 hours of lab Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]		
<b>Intermediate</b>	<b>Piano</b>	<b>Class</b>	<b>Orchestra</b>		
MUSC 201		2 Credits/Units	MUSC 251		1-2 Credits/Units
2 hours of lecture <b>Prerequisite:</b> MUSC 101 (grade of "C" or higher) Intermediate-level study of the piano. [GE, HB, SE]			1 hours of lecture / 2 hours of lab Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]		
<b>Advanced</b>	<b>Piano</b>	<b>Class</b>	<b>Orchestra</b>		
MUSC 202		2 Credits/Units	MUSC 252		1-2 Credits/Units
2 hours of lecture <b>Prerequisite:</b> MUSC 201 (grade of "C" or higher) A continuation of instruction from Intermediate Piano. Baroque, classic, romantic, and contemporary repertoire, jazz stylings and fake books. [GE, HB, SE]			1 hours of lecture / 2 hours of lab Performance of orchestral literature from a variety of periods and styles. [GE, HB, SE]		
<b>Intermediate</b>	<b>Guitar</b>	<b>Class</b>	<b>Treble</b>	<b>Ensemble</b>	
MUSC 210		2 Credits/Units	MUSC 253		1-2 Credits/Units
2 hours of lecture <b>Prerequisite:</b> MUSC 110 (grade of "C" or higher) Intermediate-level study of the guitar. [GE, HB, SE]			1 hours of lecture / 2 hours of lab Performance of choral music from a variety of periods and styles written for women's voices. [GE, HB, SE][PNP]		
<b>Clark</b>	<b>College</b>	<b>Chorale</b>	<b>Treble</b>	<b>Ensemble</b>	
MUSC 237		1-2 Credits/Units	MUSC 254		1-2 Credits/Units
1 hours of lecture / 2 hours of lab The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]			1 hours of lecture / 2 hours of lab Performance of choral music from a variety of periods and styles written for women's voices. [GE, HB, SE][PNP]		
<b>Clark</b>	<b>College</b>	<b>Chorale</b>	<b>Treble</b>	<b>Ensemble</b>	
MUSC 238		1-2 Credits/Units	MUSC 255		1-2 Credits/Units
1 hours of lecture / 2 hours of lab The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]			1 hours of lecture / 2 hours of lab Performance of choral music from a variety of periods and styles written for women's voices. [GE, HB, SE][PNP]		
<b>Clark</b>	<b>College</b>	<b>Chorale</b>	<b>Applied</b>	<b>Voice</b>	
MUSC 239		1-2 Credits/Units	MUSC 270		1 Credit/Unit
1 hours of lecture / 2 hours of lab The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]			1 hours of lecture Private voice lessons. [GE, HB, SE]		
<b>Clark</b>	<b>College</b>	<b>Chorale</b>	<b>Applied</b>	<b>Voice</b>	
MUSC 238		1-2 Credits/Units	MUSC 271		1 Credit/Unit
1 hours of lecture / 2 hours of lab The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]			1 hours of lecture Private voice lessons. [GE, HB, SE]		
<b>Clark</b>	<b>College</b>	<b>Chorale</b>	<b>Applied</b>	<b>Voice</b>	
MUSC 238		1-2 Credits/Units	MUSC 272		1 Credit/Unit
1 hours of lecture / 2 hours of lab The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]			1 hours of lecture Private voice lessons. [GE, HB, SE]		
<b>Clark</b>	<b>College</b>	<b>Chorale</b>	<b>Applied</b>	<b>Piano</b>	
MUSC 238		1-2 Credits/Units	MUSC 273		1 Credit/Unit
1 hours of lecture / 2 hours of lab The Clark College Chorale performs a wide variety of choral literature including classical masterworks and non-classical genres for both male and female as well as mixed-voicing choral music. Open to all students and community members, the Chorale performs a minimum of one concert per term with possible additional performances. [GE, HB, SE] [PNP]			1 hours of lecture Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]		

<b>Applied</b> MUSC 274 1 hours of lecture Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]	<b>Piano</b>	1 Credit/Unit	<b>Concert</b> MUSC 285 1 hours of lecture / 2 hours of lab The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]	<b>Choir</b>	1-2 Credits/Units
<b>Applied</b> MUSC 275 1 hours of lecture Private piano lessons. For students with some previous keyboard experience. [GE, HB, SE]	<b>Piano</b>	1 Credit/Unit	<b>Special</b> MUSC 290 5 hours of lecture Opportunity to plan, organize and complete special projects approved by the department. [GE, HB, SE]	<b>Projects</b>	1-5 Credits/Units
<b>Concert</b> MUSC 280 1 hours of lecture / 2 hours of lab Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]	<b>Band</b>	1-2 Credits/Units	<b>Jazz</b> MUSC 295 1 hours of lecture / 2 hours of lab Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [GE, HB, SE]	<b>Band</b>	1-2 Credits/Units
<b>Concert</b> MUSC 281 1 hours of lecture / 2 hours of lab Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]	<b>Band</b>	1-2 Credits/Units	<b>Jazz</b> MUSC 296 1 hours of lecture / 2 hours of lab Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [GE, HB, SE]	<b>Band</b>	1-2 Credits/Units
<b>Concert</b> MUSC 282 1 hours of lecture / 2 hours of lab Open to all students with experience performing on brass, woodwind, and percussion instruments. The Clark College Concert Band performs a wide spectrum of standard concert band and contemporary wind ensemble literature in at least one concert per term. Topics include musical excellence, and skills for teamwork and leadership. No auditions necessary to enroll but the ability to read music on your respective instrument is required. [GE, HB, SE]	<b>Band</b>	1-2 Credits/Units	<b>Jazz</b> MUSC 297 1 hours of lecture / 2 hours of lab Open to all students who perform on saxophone, trumpet, trombone, guitar, piano, bass, and drum set. Topics include performance techniques of jazz styles and repertoire and introduction to a wide variety of jazz subjects from improvisation and jazz history to understanding Latin/Afro-Cuban jazz rhythm. Additional topics include musical excellence and skills for teamwork and leadership. Jazz improvisation skills not required, but strong music reading skills are required, to be assessed at the beginning of the term. [GE, HB, SE]	<b>Band</b>	1-2 Credits/Units
<b>Concert</b> MUSC 283 1 hours of lecture / 2 hours of lab The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]	<b>Choir</b>	1-2 Credits/Units	<b>Music</b> MUSC& 104 3 hours of lecture Study and understanding of music. Nonverbal explorations into the listening process, a brief look at the history of Western music, and work in formal descriptive music analysis. [GE, HA, SE]	<b>Appreciation</b>	3 Credits/Units
<b>Concert</b> MUSC 284 1 hours of lecture / 2 hours of lab The concert choir performs a wide variety of choral music in at least one public concert per term. Music notation, vocal technique, and effective interpretation of music literature. Open to all students interested in improving their vocal skills. [GE, HB, SE]	<b>Choir</b>	1-2 Credits/Units	<b>Ear</b> MUSC& 121 2 hours of lab Learning to write what is heard in melodic and intervallic ways. Sight singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight singing and drill. [GE, HB, SE]	<b>Training</b>	1 1 Credit/Unit

<b>Ear Training</b>	<b>2</b>	<b>Music Theory</b>	<b>IV</b>
MUSC& 122 2 hours of lab <b>Prerequisite:</b> MUSC& 121 (grade of "C" or higher) Continuation of MUSC& 121. Learning to write what is heard in melodic and intervallic ways. Sight-singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight-singing and drill. [GE, HB, SE]	1 Credit/Unit	MUSC& 231 3 hours of lecture <b>Prerequisite:</b> MUSC& 143 (grade of "C" or higher), and concurrent enrollment in MUSC& 221 Extended chromatic chords, borrowed chords, Neapolitan 6th chords, augmented 6th chords, and study of two part inventions and fugue. [GE, HA, SE]	3 Credits/Units
<b>Ear Training</b>	<b>3</b>	<b>Music Theory</b>	<b>V</b>
MUSC& 123 2 hours of lab <b>Prerequisite:</b> MUSC& 122 (grade of "C" or higher) Continuation of MUSC& 122. Learning to write what is heard in melodic and intervallic ways. Sight-singing and chord recognition. Develops rhythmic, melodic, and harmonic perception skills through dictation, sight-singing and drill. [GE, HB, SE]	1 Credit/Unit	MUSC& 232 3 hours of lecture <b>Prerequisite:</b> MUSC& 231 (grade of "C" or higher) and concurrent enrollment in MUSC& 222. Study of altered dominants, chromatic mediants, variation form, sonata form, and rondo form. [GE, HA, SE]	3 Credits/Units
<b>Music Theory</b>	<b>I</b>	<b>Music Theory</b>	<b>VI</b>
MUSC& 141 5 hours of lecture <b>Prerequisite:</b> Concurrent enrollment in MUSC& 121 First-year musicianship. Sound sources and nature of sound. Writing skills and use of musical symbol-notation. Basic vocabulary of music. Introduction to forms, composition, and analysis. Open to all students. [GE, HA, SE]	5 Credits/Units	MUSC& 233 3 hours of lecture <b>Prerequisite:</b> MUSC& 232 (grade of "C" or higher) and concurrent enrollment in MUSC& 223. Extensions of harmonic language and compositional style of the 20th/21st century, including atonal forms. [GE, HA, SE]	3 Credits/Units
<b>Music Theory</b>	<b>II</b>	<b>Applied Instrument:Flute</b>	
MUSC& 142 5 hours of lecture <b>Prerequisite:</b> MUSC& 141 (grade of "C" or higher), and concurrent enrollment in MUSC& 122 Continuation of MUSC& 141. Addition to the I 6-4, II, VI, III chords to harmonic tones, ear training in melodic and rhythmic concepts. Intervals and introduction to the keyboard. [GE, HA, SE]	5 Credits/Units	MUSCA 101 1 hours of lecture Private flute lessons. [GE, HB, SE]	1 Credit/Unit
<b>Music Theory</b>	<b>III</b>	<b>Applied Instrument:Violin</b>	
MUSC& 143 5 hours of lecture <b>Prerequisite:</b> MUSC& 142 (grade of "C" or higher), and concurrent enrollment in MUSC& 123 Continuation of MUSC& 142. Chromatic chords, popular song forms and jazz-related harmonies and forms. [GE, HA, SE]	5 Credits/Units	MUSCA 102 1 hours of lecture Private violin lessons. [GE, HB, SE]	1 Credit/Unit
<b>Ear Training</b>	<b>4</b>	<b>Applied Instrument:Cello</b>	
MUSC& 221 2 hours of lab <b>Prerequisite:</b> MUSC& 123 (grade of "C" or higher) Continuation of MUSC& 123. Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes.[GE, HB, SE]	1 Credit/Unit	MUSCA 103 1 hours of lecture Private cello lessons. [GE, HB, SE]	1 Credit/Unit
<b>Ear Training</b>	<b>5</b>	<b>Applied Instrument:Viola</b>	
MUSC& 222 2 hours of lab <b>Prerequisite:</b> MUSC& 221 (grade of "C" or higher) Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. [GE, HB, SE]	1 Credit/Unit	MUSCA 104 1 hours of lecture Private viola lessons. [GE, HB, SE]	1 Credit/Unit
<b>Ear Training</b>	<b>6</b>	<b>Applied Instrument:Trumpet</b>	
MUSC& 223 2 hours of lab <b>Prerequisite:</b> MUSC& 222 (grade of "C" or higher) Trains students to write what they hear in harmonic and polyphonic textures. Examples coordinated with theory classes. [GE, HB, SE]	1 Credit/Unit	MUSCA 105 1 hours of lecture Private trumpet lessons. [GE, HB, SE]	1 Credit/Unit
		<b>Applied Instrument:Guitar</b>	
		MUSCA 106 1 hours of lecture Private guitar lessons. [GE, HB, SE]	1 Credit/Unit
		<b>Applied Instrument:Clarinet</b>	
		MUSCA 107 1 hours of lecture Private clarinet lessons. [GE, HB, SE]	1 Credit/Unit
		<b>Applied Instrument:Bass</b>	
		MUSCA 108 1 hours of lecture Private bass lessons. [GE, HB, SE]	1 Credit/Unit

<b>Applied</b> MUSCA 109 1 hours of lecture Private horn lessons. [GE, HB, SE]	<b>Instrument:Horn</b>	1 Credit/Unit	<b>Applied</b> MUSCA 137 1 hours of lecture Private clarinet lessons. Continuation of MUSCA 107. [GE, HB, SE]	<b>Instrument:Clarinet</b>	1 Credit/Unit
<b>Applied</b> MUSCA 110 1 hours of lecture Private bassoon lessons. [GE, HB, SE]	<b>Instrument:Bassoon</b>	1 Credit/Unit	<b>Applied</b> MUSCA 138 1 hours of lecture Private bass lessons. Continuation of MUSCA 108. [GE, HB, SE]	<b>Instrument:Bass</b>	1 Credit/Unit
<b>Applied</b> MUSCA 111 1 hours of lecture Private trombone lessons. [GE, HB, SE]	<b>Instrument:Trombone</b>	1 Credit/Unit	<b>Applied</b> MUSCA 139 1 hours of lecture Private horn lessons. Continuation of MUSCA 109. [GE, HB, SE]	<b>Instrument:Horn</b>	1 Credit/Unit
<b>Applied</b> MUSCA 112 1 hours of lecture Private sax lessons. [GE, HB, SE]	<b>Instrument:Sax</b>	1 Credit/Unit	<b>Applied</b> MUSCA 140 1 hours of lecture Private bassoon lessons. Continuation of MUSCA 110. [GE, HB, SE]	<b>Instrument:Bassoon</b>	1 Credit/Unit
<b>Applied</b> MUSCA 113 1 hours of lecture Private percussion lessons. [GE, HB, SE]	<b>Instrument:Percussion</b>	1 Credit/Unit	<b>Applied</b> MUSCA 141 1 hours of lecture Private trombone lessons. Continuation of MUSCA 111. [GE, HB, SE]	<b>Instrument:Trombone</b>	1 Credit/Unit
<b>Applied</b> MUSCA 114 1 hours of lecture Private oboe lessons. [GE, HB, SE]	<b>Instrument:Oboe</b>	1 Credit/Unit	<b>Applied</b> MUSCA 142 1 hours of lecture Private sax lessons. Continuation of MUSCA 112. [GE, HB, SE]	<b>Instrument:Sax</b>	1 Credit/Unit
<b>Applied</b> MUSCA 115 1 hours of lecture Private euphonium lessons. [GE, HB, SE]	<b>Instrument:Euphonium</b>	1 Credit/Unit	<b>Applied</b> MUSCA 143 1 hours of lecture Private percussion lessons. Continuation of MUSCA 113. [GE, HB, SE]	<b>Instrument:Percussion</b>	1 Credit/Unit
<b>Applied</b> MUSCA 116 1 hours of lecture Private tuba lessons. [GE, HB, SE]	<b>Instrument:Tuba</b>	1 Credit/Unit	<b>Applied</b> MUSCA 144 1 hours of lecture Private oboe lessons. Continuation of MUSCA 114. [GE, HB, SE]	<b>Instrument:Oboe</b>	1 Credit/Unit
<b>Applied</b> MUSCA 131 1 hours of lecture Private flute lessons. Continuation of MUSCA 101. [GE, HB, SE]	<b>Instrument:Flute</b>	1 Credit/Unit	<b>Applied</b> MUSCA 145 1 hours of lecture Private euphonium lessons. Continuation of MUSCA 115. [GE, HB, SE]	<b>Instrument:Euphonium</b>	1 Credit/Unit
<b>Applied</b> MUSCA 132 1 hours of lecture Private violin lessons. Continuation of MUSCA 102. [GE, HB, SE]	<b>Instrument:Violin</b>	1 Credit/Unit	<b>Applied</b> MUSCA 146 1 hours of lecture Private tuba lessons. Continuation of MUSCA 116. [GE, HB, SE]	<b>Instrument:Tuba</b>	1 Credit/Unit
<b>Applied</b> MUSCA 133 1 hours of lecture Private cello lessons. Continuation of MUSCA 103. [GE, HB, SE]	<b>Instrument:Cello</b>	1 Credit/Unit	<b>Applied</b> MUSCA 171 1 hours of lecture Private flute lessons. Continuation of MUSCA 131. [GE, HB, SE]	<b>Instrument:Flute</b>	1 Credit/Unit
<b>Applied</b> MUSCA 134 1 hours of lecture Private viola lessons. Continuation of MUSCA 104. [GE, HB, SE]	<b>Instrument:Viola</b>	1 Credit/Unit	<b>Applied</b> MUSCA 172 1 hours of lecture Private violin lessons. Continuation of MUSCA 132. [GE, HB, SE]	<b>Instrument:Violin</b>	1 Credit/Unit
<b>Applied</b> MUSCA 135 1 hours of lecture Private trumpet lessons. Continuation of MUSCA 105. [GE, HB, SE]	<b>Instrument:Trumpet</b>	1 Credit/Unit	<b>Applied</b> MUSCA 173 1 hours of lecture Private cello lessons. Continuation of MUSCA 133. [GE, HB, SE]	<b>Instrument:Cello</b>	1 Credit/Unit
<b>Applied</b> MUSCA 136 1 hours of lecture Private guitar lessons. Continuation of MUSCA 106. [GE, HB, SE]	<b>Instrument:Guitar</b>	1 Credit/Unit	<b>Applied</b> MUSCA 174 1 hours of lecture Private viola lessons. Continuation of MUSCA 134. [GE, HB, SE]	<b>Instrument:Viola</b>	1 Credit/Unit

<b>Applied</b> MUSCA 175 1 hours of lecture Private trumpet lessons. Continuation of MUSCA 135. [GE, HB, SE]	<b>Instrument:Trumpet</b>	1 Credit/Unit	<b>Applied</b> MUSCA 203 1 hours of lecture Private cello lessons. Continuation of MUSCA 173. [GE, HB, SE]	<b>Instrument:Cello</b>	1 Credit/Unit
<b>Applied</b> MUSCA 176 1 hours of lecture Private guitar lessons. Continuation of MUSCA 136. [GE, HB, SE]	<b>Instrument:Guitar</b>	1 Credit/Unit	<b>Applied</b> MUSCA 204 1 hours of lecture Private viola lessons. Continuation of MUSCA 174. [GE, HB, SE]	<b>Instrument:Viola</b>	1 Credit/Unit
<b>Applied</b> MUSCA 177 1 hours of lecture Private clarinet lessons. Continuation of MUSCA 137. [GE, HB, SE]	<b>Instrument:Clarinet</b>	1 Credit/Unit	<b>Applied</b> MUSCA 205 1 hours of lecture Private trumpet lessons. Continuation of MUSCA 175. [GE, HB, SE]	<b>Instrument:Trumpet</b>	1 Credit/Unit
<b>Applied</b> MUSCA 178 1 hours of lecture Private bass lessons. Continuation of MUSCA 138. [GE, HB, SE]	<b>Instrument:Bass</b>	1 Credit/Unit	<b>Applied</b> MUSCA 206 1 hours of lecture Private guitar lessons. Continuation of MUSCA 176. [GE, HB, SE]	<b>Instrument:Guitar</b>	1 Credit/Unit
<b>Applied</b> MUSCA 179 1 hours of lecture Private horn lessons. Continuation of MUSCA 139. [GE, HB, SE]	<b>Instrument:Horn</b>	1 Credit/Unit	<b>Applied</b> MUSCA 207 1 hours of lecture Private clarinet lessons. Continuation of MUSCA 177. [GE, HB, SE]	<b>Instrument:Clarinet</b>	1 Credit/Unit
<b>Applied</b> MUSCA 180 1 hours of lecture Private bassoon lessons. Continuation of MUSCA 140. [GE, HB, SE]	<b>Instrument:Bassoon</b>	1 Credit/Unit	<b>Applied</b> MUSCA 208 1 hours of lecture Private bass lessons. Continuation of MUSCA 178. [GE, HB, SE]	<b>Instrument:Bass</b>	1 Credit/Unit
<b>Applied</b> MUSCA 181 1 hours of lecture Private trombone lessons. Continuation of MUSCA 141. [GE, HB, SE]	<b>Instrument:Trombone</b>	1 Credit/Unit	<b>Applied</b> MUSCA 209 1 hours of lecture Private horn lessons. Continuation of MUSCA 179. [GE, HB, SE]	<b>Instrument:Horn</b>	1 Credit/Unit
<b>Applied</b> MUSCA 182 1 hours of lecture Private sax lessons. Continuation of MUSCA 142. [GE, HB, SE]	<b>Instrument:Sax</b>	1 Credit/Unit	<b>Applied</b> MUSCA 210 1 hours of lecture Private bassoon lessons. Continuation of MUSCA 180. [GE, HB, SE]	<b>Instrument:Bassoon</b>	1 Credit/Unit
<b>Applied</b> MUSCA 183 1 hours of lecture Private percussion lessons. Continuation of MUSCA 143. [GE, HB, SE]	<b>Instrument:Percussion</b>	1 Credit/Unit	<b>Applied</b> MUSCA 211 1 hours of lecture Private trombone lessons. Continuation of MUSCA 181. [GE, HB, SE]	<b>Instrument:Trombone</b>	1 Credit/Unit
<b>Applied</b> MUSCA 184 1 hours of lecture Private oboe lessons. Continuation of MUSCA 144. [GE, HB, SE]	<b>Instrument:Oboe</b>	1 Credit/Unit	<b>Applied</b> MUSCA 212 1 hours of lecture Private sax lessons. Continuation of MUSCA 182. [GE, HB, SE]	<b>Instrument:Sax</b>	1 Credit/Unit
<b>Applied</b> MUSCA 185 1 hours of lecture Private euphonium lessons. Continuation of MUSCA 145. [GE, HB, SE]	<b>Instrument:Euphonium</b>	1 Credit/Unit	<b>Applied</b> MUSCA 213 1 hours of lecture Private percussion lessons. Continuation of MUSCA 183. [GE, HB, SE]	<b>Instrument:Percussion</b>	1 Credit/Unit
<b>Applied</b> MUSCA 186 1 hours of lecture Private tuba lessons. Continuation of MUSCA 146. [GE, HB, SE]	<b>Instrument:Tuba</b>	1 Credit/Unit	<b>Applied</b> MUSCA 214 1 hours of lecture Private oboe lessons. Continuation of MUSCA 184. [GE, HB, SE]	<b>Instrument:Oboe</b>	1 Credit/Unit
<b>Applied</b> MUSCA 201 1 hours of lecture Private flute lessons. Continuation of MUSCA 171. [GE, HB, SE]	<b>Instrument:Flute</b>	1 Credit/Unit	<b>Applied</b> MUSCA 215 1 hours of lecture Private euphonium lessons. Continuation of MUSCA 185. [GE, HB, SE]	<b>Instrument:Euphonium</b>	1 Credit/Unit
<b>Applied</b> MUSCA 202 1 hours of lecture Private violin lessons. Continuation of MUSCA 172. [GE, HB, SE]	<b>Instrument:Violin</b>	1 Credit/Unit	<b>Applied</b> MUSCA 216 1 hours of lecture Private tuba lessons. Continuation of MUSCA 186. [GE, HB, SE]	<b>Instrument:Tuba</b>	1 Credit/Unit

<b>Applied</b>	<b>Instrument:Flute</b>		<b>Applied</b>	<b>Instrument:Euphonium</b>	
MUSCA 231		1 Credit/Unit	MUSCA 245		1 Credit/Unit
1 hours of lecture			1 hours of lecture		
Private flute lessons. Continuation of MUSCA 201. [GE, HB, SE]			Private euphonium lessons. Continuation of MUSCA 215. [GE, HB, SE]		
<b>Applied</b>	<b>Instrument:Violin</b>		<b>Applied</b>	<b>Instrument:Tuba</b>	
MUSCA 232		1 Credit/Unit	MUSCA 246		1 Credit/Unit
1 hours of lecture			1 hours of lecture		
Private violin lessons. Continuation of MUSCA 202. [GE, HB, SE]			Private tuba lessons. Continuation of MUSCA 216. [GE, HB, SE]		
<b>Applied</b>	<b>Instrument:Cello</b>		<b>Applied</b>	<b>Instrument:Flute</b>	
MUSCA 233		1 Credit/Unit	MUSCA 271		1 Credit/Unit
1 hours of lecture			1 hours of lecture		
Private cello lessons. Continuation of MUSCA 203. [GE, HB, SE]			Private flute lessons. Continuation of MUSCA 231. [GE, HB, SE]		
<b>Applied</b>	<b>Instrument:Viola</b>		<b>Applied</b>	<b>Instrument:Violin</b>	
MUSCA 234		1 Credit/Unit	MUSCA 272		1 Credit/Unit
1 hours of lecture			1 hours of lecture		
Private viola lessons. Continuation of MUSCA 204. [GE, HB, SE]			Private Violin lessons. Continuation of MUSCA 232. [GE, HB, SE]		
<b>Applied</b>	<b>Instrument:Trumpet</b>		<b>Applied</b>	<b>Instrument:Cello</b>	
MUSCA 235		1 Credit/Unit	MUSCA 273		1 Credit/Unit
1 hours of lecture			1 hours of lecture		
Private trumpet lessons. Continuation of MUSCA 205. [GE, HB, SE]			<b>Prerequisite:</b> MUSC 201 (grade of "C" or higher)		
<b>Applied</b>	<b>Instrument:Guitar</b>		Private cello lessons. Continuation of MUSCA 233. [GE, HB, SE]		
MUSCA 236		1 Credit/Unit	<b>Applied</b>	<b>Instrument:Viola</b>	
1 hours of lecture			MUSCA 274		1 Credit/Unit
Private guitar lessons. Continuation of MUSCA 206. [GE, HB, SE]			1 hours of lecture		
<b>Applied</b>	<b>Instrument:Clarinet</b>		<b>Prerequisite:</b> MUSC 201 (grade of "C" or higher)		
MUSCA 237		1 Credit/Unit	Private viola lessons. Continuation of MUSCA 234. [GE, HB, SE]		
1 hours of lecture			<b>Applied</b>	<b>Instrument:Trumpet</b>	
Private clarinet lessons. Continuation of MUSCA 207. [GE, HB, SE]			MUSCA 275		1 Credit/Unit
<b>Applied</b>	<b>Instrument:Bass</b>		1 hours of lecture		
MUSCA 238		1 Credit/Unit	<b>Prerequisite:</b> MUSC 201 (grade of "C" or higher)		
1 hours of lecture			Private trumpet lessons. Continuation of MUSCA 235. [GE, HB, SE]		
Private clarinet lessons. Continuation of MUSCA 208. [GE, HB, SE]			<b>Applied</b>	<b>Instrument:Guitar</b>	
<b>Applied</b>	<b>Instrument:Horn</b>		MUSCA 276		1 Credit/Unit
MUSCA 239		1 Credit/Unit	1 hours of lecture		
1 hours of lecture			Private guitar lessons. Continuation of MUSCA 236. [GE, HB, SE]		
Private horn lessons. Continuation of MUSCA 209. [GE, HB, SE]			<b>Applied</b>	<b>Instrument:Clarinet</b>	
<b>Applied</b>	<b>Instrument:Bassoon</b>		MUSCA 277		1 Credit/Unit
MUSCA 240		1 Credit/Unit	1 hours of lecture		
1 hours of lecture			Private clarinet lessons. Continuation of MUSCA 237. [GE, HB, SE]		
Private bassoon lessons. Continuation of MUSCA 210. [GE, HB, SE]			<b>Applied</b>	<b>Instrument:Bass</b>	
<b>Applied</b>	<b>Instrument:Trombone</b>		MUSCA 278		1 Credit/Unit
MUSCA 241		1 Credit/Unit	1 hours of lecture		
1 hours of lecture			Private clarinet lessons. Continuation of MUSCA 238. [GE, HB, SE]		
Private trombone lessons. Continuation of MUSCA 211. [GE, HB, SE]			<b>Applied</b>	<b>Instrument:Horn</b>	
<b>Applied</b>	<b>Instrument:Sax</b>		MUSCA 279		1 Credit/Unit
MUSCA 242		1 Credit/Unit	1 hours of lecture		
1 hours of lecture			Private horn lessons. Continuation of MUSCA 239. [GE, HB, SE]		
Private sax lessons. Continuation of MUSCA 212. [GE, HB, SE]			<b>Applied</b>	<b>Instrument:Bassoon</b>	
<b>Applied</b>	<b>Instrument:Percussion</b>		MUSCA 280		1 Credit/Unit
MUSCA 243		1 Credit/Unit	1 hours of lecture		
1 hours of lecture			Private bassoon lessons. Continuation of MUSCA 240. [GE, HB, SE]		
Private percussion lessons. Continuation of MUSCA 213. [GE, HB, SE]			<b>Applied</b>	<b>Instrument:Trombone</b>	
<b>Applied</b>	<b>Instrument:Oboe</b>		MUSCA 281		1 Credit/Unit
MUSCA 244		1 Credit/Unit	1 hours of lecture		
1 hours of lecture			Private trombone lessons. Continuation of MUSCA 241. [GE, HB, SE]		
Private oboe lessons. Continuation of MUSCA 214. [GE, HB, SE]					

**Applied**                      **Instrument:Sax**  
MUSCA 282    1 Credit/Unit  
1 hours of lecture  
Private sax lessons. Continuation of MUSCA 242. [GE, HB, SE]

**Applied**                      **Instrument:Percussion**  
MUSCA 283    1 Credit/Unit  
1 hours of lecture  
Private percussion lessons. Continuation of MUSCA 243. [GE, HB, SE]

**Applied**                      **Instrument:Oboe**  
MUSCA 284    1 Credit/Unit  
1 hours of lecture  
Private oboe lessons. Continuation of MUSCA 244. [GE, HB, SE]

**Applied**                      **Instrument:Euphonium**  
MUSCA 285    1 Credit/Unit  
1 hours of lecture  
Private euphonium lessons. Continuation of MUSCA 245. [GE, HB, SE]

**Applied**                      **Instrument:Tuba**  
MUSCA 286    1 Credit/Unit  
1 hours of lecture  
Private tuba lessons. Continuation of MUSCA 246. [GE, HB, SE]

# NETWORK TECHNOLOGY (NTEC)

<b>IP</b>	<b>Subnetting</b>	
NTEC 103		3 Credits/Units
2 hours of lecture / 2 hours of lab		
<b>Prerequisite:</b> CAP 42 (grade of "C" or higher) or placement into Math level 10		
Covers the Internet Protocol (IP) numbering systems IPv4 and IPv6. Includes the following concepts: calculation and converting numbers between DECimal, BINary, and HEXadecimal number systems; understanding the meaning of IP numbers, the purpose/role of the various parts of the number, types/classes of numbers; understanding how to subnet these number ranges using both traditional and VLSM approaches; create supernets, summary routes, and hierarchical addressing schemes. [GE]		
<b>Introduction</b>	<b>to</b>	<b>Cybersecurity</b>
NTEC 125		3 Credits/Units
2 hours of lecture / 2 hours of lab		
<b>Prerequisite:</b> Concurrent enrollment in, or completion of NTEC 103 (grade of "C" or higher)		
Builds an understanding of network security topics including how hacker attacks are carried out and how to select the right security solutions for each type of risk. Students learn to create clear and enforceable security policies and to keep them up to date; to establish reliable processes for responding to security advisories; to use encryption effectively and recognize its limitations; to secure networks with firewalls, routers, and other devices; and to prevent attacks aimed at wireless networks. [GE]		
<b>Cloud</b>	<b>Computing</b>	<b>Fundamentals</b>
NTEC 142		3 Credits/Units
2 hours of lecture / 2 hours of lab		
<b>Prerequisite:</b> Concurrent enrollment in, or completion of NTEC 103 (grade of "C" or higher)		
Helps students prepare for the CompTIA Cloud Essentials certification by building an understanding of the following Cloud Computing topics: technical understanding of the foundations of Cloud Computing as compared to traditional IT; integrating Cloud Computing into IT infrastructure; creating economic value by implementing Cloud innovations; and integrating Cloud Computing into an organization's existing compliance, risk and regulatory framework. [GE]		
<b>Linux</b>	<b>Essentials</b>	
NTEC 151		3 Credits/Units
2 hours of lecture / 2 hours of lab		
<b>Prerequisite:</b> CAP 42 (grade of "C" or higher) or placement into Math level 10		
Explores the basics of Linux, the world's most popular operating system. Includes system administration skills (using the command line, how to configure a computer running Linux, and basic networking), basic open source concepts. This course may help students prepare for attaining the LPI (Linux Professional Institute) Linux Essentials industry certification. [GE]		

<b>Network</b>	<b>Scripting</b>	<b>Fundamentals</b>
NTEC 161		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> NTEC 151 and NTEC 221 (grades of "C" or higher).		
Network programming to build complex scripts that can easily scale to fit the needs of a network. Fundamentals of how to use libraries for SSH management of network hardware and write scripts to perform a number of network configurations. From a simple script with one connection and one command, to building a powerful script that can read multiple commands and multiple IPs from a file, prompt for user credentials, handle errors, and find specific devices. [GE]		
<b>Cooperative</b>	<b>Work</b>	<b>Experience</b>
NTEC 199		1-6 Credits/Units
18 hours of clinical		
Supervised work experience in an approved job. Completion of specific learning objectives and employee evaluation. [GE] [PNP]		
<b>Deploying</b>	<b>Linux</b>	<b>Server</b>
NTEC 220		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> NTEC 151 (grade of "C" or higher)		
Knowledge and skills for using LINUX Server OS to setup LAN/WAN connections and authentication; and to explore features of the network operating systems, such as FTP, email, web server, file server, print server, remote desktop, DNS, DHCP, and users and groups. [GE]		
<b>Introduction</b>	<b>to</b>	<b>Networks</b>
NTEC 221		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> Concurrent enrollment in, or completion of NTEC 103 (grade of "C" or higher)		
Introduction to the architecture, structure, functions, components, and models of the Internet, and other computer networks. Fundamentals to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Part one of a three-course sequence to prepare for the Cisco CCNA Routing and Switching industry certification. [GE]		
<b>Switching,</b>	<b>Routing,</b>	<b>and</b>
<b>Wireless</b>	<b>Essentials</b>	
NTEC 222		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> NTEC 221 (grade of "C" or higher)		
Learn the architecture, components, and operations of routers and switches in an enterprise network, how to configure VLANs, routing protocols; troubleshoot routers and switches; resolve common issues with networks. Part two of a three-course sequence to prepare for the Cisco CCNA Routing and Switching industry certification. [GE]		
<b>Enterprise</b>	<b>Networking,</b>	<b>Security,</b>
<b>and</b>	<b>Automation</b>	
NTEC 223		5 Credits/Units
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> NTEC 222 (grade of "C" or higher)		
Learn how to configure routers and switches for advanced functionality; to configure and troubleshoot routers and switches and resolve common issues in both IPv4 and IPv6 networks. Develop the knowledge and skills needed to manage a complex network. Part three of a three-course sequence to prepare for the Cisco CCNA Routing Switching industry certification. [GE]		



<b>Network Security</b>	<b>Linux Administration</b>	<b>2</b>
NTEC 225	NTEC 253	5 Credits/Units
3 hours of lecture / 4 hours of lab	3 hours of lecture / 4 hours of lab	
<b>Prerequisite:</b> NTEC 223 (grade of "C" or higher).	<b>Prerequisite:</b> NTEC 252 (grade of "C" or higher)	
Learn network security skills needed by IT professionals. Develop skills for job roles such as Network Security Specialists, Security Administrators, and Network Security Support Engineers. Skills include installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure. Introduction to core security technologies as well as how to develop security policies and mitigate risks. [GE]	Builds on the skills learned in the NTEC 151 and NTEC 252. Covers the following: shells, scripting and data management, interfaces and desktops, administrative tasks, essential system services, networking fundamentals, and security. [GE]	
<b>Windows Server Administration: Installation, Storage, Compute</b>	<b>Selected Topics</b>	
NTEC 234	NTEC 280	1-6 Credits/Units
3 hours of lecture / 4 hours of lab	6 hours of lecture	
<b>Prerequisite:</b> Concurrent enrollment in, or completion of NTEC 103 (grade of "C" or higher)	Topics vary. May be repeated for credit. [GE]	
Covers installing and configuring Windows server; introduction to Active Directory Domain Services (AD DS), managing AD DS Objects, and automating AD DS Administrative; implementing Networking Services, Local Storage, File and Print Services, Group Policy, and Server Virtualization with Hyper-V. [GE]	<b>Special Projects</b>	
<b>Windows Server Administration: Networking</b>	NTEC 290	1-6 Credits/Units
NTEC 235	6 hours of lecture	
3 hours of lecture / 4 hours of lab	Opportunity to plan, organize, and complete special projects approved by the department. [GE]	
<b>Prerequisite:</b> Concurrent enrollment in, or completion of NTEC 103 (grade of "C" or higher)	<b>Capstone Experience: Network Technologies</b>	
Covers the following: administration of Windows Server; Implementing a Group Policy infrastructure; managing User and Service Accounts; maintaining Active Directory Domain Services; configuring and troubleshooting DNS and Remote Access; installing, configuring and troubleshooting the Network Policy Server role; optimizing File Services; increasing File System Security; implementing Update Management. [GE]	NTEC 297	3 Credits/Units
<b>Windows Server Administration: Identity</b>	1 hours of lecture / 4 hours of lab	
NTEC 236	This course will normally be taken during the final term of the program.	
3 hours of lecture / 4 hours of lab	Students will apply their skills on many topics covered in the other degree program courses. Students will complete a project in a team/small group setting as they create a network design proposal document, design an enterprise network to meet established user requirements, create detailed documentation plans for implementation, create a functional demo/mock-up, and make a final presentation to the class. This course will provide students a hands-on experience designing an enterprise network based on user requirements. Topics include all aspects of network planning, design, and troubleshooting. [GE]	
<b>Prerequisite:</b> NTEC 234 and NTEC 235 (grades of "C" or higher).	<b>Capstone Experience: Cisco Technologies</b>	
Covers configuration of advanced Windows Server services. Focus on implementing the following: Advanced Network Service, Advanced File Services, Dynamic Access Control, Network Load Balancing, Failover Clustering, Disaster Recovery, AD CS And AD FS. [GE]	NTEC 299	3 Credits/Units
<b>Datacenter Virtualization Technology</b>	1 hours of lecture / 4 hours of lab	
NTEC 242	This course will normally be taken during the final term of the program.	
3 hours of lecture / 4 hours of lab	Students will apply their skills on many topics covered in the other degree program courses. Students will complete a project in a team/small group setting as they create a network design proposal document, design an enterprise network to meet established user requirements, create detailed documentation plans for implementation, create a functional demo/mock-up, and make a final presentation to the class. This course will provide students a hands-on experience designing an enterprise network based on user requirements. Topics include all aspects of network planning, design, and troubleshooting. [GE]	
<b>Prerequisite:</b> NTEC 142 (grade of "C" or higher)	<b>Enterprise Networking Foundation</b>	
Fundamentals of server and desktop virtualization. Topics include practical and conceptual skills for understanding basic virtualization concepts, comparison of physical servers and virtualized servers, skills for planning and implementing datacenter virtualization, the virtualized approach to datacenters with functions and services of their components, plus the various components, concepts and skill-sets associated with virtualization. [GE]	NTEC 321	5 Credits/Units
<b>Linux Administration</b>	3 hours of lecture / 4 hours of lab	
NTEC 252	Provides a wide overview of computer networking concepts with emphasis on configuring, managing and maintaining essential network devices. Offers instruction and practice in implementing network security, standards, and protocols as well as troubleshooting network problems and creating virtualized networks. May prepare students to attain the industry certification CompTIA Network+. [GE]	
3 hours of lecture / 4 hours of lab		
<b>Prerequisite:</b> NTEC 151 (grade of "C" or higher)		
Builds on the skills learned in NTEC 151 - Linux Essentials course.		
Covers the following: system architecture, Linux installation and package management, GNU and UNIX commands, devices, Linux file systems, and file system hierarchy standards.[GE]		

<p><b>Cybersecurity Programming &amp; Scripting Foundation</b> NTEC 361 3 hours of lecture / 4 hours of lab Focuses on learning to use the Python programming language to accomplish coding tasks related to the basics of programming as well as the fundamental notions and techniques used in object-oriented programming. May prepare students to attain the industry certification PCAP (Certified Associate in Python Programming) from the Python Institute. [GE]</p>	<p><b>Cybersecurity Operations</b> NTEC 475 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> NTEC 472 and NTEC 473 (grades of "C" or higher) Focuses on how to monitor, detect and respond to cybersecurity threats with specific instruction in cyptography, host-based security analysis, security monitoring, computer forensics, attack methods and incident reporting and handling. May prepare students to attain the industry certification Cisco CyberOps Associate. [GE]</p>	5 Credits/Units	5 Credits/Units
<p><b>IoT Foundation: Connecting Things</b> NTEC 364 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> NTEC 361 (grade of "C" or higher) Explores how nearly object can be connected to the Internet, from washing machines to an airplane's jet engine, even organic items like crops and cows. Introduction to the basis of this exciting and emerging field using hands-on activities to model securely connecting sensors to cloud services over IP networks and collecting data in an end-to-end IoT (Internet of Things) system. [GE]</p>	<p><b>Capstone Project</b> NTEC 499 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> NTEC 472 and NTEC 473 (grades of "C" or higher) Integrates and synthesizes competencies from across the degree program. Each project consists of a technical work proposal, the proposal's implementation, and a post-implementation report that describes the students's experience in developing and implementing the capstone project. [GE]</p>	5 Credits/Units	5 Credits/Units
<p><b>Big Data &amp; Analytics Foundation</b> NTEC 365 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> NTEC 361 and NTEC 364 (grades of "C" or higher) Explores modern, real-time applications, IoT (Internet of Things) systems and the data they collect. Includes collecting, storing, and visualizing data obtained from IoT sensors and using data analytics to gain insights from the intelligence produced. [GE]</p>		5 Credits/Units	
<p><b>Cybersecurity Foundation</b> NTEC 371 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> NTEC 321 (grade of "C" or higher) Provides a wide overview of cybersecurity concepts and places an emphasis on mitigating specific security issues with extensive hands-on lab activities. May prepare students to attain the industry certification CompTIA Security+. [GE]</p>		5 Credits/Units	
<p><b>Cybersecurity Penetration Testing</b> NTEC 472 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> NTEC 361 and NTEC 371 (grades of "C" or higher) Covers the penetration testing as well as vulnerability assessment and management. Emphasizes skills necessary to determine the resiliency of a network against attacks. Includes how to customize assessment frameworks to effectively collobrate on and report findings as well as best practices to communicate recommended strategies to improve the overall state of IT security. May prepare students to attain the industry certification CompTIA Pen Test. [GE]</p>		5 Credits/Units	
<p><b>Cybersecurity Analyst</b> NTEC 473 3 hours of lecture / 4 hours of lab <b>Prerequisite:</b> NTEC 361 and NTEC 371 (grades of "C" or higher) Covers behavioral analytics skills to identify and combat malware and advanced persistent threats with an emphasis on performing data analysis and interpreting the results to identify vulnerabilities, threats and risks to an organization. Includes how to configure and use threat-detection tools and how to secure and protect applications and systems within a organization. May prepare students to attain the industry certification CompTIA CySA+. [GE]</p>		5 Credits/Units	

# NURSING (NURS)

## Foundations of Nursing Concepts

NURS 110 2 Credits/Units  
2 hours of lecture

Concurrent enrollment in NURS 111, 113, 114, and 115 and ENGL 112. Introduction to professional nursing; topics include health promotion and health care delivery systems, professional roles and standards, nurse-client relationships, and theoretical basis for nursing practice. These courses are linked; failure in one course, with a grade of 'C' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Foundations of Clinical Nursing

NURS 111 2 Credits/Units  
4 hours of lab

Concurrent enrollment is required in NURS 110, 113, 114, 115 and ENGL 112.

Introduction to nursing practice in the community setting with emphasis on direct patient care of the older adult. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Lifespan Assessment Concepts

NURS 113 3 Credits/Units  
3 hours of lecture

Concurrent enrollment in NURS 110, 111, 114, 115 and ENGL 112. Introduction to health assessment and physical examination throughout the lifespan, and an introduction to nursing skills. These courses are linked; failure in one course, with a grade of 'C' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Nursing Skills Application I

NURS 114 1 Credit/Unit  
2 hours of lab

Concurrent enrollment in NURS 110, 111, 113, 115 and ENGL 112. Practice and nursing skill achievement on NURS 113 competencies. These courses are linked; failure in one course, with a grade of 'C' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Nursing Skills Lab I

NURS 115 2 Credits/Units  
4 hours of lab

Supervised skills practice and competency achievement in the nursing skills lab. [GE]

## Family-Centered Nursing

NURS 122 2 Credits/Units  
2 hours of lecture

Theory and the nursing process related to the care of children and their families. Physiologic and psychologic adaptation during childhood and the childbearing/childrearing years, emphasis on the nurse's role in health promotion and education in the care of culturally diverse families in the community. [GE]

## Family-Centered Clinical Nursing

NURS 123 4 Credits/Units  
8 hours of lab

Concurrent enrollment in NURS 122, 127, 128, PSYC 122 and 124. Application of theoretical, assessment, and practice concepts for nursing care of the family prenatally through the child years. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Nursing Skills Application II

NURS 127 1 Credit/Unit  
2 hours of lab

Concurrent enrollment in NURS 122, 123, 128, PSYC 122 and 124. Practice and nursing skill achievement on NURS 126 competencies. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Nursing Skills Lab II

NURS 128 2 Credits/Units  
4 hours of lab

Concurrent enrollment in NURS 122, 123, 127, PSYC 122 and 124. Practice and nursing skill achievement of NURS 127 competencies. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Medical Surgical Nursing Concepts I

NURS 135 3 Credits/Units  
3 hours of lecture

Concurrent enrollment in NURS 136, 137, 138 and NUTR 139. Introductory nursing management of medical-surgical health issues. Topics include but are not limited to: patient teaching/discharge planning, rehabilitation of medical-surgical patients, fluid and electrolytes, shock management, the immune response, infectious diseases, diabetes (including pediatric, adult and gestational), musculoskeletal disorders and the care of patients in the peri-operative setting. All topics address patients throughout the lifespan, and include obstetric patients in a medical-surgical setting. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Medical-Surgical Clinical Nursing I

NURS 136 5 Credits/Units  
10 hours of lab

Concurrent enrollment in NURS 135, 137, 138 and NUTR 139. Introductory medical/surgical concepts applied to the clinical nursing management of the patient in the acute care and community setting. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Nursing Skills Application III

NURS 137 1 Credit/Unit  
2 hours of lab

Concurrent enrollment in NURS 135, 136, 138 and NUTR 139. Instruction and practice of nursing skills related to the care of the medical-surgical patient. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Nursing Skills Lab III

NURS 138 2 Credits/Units  
4 hours of lab

Concurrent enrollment in NURS 135, 136, 137 and NUTR 139. Practice and nursing skill achievement of NURS 137 competencies. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]

## Cooperative Work Experience

NURS 199 1-5 Credits/Units  
15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

<b>Medical-Surgical</b>	<b>Nursing</b>	<b>Concepts</b>	<b>II</b>	<b>Professional</b>	<b>Role</b>	<b>in</b>	<b>the</b>	<b>Community</b>
NURS 241			3 Credits/Units	NURS 263				1 Credit/Unit
3 hours of lecture				2 hours of lab				
Concurrent enrollment in NURS 242 and NUTR 240.				A community service learning course where students apply knowledge of social determinants of health within the community setting. [GE]				
Nursing management of medical-surgical health issues involving cardiac, respiratory, renal and gastrointestinal systems in the acute care or community setting. Planning nursing interventions to include prevention of disease and promotion of wellness. Emphasis on the biopsychosocial effects of acute and chronic illness. All topics address patients throughout the lifespan, and includes obstetric patients in a medical-surgical setting. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]				<b>NCLEX-RN</b>				
				<b>Preparation</b>				
				NURS 264 1 Credit/Unit				
				1 hours of lecture				
				Students engage in a systematic, focused, and comprehensive review of national prelicensure content and test taking strategies to prepare for the NCLEX-RN exam. [GE]				
				<b>Selected</b>				
				<b>Topics</b>				
				NURS 280 1-5 Credits/Units				
				5 hours of lecture				
				Selected topics in nursing. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. [GE]				
				<b>Special</b>				
				<b>Projects</b>				
				NURS 290 1-15 Credits/Units				
				15 hours of lecture				
				Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE]				
<b>Medical-Surgical</b>	<b>Nursing</b>	<b>Concepts</b>	<b>III</b>					
NURS 251			2 Credits/Units					
2 hours of lecture								
Concurrent enrollment in NURS 252 and PSYC 253.								
The study of common medical-surgical issues related to hormonal control, sensory perception, movement and coordination, and cancer. Emphasis is placed on the nurse's role as primary caregiver, manager and educator for a group of patients. The student will learn to plan and organize care for a group of patients with emphasis on the nursing process, rehabilitation, education, and the patient care delivery system. All topics address patients throughout the lifespan, and includes obstetric patients in a medical-surgical setting. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]								
<b>Advanced</b>	<b>Holistic</b>	<b>Clinical</b>	<b>Nursing</b>					
NURS 252			8 Credits/Units					
16 hours of lab								
Concurrent enrollment in NURS 251 and PSYC 253.								
Emphasis is placed on the nurse's role as caregiver, manager and educator for a group of patients across medical-surgical and mental health settings. In the med/surg setting, the student will plan and organize care for a group of patients with emphasis on the nursing process, rehabilitation, education, and the patient care delivery system. In the mental health setting, the student will experience caring for patients in both inpatient and outpatient environments. Patient problems relate to functional impairment within acute and chronic phases of mental illness. These courses are linked; failure in one course, with a grade of 'C-' or lower or 'U', requires repeat of all concurrent courses. [GE]								
<b>Professional</b>	<b>Leadership</b>	<b>Transition</b>	<b>to</b>	<b>Practice</b>				
NURS 261				1 Credit/Unit				
1 hours of lecture								
Explores principles essential to the role development of the professional nurse within the healthcare system. [GE]								
<b>Professional</b>	<b>Leadership</b>	<b>in</b>	<b>Practice</b>					
NURS 262			6 Credits/Units					
12 hours of lab								
Clinical course where students demonstrate competency of end of program student learning outcomes in a precepted clinical learning environment as the student prepares to enter the nursing profession. [GE]								

# NUTRITION (NUTR/NUTR&)

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**Nutrition In Healthcare I**  
NUTR 139 1 Credit/Unit  
1 hours of lecture  
Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions. This course will cover the principles of nutrition in nursing and nutrition in health promotion from infants to older adults. [GE, NS, SE]

**Nutrition In Healthcare II**  
NUTR 240 1 Credit/Unit  
1 hours of lecture  
Builds on the concepts introduced in NUTR& 101 and NUTR 139. Examines of the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions. This course will cover nutrition in the nursing clinical practice including nutrition needs and limitations of patients with acute and chronic illnesses. [GE, NS, SE]

**Nutrition**  
NUTR& 101 3 Credits/Units  
3 hours of lecture  
**Prerequisite:** CHEM& 121 or higher (grade of "C" or higher)  
Examines the scientific, economic, cultural, ethnic, and psychological implications of nutrition in relation to health across the lifespan and in the context of healthcare professions. Covers principles of balance nutrition, physiology and metabolism of nutrients, and changing nutritional needs throughout the human life span. [GE, NS, SE]

# PHARMACY (PHAR)

**Overview of Pharmacy**  
PHAR 100 2 Credits/Units  
2 hours of lecture

Overview of pharmacy with particular focus on the technician in pharmacy practice settings including job roles, resources and ethical standards of practice. [GE]

**A Mini Dose of Pharmacy**  
PHAR 101 1 Credit/Unit  
1 hours of lecture

A preview of the practice of pharmacy. Identifies the role of the pharmacy tech, explores various pharmacy practice settings for employment, beginning basics of the language of pharmacy, both in written and oral forms. [GE]

**Introduction to Pharmacy**  
PHAR 105 4 Credits/Units  
4 hours of lecture

Introduction to the role of the pharmacy technician in a variety of pharmacy practice settings including history, personnel, resources, and ethical standards of pharmacy practice. [GE]

**Pharmacy Calculations**  
PHAR 110 3 Credits/Units  
3 hours of lecture

Basic math and arithmetic skills as they relate to pharmacy practice. Calculations and manipulations of metrics and related dosages. Pharmacy topics related to mathematical functions are emphasized. [GE]

**Pharmacology I**  
PHAR 112 5 Credits/Units  
5 hours of lecture

First of 2-term sequence in pharmacology. Topics include pharmacokinetic and pharmacodynamic principles of drug therapy, with focus on absorption, distribution, metabolism, excretion, drug classification, indication for use, dose, and side effects of the most common drugs, including antibiotics, analgesics, autonomic system, cardiovascular and respiratory drugs. [GE]

**Pharmacy Practice and Technology**  
PHAR 114 5 Credits/Units  
3 hours of lecture / 4 hours of lab

Pharmacy skills and knowledge essentials to the practice of pharmacy at the work site. Topics include correlation of terminology, computer system manipulation, use of current and emerging technology, and practical application of pharmacy dispensing activities. [GE]

**Pharmacy Externship I**  
PHAR 118 4 Credits/Units  
12 hours of clinical

Concurrent enrollment in PHAR 119 required. Practical on-the-job instruction in the knowledge base required of a pharmacy assistant (technician) in the work force. Community pharmacies/facilities will be used for this course. [GE]

**Pharmacy Externship Seminar I**  
PHAR 119 1-2 Credits/Units  
1 hours of lecture

First of 2-term sequence coordinating with PHAR 118 externship experience at work site. Topics include professionalism, productivity, handling challenging situations, and continuing education, with emphasis on success in the workplace. Group work, case study analysis, journal entries and a final written paper are required. [GE] [PNP]

**Pharmacology II**  
PHAR 122 5 Credits/Units  
5 hours of lecture

Second of 2-term sequence in pharmacology. Topics include pharmacokinetic and pharmacodynamic principles of drug therapy. Focus on absorption, distribution, metabolism, excretion, drug classification, indication for use, dose, and side effects of the most common drugs, including antidepressants and anti-anxiety agents, antipsychotics, anticonvulsants and other CNS disorder agents, hormone therapy, chemotherapy, antiretrovirals, as well as topicals, ophthalmics and otics. [GE]

**Pharmacy Law**  
PHAR 123 2 Credits/Units  
2 hours of lecture

State and federal laws and regulations that pertain to the duties of pharmacy technicians. Revised Code of Washington and Washington Administrative Codes will be reviewed. [GE]

**Pharmacy Compounding**  
PHAR 127 5 Credits/Units  
3 hours of lecture / 4 hours of lab

Overview of sterile products and aseptic technique for compounding of sterile products, intravenous (IV) drug delivery systems and equipment related to compounding and administration of IV products. Combination of lecture and lab projects. [GE]

**Pharmacy Externship II**  
PHAR 128 4 Credits/Units  
12 hours of clinical

Continued practical, on-the-job instruction in the knowledge base required of a pharmacy (technician) in the work force. [GE]

**Pharmacy Externship Seminar II**  
PHAR 129 1-2 Credits/Units  
1 hours of lecture

Second of 2-term sequence coordinating with PHAR 128 externship experience. Topics include work ethics, interpersonal communication, problem solving, and success in the work place emphasized. Components include group work, case study analysis, journal entries and a final written and oral project. [GE]

**Pharmacy Capstone**  
PHAR 189 2 Credits/Units  
2 hours of lecture

Reflect on experiences within the Pharmacy Technician Program by compiling a resume and cover letter, review and apply for the Pharmacy Technician Certification Exam (PTCE), and create a portfolio with appropriate assessments demonstrating fulfillment of program outcomes. [GE]

**Pharmacy Advanced Simulation Lab**  
PHAR 198 1 Credit/Unit  
2 hours of lab

Advanced lab concepts such as medication errors, interdisciplinary concepts, immunization practice, and a review of previous lab concepts with more in-depth practice. [C,GE,SE]

**Selected Topics**  
PHAR 280 1-5 Credits/Units  
5 hours of lecture

Selected topics in pharmacy. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it repeatable for credit. Specific topics are listed in the quarterly class schedule. [GE] [PNP]

**Selected****Topics**

PHAR 281

1-5 Credits/Units

10 hours of lab

Selected topics in pharmacy. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, is repeatable for credit. Specific topics are listed in the quarterly class schedule. [GE] [PNP]

**Special****Projects**

PHAR 290

1-15 Credits/Units

15 hours of lecture

Opportunity to plan, organize and complete special projects approved by the faculty of the department. [GE] [PNP]

# PHILOSOPHY (PHIL/PHIL&)

## Introduction to Ancient and Medieval Philosophy

PHIL 215 5 Credits/Units

5 hours of lecture

Introduces ancient western philosophy from its Greek roots through its development in Socrates, Plato, and Aristotle, and others. Examine various philosophical theses critically and explore longstanding arguments still relevant today that pertain to morality, social justice, and the limits of what one can know. [GE, HA, SE]

## Introduction to Early Modern Philosophy

PHIL 216 5 Credits/Units

5 hours of lecture

Introduction to selected great thinkers and ideas of the sixteenth, seventeenth and eighteenth centuries, including the collapse of the medieval synthesis leading to the rise of the modern scientific mentality, followed by an examination of the philosophical struggle between the rationalism and the empiricism. [GE, HA, SE]

## Introduction to Late Modern Philosophy

PHIL 217 5 Credits/Units

5 hours of lecture

Introduces major thinkers and ideas of the nineteenth and twentieth century. Various philosophical movements are explored, including German idealism, process philosophy, political philosophy, and existentialism. [GE, HA, SE]

## Ethics

PHIL 240 5 Credits/Units

5 hours of lecture

Introduction to ethical behavior that is grounded in thoughtful philosophical argument. Learn about ethical theories from a variety of philosophical backgrounds and learn to apply the values prominent in the theories to everyday action. [GE, HA, SE]

## Philosophy of Religion

PHIL 251 5 Credits/Units

5 hours of lecture

Explores the concept of God, the nature of religious experience, the difficulties inherent in the use of religious language, classical proofs for the existence of God, the relationship between faith and reason, and the problem of evil. [GE, HA, SE]

## Selected Topics

PHIL 280 1-5 Credits/Units

5 hours of lecture

Varying topics in philosophy, as listed in the term class schedule. May be repeated for credit. [GE, HA, SE]

## Special Projects

PHIL 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE, HA, SE]

## Ethics In Management

PHIL 420 5 Credits/Units

5 hours of lecture

Examines the role of ethics and social responsibility in the management of public and private sectors of organizations and businesses. Theoretical concepts in business ethics will be applied to real-world situations based on challenges managers face. An emphasis on contemporary trends and corporate responsibilities with respect to ethical, legal, economic, regulatory conditions, and the needs of stakeholders in the global marketplace will be included. Case studies will be used to explore real-world ethical and social responsibility situations. [GE, HA, SE]

## Introduction to Philosophy

PHIL& 101 5 Credits/Units

5 hours of lecture

Introduction to some of the major questions, controversies, and problems discussed in philosophy. Examine various philosophical theses by developing reasoned arguments for and against them. Learn through this course not only what some other people have thought about interesting questions, but also how to do philosophy - how to think well and critically about important matters concerning action and belief. [GE, HA, SE]

## Critical Thinking

PHIL& 115 5 Credits/Units

5 hours of lecture

Focus on looking at the arguments encountered on a daily basis, through news, social media, friends and family members, etc. Learn to consider these encounters critically, determining whether an argument is actually being given, is worth accepting, and/or contains fallacious reasoning. Learn about mistakes in logic and reasoning, how to determine who counts as an expert, and what makes a claim justified. Consider common roadblocks to critical thinking, including confirmation bias, stereotyping, and more. A central purpose is to learn about tools to independently assess daily information to help make better decisions both personally and on a social level. [GE, HB, SE] [PNP]

## Symbolic Logic

PHIL& 120 5 Credits/Units

5 hours of lecture

**Prerequisite:** MATH 96 (grade of "C" or higher) or placement into Math level 50.

Rigorous examination of logical theory emphasizing modern symbolic or formal logic. Content includes truth-functional logic, propositional logic with proofs, and predicate logic with quantifiers and proofs. Applications include computer science, cognitive science, artificial intelligence, linguistics, mathematics, law, engineering, and philosophy. [CP, GE, HA, Q, SE]



# PHLEBOTOMY (PHLE)

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**Phlebotomy Education W/Lab**  
 PHLE 115 3 Credits/Units

2 hours of lecture / 2 hours of lab

Training and skill development in a variety of venipuncture collection methods, skin punctures, and proper specimen handling procedures, as dictated by the Clinical and Laboratory Standards Institute (CLSI). Emphasis is placed on patient identification, specimen labeling, quality assurance, and infection prevention through use of standard precautions. [GE]

**Basic Laboratory for The Phlebotomist**  
 PHLE 116 3 Credits/Units

1 hours of lecture / 4 hours of lab

Learn to perform basic laboratory procedures that are required during specimen processing and testing in a laboratory setting. Procedures include capillary microcollection, pipetting, creating aliquots, centrifugation, implementing infection control and quality control practices, and performing CLIA-waived laboratory tests. [GE]

**Phlebotomy Clinical Experience**  
 PHLE 197 5 Credits/Units

15 hours of clinical

Supervised phlebotomy experience in a healthcare facility. Provides students with the opportunity to apply knowledge and skills in performing clinical laboratory procedures and to develop professional interactions with healthcare workers and patients. [GE]

**Phlebotomy Clinical Seminar**  
 PHLE 198 1 Credit/Unit

1 hours of lecture

Develop tools and skills to aid in professionalism and future employment in the phlebotomy field. Includes resume building, interviewing skills, preparation for national phlebotomy certification exam and WA State Phlebotomy Licensure. Continuing education and research surrounding up-to-date phlebotomy practices and challenges in practice are other integral components of the course. [GE]

**Selected Topics**  
 PHLE 280 1-9 Credits/Units

9 hours of lecture

Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. Please refer to course syllabus for details. [GE]

**Selected Topics-lab**  
 PHLE 281 1-9 Credits/Units

18 hours of lab

Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit. Specific topics are listed in the quarterly class schedule. Please refer to course syllabus for details. [GE]

**Special Projects**  
 PHLE 290 1-5 Credits/Units

5 hours of lecture

[GE]

# PHYSICAL EDUCATION (PE, PEMAR, PEDNC)

<b>Cardio</b>	<b>Conditioning</b>	
PE 100		1 Credit/Unit
2 hours of lab		
Basic group exercise to music, primarily targeting cardiovascular conditioning. [GE, PE, SE][PNP]		
<b>Introduction</b>	<b>to</b>	<b>Running</b>
PE 101		1 Credit/Unit
2 hours of lab		
Develop fitness through running, emphasizing various training methods, individual program development, and health benefits. [GE, PE, SE]		
<b>Fitness</b>	<b>Walking</b>	
PE 102		1-2 Credits/Units
4 hours of lab		
Emphasis on walking programs, including interval training, power walking, and race walking. Walking technique and health benefits also discussed. [GE, PE, SE][PNP]		
<b>Bench</b>	<b>Step</b>	<b>Aerobics</b>
PE 103		1 Credit/Unit
2 hours of lab		
Introduction to high-intensity/low impact exercise promoting overall body strength and cardiovascular fitness that involves stepping up and down on a bench step platform to music. [GE, PE, SE][PNP]		
<b>Speed,</b>	<b>Agility,</b>	<b>and Quickness</b>
PE 107		1 Credit/Unit
2 hours of lab		
Focuses on biomechanics of running, development of speed, agility and personal quickness. Learning of drills and enhancement of skills to improve personal performance. [GE, PE, SE][PNP]		
<b>Functional</b>	<b>Fitness</b>	
PE 111		1 Credit/Unit
2 hours of lab		
Utilizing functional movement patterns to improve core stabilization, posture, and balance. [GE, PE, SE][PNP]		
<b>Strength</b>	<b>and</b>	<b>Stretch</b>
PE 112		1 Credit/Unit
2 hours of lab		
Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. [GE, PE, SE][PNP]		
<b>Total</b>	<b>Body</b>	<b>Conditioning</b>
PE 113		2 Credits/Units
4 hours of lab		
Students will use fitness center equipment and a variety of conditioning activities to develop cardiovascular endurance, muscular strength, and flexibility. Course will emphasize how to structure an exercise plan to meet individualized goals. [GE, PE, SE][PNP]		
<b>Weight</b>	<b>Training-Gen'l</b>	<b>I</b>
PE 115		1 Credit/Unit
2 hours of lab		
Strength development through basic exercise and lift techniques. Beginning theories and techniques in fitness conditioning, body building, and power lifting. [GE, PE, SE]		

<b>Fitness</b>	<b>Center</b>	
PE 116		1 Credit/Unit
2 hours of lab		
Introduction to the fundamental skills necessary to implement a physical activity program in a fitness center setting. Students develop and implement an exercise program appropriate to their fitness level and individual needs using a variety of cardiovascular and resistance machines. [GE, PE, SE]		
<b>Weight</b>	<b>Training-Power</b>	<b>Lifting</b>
PE 117		1
2 Credits/Units		
4 hours of lab		
Conditioning class for students interested in strength improvement through heavy resistance training. The Olympic lifts along with numerous power/speed lifts will be performed for personal improvement in various fitness parameters. [GE, PE, SE][PNP]		
<b>Cross</b>	<b>Training</b>	
PE 118		2 Credits/Units
4 hours of lab		
Introduction to cross-training utilizing strength and conditioning principles and activities including: calisthenics, basic gymnastics, weightlifting and mobility. Cardio endurance and functional movement will also be covered and developed. [PE, SE, GE]		
<b>Cardio</b>	<b>Kickboxing-Begin</b>	
PE 120		1 Credit/Unit
2 hours of lab		
Combination of aerobic dance and martial arts, including American Kickboxing and Thai Boxing, in a format that increases cardiovascular endurance, sharpens reflexes and enhances power. [GE, PE, SE]		
<b>Yoga</b>		
PE 121		1 Credit/Unit
2 hours of lab		
Introduction to hatha yoga (physical yoga) with an emphasis on postures, breathing and body-mind centering. [GE, PE, SE][PNP]		
<b>Healthy</b>	<b>Heart-Beginning</b>	
PE 123		1 Credit/Unit
2 hours of lab		
Cardiac prevention and rehabilitation exercise: designed to promote awareness and practice of exercise, nutrition, and stress. Skills in dealing with pre- and post-cardiac trauma. [PE, GE, SE][PNP]		
<b>Pilates-Beg</b>		
PE 124		1 Credit/Unit
2 hours of lab		
Methods of conditioning covers the basic principles and exercise technique needed to increase core strength and stabilization, improve coordination, balance, postural awareness, and increase muscular flexibility and stamina. [GE, PE, SE]		
<b>Rock</b>	<b>Climbing</b>	
PE 125		1 Credit/Unit
2 hours of lab		
Basics of rock climbing. Focus on belay techniques and knot tying skills along with the essential styles of climbing safety and efficiently. [GE, PE, SE][PNP]		

<b>Kettlebell</b>	<b>Conditioning</b>		<b>Volleyball</b>	
PE 126		1 Credit/Unit	PE 158	1 Credit/Unit
2 hours of lab			2 hours of lab	
Utilizing kettlebells in a variety of conditioning activities to develop muscular strength, power, cardiovascular endurance, and flexibility. Course will emphasize proper kettlebell technique and how to structure an exercise plan to meet individual goals. [GE, PE, SE]			Introduction to the fundamental skills and strategies of organized volleyball. Volleyball requires development of the following individual skills: forearm pass, set, spike, block, dig, and serve. In addition, students will gain an understanding of elementary team strategies. Students will learn to practice effective communication with teammates. [GE, PE, SE] [PNP]	
<b>Boot</b>	<b>Camp-Beginning</b>		<b>Pickleball</b>	<b>Beginning</b>
PE 129		2 Credits/Units	PE 160	1 Credit/Unit
4 hours of lab			2 hours of lab	
Introduction to physical fitness for military purposes; emphasis on basic conditioning and discipline. This course is open to all students. [GE, PE, SE][PNP]			Pickleball is a game similar to tennis played on a badminton sized court. Development of eye-hand coordination along with the skills and proper techniques will be included in the active play of this popular world-wide game. [GE, PE, SE]	
<b>Archery</b>	-	<b>Beginning</b>	<b>Ultimate</b>	<b>Frisbee-Beginning</b>
PE 138		1 Credit/Unit	PE 163	1 Credit/Unit
2 hours of lab			2 hours of lab	
Introduction and experience of archery including skill development, strategies, rules, safety, and analysis of shooting techniques. [GE, PE, SE]			Ultimate Frisbee fundamentals: individual skill development, rules, game play, and strategies. [GE, PE, SE][PNP]	
<b>Basketball</b>			<b>Aqua</b>	<b>Exercise</b>
PE 140		1 Credit/Unit	PE 171	1 Credit/Unit
2 hours of lab			2 hours of lab	
Ball handling, shooting, passing, offensive and defensive techniques, rules, strategy and competitive play. [GE, PE, SE][PNP]			Conditioning through water exercises for students with or without swimming ability. Increased fitness with emphasis on stretching, flexibility, and abdominal and back strength. [GE, PE, SE][PNP]	
<b>Bowling</b>			<b>Scuba-Beginning</b>	
PE 143		1 Credit/Unit	PE 173	2 Credits/Units
2 hours of lab			1 hours of lecture / 2 hours of lab	
Techniques, styles of play, rules of courtesy, scoring and competitive games. [GE, PE, SE][PNP]			Classroom lectures and discussion, swimming pool practice, and diving safety. Supervised experience in open water training optional at extra cost. Successful completion qualifies student for certification card. [GE, PE, SE]	
<b>Fencing-Foil</b>			<b>Beginning</b>	<b>Swimming</b>
PE 147		1 Credit/Unit	PE 175	1 Credit/Unit
2 hours of lab			2 hours of lab	
Movement of fencing plus defense, offense, rules of bouting, officiating, and competition. [GE, PE, SE][PNP]			Learn and improve swimming, water survival, and safety skills. Introduction to Red Cross swimming strokes, while developing individual skill, endurance and comfort in the water. [GE, PE, SE][PNP]	
<b>Golf</b>			<b>Swimming-Intermediate</b>	
PE 148		1 Credit/Unit	PE 176	1 Credit/Unit
2 hours of lab			2 hours of lab	
Fundamentals and practice of golf. Focuses on full-swing fundamentals, chipping, pitching, putting, golf strategies, and rules of the game. [GE, PE, SE][PNP]			Continuation of PE 175 for students who need additional instruction and practice to improve and increase their swimming skill and confidence. [GE, PE, SE][PNP]	
<b>Soccer</b>			<b>Swim</b>	<b>Conditioning-Beginning</b>
PE 150		1 Credit/Unit	PE 179	1 Credit/Unit
2 hours of lab			2 hours of lab	
Focus on individual offensive and defensive skills, game strategy, rules, and team tactics through the use of small-sided games and individual drills. [GE, PE, SE][PNP]			Emphasizes swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. [GE, PE, SE][PNP]	
<b>Softball</b>			<b>Hiking</b>	
PE 153		1 Credit/Unit	PE 182	1 Credit/Unit
2 hours of lab			2 hours of lab	
Skills, rules and team play. [GE, PE, SE][PNP]			Experience hiking off-campus on designated trails. Course emphasizes basic safety and survival skills and practices low-impact hiking methods. [GE, PE, SE][PNP]	
<b>Tennis</b>				
PE 155		1 Credit/Unit		
2 hours of lab				
Basic tennis skills including grip, foot work, and strokes, such as backhand, forehand, volley and serve. The drop shot, lob, and overhead shots will be introduced, as will singles and doubles strategies, rules, scoring and court etiquette. [GE, PE, SE][PNP]				

**Rowing-Beginning**

PE 183 1 Credit/Unit

2 hours of lab

Introduction to the sport of rowing. Includes basic technique and terminology, related water safety, development of strength, endurance and flexibility. Skills include rowing, strength training, cardiovascular training. See Course Information Sheet outside OSC 206 for more information. [GE, PE, SE][PNP]

**Cooperative****Work****Experience**

PE 199 1-5 Credits/Units

15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE, PE, SE][PNP]

**Cardio****Conditioning-Intermediate**

PE 200 1 Credit/Unit

2 hours of lab

**Prerequisite:** PE 100 (grade of "C" or higher)

Intermediate group exercise to music, primarily targeting cardiovascular conditioning. [GE, PE, SE][PNP]

**Fitness****Walking-Intermediate**

PE 202 1-2 Credits/Units

4 hours of lab

**Prerequisite:** PE 102 (grade of "C" or higher)

Intermediate fitness walking with emphasis on walking programs and technique. [GE, PE, SE][PNP]

**Bench****Step****Aerobics-Intermediate**

PE 203 1 Credit/Unit

2 hours of lab

**Prerequisite:** PE 103 (grade of "C" or higher)

Intermediate high-intensity/low impact exercise program using a bench step promoting overall body strength and cardiovascular fitness. [GE, PE, SE][PNP]

**Circuit****Fitness**

-

**Intermediate**

PE 204 1 Credit/Unit

2 hours of lab

**Prerequisite:** PE 104 (grade of "C" or higher)

An individualized systematic approach to cardiovascular fitness through the use of multiple weight machines and aerobic equipment. Pre and post fitness assessments conducted. [GE, PE, SE][PNP]

**Speed,****Agility,**

and

**Quickness**

PE 207 1 Credit/Unit

2 hours of lab

**Prerequisite:** PE 107 (grade of "C" or higher)

Additional drills to further advance personal ability in running, quickness, speed. Includes advanced plyometric training techniques. [GE, PE, SE][PNP]

**Independent****Fitness**

-

**Intermediate**

PE 208 1-2 Credits/Units

4 hours of lab

**Prerequisite:** PE 108 (grade of "C" or higher)

A continuation of the self-paced conditioning course, plus setting and implementing an additional personalized health related goal to be determined at the first individual meeting with instructor. [GE, PE, SE][PNP]

**Functional****Fitness**

PE 211 1 Credit/Unit

2 hours of lab

**Prerequisite:** PE 111 (grade of "C" or higher)

Continuation of PE 111. Utilizing functional movement patterns to improve core stabilization, posture, and balance. More advanced techniques introduced. [GE, PE, SE][PNP]

**Strength**

and

**Stretch-Intermediate**

PE 212 1 Credit/Unit

2 hours of lab

**Prerequisite:** PE 112 (grade of "C" or higher)

Continuation of PE 112. Utilizing body weight and portable fitness equipment to improve muscular strength, tone, and flexibility. [GE, PE, SE][PNP]

**Total****Body****Conditioning-Int**

PE 213 2 Credits/Units

4 hours of lab

**Prerequisite:** PE 113 (grade of "C" or higher)

Continuation of individualized conditioning program for developing the various components of fitness. Additional focus on learning principles of fitness to create personalized workouts. [GE, PE, SE][PNP]

**Triathlon****Training**

PE 214 2 Credits/Units

4 hours of lab

Theoretical basis and competencies needed to safely and effectively train to complete a small triathlon will be explored. Activities include swimming, cycling and running along with a self-contained mini triathlon at course conclusion. Students must know how to swim and have their own bicycle. [GE, PE, SE][PNP]

**Weight****Training-General**

II

PE 215 1 Credit/Unit

2 hours of lab

Designed for the student who is interested in a more in-depth approach to advanced weight training exercises, programs, and systems. [GE, PE, SE]

**Fitness****Center-Intermediate**

PE 216 1 Credit/Unit

2 hours of lab

Introduction to the fundamental skills necessary to implement a physical activity program in a fitness center setting. Students develop and implement an exercise program appropriate to their fitness level and individual needs using a variety of cardiovascular and resistance machines. [GE, PE, SE][PNP]

**Weight****Training-Power****Lifting**

II

PE 217 2 Credits/Units

4 hours of lab

**Prerequisite:** PE 117 (grade of "C" or higher)

Continued application of skill and conditioning level. Application of workout design and training theory will also be covered and applied. Assessment of personal fitness parameters. [GE, PE, SE][PNP]

**Cardio****Kickboxing-Int**

PE 220 1 Credit/Unit

2 hours of lab

**Prerequisite:** PE 120 (grade of "C" or higher)

Continuation of PE 120. Intermediate students will demonstrate more advanced techniques and perform moves that require greater conditioning. Combines aerobic dance and martial arts, including American Kickboxing and Thai Boxing, in a format that increases cardiovascular endurance, sharpens reflexes and enhances power. [GE, PE, SE][PNP]

**Yoga-Intermediate**

PE 221 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 121 (grade of "C" or higher)

A continuation of Hatha yoga technique. Students will practice more advanced postures and a deeper exploration of body-mind centering. [GE, PE, SE][PNP]

**Healthy****Heart-Intermediate**

PE 223 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 123 (grade of "C" or higher)

Continuation of exercise designed to lower risk for heart disease or to promote cardiac recovery. Study of healthy nutrition and stress reduction in the prevention of heart disease. [GE, PE, SE][PNP]

**Pilates-Intermediate**

PE 224 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 124 (grade of "C" or higher)

Continuation of Pilates method of conditioning needed to increase core strength and stabilization, improve coordination, balance, postural awareness, and increase muscular flexibility and stamina. [GE, PE, SE][PNP]

**Rock****Climbing-Intermediate**

PE 225 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 125 (grade of "C" or higher)

Learn advanced rock climbing methods. Bouldering technique and Lead Climbing skills will be taught, taking the student beyond the skills learned in PE 125. [GE, PE, SE][PNP]

**Boot****Camp-Intermediate**

PE 229 2 Credits/Units  
4 hours of lab

**Prerequisite:** PE 129 (grade of "C" or higher)

Continuation of physical fitness for military purposes; emphasis on basic conditioning, discipline, and leadership. This course is open to all students. [GE, PE, SE][PNP]

**Archery****Intermediate**

PE 238 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 138 (grade of "C" or higher).

Introduction and experience of archery including skill development, strategies, rules, safety, and analysis of shooting techniques. Students will engage in a competitive shoot within class to evaluate their skill set. [GE, PE, SE]

**Basketball-Intermediate**

PE 240 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 140 (grade of "C" or higher)

Continuation of skills, practice, and competitive play. [GE, PE, SE][PNP]

**Bowling-Intermediate**

PE 243 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 143 (grade of "C" or higher)

Advanced instruction in all phases of bowling including league play and competition. [GE, PE, SE][PNP]

**Fencing-Foil,Sabre,Epee**

PE 246 1 Credit/Unit  
2 hours of lab

Movements of all three weapons of fencing. Emphasizes defense, offense, rules, officiating and competition. [GE, PE, SE][PNP]

**Fencing-Foil****Intermediate**

PE 247 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 147 (grade of "C" or higher)

Skill refinement and advanced technique for experienced foil fencers. [GE, PE, SE][PNP]

**Golf-Intermediate**

PE 248 1 Credit/Unit  
2 hours of lab

More advanced instruction on golf swing, short game, and golf strategies. [GE, PE, SE][PNP]

**Soccer-Intermediate**

PE 250 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 150 (grade of "C" or higher)

Focus on learning and applying more advanced individual skills utilizing small and large groups to demonstrate more advanced team tactics. [GE, PE, SE][PNP]

**Tennis-Intermediate**

PE 255 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 155 (grade of "C" or higher)

Refinement of tennis skills, advanced game strategies and strokes. Observe and assist 100 level students. [GE, PE, SE][PNP]

**Volleyball-Intermediate**

PE 258 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 158 (grade of "C" or higher)

Further development of individual skills, team offenses and defenses learned in the beginning level PE 158. [GE, PE, SE][PNP]

**Pickleball****Intermediate**

PE 260 1 Credit/Unit  
2 hours of lab

Pickleball is a game similar to tennis played on a badminton sized court. Development of eye-hand coordination along with the skills and proper techniques will be included in the active play of this popular world-wide game. In this second course, competitive games and scoring strategy will be covered. [GE, PE, SE]

**Ultimate****Frisbee-Intermediate**

PE 263 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 163 (grade of "C" or higher)

Continuation of individual skill development, rules, game play, and strategies for the intermediate level ultimate Frisbee player. [GE, PE, SE][PNP]

**Aqua****Exercise-Intermediate**

PE 271 1 Credit/Unit  
2 hours of lab

**Prerequisite:** PE 171 (grade of "C" or higher)

Continuation of water exercise conditioning through stretching, flexibility, abdominal and back strength. [GE, PE, SE][PNP]

<b>Swimming-Stroke</b>	<b>Improvement</b>			<b>Ballroom</b>	<b>Dance:</b>	<b>Smooth</b>	
PE 275		1 Credit/Unit		PEDNC 132			1 Credit/Unit
2 hours of lab				2 hours of lab			
<b>Prerequisite:</b> PE 175 (grade of "C" or higher)							
Review Red Cross swimming strokes, water survival and safety skills. For the swimmer who is comfortable in deep water and can swim 25 yards. [GE, PE, SE][PNP]							
<b>Swim</b>	<b>Conditioning-Intermediate</b>			<b>Ballroom</b>	<b>Dance:</b>	<b>Latin</b>	
PE 279		1 Credit/Unit		PEDNC 133			1 Credit/Unit
2 hours of lab				2 hours of lab			
<b>Prerequisite:</b> PE 179 (grade of "C" or higher)							
Continued practice of swimming fitness through lap swimming. Students will participate in a workout designed to address their particular fitness and skill level. [GE, PE, SE][PNP]							
<b>Selected</b>	<b>Topics</b>			<b>Contemporary</b>	<b>Dance</b>		
PE 280		1-5 Credits/Units		PEDNC 134			1 Credit/Unit
5 hours of lecture				2 hours of lab			
The course focuses on selected topics in Physical Education. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the term class schedules. [GE, PE, SE]							
<b>Hiking-Intermediate</b>				<b>Swing</b>	<b>Dance-Beginning</b>		
PE 282		1 Credit/Unit		PEDNC 135			1 Credit/Unit
2 hours of lab				2 hours of lab			
Continuation of hiking skills with focus on advanced safety and survival skills. Explore local hiking options, practice low-impact hiking methods on longer, more challenging hikes, and plan a future hike. [GE, PE, SE][PNP]							
<b>Rowing-Intermediate</b>				<b>Modern</b>	<b>Jazz</b>		
PE 283		1 Credit/Unit		PEDNC 136			1 Credit/Unit
2 hours of lab				2 hours of lab			
<b>Prerequisite:</b> PE 183 (grade of "C" or higher)							
Further development of rowing technique, tactics and fitness development. [GE, PE, SE][PNP]							
<b>Special</b>	<b>Projects</b>			<b>Hip-Hop</b>	<b>Dance</b>		
PE 290		1-5 Credits/Units		PEDNC 137			1 Credit/Unit
5 hours of lecture				2 hours of lab			
Opportunity to plan, organize and complete special projects approved by the department. [GE]							
<b>Introduction</b>	<b>to</b>	<b>Sports</b>	<b>Officiating</b>	<b>Tap</b>	<b>Dance</b>		
PE 295			2 Credits/Units	PEDNC 138			1 Credit/Unit
2 hours of lecture				2 hours of lab			
This is an introductory course to sports officiating, exploring basic officiating skills including but not limited to communication, conflict management, professionalism, and personal fitness. In addition, practical experience in sport-specific officials associations will prepare students for national and local certifications that will enhance employment opportunities. [GE]							
<b>Ballet-Beginning</b>				<b>Zumba</b>			
PEDNC 130		1 Credit/Unit		PEDNC 140			1 Credit/Unit
2 hours of lab				2 hours of lab			
Beginning ballet technique including barre and center work. [GE, PE, SE]							
<b>Ballroom</b>	<b>Dance:</b>	<b>Mixed</b>		<b>Hula</b>			
PEDNC 131		1 Credit/Unit		PEDNC 141			1 Credit/Unit
2 hours of lab				2 hours of lab			
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners in both smooth and latin style dances to include: waltz, tango, fox trot, quick step and Viennese waltz, mambo, cha cha, rumba, samba, salsa. [GE, PE, SE]							
				<b>African</b>	<b>Dance</b>		
				PEDNC 142			1 Credit/Unit
				2 hours of lab			
Introduction to African dance, which focuses on drumming, rhythm, and music predominantly of West Africa. [GE, PE, SE]							

**Bollywood**

PEDNC 143 1 Credit/Unit  
2 hours of lab  
Introduction to dances of India, sometimes referred to as Indian Fusion. Dance styles focus on semi-classical, regional, folk, bhangra, and everything in between—up to westernized contemporary Bollywood dance. [GE, PE, SE]

**Irish Dance**

PEDNC 144 1 Credit/Unit  
2 hours of lab  
Introduction to Irish dance, focusing on soft shoe and Ceili (group) dances. Dances include reel, jig, and hornpipe. [GE, PE, SE]

**Belly Dance**

PEDNC 145 1 Credit/Unit  
2 hours of lab  
Gain knowledge of movement and dance steps, culture and history, various rhythms, country of origin and related movements. Egyptian music is the predominant focus. [GE, PE, SE]

**Ballet-Intermediate**

PEDNC 230 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 130.  
Stronger techniques with more advanced steps and combinations including toe. [GE, PE, SE]

**Ballroom Dance-Intermediate: Mixed**

PEDNC 231 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 131 (grade of "C" or higher)  
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners in both smooth and Latin style dances to include: waltz, tango, fox trot, quick step and Viennese waltz, mambo, cha cha, rumba, samba, salsa. [GE, PE, SE]

**Ballroom Dance-Intermediate: Smooth**

PEDNC 232 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 131 or PEDNC 132 (grade of "C" or higher)  
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Smooth style dances include waltz, tango, fox trot, quick step and Viennese waltz. [GE, PE, SE]

**Ballroom Dance-Intermediate: Latin**

PEDNC 233 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 131 or PEDNC 132 (grade of "C" or higher)  
Fundamentals, forms and pattern of ballroom dance. Develop confidence through practice with a variety of partners. Latin dance sections will include: mambo, cha cha, rumba, samba, and salsa. [GE, PE, SE]

**Contemporary Dance-Intermediate**

PEDNC 234 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 134 (grade of "C" or higher)  
Intermediate techniques with opportunities for individual and group composition. [GE, PE, SE]

**Swing Dance-Intermediate**

PEDNC 235 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 135 (grade of "C" or higher)  
Includes partnering techniques such as leverage, posture, hovering, contrary body movement, rise and fall, and sway, and styling such as Cuban motion for Latin, spring action for East Coast Swing and heel leads for smooth. Introduction to opposite role as lead/follow. [GE, PE, SE]

**Modern Jazz-Intermediate**

PEDNC 236 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 136 (grade of "C" or higher)  
Refinement of jazz technique and skill improvement. [GE, PE, SE]

**Hip-Hop Dance-Intermediate**

PEDNC 237 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 137 (grade of "C" or higher)  
Intermediate study of dance techniques, floor combinations, balance, and longer dance routines of hip hop dance. Develop more confidence and skill through practice. [GE, PE, SE]

**Tap Dance-Intermediate**

PEDNC 238 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 138 (grade of "C" or higher)  
Intermediate tap dance techniques. Going beyond the basic fundamentals, intermediate level steps and combinations will be studied and put to use daily. Routines will be learned. Student choreography may be included. [GE, PE, SE]

**Zumba Intermediate**

PEDNC 240 1-3 Credits/Units  
6 hours of lab  
**Prerequisite:** PEDNC 140 (grade of "C" or higher)  
A fusion of Latin and International music-dance themes, featuring aerobic/fitness interval training with a combination of fast and slow rhythms that tone and sculpt the body. [GE, PE, SE]

**Hula Intermediate**

PEDNC 241 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 141 (grade of "C" or higher)  
Focus on Hawaiian traditional dance forms. [GE, PE, SE]

**African Dance Intermediate**

PEDNC 242 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 142 (grade of "C" or higher)  
Continuation of African dance, which focuses on drumming, rhythm, and music predominantly of West Africa. [GE, PE, SE]

**Bollywood Intermediate**

PEDNC 243 1 Credit/Unit  
2 hours of lab  
**Prerequisite:** PEDNC 143 (grade of "C" or higher)  
Continuation of the dances of India, sometimes referred to as Indian Fusion. Dance styles focus on semi-classical, regional, folk, bhangra, and everything in between—up to westernized contemporary Bollywood dance. [GE, PE, SE]

<b>Irish</b>	<b>Dance-Intermediate</b>		<b>Martial</b>	<b>Arts:</b>	<b>Tae</b>	<b>Kwon</b>	<b>Do</b>
PEDNC 244		1 Credit/Unit	PEMAR 151				1 Credit/Unit
2 hours of lab			2 hours of lab				
<b>Prerequisite:</b> PEDNC 144 (grade of "C" or higher)							
Intermediate Irish Dance course on more advanced soft shoe solo and Ceili (group) dances. Dances include the reel, jig, and hornpipe. [GE, PE, SE]							
<b>Belly</b>	<b>Dance-Intermediate</b>		<b>Martial</b>	<b>Arts:</b>	<b>Kung</b>	<b>Fu</b>	
PEDNC 245		1 Credit/Unit	PEMAR 152				1 Credit/Unit
2 hours of lab			2 hours of lab				
<b>Prerequisite:</b> PEDNC 145 (grade of "C" or higher)							
Continuation of the skills learned in PEDNC 145, plus new variations and intermediate study of Middle Eastern Dance techniques. [GE, PE, SE]							
<b>Care and Prevention of Athletic Injuries</b>			<b>Martial</b>	<b>Arts:Brazilian</b>		<b>Jiu-Jitsu</b>	
PEEXS 291		3 Credits/Units	PEMAR 153				1 Credit/Unit
2 hours of lecture / 2 hours of lab			2 hours of lab				
<b>Prerequisite:</b> FT 150, BIOL 164, or BIOL& 251 (grade of "C" or higher)							
Injury prevention in sports through understanding of conditioning, bio-mechanics, taping, bandaging, nutrition, immediate post-injury care, and rehabilitation of sports injury. [GE, SE][PNP]							
<b>Mental Performance In Sports</b>			<b>Martial</b>	<b>Arts:</b>		<b>Judo</b>	
PEEXS 293		3 Credits/Units	PEMAR 154				1 Credit/Unit
3 hours of lecture			2 hours of lab				
Theories and strategies of mental preparation for improvement in individual and team performances. Discussion topics include: personality, motivational model, time management/goal setting techniques. Coach profiles, team communication, steps to team building, stress management and performance anxiety and imagery will also be covered. A review of current literature and the case analysis method will provide opportunity for individual and group application of presented materials. [GE, SE][PNP]							
<b>Sport In Society</b>			<b>Self</b>		<b>Defense</b>		
PEEXS 294		3 Credits/Units	PEMAR 155				1 Credit/Unit
3 hours of lecture			2 hours of lab				
Explores the relationship which exists between the multifaceted world of sport and society. Discussion topics include: racism, gender in equality, aggression, deviancy, media/commercialism, as well as youth sports. Discussion will also include the concept of play, competition and the rapid development of youth sport programs and their impact on the family unit. [GE, PE, SE][PNP]							
<b>Introduction to Sports Officiating</b>			<b>T'ai</b>	<b>Chi</b>	-	<b>Intermediate</b>	
PEEXS 295		2 Credits/Units	PEMAR 250				1 Credit/Unit
2 hours of lecture			2 hours of lab				
This is an introductory course to sports officiating, exploring basic officiating skills including but not limited to communication, conflict management, professionalism, and personal fitness. In addition, practical experience in sport-specific officials associations will prepare students for national and local certifications that will enhance employment opportunities. [GE]							
<b>T'ai Chi</b>			<b>Martial</b>	<b>Arts-Intermediate:Tae</b>		<b>Kwon</b>	<b>Do</b>
PEMAR 150		1 Credit/Unit	PEMAR 251				1 Credit/Unit
2 hours of lab			2 hours of lab				
<b>Prerequisite:</b> PEDNC 151 (grade of "C" or higher)							
T'ai Chi is an ancient form of mental and spiritual discipline developed in China. The movements of the t'ai chi form are slow and deliberate, helping with relaxation, focus, strengthening, and balance. [GE, PE, SE]							
			<b>Martial</b>	<b>Arts-Intermediate:Kung</b>		<b>Fu</b>	
			PEMAR 252				1 Credit/Unit
			2 hours of lab				
			<b>Prerequisite:</b> PEDNC 152 (grade of "C" or higher)				
			Kung-Fu is a Chinese method of self-defense. Students will learn history, philosophy, basic strikes, blocks, and escapes from various attacks and grabs. [GE, PE, SE]				
			<b>Martial</b>	<b>Arts-Intermediate:Brazilian</b>		<b>Jiu-Jitsu</b>	
			PEMAR 253				1 Credit/Unit
			2 hours of lab				
			<b>Prerequisite:</b> PEDNC 153 (grade of "C" or higher)				
			Brazilian Jiu-Jitsu is a Brazilian sport/self defense that uses grappling, wrestling, and locking techniques. A uniform is required. [GE, PE, SE]				



**Martial**

**Arts-Intermediate:Judo**

PEMAR 254

1 Credit/Unit

2 hours of lab

**Prerequisite:** PEMAR 154 (grade of "C" or higher)

Judo is a close-quarter combat martial art where students learn falling techniques, basic takedowns, escapes, and joint locks. [GE, PE, SE]

# PHYSICAL SCIENCE (PHSC)

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<b>General</b>	<b>Physical</b>	<b>Science</b>
PHSC 101		5 Credits/Units

4 hours of lecture / 2 hours of lab

How the world around us behaves depends on the nature of matter and energy. Physical laws are presented in this course that describe the interaction of matter and energy. These laws are used to help explain experiences from daily life. For the non-science major, with little or no science background. [GE, NS, NS-LAB, SE]

<b>General</b>	<b>Physical</b>	<b>Science</b>
PHSC 102		5 Credits/Units

4 hours of lecture / 2 hours of lab

A chemistry-focused physical science class, in which we will explore practical applications of chemical reactions. Different branches of chemistry such as inorganic, organic, biochemistry and green chemistry will be discussed as they pertain to the real world. For non-science majors with little or no science background. [GE, NS, NS-LAB, SE]

<b>Our</b>	<b>Chemical</b>	<b>World</b>
PHSC 106		3 Credits/Units

3 hours of lecture

Introduction to basic chemical concepts using cooperative learning and the backdrop of environmental science. This course is writing-intensive, requiring weekly essays discussing select chemical applications in the world around us. Topics include: energy and nutrient flow through the ecosystem; chemical hurdles facing agriculture; chemical, physical, and nuclear reactions of energy production; ramifications of chemical pollution; green chemical solutions. Intended for non-science majors with little or no scientific background. [GE, NS, SE]

<b>Cooperative</b>	<b>Work</b>	<b>Experience</b>
PHSC 199		1-3 Credits/Units

9 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

<b>Selected</b>	<b>Topics</b>
PHSC 280	1-5 Credits/Units

5 hours of lecture

The course focuses on selected topics in Physical Sciences. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. Individual topics are listed in the quarterly class schedule. [GE]

# PHYSICS (PHYS/PHYS&)

<p><b>Physics</b> PHYS 91 1 hours of lecture <b>Prerequisite:</b> College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher, and concurrent enrollment in PHYS&amp; 134, 124 and PHYS 91 Methods of problem-solving in physics. [PNP]</p> <p><b>Physics</b> PHYS 92 1 hours of lecture <b>Prerequisite:</b> PHYS&amp; 134 (grade of "C" or higher) and concurrent enrollment in PHYS&amp; 135, PHYS&amp; 125 and PHYS 92 Methods of problem-solving in physics. [PNP]</p> <p><b>Physics</b> PHYS 93 1 hours of lecture <b>Prerequisite:</b> PHYS&amp; 135 (grade of "C" or higher) and concurrent enrollment in PHYS&amp; 136, PHYS&amp; 126 and PHYS 93 Methods of problem-solving in physics. [PNP]</p> <p><b>Physics</b> PHYS 94 1 hours of lecture Methods of problem-solving in physics.</p> <p><b>Physics</b> PHYS 95 1 hours of lecture <b>Prerequisite:</b> PHYS&amp; 241 (grade of "C" or higher) and concurrent enrollment in PHYS&amp; 232, PHYS&amp; 242 and PHYS 95 Methods of problem-solving in physics.</p> <p><b>Physics</b> PHYS 96 1 hours of lecture <b>Prerequisite:</b> PHYS&amp; 242 (grade of "C" or higher) and concurrent enrollment in PHYS&amp; 233, PHYS&amp; 243 and PHYS 96 Methods of problem-solving in physics.</p> <p><b>Cooperative</b> PHYS 199 9 hours of clinical Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]</p> <p><b>Special</b> PHYS 290 5 hours of lecture Opportunity to plan, organize and complete special projects approved by the department. [GE]</p> <p><b>Physics</b> PHYS&amp; 100 4 hours of lecture <b>Prerequisite:</b> MATH 90 (grade of "C" or higher), or placement into Math level 40 and concurrent enrollment in PHYS&amp; 101. Introduction to basic physics concepts for non-science majors, technical students, or students who desire a PHYS 121 or 221 preparatory course. [GE, NS, SE]</p>	<p><b>Calculations</b> 1 Credit/Unit</p> <p><b>Calculations</b> 1 Credit/Unit</p> <p><b>Calculations</b> 1 Credit/Unit</p> <p><b>Calculations</b> 1 Credit/Unit</p> <p><b>Calculations</b> 1 Credit/Unit</p> <p><b>Calculations</b> 1 Credit/Unit</p> <p><b>Work</b> 1-3 Credits/Units</p> <p><b>Projects</b> 1-5 Credits/Units</p> <p><b>Non-Sci</b> 4 Credits/Units</p>	<p><b>Physics</b> PHYS&amp; 101 3 hours of lab <b>Prerequisite:</b> Concurrent enrollment in PHYS&amp; 100. Laboratory study of basic physics concepts for non-science majors, technical students, or students who desire a PHYS 121 or 221 preparatory course. [GE, NS, NS-LAB, SE]</p> <p><b>Physics</b> PHYS&amp; 124 3 hours of lab <b>Prerequisite:</b> College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher, and concurrent enrollment in PHYS&amp; 134, 124 and PHYS 91 Exploration of classical physics topics in mechanics through laboratory experience. [GE, NS, NS-LAB, SE]</p> <p><b>Physics</b> PHYS&amp; 125 3 hours of lab <b>Prerequisite:</b> PHYS&amp; 134 (grade of "C" or higher) and concurrent enrollment in PHYS&amp; 135, PHYS&amp; 125 and PHYS 92 Exploration of classical physics topics in fluids, thermodynamics, and sound through laboratory experience. [GE, NS, NS-LAB, SE]</p> <p><b>Physics</b> PHYS&amp; 126 3 hours of lab <b>Prerequisite:</b> PHYS&amp; 135 (grade of "C" or higher) and concurrent enrollment in PHYS&amp; 136, PHYS&amp; 126 and PHYS 93 Exploration of classical physics topics in electricity and magnetism, optics, and modern physics through laboratory experience. [GE, NS, NS-LAB, SE]</p> <p><b>Physics</b> PHYS&amp; 134 4 hours of lecture <b>Prerequisite:</b> College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher, and concurrent enrollment in PHYS&amp; 134, 124 and PHYS 91 First of a three-term sequence, offered in fall and winter quarters. Physical principles of motion, equilibrium, dynamics, gravity, work energy, momentum, and fluids. Recommended for students in medicine, dentistry, pharmacy, physical therapy, forestry and the life sciences. [GE, NS, SE]</p> <p><b>Physics</b> PHYS&amp; 135 4 hours of lecture <b>Prerequisite:</b> PHYS&amp; 134 (grade of "C" or higher) and concurrent enrollment in PHYS&amp; 135, PHYS&amp; 125 and PHYS 92 Second of a three-term sequence beginning with PHYS&amp; 134. Fundamental physical principles of sound, fluids, heat, thermodynamics, electricity, and magnetism. [GE, NS, SE]</p> <p><b>Physics</b> PHYS&amp; 136 4 hours of lecture <b>Prerequisite:</b> PHYS&amp; 135 (grade of "C" or higher) and concurrent enrollment in PHYS&amp; 136, PHYS&amp; 126 and PHYS 93 Third of a three-term sequence beginning with PHYS&amp; 134. Topics in electricity, magnetism, atomic and nuclear physics, and optics. [GE, NS, SE]</p>	<p><b>Lab</b></p> <p><b>Non-Sci</b></p> <p><b>Majors</b> 1 Credit/Unit</p> <p><b>I</b> 1 Credit/Unit</p> <p><b>II</b> 1 Credit/Unit</p> <p><b>III</b> 1 Credit/Unit</p> <p><b>I</b> 4 Credits/Units</p> <p><b>II</b> 4 Credits/Units</p> <p><b>III</b> 4 Credits/Units</p>
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# POLITICAL SCIENCE (POLS/ POLS&)

## American National Government and Politics POLS 111 5 Credits/Units

5 hours of lecture

The institutions, structures, and processes that affect the course of politics and public policy at the national level of American government. [GE, SE, SS]

## State and Local Government POLS 131 5 Credits/Units

5 hours of lecture

The institutions, structures, and political processes at the state and local levels of government in our federal system. [GE, SE, SS]

## Cooperative Work Experience POLS 199 1-3 Credits/Units

9 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. Completion of, or concurrent enrollment in, HDEV 195, 198, or 200 required. [GE]

## The Geopolitics of The Middle East POLS 220 5 Credits/Units

5 hours of lecture

Geo-political survey of the Middle East, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of the Middle East on the rest of the world, as well as the impact and influence of the rest of the world on the Middle East. Credit not allowed for both GEOG 220 and POLS 220. [GE, SE, SS]

## The Geopolitics of Africa POLS 221 5 Credits/Units

5 hours of lecture

Geo-political survey of Africa, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of Africa on the rest of the world, as well as examine the impact and influence of the rest of the world on Africa. Credit not allowed for both GEOG 221 and POLS 221. [GE, SE, SS]

## The Geopolitics of Asia and Oceania POLS 222 5 Credits/Units

5 hours of lecture

Geo-political survey of Asia and Oceania, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. This course will also examine the importance and impact of Asia and Oceania on the rest of the world, as well as examine the impact and influence of the rest of the world on this region. Credit not allowed for both GEOG 222 and POLS 222. [GE, SE, SS]

## THE GEOPOLITICS OF EURASIA POLS 223 5 Credits/Units

5 hours of lecture

Geo-political survey of Europe, Russia and Central Asia, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. Examines the importance and impact of Eurasia on the rest of the world, as well as examine the impact and influence of the rest of the world on Eurasia. Credit not allowed for both GEOG 223 and POLS 223. [GE, SE, SS]

## Geopolitics of Latin America and Caribbean POLS 224 5 Credits/Units

5 hours of lecture

Geo-political survey of Latin America and the Caribbean, including interrelationships between the physical, economic and political geography of this region, the impact of geography on politics and political issues within the nations of this region, the corresponding impact of politics and political issues on geography and on the lives of the people living in this region, as well as the resulting diversity of cultures, beliefs, perceptions, challenges and issues among the people of this region. Examines the importance and impact of Latin America and the Caribbean on the rest of the world, as well as examine the impact and influence of the rest of the world on the countries in this region. Credit not allowed for both GEOG 224 and POLS 224. [GE, SE, SS]

## Environmental Politics POLS 231 5 Credits/Units

5 hours of lecture

Examines the relationship between industrial civilization and the natural environment by exploring underlying ecological philosophies and the economic and political processes by which environmental decisions are made. Emphasis on critical thinking and evaluating alternative points of view. Credit not allowed for both ENV5 231 and POLS 231. [GE, SE, SS]

## Selected Topics POLS 280 1-5 Credits/Units

5 hours of lecture

This course focuses on selected topics in political science. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE, SE]

<b>Special</b>	<b>Projects</b>	
POLS 290		1-5 Credits/Units
5 hours of lecture		
Opportunity to plan, organize and complete special projects approved by the department. [GE]		

<b>International</b>	<b>Relations</b>	
POLS& 203		5 Credits/Units
5 hours of lecture		
World politics, concepts and theories from the post-World War II period. Processes of power, foreign policy, development and trends in the current international scene analyzed. Conflict and conflict resolution and control. [GE, SE, SS]		

# PROFESSIONAL BAKING (PBAK)

**Artisan Breads**  
PBAK 110 9 Credits/Units

2 hours of lecture / 14 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 110 and PBAK 111.

Begins with straight doughs and progresses through overnight fermentation, enrichment, pre-ferments, sourdoughs, rye breads, history of bread-making, professionalism in the workplace, safety and sanitation, equipment use and safety, baker's math, weights and measures and note-taking. [GE]

**Early Morning Product**  
PBAK 111 5 Credits/Units

2 hours of lecture / 6 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 110 and PBAK 111.

Covers early morning product and their methods; scones, biscuits and muffins. Includes many specialty and seasonal product such as cake donuts, yeast-raised donuts, fruit pies and cream pies. Covers professionalism in the workplace, bakeshop safety and sanitation, equipment use and safety, baker's math, weights and measures. Students are required to take thorough notes on all lectures, demos and processes. [GE]

**Viennoiserie**  
PBAK 120 9 Credits/Units

2 hours of lecture / 14 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 120 and PBAK 121.

Covers laminated doughs, brioche and sweet doughs. Students will learn various pre-ferments, mixing, fermentation, laminating techniques, make-up of product, proofing and baking. Also covered is professionalism in the workplace, safety and sanitation, equipment use and safety, baker's math, weights and measures and note-taking. [GE]

**Cookies, Brownies, Bars and Quick Breads**  
PBAK 121 5 Credits/Units

2 hours of lecture / 6 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 120 and PBAK 121.

Covers production of a variety of cookies by method such as bar, rolled, cut, scooped, refrigerator and decorated. Also covered are brownies, layered bars, cheesecake bars and quick breads. Also covers professionalism in the workplace, safety and sanitation, equipment use and safety, baker's math, weights and measures and note-taking. [GE]

**Cakes, Desserts and Tortes**  
PBAK 130 9 Credits/Units

2 hours of lecture / 14 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 130 and PBAK 131.

Covers the mixing methods of various types of cakes and tortes. Includes tart crusts, creams, custards, mousses, butter creams and fillings. Students will learn to assemble a variety of classic cakes, tortes and desserts as well as more modern cakes, from start to finish. Also covered is professionalism in the workplace, safety and sanitation, equipment use and safety, baker's math, weights and measures and note-taking. [GE]

**Retail Operations and Barista**  
PBAK 131 5 Credits/Units

2 hours of lecture / 6 hours of lab

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10, eligibility for ENGL 99, and concurrent enrollment in PBAK 130 and PBAK 131.

Students will learn how to set up the retail area for daily operation, how to make a variety of specialty coffees, cold drinks, Italian sodas and featured drinks. Marketing for effective sales, efficient and friendly customer service and the proper operation of POS system will also be discussed. [GE]

**Applied Professional Development**  
PBAK 200 9 Credits/Units

1 hours of lecture / 16 hours of lab

**Prerequisite:** PBAK 110, PBAK 111, PBAK 120, PBAK 121, PBAK 130 and PBAK 131 (grades of "C" or higher)

Students will spend two weeks in each of four areas; Artisan bread, Viennoiserie, cakes and tortes, early morning/store/retail. Utilizing acquired skills and knowledge, they will be responsible for production of all product for the retail store. They will create and follow a production schedule, inventory and store product, do mise en place for the next day and clean the station at the end of each day. [GE]

**Production Baking**  
PBAK 210 9 Credits/Units

2 hours of lecture / 14 hours of lab

**Prerequisite:** PBAK 200 (grade of "C" or higher) and concurrent enrollment in PBAK 210 and PBAK 211

Utilizing acquired skills, students will operate and manage their own production bakery. They will produce product needed for sale in the retail store from the following areas; breakfast items, Viennoiserie, artisan bread, bars, cookies, cakes and dessert items. They will be responsible for planning a daily production schedule, inventory, purchase of necessary ingredients, costing and maintaining daily operation of their station. [GE]

**Pastry Chef/Restaurant Baking**  
PBAK 220 9 Credits/Units

2 hours of lecture / 14 hours of lab

**Prerequisite:** PBAK 200 (grade of "C" or higher), and concurrent enrollment in PBAK 220 and PBAK 221

Students will be responsible for meeting with the chef of the CTO station to determine the baking/dessert needs for the restaurant each day. They will design and create a dessert menu for the restaurant and upon approval and will make desserts for the daily lunch service. Students will provide a variety of breads/rolls for lunch service and will be required to generate a production schedule that includes daily mise en place, purchasing of required ingredients, inventory and maintenance of the station. Must demonstrate ability to plan and execute production for maximum efficiency and accuracy using proper sanitation practices. [GE]

**Retail/Merchandising, Inventory/Purchasing**  
PBAK 221 5 Credits/Units

2 hours of lecture / 6 hours of lab

**Prerequisite:** PBAK 200 (grade of "C" or higher), and concurrent enrollment in PBAK 220 and PBAK 221

Students will learn how to set up the retail area for daily operation, how to make a variety of specialty coffees, cold drinks, Italian sodas and featured drinks. They will learn marketing for effective sales, efficient and friendly customer service. Students will learn proper operation of POS system as well as professionalism in the workplace, safety and sanitation, equipment use and safety. [GE]

**Cake Decorating**  
PBAK 225 5 Credits/Units

2 hours of lecture / 6 hours of lab

**Prerequisite:** PBAK 200 (grade of "C" or higher)

Beginning with the basics of cake decoration with progression to fondant and wedding cakes. Flower work, fondant and fondant working tools will be introduced. Additional topics: Customer service; cake planning; order taking; professionalism in the workplace; bakeshop safety and sanitation; equipment use and safety. Cannot receive credit for both PBAK 211 and PBAK 225.

**Capstone Project**  
PBAK 230 6 Credits/Units

1 hours of lecture / 10 hours of lab

**Prerequisite:** PBAK 200 (grade of "C" or higher), and concurrent enrollment in PBAK 230 and PBAK 231

Students will have five weeks to prepare and execute a display covering one of the following areas: Viennoiserie, Artisan breads, Viennese table, Plated Desserts or Dessert Bar. Each student will receive a complete list of requirements at the beginning of the class. The project will be presented to the faculty for judging. Instruction also covers career development. [GE]

**Industry Internship**  
PBAK 231 4 Credits/Units

12 hours of clinical

**Prerequisite:** PBAK 200 (grade of "C" or higher), and concurrent enrollment in PBAK 230 and PBAK 231

Students will complete a five week externship at an approved bakeshop. Prior to starting the externship, students will generate a list of learning objectives for the externship. Students are required to keep a daily journal of their experience. All paperwork must be turned in upon completion of the externship. [GE]

**Selected Topics**  
PBAK 280 1-5 Credits/Units

5 hours of lecture

Course focuses on selected topics in Professional Baking. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics.

**Selected Topics**  
PBAK 281 1-5 Credits/Units

10 hours of lab

Course focuses on selected topics in Professional Baking. Topics vary and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics.

**Special Projects**  
PBAK 290 1-6 Credits/Units

6 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]



# PROFESSIONAL TECHNICAL COMPUTATIONAL SKILLS (PTCS)

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Professional	Technical	Computational	Skills
PTCS 110			5 Credits/Units

5 hours of lecture

**Prerequisite:** CAP 42 (grade of "C" or higher) or placement into Math level 10

Intended for students enrolled in career technical education programs. It includes topics from algebra, geometry, statistics, and inductive reasoning with an emphasis on applications and measurement. Students will focus on career-specific applications at the end of the course. This course will satisfy the computational requirement for the Certificate of Proficiency, Associate of Applied Science and the Associate of Applied Technology. [CP, GE, SE]

# PROFESSIONAL TECHNICAL WRITING (PTWR)

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**Introduction to Applied Technical Writing**  
PTWR 135 5 Credits/Units

5 hours of lecture

**Prerequisite:** CAP 90 or ENGL 90 (grade of "C" or higher) or recommending placement through Multiple Measures.

Introduction to principles of effective workplace communication: focus on methods of writing clear, concise documents for technical audiences and purposes; summarizing technical information; collaborating successfully in small groups. For students of all technical fields. [CA, CT, GE, SE]

# PSYCHOLOGY (PSYC/PSYC&)

## The Process of Discovery

PSYC 102 5 Credits/Units  
3 hours of lecture / 4 hours of lab

Introduction to the processes of discovery used in the natural and social sciences. Includes authentic research on factors that contribute to college student success, studied in social, psychological, and physiological contexts. Research topics include hypothesis development, experimental design, literature searches, data analysis, research ethics and human subjects research considerations. Course fulfills COLL 101: College Essentials outcomes including goal setting, personal management skills, developing an academic plan, developing cultural competence and communication skills, financial literacy, and an introduction to student resources at the college. [GE, NS, NS-LAB, SE, SS] [PNP]

## Psychosocial Issues In Health Care I

PSYC 122 1 Credit/Unit  
1 hours of lecture

Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care. Application of concepts from previous courses in psychology and sociology to the direct care of patients/clients in various healthcare settings. Focus on women, children, and families. Taught concurrently with NURS 122. [GE, SE, SS]

## Psychosocial Issues In Health Care II

PSYC 124 2 Credits/Units  
2 hours of lecture

Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care. Application of concepts from previous courses in psychology to the direct care of patients/clients in various healthcare settings. focus on therapeutic communication and behavioral symptomology specific to anxiety, depression, delirium and agitation. [GE, SE, SS]

## Cooperative Work Experience

PSYC 199 1-5 Credits/Units  
15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

## Social Psychology

PSYC 203 5 Credits/Units  
5 hours of lecture

Effects of social environment and interpersonal processes on both individual and collective behaviors. Socialization, impression formation and management, attitude formation and change, prejudice, aggression, altruism, leadership, power, conformity, environmental psychology, and other topics. [GE, HR, SE, SS]

## Psychosocial Issues In Health Care III

PSYC 253 2 Credits/Units  
2 hours of lecture

Examines some determinants of health and illness including social, psychological, environmental, spiritual, and cultural dimensions across the lifespan and within the context of health care. Application of concepts from previous courses in psychology and sociology to the direct care of patients/clients in various healthcare settings. Focus on persons with acute mental issues and/or chronic mental illnesses. [GE, SE, SS]

## Selected Topics

PSYC 280 1-3 Credits/Units  
3 hours of lecture

**Prerequisite:** PSYC100 (grade of "C" or higher)  
Selected topics in psychology as listed in the term class schedule. May be repeated for credit. [GE, SE]

## Special Projects

PSYC 290 1-5 Credits/Units  
5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

## General Psychology

PSYC& 100 5 Credits/Units  
5 hours of lecture

**Prerequisite:** CAP 90 or ENGL 90 (grade of "C" or higher) or recommending placement through Multiple Measures.  
The scientific study of behavior and mental processes including research methods, psychobiological processes, learning, memory, psychological disorders, psychotherapy, and other topics to be determined by the instructor. [GE, HR, SE, SS] [PNP]

## Lifespan Psychology

PSYC& 200 5 Credits/Units  
5 hours of lecture

Principles and theories of human growth and development; the interaction of psychological, biological, and social factors throughout the life span. Prior completion of PSYC& 100 or (PSYC 101) recommended. [GE, HR, SE, SS]

# SOCIOLOGY (SOC/SOC&)

## Marriage and Family Experiences In The U.S.

SOC 121

5 Credits/Units

5 hours of lecture

Marriage and family experiences will be examined along with other social institutions that affect the marriage and family relationships in a changing U.S. culture. [GE, HR, SE, SS]

## Race and Ethnicity In The U.S.

SOC 131

5 Credits/Units

5 hours of lecture

The sociological perspectives of race and ethnicity, including an examination of prejudice and discrimination from the interpersonal to the institutional level. Application of concepts and theories to both historical and current events in the U.S. [GE, HR, PPI, SE, SS]

## World Religions

SOC 161

5 Credits/Units

5 hours of lecture

Introduction to the historical origins, central teachings, and devotional practices of the major religious traditions: Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity, and Islam. Topics include religion as a way of life in a socio-cultural context and the ways religion affects the individual, family and social life. [GE, HR, SE, SS]

## Cooperative Work Experience

SOC 199

1-5 Credits/Units

15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

## Domestic Violence

SOC 230

5 Credits/Units

5 hours of lecture

**Prerequisite:** PSYC& 100, SOC& 101 or WS 101 (grade of "C" or higher) Introducing historical and current ideas, myths and empirical research regarding domestic partner abuse. Defining abuse and examining cultural, social, family and psychological factors associated with offenders and victims: why, how, who, and what responses have been tried. [GE, PPI, SE]

## Criminology and Delinquency

SOC 240

5 Credits/Units

5 hours of lecture

**Prerequisite:** PSYC& 100, SOC& 101, or WS 101 (grade of "C" or higher) An introductory examination of delinquency, crime, deviant behavior and social control among adults and legal minors in contemporary society. Historical and contemporary explanations of criminological and juvenile delinquency theory, social control, treatment of offenders and programs for prevention. [GE, PPI, SE]

## Selected Topics

SOC 280

1-5 Credits/Units

5 hours of lecture

Varying topics in Sociology as listed in the term class schedule. May be repeated for credit. [GE, SE]

## Special Projects

SOC 290

1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

## Organizational Behavior

SOC 315

5 Credits/Units

5 hours of lecture

Focus on understanding social and group dynamics and managing relationships in organizations. Gain practical experience in managing teams, resolving conflict, and building effective relationships across cultural differences. Special emphasis will be placed on social equity in the workplace and managing difficult behavioral human situations, whether among employees within the organization or with external stakeholders. [GE, SE, SS]

## Social Studies for Teachers

SOC 360

5 Credits/Units

5 hours of lecture

Rooted in a diverse set of humanities and social sciences, from history and political science to geography and sociology, with a particular focus on training early childhood teachers to reach social concepts that are relevant, historically accurate, culturally responsive, and socially equitable for preschool through grade three. [GE]

## Introduction to Sociology

SOC& 101

5 Credits/Units

5 hours of lecture

Introduces the sociological perspectives and theories that offer answers to questions about current events and culture: how human interaction, social change, and social institutions intersect and impact each other and the larger world. Examines and reflects upon these social phenomena through the lens of power, privilege, and inequity and the student experience. [GE, HR, PPI, SE, SS]

## Social Problems: The Pursuit of Social Justice

SOC& 201

5 Credits/Units

5 hours of lecture

**Prerequisite:** PSYC& 100, SOC& 101, or WS 101 (grade of "C" or higher) Study of the magnitude and consequences of social problems in the US from a sociological; power, privilege and inequity; and cross cultural perspective. Examination of solutions that promote social justice and equity. Topics include: poverty, crime and the US justice system, the environment, racial and economic inequalities, gender identity, substance abuse and terrorism. [GE, HR, PPI, SE, SS]

# SPANISH (SPAN/SPAN&)

<b>Cooperative</b>	<b>Work</b>	<b>Experience</b>
SPAN 199		1-10 Credits/Units
30 hours of clinical		
Summer cooperative work experience in a Spanish-speaking country. Requires use of Spanish language. Enroll in this course Spring quarter prior to participation abroad. [GE, SE]		
<b>Selected</b>	<b>Topics</b>	
SPAN 280		1-5 Credits/Units
5 hours of lecture		
Selected topics in Spanish. Topics vary and course theme and content change to reflect new topics. This course may be repeated for credit. [GE, SE]		
<b>Special</b>	<b>Projects</b>	
SPAN 290		1-5 Credits/Units
5 hours of lecture		
[GE]		
<b>Spanish</b>	<b>I</b>	
SPAN& 121		5 Credits/Units
5 hours of lecture		
Designed for beginning students, with little to no experience, who want to learn Spanish as a second language. Emphasis on listening/speaking skills, with additional practice in reading/writing and basic Spanish grammar. Topics covered: greetings; regular and irregular verbs in present tense; question and response formation; vocabulary about family, friends, studies, hobbies and likes/dislikes. After successful completion, students are encouraged to continue with SPAN& 122. [GE, HA, SE]		
<b>Spanish</b>	<b>II</b>	
SPAN& 122		5 Credits/Units
5 hours of lecture		
Designed for beginning students, who have successfully completed SPAN& 121, one term of college Spanish or one recent year of high school Spanish with a grade of "B" or higher. Emphasis on listening/speaking skills, with additional practice in reading/writing. Students who enroll in this class should already be able to conjugate verbs in the present tense to describe self, likes/dislikes, family, friends, and daily activities. After successful completion, students are encouraged to continue with SPAN& 123. [GE, HA, SE]		
<b>Spanish</b>	<b>III</b>	
SPAN& 123		5 Credits/Units
5 hours of lecture		
Designed for beginning students who have successfully completed SPAN& 122, two terms of college Spanish, or two years of recent high school Spanish with a grade of "B" or higher. Emphasis on listening, speaking, reading and writing skills. Students who enroll in this class should already be able to converse and write using verbs in the present and simple past tense to describe routines, likes/dislikes, and past activities. This class focuses on how to narrate in the past tense and introduces more complex grammar structures such as the subjunctive mood. After successful completion, students are encouraged to continue with SPAN& 221. [GE, HA, SE]		

<b>Spanish</b>	<b>IV</b>	
SPAN& 221		5 Credits/Units
5 hours of lecture		
First term of a three-term sequence in intermediate Spanish. Focus on discussion of literature and culture from the Spanish-speaking world. Intensive grammar review with conversation and composition practice. Heritage speakers of Spanish welcome. [GE, HA, SE]		
<b>Spanish</b>	<b>V</b>	
SPAN& 222		5 Credits/Units
5 hours of lecture		
Second term of a three-term sequence in intermediate Spanish. Focus on discussion of literature and culture from the Spanish-speaking world. Intensive grammar review with conversation and composition practice. Heritage speakers of Spanish welcome. [GE, HA, SE]		
<b>Spanish</b>	<b>VI</b>	
SPAN& 223		5 Credits/Units
5 hours of lecture		
Final term of a three-term sequence in intermediate Spanish. Focus on discussion of literature and culture from the Spanish-speaking world. Intensive grammar review with conversation and composition practice. Heritage speakers of Spanish welcome. [GE, HA, SE]		

# SURVEYING & GEOMATICS (SURV)

## Fundamentals of Survey

**SURV 102** 2 Credits/Units  
1 hours of lecture / 2 hours of lab  
Introduction to concepts of map reading, coordinate systems, the Public Land Survey System, basic legal descriptions of real property, plotting field data and creating a plat, and the minimum requirements for preparing plats in the State of Washington. No field work required. [GE]

## Survey Computation

**SURV 104** 5 Credits/Units  
5 hours of lecture  
**Prerequisite:** College Trigonometry (MATH 102 or MATH 103) grade of "C" or higher  
Basic coordinate geometry, curves and solutions, conversions, statistics and error analysis, traverse calculations, inverting, coordinate positions, and area calculations. [GE]

## Field Survey I

**SURV 121** 5 Credits/Units  
3 hours of lecture / 4 hours of lab  
**Prerequisite:** MATH 103 (grade of "C" or higher), or eligibility for Math Level 80  
Basic theory of surveying, measurement and calculation. Topics include measurement and determination of boundaries, areas, shapes, and location through traversing techniques, error theory, compass adjustments, public land system, and use of programmable calculators. Also covers principles of measurements of distances, elevation and angles. [GE]

## Field Survey II

**SURV 122** 5 Credits/Units  
3 hours of lecture / 4 hours of lab  
**Prerequisite:** SURV 121 (grade of "C" or higher)  
Theories of electronic distance measurement, instrument calibration and analysis; principles of route location and design; theories of circular, parabolic, and spiral curves; highway and railway geometric design; area and volumes of earthwork; and mass diagrams. [GE]

## Professional Ethics

**SURV 123** 1 Credit/Unit  
1 hours of lecture  
**Prerequisite:** Concurrent enrollment in, or completion of SURV 121 (grade of "C" or higher)  
Survey safety, ethics, and communication. Problem solving methods, procedures, and human relations related to on-the-job work experience in field surveying. [GE][PNP]

## Introduction to GIS

**SURV 125** 3 Credits/Units  
2 hours of lecture / 2 hours of lab  
**Prerequisite:** MATH 92 or PTCS 110 (grade of "C" or higher) or placement into Math level 30  
Introduction to Geographic Information Systems (GIS) methods and theory. Background and development of GIS technology. Introduction to relational and spatial databases and spatial analysis. [GE]

## Route Surveying

**SURV 163** 5 Credits/Units  
3 hours of lecture / 4 hours of lab  
**Prerequisite:** SURV 122 (grade of "C" or higher)  
Introduction to elements of horizontal and vertical route alignment and layout. Use design software and a total station for the construction of a section of road. Include the construction of a topographic map, a centerline alignment, and a final plan and profile showing centerline alignment. Use of topographic data for earthwork computations for proposed route. [GE]

## Cooperative Work Experience

**SURV 199** 1-5 Credits/Units  
15 hours of clinical  
**Prerequisite:** SURV 121 (grade of "C" or higher)  
Work-based learning experience that enables students to apply specialized occupational theory, skills and concepts. Specific objectives are developed by the College and the employer. [GE]

## Boundary Surveys

**SURV 202** 4 Credits/Units  
4 hours of lecture  
**Prerequisite:** Concurrent enrollment in, or completion of SURV 121 (grade of "C" or higher)  
Principles and laws relating to boundary surveys, including their creation, ownership, and the role of the surveyor; introduction to the Public Land Survey System, including history, proportioning, subdividing and evidence analysis. Topics include boundary history and boundary surveys, rights in land, junior/senior title rights, retracement of originals surveys, deed first/survey first, common and case law, ranking/prioritizing evidence, controlling monuments and corners, errors in legal descriptions and plats. [GE]

## Legal Descriptions

**SURV 203** 3 Credits/Units  
3 hours of lecture  
**Prerequisite:** SURV 121 (grade of "C" or higher)  
Research and practice pertaining to the legal aspects of writing land description documents used in real property; written research project required. [GE]

## Boundary Law I

**SURV 223** 3 Credits/Units  
3 hours of lecture  
**Prerequisite:** SURV 121 (grade of "C" or higher)  
Introduction to statute law, common law, case law, and legal principles of land boundaries and the practice of land surveying in Washington. Topics include an introduction to principles of professional practice and ethical consideration. [GE]

## Subdivision Planning and Platting

**SURV 225** 3 Credits/Units  
3 hours of lecture  
**Prerequisite:** SURV 122 (grade of "C" or higher)  
A study of selected state laws and regulations pertaining to the surveying profession that affect the surveying of division of lands; layout and design of subdivisions; environmental considerations and site analysis procedures. [GE]

## Arc GIS I

**SURV 250** 3 Credits/Units  
2 hours of lecture / 2 hours of lab  
**Prerequisite:** SURV 125 (grade of "C" or higher)  
Introduction to ArcGIS. GIS concepts, methodologies, and techniques. [GE]

**Introduction to GPS**  
SURV 253 3 Credits/Units

1 hours of lecture / 4 hours of lab

**Prerequisite:** SURV 252 (grade of "C" or higher)

Introduction to global positioning tools. Fundamental concepts and use of modern handheld GPS. Includes field work and use of basic GPS software. [GE]

**Emerging Technology**  
SURV 255 3 Credits/Units

1 hours of lecture / 4 hours of lab

**Prerequisite:** MATH 103 (grade of "C" or higher), or eligibility for Math Level 80

An overview of the technologies used for gathering and management of spatial data and information including but not limited to the following: terrestrial scanning, mobile lidar, aerial imagery and airborne lidar in the use of modern surveying. [GE SE]

**Survey Software Applications**  
SURV 264 4 Credits/Units

3 hours of lecture / 2 hours of lab

**Prerequisite:** SURV 121 (grade of "C" or higher)

Use of surveying and related software to solve and plot assignments in traverse calculations, horizontal and vertical curve alignments, profiles, contours, and earthwork calculations. Some hand generated plots and calculations will be made to supplement the computer calculations. [GE]

**Selected Topics**  
SURV 280 1-6 Credits/Units

6 hours of lecture

Course focuses on selected topics in Surveying. Topics vary, and course theme and content change to reflect new topics. Because the course varies in content, it is repeatable for credit for different topics. [GE]

**Special Projects**  
SURV 290 1-5 Credits/Units

5 hours of lecture

Opportunity to plan, organize, and complete special projects approved by the department. [GE]

# TUTORING (TUTR)

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## **Tutoring**

TUTR 185 1-3 Credits/Units

6 hours of lab

Introduction to methods and techniques in tutoring. Tutoring training assignments in various disciplines. [GE]

## **Tutoring-Writing**

TUTR 186 1-3 Credits/Units

6 hours of lab

Introduction to strategies for effectively tutoring writers at all stages of the writing process and experience working one-on-one with writing across the disciplines. [GE]



# WELDING (WELD)

**Introduction to Welding**  
WELD 102 6 Credits/Units

4 hours of lecture / 4 hours of lab

**Prerequisite:** Concurrent enrollment in, or completion of HLTH 120 (grade of "C" or higher) and CAP 42 (grade of "C" or higher), or placement into Math level 10.

An introduction to the welding industry and the various career paths available within the industry. Practical application in general shop safety and department-required training on metal working equipment. [GE]

**Welding Blueprint Reading**  
WELD 110 5 Credits/Units

5 hours of lecture

Interpretation of welding blueprints, welding symbols, tolerances and structural shapes. [GE]

**Gas Metal Arc Welding**  
WELD 140 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 102 (grade of "C" or higher), and concurrent enrollment in WELD 140 and WELD 141  
Instructional theory and application of Gas Metal Arc Welding processes on ferrous metals. [GE]

**Gas Metal Arc Fabrication**  
WELD 141 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 102 (grade of "C" or higher), and concurrent enrollment in WELD 140 and WELD 141  
Application of concepts of gas metal arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

**Flux Core Arc Welding**  
WELD 142 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 140 and 141 (grades of "C" or higher), and concurrent enrollment in WELD 142 and 143  
Instructional theory and application of arc cutting processes/oxyfuel cutting and flux core arc welding processes on ferrous metals. [GE]

**Flux Core Arc Fabrication**  
WELD 143 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 140 and 141 (grades of "C" or higher), and concurrent enrollment in WELD 142 and 143  
Application of concepts of flux core arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

**Shielded Metal Arc Welding**  
WELD 144 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 142 and WELD 143 (grades of "C" or higher), and concurrent enrollment in WELD 144 and WELD 145  
Instructional theory and application of arc cutting processes/oxyfuel cutting and shielded metal arc welding processes on ferrous metals. [GE]

**Shielded Metal Arc Fabrication**  
WELD 145 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 142 and WELD 143 (grades of "C" or higher), and concurrent enrollment in WELD 144 and WELD 145  
Application of concepts of shielded metal arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

**Welding Certification Prep**  
WELD 156 2 Credits/Units

4 hours of lab

**Prerequisite:** WELD 102 (grade of "C" or higher) and consent of Instructional Unit.

Students will use lab time to practice towards a WABO and/or AWS welding certification(s). Weld certification testing is only done in WELD 256. [GE][PNP]

**Weld Fabrication Projects**  
WELD 157 2 Credits/Units

4 hours of lab

**Prerequisite:** WELD 102 (grade of "C" or higher) and consent of Instructional Unit.  
Use the welding lab to design and/or build an approved fabrication project. WELD 157 can be substituted for WELD 156 to satisfy Welding Technology AAT and Welding Technician Certificate of Proficiency requirements.

**Cooperative Work Experience**  
WELD 199 1-5 Credits/Units

15 hours of clinical

Supervised work experience in an approved job. Completion of specific learning objectives and employer evaluation. [GE]

**Applied Material Science**  
WELD 200 5 Credits/Units

3 hours of lecture / 4 hours of lab

Introduction to applied material science for technical professionals. Covers basic theory, application, and advanced manufacturing methods through a combination of lecture and laboratory activities. Topics: material properties, material structure, testing, manufacturing, joining, and material classification and identification for metallic, ceramic, polymeric, and composite materials. [GE]

**Gas Tungsten Arc Welding**  
WELD 240 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 144 and WELD 145 (grades of "C" or higher), and concurrent enrollment in WELD 240 and WELD 241  
Instructional theory and application of arc cutting process/oxyfuel cutting and gas tungsten arc welding processes on ferrous metals. [GE]

**Gas Tungsten Arc Fabrication**  
WELD 241 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 144 and WELD 145 (grades of "C" or higher), and concurrent enrollment in WELD 240 and WELD 241  
Application of concepts of gas tungsten arc welding processes on ferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

**Advanced Wire Feed Welding**  
WELD 242 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 240 and WELD 241 (grades of "C" or higher), and concurrent enrollment in WELD 242 and 243

Advanced instructional theory and application of arc cutting processes/ oxyfuel cutting, sub-arc welding and wire feed welding processes on ferrous and nonferrous metals. [GE]

**Advanced Wire Feed Fabrication**  
WELD 243 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 240 and WELD 241 (grades of "C" or higher), and concurrent enrollment in WELD 242 and 243

Application of concepts of wire feed welding processes on ferrous and nonferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

**Advanced Gas Tungsten Arc Welding**  
WELD 244 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 242 and 243 (grades of "C" or higher), and concurrent enrollment in WELD 244 245

Advanced instructional theory and application of arc cutting processes/ oxyfuel cutting and gas tungsten arc welding processes on ferrous and nonferrous metals. [GE]

**Advanced Gas Tungsten Arc Fabrication**  
WELD 245 6 Credits/Units

3 hours of lecture / 6 hours of lab

**Prerequisite:** WELD 242 and 243 (grades of "C" or higher), and concurrent enrollment in WELD 244 245

Application of concepts of advanced gas tungsten arc welding processes on nonferrous metals with a focus on fabrication techniques, proper use of hand tools and equipment found in industry. [GE]

**Weld Certification Test**  
WELD 256 1 Credit/Unit

1 hours of lecture / 1 hours of lab

**Prerequisite:** WELD 156 or WELD 157 (grade of "C" or higher).

A one day class to test for a WABO and/or AWS welding certification.

Class fee is for one certification attempt as approved by the CWI instructor or department head. Some certifications are eligible for both WABO and AWS certification in one test. Required paperwork and fees will be submitted by the CWI instructor conducting the test after successful completion.

**Selected Topics**  
WELD 280 1-6 Credits/Units

6 hours of lecture

Selected topics in Welding as listed in the term class schedule.

Repeatable for credit. [GE]

**Selected Topics-lab**  
WELD 281 1-6 Credits/Units

12 hours of lab

Selected topics in Welding as listed in the term class schedule.

Repeatable for credit. [GE]

**Special Projects**  
WELD 290 1-5 Credits/Units

5 hours of lecture

Projects assigned according to needs and abilities of the student. Hours arranged with instructor. Maximum of 15 credits allowed toward a certificate or degree. [GE]

# WOMEN'S STUDIES (WS)

## Introduction to Women's Studies

WS 101

5 Credits/Units

5 hours of lecture

**Prerequisite:** Concurrent enrollment in, or completion of ENGL& 101 (grade of "C" or higher)

Contemporary feminist theory analyzing systems of power, privilege and inequity particularly with respect to gender, race, class, sexuality, age, and ability. Topics may include women and gender socialization, family, work, politics, health, sexuality, body image, violence, spirituality, art, and culture. Fulfills either Humanities or Social Science distribution requirements for the A.A. transfer degree. [GE, HA, PPI, SE, SS]

## Women Across Cultures-Women's Studies

WS 201

5 Credits/Units

5 hours of lecture

A feminist analysis of the economic, reproductive, political, and religious factors that contribute to women's lower status and power in major world areas today. Through the lens of gender and its intersection with race, class, and sexual orientation, examine some of the similarities and differences in women's lives around the world. Through the contexts of colonialism, globalization, media representation, and migration, study global women's issues by examining how the power of wealthy, industrialized nations affects those in poor or post-colonial nations, as well as systemically non-dominant groups within the U.S. [GE, HA, SE, SS]

## Women, Arts, and Culture-Women's Studies

WS 210

5 Credits/Units

5 hours of lecture

Examines how women have been represented in western culture and how female artists, writers, filmmakers, crafters and musicians have responded to such depictions and created their own work. Through a sampling of women's stories, history, art, music, and films, we will consider issues of representation and how they are shaped by the dynamics of gender, race, class, sexuality, ability status, gender identity, and other factors. We will also explore the possibilities of a "women's" culture through an examination of particular historical communities. [GE, HA, SE, SS]

## Race, Class, Gender and Sexuality-Women's Studies

WS 220

5 Credits/Units

5 hours of lecture

**Prerequisite:** WS 101 (grade of "C" or higher)

Studies the social construction of difference, inequality and privilege in race, class, gender, sex, and sexual orientation in the U.S. Examines how these categories are created, maintained, and experienced; how meaning is assigned to those categories; and how social constructions can be challenged. [GE, PPI, SE, SS][PNP]

## Racism & White Privilege In The U.S.-Women's Studies

WS 225

3 Credits/Units

3 hours of lecture

Critical examination of racism and white privilege in the U.S. analyzing systems of power, privilege and inequity; racial identity; and intercultural competence. [GE, PPI, SE, SS][PNP]

## Selected Topics

WS 280

1-3 Credits/Units

3 hours of lecture

This course focuses on selected topics in women's studies. Topics vary and course theme and content change to reflect new topics. This course may be repeated for credit. [GE, SE]

## Special Projects

WS 290

5 hours of lecture

Opportunity to plan, organize and complete special projects approved by the department. [GE]

1-5 Credits/Units

# ENROLLMENT, AID AND COLLEGE LIFE

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# ACADEMIC STANDARDS POLICY

The College develops and enforces academic standards for all credit students. The purpose of academic standards is to quickly identify and alert students with below 2.0 cumulative Grade Point Averages (GPA) and provide those students assistance in improving their academic performance, such as advising them to utilize student support services. In some cases, students who are not meeting satisfactory progress can be prevented from enrolling in future terms.

Visit Clark's Academic Standards Policy website ([https://www.clark.edu/about/governance/policies-procedures/academic\\_standards/](https://www.clark.edu/about/governance/policies-procedures/academic_standards/)) for up-to-date information on the policy, procedures, and a flowchart.

## Academic Standards Procedure

### Academic Concern

The first time the term or cumulative grade point average (GPA) falls below 2.0, students will be placed on Academic Concern.

- The college will send an e-mail to students' Clark e-mail accounts ([students.clark.edu](mailto:students.clark.edu)) that offers information about the Academic Standards process and explains what happens at each stage.
- Students will receive a listing of college resources and a recommendation to take advantage of services.

### Academic Intervention

The second time the term or cumulative grade point average (GPA) falls below 2.0, students will be placed on Academic Intervention.

- The college will send an e-mail to students' Clark e-mail accounts ([students.clark.edu](mailto:students.clark.edu)) that offers information about the Academic Standards Process and explains what happens at each stage.
- By the end of the subsequent term, students must attend a student success workshop ([https://www.clark.edu/campus-life/student-support/student-success/success\\_workshops.php](https://www.clark.edu/campus-life/student-support/student-success/success_workshops.php)) and meet with a designated staff member.
- Students must connect with a student success coach (<https://www.clark.edu/campus-life/student-support/diversity-and-equity/success-coaches/>) and create an academic success plan that outlines steps for improving academic performance.
- If students do not attend the workshop or meet with a designated staff member, they can be blocked from registering for classes.

### One (1) Term Academic Dismissal

If students have previously been placed on Academic Concern and Academic Intervention statuses, and both their term and cumulative grade point averages (GPA) are below 2.0, they will be placed on One-Term Academic Dismissal.

- The college will send an e-mail to students' Clark e-mail accounts ([students.clark.edu](mailto:students.clark.edu)) that offers information about the Academic Standards process and explains what happens at each stage.
- Students will be blocked from registering for classes while on One-Term Academic Dismissal status.
- Students may appeal One-Term Academic Dismissal.
  - Students may appeal for immediate reinstatement.
  - The college will send an e-mail to students' Clark e-mail accounts that outlines the appeal process. The Appeal Form for One-Term

Dismissal (<https://forms.office.com/Pages/ResponsePage.aspx?id=EwQM8GwdfEOGn0tNAatI7TKrzYvPEZ1DjzDEF0GQbRUQ1JRRDQ3MIZN>) is available online.

- Students must submit a personal statement and all documents requested, and any documentation that supports their statements. The decisions will be made and communicated to students before the first day of classes.
- Factors considered in determining an appeal may include academic aptitude, change of major, extenuating circumstances, lapse of time, and relevant experience since suspension that will predict academic success.
- If students do not appeal, or if their appeals are denied, they will be administratively dropped from classes and paid tuition will be refunded.
- Students will receive information about how to return from One-Term Academic Dismissal. They must complete a Request to Return to College Form (<https://forms.office.com/Pages/ResponsePage.aspx?id=EwQM8GwdfEOGn0tNAatI7TKrzYvPEZ1DjzDEF0GQbRUQ1JRRDQ3MIZN>) no later than three weeks before the first day of classes for the term in which they plan to return. Students will be notified about the process, expectations, and timeline to make an appointment with a designated staff member.
- Upon returning from One-Term Academic Dismissal, students must earn a term grade point average (GPA) of 2.0 or higher in order to be approved to register for the subsequent term. If they do not earn a term grade point average (GPA) of 2.0 or higher upon return from One-Term Academic Dismissal, they will be placed on Four-Term Academic Dismissal.

### Four (4) Term Academic Dismissal

If students have previously been placed on Academic Concern, Academic Intervention, and One-Term Academic Dismissal statuses, and both their term and cumulative grade point averages (GPA) remain below 2.0, they will be placed on Four-Term Academic Dismissal.

- Students will be blocked from registering for classes while on Four-Term Academic Dismissal.
- There is no appeal process for Four-Term Academic Dismissal.
- Students will be administratively dropped from registered classes and paid tuition will be refunded.
- Students will receive information about how to return from Four-Term Academic Dismissal. They must complete a Request to Return to College Form (<https://forms.office.com/Pages/ResponsePage.aspx?id=EwQM8GwdfEOGn0tNAatI7TKrzYvPEZ1DjzDEF0GQbRUQ1JRRDQ3MIZN>) no later than three weeks before the first day of classes for the term in which they plan to return. Students will be notified about the process, expectations, and timeline to make an appointment with a designated staff member.

Upon returning from Four-Term Academic Dismissal, students must earn a term grade point averages (GPA) of 2.0 or higher in order to be approved to register for the subsequent term. If they do not earn a term grade point averages (GPA) of 2.0 or higher upon return from Four-Term Academic Dismissal, they will be placed on One-Term Academic Dismissal.

## Academic Standards for Professional/Technical Programs

Students in certain professional/technical programs must receive grades of "C" or better in program core courses to advance in the program class sequences. Students should refer to the department descriptions under

their associated pages located on the index of the Academic Plans (<https://catalog.clark.edu/academic-plans/>) portion of the catalog for further information.

# ADVISING

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360-992-2345

[www.clark.edu/advising](http://www.clark.edu/advising) (<http://www.clark.edu/enroll/advising-services/>)

The mission statement for Clark College advising is:

By providing accurate, timely, and consistent information, Advising personnel, in collaboration with faculty, will guide, support, and help students develop lifelong learning skills; assist students as they plan and achieve their educational and career goals; and work with students to establish a lasting relationship with Clark College. As a result of working with advising personnel, students will:

- Develop an understanding of their own educational pathway so that remaining classes and timeliness of completion are clear and accurate.
- Develop an educational plan that addresses academic, career, and life goals.
- Develop an awareness of their own personal responsibility within the advising process.
- Develop skills to successfully navigate and use campus services and tools.

To ensure the communication of accurate program information to all Clark students, advising is required for all new degree and certificate students to Clark and at certain checkpoints during the degree or certificate progress. The advising system at Clark College is an educational process that assists students as they pursue educational, career, and life goals. It is expected that students will build relationships with advisors during their time at Clark College and, over the course of their degree or certificate, will attain the objectives listed above.

# CAREER SERVICES

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360-992-2902

<http://www.clark.edu/enroll/careers/index.php> (<http://www.clark.edu/enroll/careers/>)

Online job database system: [www.clark.edu/cc/penguinjobs](http://www.clark.edu/cc/penguinjobs) (<https://clark-csm.symplicity.com/>)

Career Services provides the resources and strategies for choosing a college major; developing career plans; finding jobs, internships, and volunteer opportunities; and making successful career transitions. Resources include a computer lab, an extensive library of books and videos, and one-on-one appointments with career and employment specialists. Services are free and open to students, former students, and the general public.

## Career Center resources:

- Assistance in assessing personal skills and interests to explore career options or select a course of study.
- Detailed descriptions of more than 1,000 occupations and industries.
- Information about employment outlooks, labor trends, wages, and job preparation.
- Databases of universities, technical training programs, and scholarships in Washington, Oregon, and the United States.
- Strong Interest Inventory and Myers-Briggs Type Indicator assessments, including a career report and 90-minute small group interpretation of results.

## Employment services and work experience opportunities for students:

- An online job database system, Penguin Jobs, on the Career Services website: [www.clark.edu/cc/penguinjobs](http://www.clark.edu/cc/penguinjobs) (<https://clark-csm.symplicity.com/>).
- Institutional hire job referrals for on- and off-campus student employment opportunities.
- Local and statewide full- and part-time job listings.

## Job search and employment preparation services:

- Assistance with resume writing, cover letters, and interviewing skills.
- Job- and career-related workshops and resources.

## Financial literacy:

- One-on-one appointments for free financial coaching.
- Financial Wellness tools: <https://www.clark.edu/enroll/paying-for-college/financial-wellness/>
- Money-themed student success workshops.

## Employer services:

- Free on-campus recruiting table.
- Free advertisement of job and internship vacancies.
- Multiple career events each year, including targeted job fairs and employer guest speakers discussing various career fields.
- Opportunities to serve on college advisory boards.

- Equal opportunity guidelines are followed, and applicants are referred on a non-discriminatory basis for all possible co-op, internship, volunteer, or job placements.

## Cooperative Education/Internship Work Experiences

360-992-2154

Clark College recognizes the value to students of actual experience in a work environment and has developed a nationally recognized program which allows credits to be earned for that experience under controlled conditions.

The purpose of Cooperative Education Work Experience (co-op) is to provide on-the-job experience that complements students' academic career goals and that furnishes an opportunity for career exploration. Co-op involves the faculty, student, and employer in determining learning objectives and evaluating the student's progress in achieving those objectives. Students may use internship experiences to test their interest in a field or their fit in the work environment of a particular industry.



## COLLEGE LIFE

### Archer Gallery

360-992-2246

<http://www.clark.edu/campus-life/arts-events/archer/index.php> (<http://www.clark.edu/campus-life/arts-events/archer/>)

Archer Gallery has been exhibiting fine art in Southwest Washington since 1978, consistently presenting an impressive list of artists and exhibits. Focusing on Northwest and Washington artists, the gallery also exhibits works by national artists. Featuring both established and emerging talents, the cultural, social, and ethnic diversity of the region is expressed in the exhibition schedule.

Archer Gallery is located on the lower level at the south entrance of the Penguin Union Building and features 2,000 square feet of exhibition space. All exhibits are free and open to students and the community. Support for the Archer Gallery is provided by the Associated Students of Clark College (ASCC), the Clark College Foundation, the College, and donations from individuals. Archer Gallery is wheelchair accessible.

### Athletics

#### Clark College Penguins

360-992-2691

<http://www.clarkpenguins.com/index.aspx> (<http://www.clarkpenguins.com/>)

Clark College is a member of the Northwest Athletic Conference (NWAC). The NWAC is the parent organization and coordinates and regulates both men's and women's athletics for thirty-six (36) community colleges located in Idaho, Oregon, Washington, and British Columbia. Clark sponsors intercollegiate teams for women in volleyball, cross country, basketball, track and field, softball, and soccer; and for men in soccer, cross country, basketball, baseball, and track and field. Students interested in intercollegiate sports should contact the Athletics Department.

#### Penguin Athletic Club

360-992-2301

Through individual, family, and corporate memberships, the Clark College Penguin Athletic Club (PAC) provides funding for athletic scholarships, special events, recognition for student athletes, coaching enhancements, and general support for all eleven (11) Clark teams competing for the Penguins. Membership in the PAC provides special discounts on both alumni and PAC events, free admission to all home regular season games, and the opportunity to utilize the Clark College Thompson Fitness Center for a nominal fee per term or per year. For more information, please contact the PAC office.

### Bookstore

360-992-2149 Fax: 360-992-2862

[bookstore@clark.edu](mailto:bookstore@clark.edu)

[www.clarkbookstore.com](http://www.clarkbookstore.com) (<http://www.clarkbookstore.com>)

The Clark College Bookstore, owned and operated by the College, is located in Gaiser Hall and provides shipments, in store pickup, or reservations from the store website. The store stocks required course materials as requested by classroom instructors and vigorously supports students' interest by maintaining the lowest possible price for required

course materials. You can also find Clark logo apparel, gifts and spirit gear, grab & go food and beverages, organizational supplies and much more. Additionally, the store facilitates numerous solutions to help Clark students stretch their educational budgets including a comparison shopping tool, textbook and calculator rentals, peer-to-peer textbook exchange, and more.

The bookstore supports the interests of the broader community by selling specialty and educational items, logo items, apparel, gifts, cards, food and beverages, various reference and test preparation items, and more. Personal services available in store include faxing, notary public, special orders, Clark College Theatre and event tickets ([https://www.clarkbookstore.com/site\\_theatre.asp](https://www.clarkbookstore.com/site_theatre.asp)), USPS stamps, C-Tran bus passes ([http://www.clark.edu/campus-life/student\\_ID.php](http://www.clark.edu/campus-life/student_ID.php)), payment for parking and student IDs ([http://www.clark.edu/campus-life/student\\_ID.php](http://www.clark.edu/campus-life/student_ID.php)) and more.

Information regarding accepted payment methods ([https://www.clarkbookstore.com/site\\_payment\\_options.asp](https://www.clarkbookstore.com/site_payment_options.asp)), returns/exchanges ([https://www.clarkbookstore.com/site\\_returns.asp](https://www.clarkbookstore.com/site_returns.asp)), and more can be obtained by visiting us in store or online at [www.clarkbookstore.com](http://www.clarkbookstore.com) (<https://www.clarkbookstore.com/>).

### Bulletin Boards

360-992-2336

The majority of college bulletin boards are used for college or departmental information only. All bulletin boards are identified with the assigned posting monitor. The posting monitor is responsible for postings. Complete bulletin board guidelines and a listing of campus bulletin boards and their classification may be obtained from the Facilities Services Office located in the Facilities Services building (FST).

Signs or posters may not be placed on wood, glass, painted, plastered, or metal surfaces. Only thumbtacks may be used on bulletin boards. Staples are not permitted. Materials placed improperly will be removed by college personnel.

### Child and Family Services

360-992-2393

#### Toddler and Preschool Childcare Services, Summer School-Age Program

The Child and Family Studies program is located at the north end of the Clark College main campus. Childcare and early education services with family support options are available to Clark College students, faculty, staff, and the local community. Childcare services are available for children twelve (12) months and walking through five (5) years of age. During the summer, services are available for children up to ten (10) years of age. Contact the program for more information or to arrange a tour. Services are available from 7:30 a.m. through 6:00 p.m. Monday – Friday.

### Event Scheduling

360-992-2713

The hub of campus life is the Student Center in Gaiser Hall. This facility provides space for dances, concerts, dinner theater, lectures, and other college/community events. College rooms are available for small and large meetings of students, staff, and community groups. A use agreement will be sent to those contracting for college facilities outlining responsibilities and privileges. Space utilization cannot conflict with

regularly scheduled classes or activities, and space is assigned on a first-come, first-served basis. There is a charge for use of college facilities by off-campus groups. To arrange for the use of any college space, contact the Event Scheduling office.

## Student Life

360-992-2441

<http://www.clark.edu/campus-life/student-life/index.php> (<http://www.clark.edu/campus-life/student-life/>)

Facebook: Clark College Student Life  
Instagram & Twitter: clarkstudents  
Penguin Union Building 160

The Office of Student Life coordinates programs, support services, and activities that enhance the educational experience of a diverse student population and fosters the intellectual and personal development of students on campus.

Student Life services and resources include:

- The Associated Students of Clark College (ASCC) Student Government
- The Activities Programming Board (APB)
- 50-plus events and activities each year including Welcome Week, Involvement Fair, and Spring Thing – see our online events calendar for more information
- Clubs, programs, committees, and other student involvement opportunities
- Free coffee, Monday-Friday mornings
- Quick-stop computer lab
- Student-use kitchen, including refrigerator, microwave, toaster and hot water
- FREE student planner
- Free one-time legal consultation services
- Discounted C-Tran bus passes
- Discounted Fitness Center passes
- Student-use lockers

For more information on any of these services, contact the Office of Student Life, located in the Penguin Union Building, room 160, visit us online, or connect with us on social media.

## Student Clubs and Programs

<http://www.clark.edu/campus-life/student-life/clubs/index.php> (<http://www.clark.edu/campus-life/student-life/clubs/>)

Clubs and programs provide students an opportunity to develop leadership skills, responsibility, and apply academic, vocational and/or personal learning through involvement on campus and in the community. With more than 50 clubs and programs to choose from, students are bound to find something to match their interests. Clubs and programs may have an educational, national, cultural, political, activity and/or religious focus.

## Student Government – Associated Students of Clark College (ASCC)

[http://www.clark.edu/campus-life/student-life/ascc/ascc\\_student\\_government.php](http://www.clark.edu/campus-life/student-life/ascc/ascc_student_government.php)

Recognized by the Board of Trustees as the representative body of Clark College students, ASCC Student Government consists of seven-members that act as a liaison between students, faculty, staff, administration, and the community. They are charged with review and implementation of the ASCC Constitution and Bylaws, committee appointments, club promotion and approval, recruitment for student involvement, oversight of the Services and Activities (S&A) fees, and keeping students informed about legislative policies that directly affect them. All enrolled students are members of ASCC and are thus eligible to participate in events.

## Activities Programming Board (APB)

<http://www.clark.edu/campus-life/student-life/ascc/activities-programming-board.php>

With the motto, “We run the fun!” this five-member group is charged with the creation of a comprehensive events calendar to include awareness, cultural, educational, family, and social events for Clark students. Hosting 40+ events each year, including the annual Spring Thing event, it is easy to find an opportunity to relax, learn, and connect at Clark. To find out more about upcoming events visit our online events calendar.

## Student Publications

### The Independent

<https://clarkindy.com/>

Working at The Independent offers students hands-on journalism experience. Working with one or more aspects of the newspaper (writing, editing, photography, layout, advertising, and business management) provides an introduction to the journalism profession as well as a means of earning credit. Some staff positions are paid. The Independent serves as a major communication link between students, student government, faculty, staff, and administration.

### Phoenix

<http://clarkphoenix.com/>

Phoenix, Clark College’s literary and arts magazine, is funded by ASCC to encourage the creative efforts of Clark College students. All Clark College students registered in the immediate spring, summer, fall, or winter terms prior to publication may submit fiction, poetry, flat artwork and photographs of three-dimensional work. Under the direction of the faculty advisors from English and from Art, staff members practice budgeting, marketing, writing, editing, judging, and layout skills. Volunteer student staff members are welcome; some paid student staff positions exist.

## Computer Services

### Computer Labs

Students enrolled in credit classes may use the open computer lab facilities at Clark College. Students are required to use their college-supplied network account to access computer resources in the labs. Open computer labs are available at the following locations:

- Applied Arts AA4, Rm. 116
- Bauer Hall, Rm. 101 and Rm. 102
- Cannell Library, Rm. 100, Rm. 102, and Rm. 203
- Scarpelli Hall, Rm. 135 and Rm. 023
- Clark College at WSUV, Rm. 129
- Clark College at Columbia Tech Center, Rm. 212 and Rm. 219
- Pathways Center, TBG, Rm. 226

## Wireless Network Access

Students may use personal computers and mobile devices to access the Internet and online services available through the Clark College website using the college wireless network. Wireless access is available in most college facilities. A network account is required to use the wireless network.

## Computer Proficiency: A Statement to Students

Students at Clark College, in order to succeed here and in communities outside the college, need to be familiar with and capable of using computers and computer software. Both upper division college work and the requirements of the workplace demand such skills. Many Clark College faculty will require students to access class materials on the Internet, use a word processor, e-mail, and databases as part of regular course activities.

Students need to determine which computer skills are appropriate to their areas of study and take positive steps to acquire and use them early. To facilitate appropriate student access to computers and computer software, the college provides classrooms, labs, course work, and library access where students can learn about and use these tools.

Students should contact their instructors, the college library, the Office of Student Affairs, the Associated Students of Clark College (ASCC), the Pathways Center, or the Advising and Counseling offices to find out what computer resources are available and when they can be accessed. Advisors, counselors, and faculty can help students choose appropriate courses to help them achieve computer proficiency.

## Counseling and Health Center

360-992-2614

chc@clark.edu

<https://www.clark.edu/campus-life/student-support/counseling/>

Located in the Health Sciences Building, the Counseling and Health Center supports student success by providing a range of professional counseling and medical services that are both affordable and conveniently available on campus. Counselors provide free, short-term, goal-focused counseling. They support students in self-development, goal-setting, and problem-solving to enhance student success. A Nurse Practitioner is also available to provide low-cost health services during limited hours. Services, pricing, and office hours are available at the website listed above. Over the counter medications, menstrual supplies, and safer-sex items are available free of charge.

## Dental Hygiene Clinic

360-992-2158

High-quality dental care is provided at a reduced fee by students under the direct supervision of licensed dental hygienists and dentists. Adults or children, five (5) years of age or older, are selected for care based on the educational needs of the students. Services provided may include exams, x-rays, scaling and polishing, sealants, fillings, tooth whitening, diet analysis, and personalized preventive education. Free screenings are available by appointment.

## Disability Support Services (DSS)

360-992-2314 – Voice 360-991-0901 – Video Phone

[www.clark.edu/DSS](http://www.clark.edu/DSS) (<http://www.clark.edu/DSS/>)

Clark College and the Disability Support Services (DSS) office assist students with disabilities in pursuing their educational goals. DSS will provide accommodations, as well as serve as a resource to the campus community in striving to make Clark College both an accessible and hospitable place for students with disabilities. We strive to create a welcoming environment for diverse students seeks disability accommodations.

## Emergency Procedures

[www.clark.edu/emergency](http://www.clark.edu/emergency) (<http://www.clark.edu/emergency/>)

The College's emergency procedures are displayed on posters in all classrooms and offices, as well as on the [clark.edu](http://www.clark.edu) (<http://www.clark.edu/>) website.

Depending on the type of incident, mass notification may be delivered via office and classroom phones, active computer screens, active Smart Classroom screens and interior loudspeakers. Additional notifications are also available to students and employees through text messages and email with a free subscription to RAVE ([https://www.clark.edu/its/documentation-and-resources/students/rave\\_emergency\\_notification\\_system.php](https://www.clark.edu/its/documentation-and-resources/students/rave_emergency_notification_system.php)). Emergency Building Coordinators are posted in every building to assist with emergency protocols.

Exercises (drills) will be conducted several times each year to ensure general preparedness. All members of the college community are expected to participate. When possible, advance notification of planned exercises will be circulated.

## Fitness Center

360-992-2808

[http://www.clark.edu/campus-life/student-life/fitness\\_center/index.php](http://www.clark.edu/campus-life/student-life/fitness_center/index.php) ([http://www.clark.edu/campus-life/student-life/fitness\\_center/](http://www.clark.edu/campus-life/student-life/fitness_center/))

The Thompson Fitness Center, located in the O'Connell Sports Complex (OSC), is free to students currently enrolled in an HPE, fitness trainer or PE class. The following individuals are eligible to use the fitness center during open times for a term or annual usage fee, which is payable at the Cashier's Office:

- Current full- and part-time Clark students
- Clark employees, their spouses and children sixteen (16) years old and older
- Penguin Athletic Club members, sixteen (16) years old and older
- Alumni Association members, sixteen (16) years old and older

Completion of fitness center basics, circuit fitness and/or weight training class is recommended before using the fitness center.

## Food Service

<http://www.clark.edu/campus-life/student-life/dining/index.php> (<http://www.clark.edu/campus-life/student-life/dining/>)

The McClaskey Culinary Institute in Gaiser Hall (GHL) at Clark College Main Campus offers a variety of dining options:

- Retail Bakery offering coffee and specialty beverages as well as a large variety of baked goods prepared by students in the Professional Baking and Pastry Arts Program
- The Restaurant opens for lunch during the term is run by second year students in the Cuisine Program

- Multiple Kiosks where students in the Cuisine Program produce a variety of lunch options during the term
- The Grill opens during the term and breaks, serving breakfast, burgers, sandwiches and more
- Salad Bar, Soup, and Gran & Go and Beverages available year-round

At the McClaskey Culinary Institute, we strive to provide options for all diets and tastes in a welcoming environment conducive to studying or meeting with friends.

## Health Insurance

[http://www.clark.edu/campus-life/student-support/counseling/health\\_services/insurance.php](http://www.clark.edu/campus-life/student-support/counseling/health_services/insurance.php)

Information about how to obtain health coverage through the Washington Health Benefits Exchange and the Affordable Care Act can be found at the link above.

Health insurance is required for all international students, who are advised to discuss their health insurance options with the Office of International Programs.

## Housing

Campus housing is not available. While the college does provide a housing referral bulletin board, located in central Gaiser Hall, it does not assume the responsibility for screening rentals.

Note: International Programs does work with international applicants to secure housing for them and to place them in one of the following options:

- An apartment building shared with domestic and international students from the International Air Academy (two- or four-bed apartments)
- An apartment with single or double rooms close to campus or
- A host family arrangement

Please contact International Programs for details.

## Legal Consultation

360-992-2404

Student Legal Services is a contracted program funded by the Office of Student Life that provides free, one-time legal consultation to currently registered students. A local general-practice attorney provides multilingual legal counsel on family, criminal, and contract issues for students, as needed.

Thirty-minute consultation appointments are offered once a week through fall, winter and spring terms, and can be arranged through the Student Life office, located in PUB 160. Please call 360-992-2404 to schedule an appointment.

## Library

360-992-2151  
<http://library.clark.edu/>

Clark College Libraries provide resources to support the educational mission of Clark College. Located on the main campus, Cannell Library provides students, faculty, and staff with books, movies, and CDs. Cannell Library also has group study rooms and computer labs. Students attending classes at Columbia Tech Center can visit the

Information Commons located on the second floor of the building in Room 219. Students are encouraged to ask librarians at either location for assistance using the wide range of in-print and online resources. Library faculty offer a variety of instruction sessions, research assistance, and workshops.

Through Summit, a partnership that combines the holdings of academic libraries in Washington, Oregon, and Idaho, students also have access to books, DVDs, videotapes, government documents, and more. Direct online borrowing and an efficient courier service allow students to obtain books quickly and easily.

From the Libraries' website ([library.clark.edu](http://library.clark.edu) (<http://library.clark.edu>)), Clark College students, faculty, and staff have 24/7 online access to thousands of resources, including electronic books, full-text journals, and 78 electronic databases. Consult the Library website or call 360-992-2151 for hours of service and other library information.

## MESA Program

360-992-2225

<http://www.clark.edu/academics/programs/dept/mesa/> (<http://www.clark.edu/academics/programs/dept/mesa/>)

Mathematics, Engineering, science Achievement (MESA) offers academic and professional support services to qualifying students who intend to transfer to four (4) year universities in pursuit of science, technology, engineering and mathematics (STEM) majors. Our overriding aim is to diversify the STEM workforce by addressing the challenges undeserved students face in their educational and career development.

Resources available for students include: online orientation, career advising, transfer assistance, professional development & academic excellence workshops, and a study center (SBG 206/208).

You may be eligible for the MESA program if you meet any of the following:

- Are a historically underrepresented student of color in STEM
- Are of the first generation in your family to attend college
- Are eligible for financial aid as determined by the FAFSA or WAFSA, work study, or are at least at or below the federal poverty level

## Office of Diversity and Equity

360-992-2292

The function of the Office of Diversity and Equity is to support the goals of Clark's Social Equity Plan. We assist in the accomplishment of these goals through serving as a resource on related issues, providing training and educational programs, inviting speakers and performers, and providing opportunities for individuals to feel connect with those who have felt disconnected in the past and with their community. The Office of Diversity and Equity is committed to serving systemically non-dominant communities as they navigate Clark College. We support Clark College's goal of recruiting and retaining a diverse student body and workforce.

The Diversity Center is a welcoming and safe place for the entire Clark community (students, faculty, staff, and community members) to learn about and engage in conversations regarding diversity, inclusion, power, privilege, inequity, and social justice.

## Parking and Traffic Rules

360-992-2133

<http://www.clark.edu/about/governance/public-disclosure-and-records/adminProcedures/500/530/index.php> (<http://www.clark.edu/about/governance/public-disclosure-and-records/adminProcedures/500/530/>)

Traffic and parking regulations at the College are authorized by the Board of Trustees and codified under the Washington Administrative Code (132N-156 WAC). The enforcement of parking and traffic regulations is the responsibility of the Security/Safety Department.

Student parking on the Clark College campus is limited to open parking spaces. Open parking spaces are identified as lined spaces without any special labels. No permit is required to park in open parking. Restricted parking areas include faculty/staff (F/S) parking, visitor or metered parking, and disabled person parking. No one may park in these areas without the proper permit or other authorization.

Drivers of vehicles on campus shall obey all regulatory signs, including stop signs and directional arrows, and shall comply with directions of campus security officers in the control of traffic and parking.

Any violations of college parking and traffic rules and regulations may result in issuance of a monetary citation by the Security/Safety Department. Vehicle impounding, immobilization, or transcript hold may result if vehicles are parked improperly or if fines are not paid.

The Security/Safety Department works continually toward safe and effective parking lot use. Concerns, suggestions, and ideas for meeting the challenges of managing campus parking are always welcome. Students should contact the Security/Safety Department in Gaiser Hall for a complete copy of the Clark College Parking and Traffic Rules and Regulations, or for a copy of the Parking Survival Guide

## Public Transportation

Clark College is served by C-Tran, the Clark County Community Transit System (<https://www.c-tran.com/>), at the main campus, Clark College at WSU Vancouver, and Clark College at Columbia Tech Center. The Clark College main campus is currently served by three (3) bus lines which link the college to all parts of the city of Vancouver, Clark County, and to Portland, Oregon.

To encourage and enable transit ridership, the college funds and supports the BackPASS program. Through the BackPASS program, all registered Clark College students can purchase a BackPASS endorsement for their student identification cards. The BackPASS will afford the student unlimited access to C-Tran service in Clark County. Students may receive only one subsidized BackPASS per term. To facilitate use of the BackPASS, bus schedules, maps, and other transit information can be found in several locations. C-Tran regularly participates in student orientations and hosts information booths on the main campus.

Van service is now available at a reduced rate to students with disabilities. Check with C-Tran for more details by calling 360-695-8918 (voice) or 360-695-2760 (TTY).

Additional information about the BackPASS program can be obtained from the Security/Safety Department in Gaiser Hall.

## Security/Safety Department

360-992-2133

<http://www.clark.edu/campus-life/student-support/security/index.php> (<http://www.clark.edu/campus-life/student-support/security/>)

The Clark College Security/Safety Department works to provide a safe and secure environment in which members of the college community can pursue their educational and professional goals. The Department is comprised of 25 full and part-time non-sworn officers and support staff. An officer can be reached on main campus 24 hours a day/7 days a week/365 days a year. The department is charged with protecting life and property, providing service and assisting students, staff, and community members. The Security/Safety Department strives to offer proactive protection services to the college community by stressing prevention above response, planning above reaction, education above enforcement, and service above all.

The Security/Safety Department can provide informational and directional assistance; aid to stranded motorists including jump starts and lockout service; security escorts across campus; crime prevention advice; and other general assistance to students, staff, faculty and guests of the college. The Security/Safety Department works cooperatively with the emergency response agencies (police, fire & EMS) in emergency, dangerous or volatile situations, and/or in criminal investigations.

The Department provides all information required by the Clery Act, which is published in an annual security report by October 1st of each year. For more information about the Annual Crime and Security Report please visit: <http://www.clark.edu/campus-life/student-support/security/report.php>

## Student Ambassadors and the Campus Visit Program

360-992-2078

Student Ambassadors are current Clark College students who assist with the admissions and orientation process of starting at Clark. Student Ambassadors are also available to take you on a campus tour so you can begin to become familiar with campus. Taking a campus tour with a current student is a great way to hear the student perspective of being at Clark.

## Student Discounts

A list of merchants that offer discounts can be found at the Security/Information Office in Gaiser Hall.

## Student ID Cards

Annual Clark College student photo ID cards can be purchased in the Clark College Bookstore, Gaiser Hall, for a minimal fee. Current registration and valid photo ID are required to obtain a Clark College student ID (being on wait list is not considered registered). ID cards are not required by the College but do provide free or discounted admission to College events and may qualify for student discounts offered by many local businesses.

## Tutoring Services

<http://www.clark.edu/campus-life/student-support/tutoring/index.php> (<http://www.clark.edu/campus-life/student-support/tutoring/>)

Tutoring is designed to provide individualized attention that supports student learning and academic success. Our friendly, supportive, and encouraging tutors assist with most English, math, science, and general education classes offered at Clark College. Tutors will also help students develop skills and confidence to become stronger, more independent

learners. Students who come in for tutoring may also access computers, software, handouts, reference materials, and other resources.

Tutoring services are FREE to all registered Clark College students.

## Transitional Studies Tutoring Center

360-992-2750

Located in the T Building, room 228. The Transitional Studies Tutoring Center supports CAP and ESL students with tutoring and computer-based learning. One-on-one and small-group tutoring are available for adults learning English as a second language, as well as for native English speakers who want to improve basic reading, writing, and math skills.

## Language & Writing Center

360-992-2253

Located in Hawkins Hall, room 102. Writing tutors are available to help students with all types of writing—essay assignments, journals, research papers, resumes, scholarship essays, and more. Assistance is available at all stages of the writing process, from generating ideas to reviewing completed drafts. Although tutors do not edit or proofread, they will help students determine what their tendencies are concerning grammar errors, explain general concepts, and offer strategies that can lead to more effective writing.

Language students can meet with a tutor for conversation practice and help with written and oral assignments in English and world languages offered at Clark. All services are available on a drop-in or appointment basis.

## Science, Technology, Engineering, & Math Center

360-992-2694

Located in Bauer Hall, room 101/102. Tutors provide assistance with most levels of math, chemistry, engineering, physics, biology, and other STEM subjects. Help is available on a drop-in or appointment basis.

## Accounting & Business Center

360-992-2445

Located in Applied Arts 4 (AA4), room 106. Tutoring assistance is available for all levels of accounting and for most business and economics courses. Help is available on a drop-in basis.

## Online Tutoring

<http://www.clark.edu/campus-life/student-support/tutoring/etutoring.php>

Online assistance is available for currently enrolled Clark students. Using the online Writing Lab, students can upload a draft of their paper and receive written feedback, usually within 24-72 hours. Tutors are also available to assist via Live Chat (synchronous) or eQuestions (asynchronous) in various subjects, including physics, chemistry, biology, math, calculus, statistics, Spanish, accounting, and more.

For eTutoring access and login directions, go to the eTutoring webpage (<http://www.clark.edu/campus-life/student-support/tutoring/etutoring.php>). Canvas course shells may also include an eTutoring link in the navigation panel on the left of the screen.

## Veterans Center for Excellence

360-992-2073

[veteresources@clark.edu](mailto:veteresources@clark.edu)

<http://www.clark.edu/campus-life/student-support/vrc/index.php>  
(<http://www.clark.edu/campus-life/student-support/vrc/>)

Located in Penguin Union Building, room 015, the Veterans Resource Center is available to help veterans and their dependents connect with the resources and networks of support available to them at Clark College and in the local community. We provide a welcoming staff, mentoring from student veterans, and tools to succeed academically and personally. The VRC also provides a math tutor, computer stations, printers, TV, and a comfortable environment to relax. Veterans are encouraged to visit the center to receive information and assistance regarding:

- Benefit Applications and Procedures
- GI Bill® Certification
- Veterans Advocacy
- Community Support
- Transition Services
- Campus & Community Resources
- Specialized Programs and Workshops
- Veterans Club

Clark College does not and will not provide any commission, bonus, or other incentive payment based directly or indirectly on success in securing enrollment or financial aid to any persons or entities engaged in any student recruiting or admissions activities, or in making decisions regarding the award of student financial assistance.

Selected programs of study at Clark College are approved by the Workforce Training and Education Coordinating Board's State Approving Agency (WTECB/SAA) for enrollment of those eligible to receive benefits under Title 38 and Title 10, USC.

# CREDENTIAL EVALUATIONS

The Credential Evaluations Department provides assistance for students seeking an evaluation of their progress towards completion. Evaluators will review and evaluate official transcripts sent to Clark College, process applications for program completion, and respond to Academic Credit for Prior Learning inquiries. For more detailed information about what Credential Evaluations is responsible for, please visit <https://www.clark.edu/enroll/credential-evaluation/> or call 360-992-2805.

## Credential Evaluation Policies

### Academic Standards Petition

Students who believe an error has been made, or who would like to request an exception to the established degree requirements should contact the Credential Evaluations Office to inquire about an Academic Standards Petition.

### Catalog Lifespan

Students may complete their degree(s) or certificate(s) under the requirements set forth in any catalog issued during their attendance at Clark College. However, no catalog will be valid for more than four (4) years. Any student not in attendance at Clark College for two (2) or more calendar years is required to complete the program requirements of the catalog in effect at the time of their re-entry to the college.

### Diplomas

Diplomas will be mailed 6-8 weeks following the completion of a student's degree or certificate requirements. Diplomas that are lost or misplaced may not be available for reprint. Contact the Credential Evaluations Office for more information.

### Graduation Application Deadlines

Students must submit a graduation application in order to be awarded a degree or certificate upon the fulfillment of the completion requirements. Students are encouraged to submit the graduation application one term before they plan to complete all of their requirements.

The priority processing deadline for graduation applications is the tenth (10th) day of the term in which the student plans to finish degree or certificate requirements; applications will be processed in the order received and the degree or certificate will be awarded in the term of completion.

Graduation applications received after the priority deadline and through the last day of the term will be accepted; applications received during this non-priority period will be processed in the order that they were received. Applications received after the last day of the term may be moved to the next term.

## Academic Credit for Prior Learning

Have you dreamed of completing a degree you started long ago? Is it overwhelming to consider beginning or returning to school after being out of the educational system for several years? The process may not be as difficult as you may think!

Academic Credit for Prior Learning, as defined by the Washington State Legislature, is the "knowledge and skills gained through work and life experience; through military training and experience; and through formal

and informal education and training from in-state and out-of-state institutions including foreign institutions." (RCW 28B.77.230).

Legislation passed by the state of Washington requires Clark College to collaborate with the State Board of Community and Technical Colleges in supporting the state goals for credit for prior learning. Clark College is committed to fostering an educated and skilled workforce, which is essential for economic prosperity and meaningful work for the citizens in Clark's service area. Further, Clark College is dedicated to awarding credit for applicable learning experiences that can help more students complete their training and degree programs sooner by evaluating an individuals existing knowledge and competencies for college credit.

Students may be assessed through various processes that will determine the degree to which you have met the learning outcomes of the content in question. This could be a test, written assessment, oral interview, project, performance, or another appropriate method by which the faculty member determines your understanding of the subject matter. No more than forty-five (45) credits/units of Academic Credit for Prior Learning can be applied to the Associate of Arts, Associate in Science Tracks 1 & 2, and Bachelor of Applied Science Degrees.

Clark College, in accordance with the State Board for Community and Technical College guidelines, recognize four categories of Academic Credit for Prior Learning:

### Credit by Testing

Standardized exams provide credit opportunities to students who have already acquired specific knowledge and skills that they would otherwise be acquiring in a college course. This category will be noted on transcripts as awarded for prior learning and includes Advanced Placement (AP), International Baccalaureate (IB), College Level Examination Program (CLEP), and Cambridge "A" Level Exam.

### College Level Examination Program (CLEP)

Clark College awards credit for successful CLEP examinations. An up-to-date list of subjects and required scores can be found on <https://www.clark.edu/enroll/credential-evaluation/clep.php>. To be considered for credit, a student must pass the examination with the equivalent of a "C" or better grade. The transcript will reflect the credit/unit granted by listing the equivalent course number, title, and credits/units. Not all institutions accept CLEP credits. Students intending to transfer to another institution should contact the transfer institution for information on their CLEP policy.

### Procedure for Requesting CLEP Credits

Students should have an official copy of their CLEP scores sent to:

Clark College  
Attn: Enrollment Services/GHL128  
1933 Fort Vancouver Way  
Vancouver, WA 98663

Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits/units to be awarded. CLEP credits are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

### Where to Get CLEP Scores

CLEP Transcript Service  
PO Box 6600  
Princeton, NJ 08541-6600  
Phone: 1-800-257-9558

www.collegeboard.org (<https://www.collegeboard.org/>)

## Course Challenges

Students who believe that previous experience has provided them with the competencies essential for passing a course may request to challenge that course. Faculty or departments will create these assessments. The assessments can be written, oral, practical demonstration, or some combination thereof. A course challenge process may be used when:

1. There is a specific Clark College course for which the student believes that the learning outcomes can be met, and
2. The course can be challenged (some courses may not be challengeable).

Students wishing to challenge a course may not be currently enrolled in the course they wish to challenge, nor may students challenge courses if they have completed a course with a higher degree of difficulty. Courses that have been successfully challenged will be appear on the student's transcript with an "S" grade. There will be no transcript entry for an unsuccessful challenge. The successful challenge will appear on the student's transcript within the term earned and does not count toward the Clark College residency requirement. Students should check with the Credentials and Evaluation Office for the current application process and course challenge fees.

## Extra-institutional Learning

This category assesses the knowledge and skills acquired outside the institution, and is objectively verified through third-party certifications, industry-recognized testing/training, and crosswalks. Credit may be awarded for documented experiential learning outside the college upon the recommendation of appropriately qualified teaching faculty. This category also includes Joint Services Transcripts and American Council on Education (ACE).

### Military Experience

360-992-2711

Students can receive academic credits/units for experience and knowledge gained through military participation. Credits/Units will be conferred based on ACE credit recommendations, in consultation with academic departments. Academic credit for military experience will be limited to twenty-five (25) percent of total credits/units required for degree/certificate completion. Students should consult the Veterans Affairs Department to discuss applying military credits/units to their degree plan. The Credential Evaluations Department will evaluate all incoming military credits/units upon receipt.

Clark College meets the requirements of RCW 28B.10.057 by awarding academic credit for military training. The academic credit awarded for prior military training is granted only for training that is applicable to the student's degree or certificate requirements. The individual must be enrolled in Clark College and have successfully completed any military training course or program as part of the military service that is:

- Recommended for credit/unit by a national higher education association that provides credit/unit recommendations for military training programs
- Included in the individual's military transcript issued by any branch of the armed services

- Documented military training or experience that is substantially equivalent to any course or program offered by the institution of higher education

Clark College enrolled students who are veterans of any branch of the United States armed services who wish to receive transfer credit must provide an official Joint Services Transcript (JST) through the armed services in which he/she served, from the Community College of the Air Force or any other college/university attended. Upon receipt of the official transcript the following actions will occur:

- The Credentials Evaluations Office will evaluate the transcript for reading, English, and mathematics placement and any academic (general education) credits/units earned, posting to the student record as applicable.
- Technical classes that require more review to determine a direct equivalency will be forwarded to appropriate program faculty along with the course description and the accompanying ACE (American Council on Education) course recommendation.
- Military credit/unit recommendations that are direct equivalents to Clark course offerings may be articulated to that specific course. If direct course equivalents do not exist, elective credit/unit (non-direct equivalent) will be awarded when possible. Both direct and non-direct equivalents must be applicable toward the veteran's program of study.
- The Credentials Evaluations Office will post the credit/unit to the student record and then notify the student of credits/units accepted with directions on how to access their records so they may view credit/unit applicability to their program of study.
- In the case of a change of program, the veteran must notify the Credential Evaluations Office so the transfer credit/unit may be re-evaluated and applied to the student record as applicable.
- Per the Veteran's Administration, all veteran student transfer credit/unit must be evaluated within two (2) terms of program start. After the third term, if the student does not submit all transcripts, he/she may be decertified for the use of VA education benefits.
- Veteran students using education benefits are not permitted to opt out of transfer credit/unit evaluation.

Military credit will not be granted for:

- Non-credit/unit courses and workshops
- Remedial or college preparatory courses
- Sectarian religious studies

## Prior Experiential Learning

This includes the skills, knowledge, and attitudes gained through non-formal (mainly work-based) and informal (life-experience) means. Prior experiential learning is assessed through portfolio development and review. Academic credits awarded for this category must not exceed twenty-five (25) percent of the credits needed for a degree.

For more detailed information on Academic Credit for Prior Learning please contact 360-992-2805.

## Graduation Ceremony

### Participation in Commencement Ceremonies

The June Commencement ceremony is for those students who have completed or plan to complete their degree or certificate during the current academic year. Participation is not required. Candidates must file their graduation application and cap and gown order by the appropriate



deadline to be eligible. Ceremony participation does not guarantee degree completion. Students completing their degree in the summer term may participate in Commencement of the previous academic year.

## Caps & Gowns

Only students who submit a Cap and Gown Order Form and Graduation Application will be allowed to participate in the Commencement ceremony. The Cap and Gown Order Form is online and is available to students once they have submitted the graduation (program completion) application. The Cap and Gown Order Form deadline for submission will be published on the website. There is a fee for caps and gowns; please refer to the order form for current pricing. If you have received honors, honors regalia will be available in the bookstore at the time you pick up your cap and gown packet. Students who have submitted the Cap and Gown Order Form will receive detailed information in May regarding the process for ceremony participation and cap and gown disbursement.

## Transfer Credit

### Transfer Institution Accreditation Requirements

Clark College accepts credits/units from approved accredited institutions of higher education. Recognized accrediting bodies are as follows:

- Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC)
- Higher Learning Commission (HLC)
- Middle States Commission on Secondary Schools (MSA-CESS)
- Northwest Commission on Colleges and Universities (NWCCU)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- Middle States Commission on Higher Education (MSCHE)
- New England Commission of Higher Education (NECHE)
- WASC Senior College and University Commission (WSCUC)

### Domestic Institution Transfer Policy

Students who have attended other recognized accredited institutions of higher education may choose to transfer credit to Clark College to meet course prerequisites and degree requirements. All coursework, including courses earned as part of prior degrees, will be evaluated on a course-by-course basis for transferability to Clark College. The Credential Evaluations Office will review the content of each course transferred and determine the appropriate course equivalency.

Official copies of transcripts are required for evaluation. Transcripts are considered official if issued directly from the prior institution or delivered in the original sealed envelope. Course descriptions and/or syllabi may be required to complete evaluations in some instances. It is the student's responsibility to request course and catalog information from an outside institution and provide them to Clark College. Once transcripts from other institutions are received, they become part of a student's permanent educational record and cannot be released by Clark College.

Although there is no limit on the number of credits/units that can transfer into the college, students must meet the Academic Residency requirements for their program. Dental Hygiene and Nursing students MUST provide all transfer institution transcripts during the application process.

### International Institution Transfer Policy

Students with credits/units from international institutions of education may submit their academic records for credit/unit consideration. The amount of credit/unit awarded will vary, based on the individual record

of the student. Clark College does not recognize English coursework completed in countries outside of the United States, with the exception of Australia, Canada (except Quebec province), Ireland, New Zealand, and the United Kingdom.

Clark College requires translation and evaluation of the student's academic record from an agency that is a member of the National Association of Credential Evaluation Services. A current list of members is available online at [www.naces.org](http://www.naces.org) (<http://www.naces.org>). The costs of agency services are the responsibility of the student.

## Distribution Reciprocity

The Washington State Community and Technical College Inter-College Reciprocity Policy (Distribution Reciprocity) provides guidelines for transfer credit/unit treatment among the Washington state community colleges. If a student transfers an individual course that meets a Communication Skills, Quantitative Skills, or Distribution Requirement at the sending college for a specific transfer degree, that course is considered to have met that requirement at the receiving college for a similar transfer degree, even if this course does not have an exact equivalent. The receiving institution will accept a specific course's distribution area for a transfer degree if that student:

1. Has met the sending institution's residency credit/unit and meets the receiving institution's policy on continuous enrollment (enrollment pattern needed to complete under the catalog at entrance).
2. Has met the entire Communication Skills, Quantitative Skills, or Distribution Requirement of a transfer degree, according to the sending institution's degree criteria.
3. Has maintained a cumulative college-level grade-point average (GPA) of 2.0 or better at the sending institution.

Students who believe they may qualify for the Distribution Reciprocity agreement should contact the Credential Evaluations Office.

# ENROLLMENT SERVICES

360-992-2107

All students intending to enroll at Clark College are required to submit an application for admission. Application for admission is available on the Clark College website at [www.clark.edu/quickstep](http://www.clark.edu/quickstep) (<http://www.clark.edu/enroll/admissions/apply.php>).

Clark College admits anyone who is eighteen (18) years of age or a graduate of an accredited high school or the equivalent. Students who are (16) years of age or older may enroll in summer term. Applicants who are under the age of eighteen (18) and without a high school diploma or equivalent may be considered for admission. Refer to the Exception to Admission (Underage Policy) section for further details. Admission to the college does not guarantee admission to a specific area of study. Some programs require additional applications and are limited or competitive-entry programs. See additional information under Health Occupations Programs.

Residency classifications for the purpose of tuition rates are determined by the length of time a student has been permanently living in the state of Washington. Please refer to the Residency Classifications section for detailed information.

## New Student Admission

Students with no previous college experience must complete an admissions application. For more information please visit website at [www.clark.edu/enroll/advising-services/index.php](http://www.clark.edu/enroll/advising-services/index.php) (<http://www.clark.edu/enroll/advising-services/>)

## Transfer Student Admission

Students transferring from other colleges are required to submit an admissions application.

If a student intends to use previously earned credits/units toward a program at Clark College, an official transcript of their college records must be sent to Enrollment Services at the time of application for admission. Students may use previous coursework or course placement to meet the prerequisite for English and or Mathematics. Please visit [www.clark.edu/assessment](http://www.clark.edu/assessment) (<http://www.clark.edu/enroll/admissions/assessment/>) for additional information. All admission materials become the property of the college and will not be returned to the student or forwarded to another institution.

## Returning Student Admission

Students who are returning to Clark College after an absence of four (4) or more terms must reapply for admission. Returning students are required to meet with an advisor before they may register for classes.

If a student has attended another college since their last enrollment at Clark College and wants to apply those credits/units to a Clark College program, an official transcript must be sent to Enrollment Services. All admission materials become the property of the college and will not be returned to the student or forwarded to another institution.

## Running Start Admission

360-992-2366

The Running Start program allows high school juniors and seniors to earn college credits/units while completing their high school education

- saving students money while advancing their education. Students are able to attend college, at minimal cost, while still living at home as a high school student.

Students are able to select courses that challenge them academically and provide real-world applications. Many students earn their associate's degree and leave prepared to start a career or transfer to a four-year institution to pursue their bachelor's degree. Students must complete an application for admission and meet requirements of the Running Start program. Visit [www.clark.edu/runningstart](http://www.clark.edu/enroll/admissions/running_start/) ([http://www.clark.edu/enroll/admissions/running\\_start/](http://www.clark.edu/enroll/admissions/running_start/)) for additional information.

## International Student Admission

360-992-2390

Clark College accepts qualified international students from around the world who wish to study in the U.S. using an F-1 student visa.

To be eligible for admission, applicants must submit the international student application form, application fee, and supplemental documents. International student admission information can be found on the International Programs web page: [www.clark.edu/international](http://www.clark.edu/international) (<http://www.clark.edu/international/>).

Applicants must submit financial documentation with their application to prove that sufficient funds are available for their first year of study. Resources must cover cost of tuition, fees, books, medical insurance, living expenses, and transportation. Medical insurance while in the U.S. is mandatory and will be added to the student's bill each term.

## Exception to Admission (Underage Policy)

Clark College admits anyone who is at least 18 years of age, who is a graduate of an accredited high school or the equivalent, is a participant in Running Start, or participant in other approved programs designed for age-specific groups. Exceptions to this policy may be granted by the college for special consideration of underage individuals not participating in one of the above-mentioned programs. The college reserves the ultimate right to determine admission to the college and/or to enroll in certain classes.

## Residency Classifications

[www.clark.edu/enroll/admissions/admission\\_forms.php](http://www.clark.edu/enroll/admissions/admission_forms.php) ([http://www.clark.edu/enroll/admissions/admission\\_forms.php](http://www.clark.edu/enroll/admissions/admission_forms.php))

To qualify for any of the residency classifications listed below, students must be U.S. citizens, permanent resident, refugees, or non-immigrant resident with visa classifications of A, E, G, H, I, K, or L.

## Residency Classification Definitions

- Washington In-State Resident: A person who meets the qualifications of citizenship, has been living in the state of Washington for a minimum of 12 months prior to the beginning of the term, and has taken actions to declare Washington as their state of permanent residence.
- Washington Non-Resident Waiver: A person who meets the qualifications of citizenship and who has been living in the state of Washington for more than one day prior to the beginning of the term.
- Non-Resident: A person who resides outside of the state of Washington and does not qualify for the Oregon Border Waiver; a person who does not submit the required documents for the Washington Residency Reclassification Application, Washington Non-

Resident Waiver, Oregon Border Waiver or Oregon Border Opportunity Waiver.

- Non-Resident Refugee: A person who holds Refugee-Parolee status and has established a domicile in Washington before the first day of the term.
- Non-Citizen: A person who does not meet the qualifications of citizenship, regardless of their length of time domiciled in the state of Washington.
- Oregon Border Waiver: A person who meets the qualifications of citizenship and who has been living in one of the 13 qualifying Oregon border counties for a minimum of 90 days prior to the beginning of the term.
- Oregon Border Opportunity Waiver (HB1474): A person who meets the qualifications of citizenship, was living in a qualifying Oregon border county for at least 90 days immediately prior to moving to Washington state, has been living in Washington for less than 12 months, and has taken all steps to declare Washington as their state of permanent residence.
- Qualifying Oregon Border Counties: Columbia, Gilliam, Hood River, Multnomah, Clatsop, Clackamas, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, or Washington.

- Verification of checking, savings or safe deposit box accounts located at a bank in Washington.

\* Note that the Oregon Border Opportunity Waiver also requires proof of Oregon border county residency in addition to the documents listed above. The Washington Non-Resident Waiver requires one piece of documentation from the list above, while the Oregon Border Waiver requires one piece of documentation from the list above from Oregon rather than from Washington. For additional details, refer to the directions on the application forms.

The forms are available online at [http://www.clark.edu/enroll/admissions/admission\\_forms.php](http://www.clark.edu/enroll/admissions/admission_forms.php) or visit Enrollment Services in Gaiser Hall room 128.

- Washington Residency Reclassification Form: Used to apply for in-state status by those who did not reside in Washington State for at least 12 months prior to enrolling at Clark College.
- Border County Opportunity Application HB1474: Used to apply for in-state status by those who qualify under the Oregon Border Opportunity Waiver guidelines.
- Washington Non-Resident Waiver: Used to apply for the waiver by those who originally applied for admissions with a non-Washington state address and who have since moved to Washington and established a residency.
- Oregon Border Waiver: Used to apply for the waiver by those who are residing in a qualifying Oregon border county.

Washington residency is governed by RCW.28B-15, RCW 46.16.028, RCW 46.20.021, WAC 250-18, and WAC 208-104-006. Contact Enrollment Services at 360-992-2107 with any questions regarding your residency status or how to apply for a reclassification. You can also visit Enrollment Services in Gaiser Hall room 128.

## Applying for Residency Reclassification

Students are granted residency classification based on the information provided on the initial admissions application. The student is responsible for submitting the appropriate application and supporting documentation to have residency reviewed for a reclassification to a new category. Applicants who are not U.S. citizens are required to submit a copy of their permanent resident card or I-94 for reclassification consideration. All residency reclassification requests and documentation are accepted until the 30th calendar day of the term. The college has ten (10) business days to review a completed application before making a decision on the reclassification request. If the application is approved, adjustments to the tuition will be applied to the term for which the reclassification was submitted. If the application materials are incomplete or received after the 30th calendar date of the term, the request will be reviewed for the following term. Residency changes are not retroactive.

Supporting documentation is defined in two categories: proof of physical presence and proof of intent to remain in the state of Washington. Students applying for reclassification will be asked to provide these documents as part of their application materials. Acceptable types of documents are listed below.

- Proof of Physical Presence (one document required, showing at least 12 months)
  - Copy of mortgage closing statement for the home in which the student resides;
  - Copy of a rental/lease agreement for the home in which the student resides; or
  - Copy of rental receipts or mortgage payment receipts for the home in which the student resides.
- Proof of Intent to Remain (three documents required, each showing at least 12 months)
  - Valid Washington driver's license;
  - Valid Washington voter registration;
  - Valid Washington vehicle registration (not title);
  - Proof of permanent full-time employment; or

## HB 1079 (Undocumented Person) Waiver

Effective April 2022, Washington state law was changed to qualify certain students who are not permanent residents or citizens of the United States as eligible to pay resident tuition rates. To be eligible to sign this affidavit, you must:

- Earn a high school diploma, GED<sup>®</sup>, or diploma equivalent from anywhere in the United States before your first term at the college determining residency, and
- Maintain a primary residency in Washington for at least 12 consecutive months immediately before your first term at the college determining residency. The Washington residence must be for purposes other than college. If you take any courses at another Washington college during the prior 12 months, you cannot have taken more than six credits/units in any given term. If you exceed that limit you must prove that you have a Washington residence for non-college reason.

## Active Duty Military

Active duty military stationed in the state of Washington, as well as their spouses and dependents, qualify as residents for tuition purposes. At the time spouses or dependent family members apply for admission, documentation such as a copy of the military ID card or other appropriate documents must be presented.

## Washington National Guard

Washington National Guard members, as well as their spouses and dependents, qualify for resident tuition as long as they are domiciled in Washington.

## Veterans Tuition Exemption

- Washington state provides a 25% discount for tuition at public colleges and universities for all veterans. The veteran must provide a DD214 to the Veterans Center of Excellence to qualify.
- The Washington state 100% tuition waiver allows a 100% totally and permanently disabled (as awarded by the Veterans Administration), veterans spouse or child to be granted 100% tuition and a small book stipend to attend Washington State schools such as Clark College. Requirements for eligibility as well as a link to the RCW (Washington Law) that governs this waiver:
  - Disabled veteran must be a resident of Washington state
  - The child must be a resident of Washington state
  - <https://app.leg.wa.gov/rcw/default.aspx?cite=28B.15.621>
- To qualify for this waiver please provide the following to [veterans@clark.edu](mailto:veterans@clark.edu) :
  - Veterans valid WA state issued ID or Driver's License or bill in veterans name with WA state address to verify residency
  - Students valid WA state issued ID or Driver's License or bill in students name with WA state address to verify residency
  - Complete and return attached 100% waiver application
  - Provide a copy of the Veterans 100% disability award letter from the VA.
  - Provide a copy of the Veteran's DD-214

## Tuition Waivers

Most tuition waiver guidelines and charges are set by the Washington state legislature and may change on an annual basis. Those eligible for waivers are listed below, under the departments that serve them.

- Enrollment Services
  - Clark College employee
  - Classified state employee or Washington Public Higher Education employee
  - Senior Waiver
  - Children of deceased law enforcement officer or firefighter
  - Children and spouse of totally disabled, or POW/MIA, or deceased eligible veterans, or National Guard members
  - Native American Waiver
  - Washington Non-Resident Waiver
  - Oregon Border County Waiver
  - Non-Resident Refugee Waiver
  - Apprentice
  - Vocational 18+ credits/units
  - Dislocated forest products workers or their unemployed spouses
  - Wrongfully convicted individual, their children and stepchildren
  - Running Start
- High School Completion Office
  - High school completion
- Veterans Resource Center
  - Military personnel

- Running Start Office
  - Running Start

## Course Placement

360-992-2588

Course placement is an important step toward student success. Prior to accessing placement services, students must complete an application for admission. Many courses at Clark College have placement prerequisites for English and Mathematics ability. The course that students place into determines how they progress through their program of study and how long their degree will take. We have a variety of ways to assess skills, and one method may not work for all. Visit [www.clark.edu/assessment](http://www.clark.edu/assessment) (<http://www.clark.edu/enroll/admissions/assessment/>) for more information on available placement and retesting options.

## Distance Learning Proctoring

The Assessment Center provides proctoring services for students taking distance learning or correspondence courses. There is a fee for this service. Contact the Assessment Center at 360-992-2588 to discuss available proctoring options or visit <http://www.clark.edu/enroll/admissions/assessment/proctoring.php> to download a proctor request form.

## High School+

360-992-2741

Begun in 2015, High School+ is a program that helps students earn their high school diplomas in a more timely and convenient way than was previously available. The High School+ curriculum combines basic skills coursework with more rigorous academic education and training so that students can upgrade their skills while working toward a high school credential. The coursework is listed in the schedule as College and Academic Preparation (CAP). CAP is designed both to help students earn their high school diploma and/or prepare for the GED<sup>®</sup> exam. In addition, the coursework can help students who have already completed high school or the GED<sup>®</sup> but who need to improve their academic skills before entering into their program of study at Clark College.

Adults interested in participating in the High School+ program will need to apply for admission, submit their high school transcripts, take the CASAS test, and meet with the High School Completion Advisor prior to beginning their classes.

## General Educational Development (GED<sup>®</sup>) Testing

Clark College is an official General Educational Development (GED<sup>®</sup>) testing site. The GED<sup>®</sup> tests provide a high school credential to adults who have not graduated from a traditional high school. Participants in GED<sup>®</sup> testing may go on to further their education at Clark College following the examination process or can participate in traditional college classes while completing the GED tests.

The GED<sup>®</sup> test is designed for adults who are 19 years old or older and who have not received a traditional high school diploma. Examinees who are 16 to 18 years old and wish to take the GED test must provide a high school release form from the school district in which they live.

The GED<sup>®</sup> examinations are given in the following four (4) subject areas:

- Social Studies
- Science
- Mathematics
- Language Arts

Successful completion of each of these examinations leads to the issuance of a GED<sup>®</sup> certificate.

The GED<sup>®</sup> test is now offered in a computer-based format. In order to begin the process of obtaining a GED<sup>®</sup>, participants may register online at <https://GED.com/> (<https://ged.com/>). The GED<sup>®</sup> test must still be taken in person at an official GED<sup>®</sup> testing center.

# ELEARNING

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eLearning@clark.edu (learning@clark.edu)  
<http://www.clark.edu/academics/eLearning/index.php>

## What is eLearning?

eLearning at Clark College provides alternative options to students that give them the opportunity to attend classes beyond the traditional on-campus experience.

Clark College has dedicated a number of resources to ensuring exceptional Universal Design for Learning practices and proactively attending to accessibility concerns.

## What Types of Classes are Offered?

eLearning classes are offered in the following formats: online, hybrid, and weekend hybrid. To learn more about eLearning class formats, please go to What is eLearning page (<http://www.clark.edu/academics/eLearning/whatis.php>). General class descriptions are as follows:

- Online – A course that uses web-based tools and where 100% of the instruction and interaction between instructor and student is done online.
- Hybrid – A course that displaces some, but not all face-to-face class time with web-based tools.
- Web Enhanced – A face-to-face course that does not replace any face-to-face seat time, and access to web-based tools is required.

For more information regarding these programs, please contact the Advising department.

Students registering for web-enhanced, hybrid, or online courses can get help preparing by visiting the following pages:

- Is eLearning Right for Me? ([http://www.clark.edu/academics/eLearning/self\\_assess.php](http://www.clark.edu/academics/eLearning/self_assess.php))
- eLearning Programs (<http://www.clark.edu/academics/eLearning/programs/>)
- Canvas Orientations ([http://www.clark.edu/academics/eLearning/student\\_orientation.php](http://www.clark.edu/academics/eLearning/student_orientation.php))

### What Types of Programs are Offered?

Through the eLearning class formats, students have several options to complete a degree through Clark College eLearning:

1. Associate in Arts General Transfer degree (AADTA): In a combination of formats including online, hybrid, and weekend hybrid.
2. Business Administration DTA/MRP. In a combination of formats including online, hybrid, and weekend hybrid.

## How Do I Start an eLearning Class?

eLearning classes follow the same college policies and procedures as face-to-face classes; therefore, they have the same start and end dates, unless otherwise noted. This means students are expected to log into the Learning Management System (LMS) the first day of the term for class instruction.

Please visit the eLearning Getting Started page (<http://www.clark.edu/academics/eLearning/begin.php>) for information about starting an eLearning class.

## Technical Requirements and Support

To see if you have appropriate technology for eLearning courses go to the Technical Requirements page ([https://www.clark.edu/its/documentation-and-resources/academic-technology/tech\\_reqs.php](https://www.clark.edu/its/documentation-and-resources/academic-technology/tech_reqs.php)).

Technical support is available through the TechHub for:

- LMS login and troubleshooting
- Computer lab and student wireless login and troubleshooting
- Mobile device connectivity
- Course-specific software and e-books
- eTutoring login
- Online student services
- Computer usage and troubleshooting
- Student Gmail

For further information about TechHub, please visit their website ([http://www.clark.edu/campus-life/student-support/computing\\_resources/techhub/](http://www.clark.edu/campus-life/student-support/computing_resources/techhub/)).

# FINANCIAL AID

360-992-2153

<http://www.clark.edu/enroll/paying-for-college/financial-aid/index.php>  
(<http://www.clark.edu/enroll/paying-for-college/financial-aid/>)

The Financial Aid Office increases opportunities for both access and success by helping students seek, obtain and make the best use of all financial resources.

## Financial Aid Eligibility

All students are encouraged to apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA). In general, students must meet the following criteria to be eligible for federal student aid:

- Be a regularly admitted student to Clark College (not Running Start),
- Completed a high school diploma or GED,
- Be a U.S. citizen or eligible non-citizen,
- Not owe an overpayment on a federal grant,
- Not be in default on a federal student loan,
- Be enrolled in an eligible degree or certificate program,
- Maintain satisfactory academic progress

## Washington Application for State Financial Aid (WASFA)

Students who cannot complete the FAFSA due to citizenship status, defaulted loans or federal grant overpayments can apply for state financial aid by completing the Washington Application for State Financial Aid (WASFA). To be eligible for state financial aid students must:

- Have a high school diploma or GED,
- Not be in default on a state loan,
- Not owe a repayment on a state grant,
- Be enrolled in an eligible degree or certificate program,
- Maintain satisfactory academic progress,
- Be a Washington State resident (<https://wsac.wa.gov/student-residency/>)

Additionally, if selected, students must submit all requirements needed for verification. Students must meet all requirements for federal and state aid.

## Application Process

Students can start the annual application process by completing either the Free Application for Federal Student Aid (FAFSA (<http://www.fafsa.gov/>)) or the Washington State Application for State Financial Aid (WASFA (<https://wasfa.regenteducation.net/>)). The FAFSA/WASFA is used to determine which types of financial aid a student may be eligible to receive.

The Financial Aid Office may request additional information to complete a student's application after receiving the FAFSA or WASFA. Information needed will be requested through the student's "To Do" list in ctcLink Self-Service and communicated by email using preferred email address. Students are encouraged to complete all required information by each

term's priority processing date to avoid delays in receiving their financial aid offer.

### Types of Financial Aid Available

Financial aid includes grants, tuition waivers, student employment, scholarships, and student loans.

- Grants and tuition waivers are need-based forms of aid that generally do not have to be repaid,
- Student employment is available to help students pay for school through paid employment,
- Loans are a form of aid available that must be repaid with interest upon graduation, leaving school or dropping below 6 credits/units per term

#### Federal Pell Grant

The Federal Pell Grant is awarded based on financial need to undergraduate students. The initial award amount is based on the EFC and assumed full-time enrollment (12+ credits/units) for a maximum of three terms. Students who attend four terms may qualify for funds in the spring if they enroll in at least six credits/units. Eligibility is limited to a lifetime maximum of 18 full-time terms.

#### Federal Supplemental Educational Opportunity Grant (FSEOG)

FSEOG is awarded based on financial need to students with an EFC of 0 who are eligible to receive a Pell Grant. The award is not prorated for less than full-time enrollment however, students must enroll in a minimum of six credits/units per term to receive FSEOG.

#### Washington College Grant

Students completing the WASFA for state aid only, must meet all requirements for state financial aid. The initial award is based on assumed full-time enrollment (12+ credits/units) for all terms, including summer. The award is prorated for less than full-time enrollment however, a minimum of three credits/units is required to qualify for the award. Eligibility is limited a lifetime maximum of 15 full-time terms.

#### College Bound Scholarship

Students completing the WASFA for state aid only, must meet all requirements for state financial aid. The scholarship is available to students who signed up for the program in the seventh or eighth grade and graduated from a Washington high school with a 2.0 GPA without any felony convictions. Eligible students must enroll in college within one year of graduating high school.

The initial award is based on assumed full-time enrollment (12+ credits/units) for all terms, including summer. The award is prorated for less than full-time enrollment however, a minimum of three credits/units is required to qualify for the award. Eligibility is limited to a lifetime maximum of 12 full-time terms.

#### Passport to College Promise

Passport to College Promise is a state grant program available to former foster youth or students who experienced unaccompanied homelessness. To qualify students must complete the FAFSA or WASFA, meet Washington State residency requirements and enroll in at least six credits/units each term.

**Clark College Grants and Waivers**

Clark College reserves a percentage of tuition revenue and offers these funds to students who are a Washington State resident or eligible for in-state tuition in the form of institutional grants and tuition waivers. Grants offered are based on need. The award is not prorated based on enrollment level however, a minimum of six credits/units is required.

Waivers offered may only be awarded to reduce the cost of tuition and cannot be applied toward fees or refunded directly to students. Tuition waivers are not prorated based on enrollment level and there is no minimum enrollment level.

**Work-Study**

Work study offers are awarded based on need to students who indicate they are interested in student employment on the FAFSA. Funds are earned through employment on and off campus. Students must be enrolled in six or more credits/units per term.

Offers are automatically awarded to students for fall, winter and spring terms. Students who are interested in work study for Summer term should complete a Change Form (<https://www.clark.edu/enroll/paying-for-college/financial-aid/forms.php>) to request funds for summer. Visit the work study (<https://www.clark.edu/enroll/paying-for-college/wstudy.php>) page for more information.

**Federal Direct Loans**

Federal Direct Loans are a form of financial aid that must be repaid with interest. There are two types of Direct Loans:

- Direct Subsidized Student Loan: Awarded based on need to undergraduate students. The Department of Education pays interest while students are enrolled in school in at least six credits/units. Payments are automatically deferred while students are enrolled in at least six credits/units.
- Direct Unsubsidized Student Loan: Non-need-based loan available to undergraduate and graduate students. The student is responsible for interest while in school. Payments are automatically deferred while students are enrolled in at least six credits/units.

Students must meet all requirements for Title IV eligibility. The initial award amount is an offer after evaluating eligibility for need-based aid. Students who are interested in borrowing their Direct Loan offer can get started by:

- Accepting all or a portion of their loan offer online in their ctcLink Self Service,
- Complete a Master Promissory Note (<https://studentaid.gov/mpn/>),
- Complete Entrance Counseling (<https://studentaid.gov/entrance-counseling/>) (required for first-time borrowers only)

## Financial Aid Offers

Students are notified by email with a financial aid offer when their application is processed. The initial aid offer is based on the assumption that students will enroll in 12+ credits/units each term, which is considered full-time. Students may still be eligible for aid at lower enrollment levels, although some grant aid will be prorated based on the student's enrollment level.

Students who plan to enroll less than full-time (12 credits/units) will need to complete an Enrollment Change Form (<https://www.clark.edu/enroll/paying-for-college/financial-aid/forms.php>) to confirm their enrollment

level and request to have their aid adjusted to their planned enrollment level before disbursement of funds.

## Financial Aid Disbursement and Tuition Deadlines

Tuition deadlines for each term are published on the College's website ([https://www.clark.edu/enroll/registration/tuition-fees/tuition\\_payment\\_process.php](https://www.clark.edu/enroll/registration/tuition-fees/tuition_payment_process.php)). Students who have been awarded financial aid funds will have a tuition hold placed on their account to prevent a drop for non-payment until funds can be disbursed to pay charges.

Financial aid grants, tuition waivers and loan funds that have been accepted will be automatically used to pay outstanding tuition and fees approximately 1-2 business days before the first day of classes.

Any credit balance of financial aid funds remaining after payment of tuition and fees will be refunded to students. Clark College partners with BankMobile to deliver financial aid credit balance refunds. Funds are sent to BankMobile who in turn issues a refund according to the disbursement option selected. Additional information can be found online at: <https://bankmobiledisbursements.com/how-it-works/>

For questions regarding refund of payments prior to disbursement and tuition balances, please contact the Cashier's Office ([https://www.clark.edu/enroll/registration/tuition-fees/cashiers\\_office.php](https://www.clark.edu/enroll/registration/tuition-fees/cashiers_office.php)).

## Financial Aid Census Date and Repayment Policy

The Financial Aid Office uses an "enrollment lock" date for Federal Pell Grant, Washington College Grant, College Bound Scholarship, and Passport to College Promise funds. The "lock" date is also known as the "census date."

The census date is the 10<sup>th</sup> business day of the term, except for summer which has a census date of the eighth business day. Through this date, college policy allows students to drop classes without a grade of "W." Tuition refunds may also be issued for courses dropped following to the Clark College Refund Policy ([http://www.clark.edu/enroll/registration/refund\\_policies.php](http://www.clark.edu/enroll/registration/refund_policies.php)).

Schedule changes made through the census date may have different impacts. Factors to consider include whether aid from the grant programs locked at census have already been disbursed, and whether classes were added or dropped.

**Adding Classes**

Financial aid funds are increased for enrollment level changes from adding eligible courses through the census day. Additional funds awarded are applied toward payment of charges for classes added, and any remaining balance is refunded through BankMobile Disbursements.

**Dropping Classes**

Decreasing Enrollment Level Financial aid funds are reduced for enrollment level changes from dropping eligible classes through the tenth day. This will result in repayment owed to Clark College and/or the state aid program(s) depending on the funding type received.

**Complete Withdrawals**



Withdrawing from all financial aid eligible credits/units through the tenth day will result in repayment of all funds received. For Washington College Grant and College Bound Scholarship the full balance of the award received will be owed. Repayment of other sources of aid is subject to the Clark College Return of Title IV Repayment Policy ([https://www.clark.edu/enroll/paying-for-college/documents/Return\\_of\\_Title4\\_Policy.pdf](https://www.clark.edu/enroll/paying-for-college/documents/Return_of_Title4_Policy.pdf)) requirements and based on number of days attended within the term.

### Late Starting and/or Early Ending Classes

Classes that start after the tenth day and/or end before the last day of the term are considered module courses. Eligible module classes are included in the enrollment level at the time of disbursement as long as the student was enrolled in the course(es) by the tenth day. Students who withdraw from a module class on or before the scheduled course start date are considered to have not commenced attendance and will require an enrollment level review. A reduction of eligibility will result if the student did not commence attendance in the enrollment level funded.

### Late Enrollment

Clark College may allow enrollment in classes after the census date on case-by-case basis. Students may request authorization by completing a Late Registration Petition to the Enrollment Services Office. Petitions approved may result in a funding adjustment.

The complete Financial Aid Census Date and Repayment Policy ([https://www.clark.edu/enroll/paying-for-college/documents/CC\\_Refund\\_Repayment\\_Policy.pdf](https://www.clark.edu/enroll/paying-for-college/documents/CC_Refund_Repayment_Policy.pdf)) is available online. Students are encouraged to visit the Financial Aid Office to ask about the impact of dropping classes before making changes to their schedule.

## Financial Aid Satisfactory Academic Progress

Students must meet Financial Aid Satisfactory Academic Progress (SAP) Policy (<https://www.clark.edu/enrollhttps://www.clark.edu/enroll/paying-for-college/documents/SatisfactoryAcademicProgressPolicy.pdf>) requirements to remain eligible for federal, state, and institutional financial aid. SAP is reviewed both annually and at the end of each payment period. Students are notified via email if SAP conditions are not met. All terms of attendance, including those in which financial aid was not received, are used in determining SAP status.

There are three standards to the SAP Policy that are evaluated at the end of each term:

I. Grade Point Average (GPA) requirement is to maintain a minimum 2.0 cumulative GPA. If the cumulative GPA falls below 2.0 at the end of the term the student will not have met the GPA requirement to remain in good standing. In addition, a student must maintain a minimum 2.0 cumulative GPA at the end of their sixth term or an automatic suspension will occur. Courses with an S (Satisfactory), U (Unsatisfactory), I (Incomplete), and W (Withdrawal) do not have an impact on GPA. For repeated coursework, only the highest grade achieved will count in the GPA calculation.

II. Pace of Progression is calculated by dividing the cumulative earned by the cumulative attempted credits/units. When this calculation falls below 67%, a student is no longer on pace to graduate on time. In addition to earning at least 67% of their attempted credits/units, students must also complete all credits/units within their enrollment level which is captured on the census date each term. Pace of progression that is 66.6% or higher will be rounded to 67%. Whether or not aid was received, all program

credits/units, including transfer and remedial credits/units, will be taken into consideration. Courses with grades of F (Failed), I (Incomplete), U (Unsatisfactory), W (Withdrawal), Y (In Progress) and repeated courses are included in the calculation of attempted credits/units. Only the highest grade achieved will count as attempted and earned credit/unit for repeated courses. Courses approved on Set-Aside Petitions will count as attempted credits/units. Non-graded coursework and (\*) grades are excluded from pace of progression for credit/unit bearing classes. Program changes do not affect pace of progression.

III. Maximum Timeframe is measured to ensure students are taking required courses to complete their certificate or degree. Program progression must be reviewed when students exceed 150% of the length of program. Federal financial aid recipients will be ineligible for further funding if it is mathematically impossible to complete the program of study within 150% of the length of the program. State financial aid recipients have a maximum usage limit of five full-time years of eligibility for the Washington College Grant and a maximum usage limit of four full-time years of eligibility for the College Bound Scholarship (after enrolling within one year of high school graduation). All credits/units, regardless of whether they were taken while on financial aid, including credits/units removed with an approved Set-Aside Petition are used in calculating maximum timeframe. Transfer credits/units accepted for use towards the current certificate or degree are also included. Repeated credits/units (R grades) are counted as attempted towards maximum timeframe. Transitional support coursework that is attempted and results in an asterisk (\*) grade such as ABE, GED, ESL, ENL, and some CAP coursework are excluded from the federal maximum timeframe calculation. Funding of remedial courses is limited to 45 attempted credits/units. Program changes do not affect maximum timeframe.

### Additional Maximum Timeframe Information \*\*\*

Maximum credit/unit warning notifications will be issued when a student has attempted between 125% and 150% of the credits/units required for their declared program. Once a student has attempted 150% of the credits/units required for their declared program, federal financial aid will be suspended.

### Financial Aid Warning

Students will be placed on Financial Aid Warning for one term if:

- Cumulative GPA falls below 2.0 at the end of a term and/or
- Pace of progression is less than 67% and/or
- Not all attempted credits/units are completed (as noted in the table below under WARNING) \*
- Students on Warning are eligible to receive financial aid the next term of attendance but are in jeopardy of losing their financial aid eligibility. If all SAP requirements are not met at the end of the next term of attendance, financial aid will be suspended. Warning status will be cleared if all SAP requirements are met at the end of the next term of attendance.

### Financial Aid Suspension

Students will be placed on financial aid suspension if:

- On Financial Aid Warning/Probation and
- Cumulative GPA falls below 2.0 at the end the term and/or
- Pace of progression is less than 67% and/or
- Not all attempted credits/units are completed (as noted in the table below under WARNING)\*

- Cumulative GPA falls below a 2.0 at the end of the 6th term of attendance and beyond
- For federal financial aid recipient, has exceeded 150% of the credits/units required for the program\*\*\*
- Not all attempted credits/units are completed (as noted in the table below under SUSPENSION) \*\*
- Conditions of their Academic Plan have not been met

Students on financial aid suspension are not eligible for future financial aid including grants, work-study, and loans. Financial Aid Suspension remains in place until the student has an approved appeal or has met the reinstatement criteria (See Regaining Financial Aid Eligibility).

<b>Credits/Units registered at time of Census remain in good standing if you successfully complete</b>	<b>You will</b>
Full time (12 or more credits/units) units	12 credits/
3/4 time (9-11 credits/units) units	9 credits/
1/2 time (6-8 credits/units) units	6 credits/
Less than 1/2 time (1-5 credits/units) attempted credits/units	All

<b>Credits/Units registered at the time of Census occur if you complete: *</b>	<b>WARNING will</b>
Full Time (12 or more credits/units) 6-11 credits/units	Between
3/4 Time (9-11 credits/units) 6-8 credits/units	Between
1/2 Time (6-8 credits/units) Applicable - See Suspension	Not
Less Than 1/2 Time (1-5 credits/units) Applicable - See Suspension	Not

<b>Credits/Units registered at the time of Census SUSPENSION will occur if you complete: **</b>	
Full Time (12 or more credits/units) units or less	5 credits/
3/4 Time (9-11 credits/units) units or less	5 credits/
1/2 Time (6-8 credits/units) units or less	5 credits/
Less Than 1/2 Time (1-5 credits/units) all attempted credits/units	Less than

**Financial Aid Probation**

If the Financial Aid Committee approves a student’s appeal, financial aid will be reactivated on a probationary status. Students on Probation are eligible to receive financial aid the next term of attendance.

Probation status will be cleared if all SAP requirements are met at the end of the next term of attendance. If all SAP requirements are not met at the

end of the next term of attendance, a Financial Aid Suspension will occur (see Financial Aid Warning section for details).

If it is mathematically impossible to meet all SAP requirements by the end of the next term of attendance, the Financial Aid Committee may approve an appeal on an Academic Plan, allowing for an extended Probationary period. If at any time while on an academic plan, the student does not achieve progress towards meeting the pace, term enrollment, and GPA requirements, or other conditions set by the Committee, a Financial Aid Suspension will occur (see Financial Aid Warning section for details).

**Appeals**

Students have the option to submit an appeal to address financial aid suspension for not meeting any combination of the SAP elements. Appeals must be submitted by the priority processing date listed on the Financial Aid (<https://www.clark.edu/enroll/paying-for-college/financial-aid/maintain-aid/>) website (<https://www.clark.edu/enroll/paying-for-college/financial-aid/maintain-aid/>) in order to be considered for financial aid for that term and include all required documentation listed under the appeal type.

Appeals are reviewed by an Appeals Committee which consists of financial aid representatives. The Committee’s decision is final and cannot be appealed further. If the appeal is approved, the student will be placed on a probationary status. Students are notified of their decision through email.

The Financial Aid Office does not guarantee an appeal submitted will result in an approval. The student is responsible for paying any and all costs of attendance while awaiting an appeal outcome. The Financial Aid Office allows for the following appeals:

- Satisfactory Academic Progress (SAP) Appeal (<https://www.clark.edu/enroll/paying-for-college/documents/22-23-SAP-Appeal.pdf>)
- Maximum Timeframe Appeal (<https://www.clark.edu/enroll/paying-for-college/documents/22-23-MAX-Appeal.pdf>)
- Maximum Timeframe and SAP Suspension (MAX/SAP) Appeal (<https://www.clark.edu/enroll/paying-for-college/documents/sap-max-appeal.pdf>)
- Change of Records SAP Appeal (<https://www.clark.edu/enroll/paying-for-college/documents/22-23-Change-of-Records-SAP-Appeal.pdf>)

**Reinstatement Criteria**

If a student chooses not to appeal or has exhausted the two (2) appeal limit they may be eligible for reinstatement when they have satisfied the following conditions:

1. Enroll in and successfully complete a term within the enrollment level recorded at census, and
2. Earn a cumulative GPA of 2.0 or higher, and
3. Have a pace of progression of 67% or higher, and
4. For federal financial aid recipient, has not exceeded 150% of the credits/units required for the program.

In the reinstatement term, receiving grades of F (Failed), I (Incomplete), U (Unsatisfactory), W (Withdrawal), Y (In Progress), and repeating courses may hinder eligibility for financial aid reinstatement and could increase the number of credits/units required to reinstate.

When the reinstatement criteria are met, aid is reactivated based on available funding and may not reflect the original aid offer. Meeting reinstatement criteria does not negate any repayment owed to the financial aid programs or Clark College.

### Financial Aid Limitations

- FLPC, ESL, IELP, and most CAP classes are not eligible for financial aid. Only CAP 46 and 90 are eligible for financial aid.
- Repeating Courses: Once credit/unit is earned, financial aid can only fund one additional attempt of a course.
- Financial aid can up to 45 credits/units remedial coursework.
- Repayment obligations cannot be appealed.
- Lifetime eligibility limits cannot be appealed

This Satisfactory Academic Progress Policy is subject to change at any time due to federal regulations and/or requirements established by the Financial Aid Office.

## Clark College Return of Title IV (R2T4) Funds Policy

Financial aid funds are awarded assuming students will attend Clark College for the entire term. If a student withdraws, the Financial Aid Office is required to calculate the amount of Federal Student Aid, also known as Title IV funds, earned and return the unearned part of the aid disbursed for the term.

There are two scenarios where a student is considered withdrawn which will result in a Return of Title IV calculation: official and unofficial withdrawals.

- Official Withdrawal: When the student officially withdraws from classes through Enrollment Services (<https://www.clark.edu/enroll/registration/manage-enrollment/>),
- Unofficial Withdrawal: When the student stops attending classes before the end of the term and does not complete official withdrawal procedures

### Calculating the Return of Title IV Funds

The Financial Aid Office follows a federal formula approved by Congress to calculate the amount of funds earned and the amount of funds that must be returned. This includes:

1. Establishing the date of withdrawal, calculating the number of days in the term and the number of days the student was enrolled
2. Using the number of days attended, calculating the percentage of Title IV funds earned and the amount of Title IV funds that were not earned
3. Determine the total amount of Title IV aid that must be returned to the Department of Education and allocate the return, in order of priority, established by Congress

### Returning of Unearned Funds

The Financial Aid Office will revise the financial aid awards to return unearned funds, in order, to the Department of Education. Students will be notified by email of the Return of Title IV calculation detailing the amount disbursed and the amount earned from each aid program. Students who earned less than the amount disbursed will owe outstanding charges

to the college. Separate billing statements will be sent by Clark College Accounting Services.

Official withdrawals may result in tuition refunds based on the Clark College Refund Policy. Refunds issued as a result of the withdrawal will be applied toward the student's debt owed by Clark College Accounting Services.

### Post-Withdrawal Disbursements

Occasionally, a student may withdraw before all aid they were eligible for was disbursed. If the Financial Aid Office determines the student earned more aid than was disburse, the student may be eligible for a disbursement of funds after the withdrawal. This is considered a post-withdrawal disbursement.

Post-withdrawal disbursements of eligible grant funds will automatically be made to the student account to pay outstanding institutional charges such as tuition and fees. Any remaining credit balance will be refunded directly to the student through BankMobile. Students who are eligible for post-withdrawal disbursement of loan funds will be notified by email of their eligibility with a deadline to claim available funds.

The complete Return of Title IV Policy ([https://www.clark.edu/enroll/paying-for-college/documents/Return\\_of\\_Title4\\_Policy.pdf](https://www.clark.edu/enroll/paying-for-college/documents/Return_of_Title4_Policy.pdf)) is available online. Students are encouraged to visit the Financial Aid Office to ask about the impact of withdrawing from classes before making changes to their schedule.

## Other Educational Resources Available

### Scholarships

360-992-2582

<http://www.clark.edu/enroll/paying-for-college/scholarships/index.php>  
(<http://www.clark.edu/enroll/paying-for-college/scholarships/>)

Funding for scholarships is made possible through the generous support of individuals and organizations. The Clark College Foundation is one of the largest community college foundations in the country and offers many scholarships to Clark College students each year.

Individual scholarships may have specific eligibility criteria such as maintaining a certain grade point average (GPA) or enrollment level to qualify for funds awarded. Students should refer to the scholarship award letter they receive from the Foundation for the conditions of their award. The scholarship application is separate from the application for financial aid.

Generally, scholarship applications are available between January through April, and funds are awarded for the following academic year.

### Workforce Education Services

360-992-2729

Workforce Education Services (WES) administers a variety of programs that are designed to support students who are seeking certificates and degree programs with an employment goal, as well as students enrolled in Transitional Studies programs. Eligibility, including eligible degree types, vary and are dependent on individual program requirements.

Students may receive assistance with tuition, fees and books as well as help in accessing other supports, to include public benefits, by completing the Workforce Education Services Application online

at: <https://apps.clark.edu/WESapplication> (<https://apps.clark.edu/WESapplication/>).

### Opportunity Grant

360-992-2039

The Opportunity Grant program serves low-income students who are pursuing professional/technical programs that lead to high-wage, high-demand jobs. Eligible students must be Washington State residents, meet income guidelines, and be enrolled in an approved program. Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

### Worker Retraining

360-992-2274

The Worker Retraining program serves students who have experienced unemployment, who are displaced homemakers, or have been discharged from the military, and are pursuing professional/technical programs that provide them with the ability to re-enter the workforce. Eligible students must live in Washington State and be enrolled in an approved program. Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

### WorkFirst Financial Aid and Work-Study

360-992-2915

The WorkFirst program serves students who are receiving Temporary Assistance for Needy Families (TANF) and are pursuing professional/technical programs. Eligible students must live in Washington State and be enrolled in an approved program. Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

On-campus WorkFirst Work-Study job opportunities may also be available for those who qualify.

### Basic Food Employment and Training (BFET)

360-992-2038

The BFET program serves students who are receiving federal basic food benefits and are pursuing professional/technical programs. Eligible students must live in Washington State and be enrolled in an approved program. Students may be eligible to receive subsidized childcare assistance through Working Connections/Department of Social and Health Services (DSHS). Financial assistance with tuition, books, and mandatory fees may be available for those who qualify.

### Sponsored Programs

360-992-2286

The Sponsored Programs office serves as a liaison between students and various governmental and community agencies that have authorized funding to pay for tuition, books, and supplies. An administrative processing fee applies to agencies who fund these student expenses.

### Veteran Education Resources

Eligible veterans and dependents must request certification each term for approved degree and certificate programs. Only courses required for the program and on the student degree worksheet will be funded. Audited courses are not eligible. Students are required to make satisfactory academic progress as defined by Clark College and are

required to contact the Veterans Center of Excellence prior to making any schedule changes. Visit the VCOE website for more information. <https://www.clark.edu/campus-life/student-support/vrc/> (<https://www.clark.edu/campus-life/student-support/vrc/>)

GI Bill® and Vocational Rehabilitation and Employment students who have submitted or are in the process of submitting their certificate of eligibility to Clark's School Certifying Official will not have a penalty imposed, including late fees, or be denied access to school facilities, or be required to borrow additional funds, because of delayed payments from the VA.

Clark College attempts to limit student enrollment to 85% veteran enrollment per program cohort. In the event that a veteran wishes to enroll in a course that has already reached the 85% cap, he or she may do that but will not be eligible for VA payment of tuition and fees. The Code of Federal Regulations (38 CFR 21.4201) states the VA shall not approve the enrollment of any VA-eligible person, not already enrolled in any course for any period during which more than 85% of the students enrolled in the course are having all or part of their tuition and fees paid to or for them by Clark College or the VA.

Students whose parent was a member of the U.S. armed forces and died because of military service performed in Iraq or Afghanistan after 9/11 or was a public safety officer who died in the line of duty may qualify for additional Federal Pell Grant funds. Eligibility for additional funds may be considered if the student was under the age of 24 or enrolled in college at the time of the parent's death. Students should contact the Financial Aid Office if they believe they may qualify.

### Military Tuition Assistance

To activate your tuition assistance authorization, follow these steps (you may have already completed some or all of these):

- Apply for college admission/ activate Clark student email account
- Complete assessment testing
- Submit transcripts from prior colleges you have attended
- Meet with an Academic Advisor to develop an Education Plan
- Submit Education Plan to military base contact
- Register in required classes based on your Education Plan
- Submit a copy of your Education Plan and approved Tuition Assistance authorization to [ddaniel@clark.edu](mailto:ddaniel@clark.edu)

### Important Notes:

- Your Tuition Assistance Authorization will not cover college fees. Some fees are embedded in the Tuition Rate Schedule: <https://www.clark.edu/enroll/registration/tuition-fees/index.php> After you send your TA authorization, I will calculate the costs that you will be responsible to pay along with the due date and payment information.
- If your service branch denies payment of the authorized TA funds due to grades, non-attendance or any other situation, you will be responsible for the costs and must make payment to Clark College. Failure to pay these costs will restrict further enrollment and access to academic records.
- If you change your major, you must provide a revised Education plan to your military base contact and myself
- Please notify me of your enrollment every term and your intent with utilizing tuition assistance. Please ensure that you are notifying me prior to the tuition due date to ensure that I have placed a protective hold on your account so that you are not dropped for non-payment.

You must submit a Graduation Application one term before completing your certificate or degree requirements and notify me of your anticipated graduation date. <https://www.clark.edu/enroll/credential-evaluation/graduation-application.pdf>

Additionally, Clark College, in partnership with the Department of Defense, wants you to be an informed consumer. We invite you to review the following websites to learn more about Clark College and the services available to you.

**Prospective Student Resources:**

- College Scorecard (<http://collegecost.ed.gov/scorecard/>)

A resource to assist prospective students and their families evaluate options in selecting a school.

- College Navigator

A tool that provides consistent information about tuition, fees, retention, graduation, and loan default rates by college.

- Paying for College

A resource that explains federal student loans and repayment options.

- Financial Aid Shopping Sheet

A standardized award letter students and their families use to compare financial aid by institution.

- Clark College Student Support Services

**Disability Support Services (DSS)**

Qualified persons with disabilities can receive accommodation to assure equal access.

- Financial Aid Resources & Application

Apply for Federal financial aid and find additional resources available to support education costs.

- Advising, program/degree planning, Credentials/graduation application

Academic Advisors are available to map education plans and provide college transfer information.

- Job Search Assistance (<http://www.clark.edu/enroll/careers/job-search/>)

Explore career options; find employment opportunities, co-op, and internships.

Clark College signed the Department of Defense (DOD) Voluntary Education Partnership Memorandum of Understanding (MOU) and conforms to Executive Order 13607 April 27, 2012, establishing Principles of Excellence for Educational Institutions Servicing Service Members, Veteran Spouses and family members. Credit for military experience may be granted toward general elective and specific vocational program coursework. Potential students are required to submit military and all other school transcripts, to be applied toward their intended program of study, no later than the start of their second term of enrollment. Military training and experience granted for credit/unit recommendations are based on the American Council of Education (ACE) guidelines for military training. Students may receive credit for prior learning for some military

training—refer to the Credit for Prior Learning policy section of this catalog.

The College's School Certifying Officials' contact information is listed below.

Eli Gonzalez-Roman  
egonzalez-roman@clark.edu

Megan Anderson  
mmanderson@clark.edu

# REGISTRATION

360-992-2183

For more detailed information regarding enrollment for new, continuing or transfer students please see the website at <http://www.clark.edu/enroll/registration/index.php> (<http://www.clark.edu/enroll/registration/>).

Continuing student access to enroll is based on a number on a number of factors. Participation in specific programs and number of credits/units earned are among the factors utilized to determine access.

Priority registration access is given to eligible veterans under HB 1109. Qualifying students will receive access to registration services prior to the continuing student population. Students approved for registration accommodation due to disability will also register during this time period.

Specific information on dates, deadlines, and hours of service can be found on the Clark College website at [www.clark.edu/current](http://www.clark.edu/current) (<http://www.clark.edu/current/>).

## Course Formats

Students may register for courses in several different formats including web-enhanced, hybrid and online. See Clark College eLearning for more details on what each format requires.

## Registration Policies

### Credit/Unit Maximum

Students may register online or in person for 0-20 credits/units. Students who wish to add excess credits/units (i.e., 21 or more) must make an appointment and obtain permission from an advisor to register over the credit/unit maximum.

### Late Registration Policy

Beginning the third (3rd) day of the term, instructor permission is required to enroll into any regular starting class.

### First Week Attendance Policy

It is essential that students attend the first class meeting of their courses. If a student is unable to attend due to an emergency or conflict of a serious nature, students should contact the instructor. If the instructor is not designated in the class schedule, the student should contact either the Division Office or the Office of Instruction, which will direct the student appropriately. Students who fail to attend one (1) or more sessions during the first five (5) days of the term may be dropped from the class. Students who miss any classes during the first five (5) days are responsible for verifying their enrollment status.

Students enrolled in online courses must log into their course by the first day of the term and complete all first-week course requirements by their due dates. This is accomplished by accessing the Canvas course shell (unless alternate instructions have been provided by the instructor). For more information about logging into Canvas, visit eLearning Getting Started (<http://www.clark.edu/academics/eLearning/begin.php>). If a student has not completed first-week course requirements set by the instructor during the first five (5) days of the term, the student may be dropped from the course.

Note: Students who drop or are dropped by the college during the first five (5) days of the term will receive a full refund of tuition and fees, if due.

Students are responsible for verifying all transactions regarding course registration.

## Dropping a Class and/or Withdrawal from the College

Students who find it necessary to withdraw from classes must do so formally. The withdrawal process can be completed online using ctcLink or in person using a Change of Registration form at the Enrollment Services Office. The dates and deadlines for dropping and/or withdrawing from classes are available at [www.clark.edu/enroll/registration/academic-calendar.php](http://www.clark.edu/enroll/registration/academic-calendar.php) (<http://www.clark.edu/enroll/registration/academic-calendar.php>).

- A class officially dropped before the tenth (10th) day (eighth day in summer) of the term will not be entered on the student's transcript.
- After the tenth (10th) day and through the end of the term, regular starting classes formally dropped online or at the Enrollment Services Office will be posted to the student's transcript with a withdrawal grade of "W" assigned to the class. Withdrawals will not be accepted after the day before the term ends.
- For courses with unusual start and end dates, withdrawals will not be accepted after the day before the term ends.
- If the student decides not to attend, it is their responsibility to withdraw from all classes. Withdrawals will not be accepted for a class that has ended.

## Administrative Withdrawal

Students unable to withdraw by the end of the term due to extenuating circumstances should contact the Enrollment Services Office for information on requesting an Administrative Withdrawal.

## Auditing a Class

Any student may enroll in a course on an audit basis with instructor's written consent and upon payment of the regular tuition and fees. Audit students will be exempt from examinations and will not receive college credit; however, the instructor may require reasonable attendance and class participation. To change from credit to audit or audit to credit, the student must complete a Change of Registration form at the Enrollment Services Office. Such changes may be made only with the written consent of the instructor and must be processed by the end of the tenth (10th) day of the term (eighth day in summer).

## Student Attendance Status

Clark College considers students enrolled in twelve (12) or more credits/units to be full-time students. The definition of "full-time student," however, may vary for certain agencies, such as Veterans Services, Financial Aid, Social Security, and insurance companies. Student attendance status for Financial Aid and MGIB GI Bill<sup>®</sup> Chapters 30, 31, 35, 1606, 1607, is as follows:

### Financial Aid

Attendance Status	Credit/Unit Hours Per Term
Full-time student	12 credit/unit hours
Three-quarter-time student	9-11 credit/unit hours
Half-time student	6-8 credit/unit hours
Less than half-time student	1-5 credit/unit hours

**GI Bill<sup>®</sup> Attendance Status for Fall, Winter and Spring Terms**

Attendance Status	Credit/Unit Hours Per Term
Full-time student	12 credit/unit hours
Three-quarter-time student	9-11 credit/unit hours
Half-time student	6-8 credit/unit hours

**GI Bill<sup>®</sup> Attendance Status for Summer Term**

Attendance Status	Credit/Unit Hours Per Term
Full-time student	8 credit/unit hours
Three-quarter-time student	6-7 credit/unit hours
Half-time student	4-5 credit/unit hours
Less than half-time	3 credits/units or less

**Post 9/11 GI Bill<sup>®</sup> Student Attendance Status**

Post 9/11 GI Bill<sup>®</sup> calculated at Rate of Pursuit. Students must be enrolled at more than half-time to receive their expected BAH.

- 12 credits/units or more is considered full-time training for Post 9/11 GI Bill<sup>®</sup> for Fall, Winter, and Spring terms. (7 or more credits/units is required for BAH payment)
- 8 credits/units or more is considered full-time training for Post 9/11 GI Bill<sup>®</sup> during Summer term only. (5 or more credits/units is required for BAH payment)

## Absence

Students are expected to attend classes in which they are enrolled. Attendance may be a factor in grading for a course. When unavoidable absence occurs, it is the obligation of the student to notify the instructor and arrange for the make-up work deemed necessary by the instructor. Reference the course syllabus for absence management details.

A member of the Washington National Guard or any other military reserve component who misses any form of participation/attendance in a class due to being ordered to service for 30 days or less, or requiring medical treatment for that service, is entitled to make up academic assignments without prejudice to the final course grade or evaluation. Documentation must be submitted prior to absence. Contact the Veterans Resource Center for information.

## Change of Contact Information

To ensure receipt of important information, students must notify the college of any change of address, telephone, and preferred name. Contact information may be updated in ctcLink. Offices that should be informed include Enrollment Services and Financial Aid.

## Tuition and Fees

The first tuition due date is three weeks before the term begins. Tuition is due on a weekly basis after that:

- Students can verify the amount of tuition and the due date by viewing their schedule and other information in ctcLink.
- Students who enroll Saturday through Friday must pay tuition and fees no later than the following Monday by 5:00 p.m.
- If Monday happens to be a holiday, payment is due on Tuesday by 5:00 p.m.
- Students who enroll after the 10th day of the term (8th day of summer term) must pay tuition by the end of the same business day on which they register (5:00 p.m.).

**Students receiving financial aid, scholarship, agency, or Veterans benefits are responsible for paying outstanding tuition and fees by the tuition due date when aid is insufficient to cover the total cost.**

Students who do not pay tuition and fees will be dropped from their classes unless:

- A tuition deadline exception has been activated on the student account.
- The outstanding balance is \$100 or less.
- A signed agreement to participate in the STEPP deferred payment plan has been submitted and payments are up to date.
- Registration for classes occurs after the tenth (10th) day of the term.

It is the responsibility of the student to officially withdraw from classes if they are unable to pay tuition and fees. A 100% refund will be issued through the fifth (5th) business day of each term permitting in compliance with Washington State Regulations.

Students with any outstanding debt owed to the college will:

- Be blocked from future registration.
- Be sent to Collections and a collection fee will be added to any tuition and/or fees outstanding at the end of the term.

## Matriculation and Facilities/On-Campus Parking Fee<sup>1</sup>

Students are charged per credit/unit hour to a maximum of twenty (20) hours for matriculation and facilities/on-campus parking.

<sup>1</sup> These fees are refundable on the same basis as tuition.

## Technology Fee<sup>1</sup>

Students are charged per credit/unit hour to a maximum of twenty (20) hours for technology such as computer software, computer replacement, and technical lab assistance to maintain open computer labs. Other examples of technology available to students are online registration and student kiosks, and online services featured on the Clark College website.

<sup>1</sup> These fees are refundable on the same basis as tuition.

## Additional Fees

Some courses may require payment of lab or course fees in addition to or instead of tuition. These fees help the college defray expenses not funded by the state. Fees are used for specific course expenses such as breakage, hazardous waste management, consumable supplies, special materials, minor repairs, and materials that become the property of the student.

## Textbooks and Supplies

The Clark College Bookstore stocks required textbooks (including the associated ISBN) and supplies as requested by classroom instructors. Also available are many supportive suggested materials to assist the student's class preparation and participation. The store staff understands the financial impact of class materials, and thus provides the lowest prices for new textbooks of any college in this region and diligently pursues and stocks as many used textbooks as possible, partly supplied from a student book buyback program. In addition, the store offers a number of other affordability services for Clark students, such as textbook and calculator rentals, hold services, peer-to-peer exchange and much more. To obtain current book and supply lists and receive assistance in cost estimating, please visit the Clark College

Bookstore on the main Clark College campus or visit its website at [www.clarkbookstore.com](https://www.clarkbookstore.com) (<https://www.clarkbookstore.com/>).

## Financial Obligations of the Student

Students are expected to meet their financial obligations to the college. Clark College staff will act in accordance with adopted procedures and, if necessary, initiate legal action to ensure that collection matters are brought to a timely and satisfactory conclusion. Collection fees will be added to debts owed the college.

Admission to or registration with Clark College and other college services, will be withheld for failure to meet financial obligations.

## Refund Policy

A student who officially withdraws using ctcLink or through the Enrollment Services Office may receive a refund of tuition and certain fees. The complete Refund Policy is printed in the college information section of this catalog and is available online at [http://www.clark.edu/enroll/registration/refund\\_policies.php](http://www.clark.edu/enroll/registration/refund_policies.php).

Students who believe extenuating circumstances justify an exception to the policy may make a formal request at the Enrollment Services Office. Exceptions may be granted for extreme, extenuating, urgent, and unavoidable circumstances that prevent a student from withdrawing within the established guidelines. Students receiving financial aid should contact the Financial Aid office as soon as possible to discuss the impact of requesting an exception due to federal financial aid guidelines.

## Grades and Records

BEdA for CAP and ESL Coursework

BGB Grading Basis is used whether or not the class is graded. The BGB Grading Basis does not require actual grading. This grading basis will exclude the enrollment from Financial Aid Pace and Satisfactory Academic Progress calculations. This grading basis allows a grade to be applied and for the student to view the grade and units in Student Self-Service. The grade points and credits/units associated to the BGB grading basis will not factor into any college-level calculation.

## Grade Legend

Clark College uses the grading symbols listed below. The grades A, B, C, and D may include pluses (+) and minuses (-).

Letter Grade	Grade Point
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
F	0.0
I	Incomplete
N	Audit

S	Satisfactory (credit/unit only, no grade points)
U	Unsatisfactory (no credit/unit, no grade points)
W	Official Withdrawal

## Transfer of Grades

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. Courses completed with a grade of "D" or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or "C" is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

## Grade Information

Students enrolled in credit/unit classes may obtain grade information approximately eight (8) business days after the end of each term. Students may access grades by logging into MyClark@ctcLink, select the Academic Records tile and choose either "View Grades" or "View Unofficial Transcripts."

## Grade Point Average (GPA)

Grade points are calculated by multiplying the number of credit/unit hours for each course by the decimal grade appropriate for the grade earned. The term GPA is computed by adding the total number of grade points for the term and dividing by the total number of credits/units attempted in courses that received a letter grade.

Credit/Unit Hrs Attempted	Grade	Grade Points Earned
5	B+ = 3.3	16.5
3	C = 2.0	6.0
<b>8 Total Credits/Units</b>		<b>22.5 Total Grade Points</b>

Dividing 22.5 by 8 computes to a grade point average of 2.81.

The student's cumulative grade point average may be obtained by adding the total number of grade points for all terms and dividing by the total number of credits/units attempted in the courses that received a letter grade.

As of Summer 2021, most Basic Education for Adult (ESL, CAP and CCAP) courses are graded, however the credits/units and GPA will not be reported on the transcript.

## Incomplete Grades

An incomplete grade may be given if the instructor is satisfied that unavoidable circumstances have prevented the student from completing the course work and the student has requested this option.

The incomplete grade remains on the student's transcript for 90 (ninety) days, or until the student completes the required work and the instructor submits an amended grade to the Enrollment Services office. If the instructor does not submit an amended grade within 90 (ninety) days, the 'I' grade will revert to 'F' for a letter graded course or 'U' for a Pass/No Pass course.

Incomplete grades can impact Financial Aid funding, please refer to the Satisfactory Progress Policy at <http://www.clark.edu/enroll/paying-for->



college/get-keep/index.php (<http://www.clark.edu/enroll/paying-for-college/financial-aid/maintain-aid/>)

## Pass/No Pass

Students may request to enroll in approved courses on a Pass/No Pass (PNP) basis. Please see the class schedule to see which specific courses can only be graded Pass/No Pass. Classes eligible for Pass/No Pass are indicated by the [PNP] under the class description. No more than sixty (60) credits/units from 100 or 200 level courses taken for pass/no pass will be allowed toward the Associate in Arts degree, Associate in Science degree, the Associate in Applied Science degree, the Associate in Applied Technology degree, or Bachelors of Applied Science. Students must earn a grade of "C" or better (2.00 GPA) to be given a "Satisfactory" grade in a pass/no pass course. An "Unsatisfactory" grade will be posted for students earning less than a "C" grade. Students planning to transfer to a university should contact that institution to determine their policy for acceptance of pass/no pass courses.

## Repeating a Course

Students may repeat a course taken at Clark College in order to improve their skills or the course grade. All course repeats must comply with the Procedures for Repeating a Course.

- The course repeat policy only applies to courses that are taken at Clark College.
- A course may be repeated only twice (taken a total of three times) unless otherwise specified in the college catalog. The "W" (Withdraw) grade IS included as a repeated course attempt.
- Credit/Unit for any course is earned only once (except for courses designed to be taken multiple times, as noted in the course catalog).
- Only the highest grades awarded will be used in computing the Clark College GPA.
- Each grade received will remain on the student's transcript; a repeat notation will be posted to the transcript for these courses.
- Courses must be repeated for a letter grade unless the course is offered only as pass/fail.
- The course repeat process DOES NOT apply to grade symbols: N or Y.
- The Clark College repeat policy may or may not be recognized by other institutions, it is at their sole discretion.
- To repeat a course, students must re-register and pay all necessary tuition and fees.

## Setting Aside Past Record

Qualified students may set aside a previous substandard academic record that does not reflect their true ability at Clark College. Setting aside does not expunge the previous record, but places a "grade forgiveness" notation on the student's transcript, marking the term from which the college will calculate a new GPA for determining probation, eligibility, or honors at graduation. Students may not count credits/units set aside to fulfill credit/unit requirements for graduation nor remove credits/units that had been used to fulfill requirements for graduation. Students should understand that the record to be set aside includes all courses taken before the term selected by the student, and those courses may not be used to satisfy future course prerequisites.

Students may set aside a previous record if:

- They have earned fifteen (15) credits/units at Clark College beyond the term to be set aside.
- They have a 2.50 GPA at Clark College for these credits/units.
- The work to be set aside is at least one (1) year old.

Petition forms are available at the Enrollment Services Office in Gaiser Hall or online.

Caution: Although Clark College makes provisions for setting aside past records, students should not assume that other colleges to which they transfer will compute their GPA in the same manner. Only the Clark College record can be set aside; the college cannot set aside records from other colleges. Financial aid students will still be subject to federal regulations that require all attempted credits/units be counted toward completion of an initial degree.

## Grade Change/Error

Students who believe an error has been made in recording their grades should contact their instructor. Grade changes are made at the discretion of the instructor. The grade change must be submitted directly to Enrollment Services Office by the instructor. Grade changes and corrections made for veterans and financial aid recipients must also be reported to the Office of Veterans Affairs and/or the Financial Aid Office.

Grade changes must be made no later than the end of the second term following the term the student attended the class.

## Grade Change/Academic Appeal Policy

An academic appeal refers to a claim by a student that a specific grade assigned to the student by an instructor is the result of an arbitrary or capricious application of otherwise valid standards of academic evaluation, or to a student's claim that the instructor has made an arbitrary or capricious decision or taken an arbitrary or capricious action which adversely affects the student's academic standing.

The student must file a written complaint within ninety (90) calendar days after termination of the course. The appropriate instructional dean or supervisor may suspend this rule only under exceptional circumstances such as extended illness, sabbatical leave, or absence of one or both parties involved in the complaint. Grade appeal process forms are available through the instructional deans' offices or the Office of Instruction.

Students having complaints relative to academic performance evaluation should follow the steps below:

- Step 1: The student should complete a grade appeal process form and discuss the complaint with the instructor. If the complaint is not resolved, proceed to Step 2.
- Step 2: The student should speak to the appropriate division chair. The division chair must notify the student within fifteen (15) working days of the resolution after the meeting with the student. If the student is not satisfied with the resolution, the student should proceed to Step 3.
- Step 3: The student will provide a written statement describing the nature of the appeal to the instructional dean or supervisor. A meeting will then be scheduled with the student, the instructional dean or supervisor, and the instructor to discuss the appeal. The instructor will receive a copy of the student's written material prior to the meeting. A decision by the dean or supervisor will be made within fifteen (15) days of the meeting. The decision by the dean or supervisor will be final and cannot be appealed further.

## Confidentiality of Records

Clark College has adopted procedures in compliance with the Family Educational Rights and Privacy Act (FERPA) as amended and maintains

confidentiality of student records. College employees are trained to comply with information release guidelines.

With few exceptions, parties outside of school officials will not have access to student records without the written consent of the student. Clark College will not release a student's record to a parent/ guardian without the student's written request. This policy is in effect regardless of the student's age or financial dependency upon the parent or guardian. The college may release student directory information without student consent. Directory information includes student's name, major field of study, enrollment status, dates of attendance, participation in recognized sports, degrees and certificates earned, term degrees and certificates awarded, and honors. In compliance with state law (SB5509), Clark College no longer uses the student's Social Security number for the purpose of student identification. This law is intended to add additional protection to the student's identity.

The college will assign all students a ctcLink Identification (ID). Students are required to use their assigned ctcLink ID to access their records, register for classes, pay tuition, etc. For a copy of SB5509 or for additional information regarding this process, students may contact the Enrollment Services Office.

## Transcripts

A transcript of each student's educational record is maintained in the Enrollment Services Office. An official transcript is signed by the Registrar, has the college seal attached and is provided in a sealed envelope. To obtain an official transcript, students should go online to [www.studentclearinghouse.org](http://www.studentclearinghouse.org) (<http://www.studentclearinghouse.org/>) to place an order. Transcripts will be mailed to any college, university or other agency upon receipt of the request within three to five (3-5) business days. There is also a rush transcript option available. There is a fee for all official transcripts. For current fee information please go to our website. Transcripts will not be faxed.

Students may obtain an unofficial transcript through the Clark College website, by logging into MyClark@ctcLink, select the Academic Records tile and choose "View Unofficial Transcripts" or by visiting the Enrollment Services Office in Gaiser Hall.

## Vice President's List

A Vice President's List will be compiled at the end of each academic term to recognize outstanding student achievement at Clark College. To qualify for the list, a student must earn at least twelve (12) credits/units and a GPA of 3.75 or higher. A notation will be made on the student's transcript under the term in which the student received the honor.

# SPECIAL INSTRUCTIONAL PROGRAMS AND LOCATIONS

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## Transitional Studies

### Career and Academic Preparation (CAP)

360-992-2741

These classes are available for persons sixteen (16) years or older (16- to 18-year-olds must have a high school release). Students can earn credit toward their HS21 diploma, prepare to take the GED test and improve their reading, writing and math skills to transition to college-level coursework. There is a term tuition charge. Classes are held on campus and at other sites in the community.

### English as a Second Language

360-992-2741

Classes are for non-native speakers who want to communicate more effectively in English. Classes are held at various times during the day and evening. There is a tuition charge to students each term. Most classes are held on campus, but some are held at community sites.

### Transitional Studies Tutoring Center

360-992-2750

The Transitional Studies Tutoring Center, at TBG 228, supports CAP and ESL students with tutoring and computer-based learning. One-on-one and small-group tutoring are available for adults learning English as a second language, as well as for native English speakers who want to improve basic reading, writing, and math skills.

## Economic & Community Development

360-992-2939

Clark College Economic & Community Development is the region's premier provider of continuing education, offering customized training for local employers and community education programs for individual residents of Southwest Washington. This department is dedicated to building community through education, mature learning, and professional development, as well as forging partnerships in support of regional economic development.

### Customized Learning and Development

360-992-2466

Customized Learning and Development delivers high-quality workforce training, leadership development, and technical and business analysis tools to manufacturing, healthcare, business, nonprofit, and government organizations. An expert team assesses business needs, analyzes human and technical resources available, and builds a customized plan to deliver the training and leadership needed to meet organizations' current objectives and future needs. Customized Learning and Development provides organizations with highly relevant training that directly affects the economy, employment opportunities, and workforce development in Southwest Washington.

### Professional Development

360-992-2939

Professional Development offers regularly scheduled classes, workshops, and certification programs for individuals to develop knowledge, skills, and increase their productivity and value to employers. A wide range of topics, such as accounting, health care, programming, web design, graphic arts, Microsoft Office, and small business are available to everyone wanting to take that next step. One-day "fast track" learning sessions and flexible online classes are also available.

### Community Education

360-992-2939

Community Education offers a wide variety of personal enrichment and lifelong learning opportunities to enhance quality of life and encourage the exploration of new interests. Non-credit courses, taught by talented instructors who are experts in their field, are offered for persons of all ages. New classes are offered each term, including topics such as world language, recreation and wellness, healthy living, and home and gardening. The cooking school in the kitchen classroom at Columbia Tech Center campus offers demonstration and hands-on courses that educate about nutrition and world culture while building student skills. All Community Education courses reflect a commitment to building community and sustainability.

### Mature Learning

360-992-2939

Mature Learning is an educational and cultural enrichment program for adults. The program provides an opportunity to learn in a relaxed atmosphere with no tests, grades, or homework. A wide variety of courses is offered including art, writing, computers, science, history, creative writing, health, humanities, and more. Most classes meet two hours a week, either on the main Clark College campus, at Columbia Tech Center, downtown Vancouver, or at other locations in the community. Mature Learning also provides travel and excursions to places of cultural, scientific, and natural interest.

# STUDENT ORIENTATION

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All new, transfer and returning students are required to complete a Student Orientation session (online or in person) or meet with an advisor before they are granted access to registration services. Students will gain valuable information about support resources, critical dates and policies, online tools and academic advising. For specific orientation requirements visit <http://www.clark.edu/enroll/admissions/orientation/index.php> (<http://www.clark.edu/enroll/admissions/orientation/>).

# STUDENT SUCCESS PROGRAMS

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360-992-2830

[studentsuccess@clark.edu](mailto:studentsuccess@clark.edu)

[https://www.clark.edu/campus-life/student-support/student-success/success\\_workshops.php](https://www.clark.edu/campus-life/student-support/student-success/success_workshops.php)

The goal of Student Success Programs is to support the retention and success of all Clark College students, from the point of college entry to program completion. We provide targeted outreach and support for students facing challenges with academic progress, first-term students, and students moving from Transitional Studies to college-level coursework. We use proactive, reactive, and data-informed strategies to provide intensive, targeted outreach and intervention designed to meet students at their points of need. Student Success Programs staff and peer mentors assist students with accessing and navigating the various spaces, resources, and strategies available at Clark and the surrounding community that are key for students to establish and achieve their academic goals.

Key services:

- Assistance to students with developing key critical thinking and problem-solving skills that will allow them to appropriately evaluate and respond to difficult academic, career, and life situations
- Targeted outreach and support related to Academic Retention Concern (<https://www.clark.edu/campus-life/student-support/student-success/arc-info-page.php>) (ARC) and Academic Standards Policy ([https://www.clark.edu/about/governance/policies-procedures/academic\\_standards/](https://www.clark.edu/about/governance/policies-procedures/academic_standards/)) (ASP)
- Assistance to struggling students with locating appropriate academic resources and making informed enrollment decisions
- Peer mentoring to help students navigate and access appropriate support resources and strategies that meet their unique needs
- Reinstatement advising and support for students returning to the college
- Goal setting, course selections, and degree/certificate program planning
- Training and support for students, staff, and faculty on the Academic Standards Policy (ASP)

# DEGREE & CERTIFICATE REQUIREMENTS

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- General Information (p. 287)
- Bachelor of Applied Sciences (p. 299)
- Transfer Degrees Overview (<https://catalog.clark.edu/degree-certificate-requirements/transfer-overview/>)
- Transfer Degree Distribution List (p. 290)
- Career and Technical Overview (p. 294)
- Career and Technical Degrees and Certificates Distribution List (p. 295)
- Non-Traditional Credit (p. 302)
- Credit Hours and Credit Load (p. 303)

# GENERAL INFORMATION

## Degrees & Certificates

Clark College awards six (6) degrees: the Associate in Arts degree, for completion of a program of study for transfer to a senior institution; the Associate in Science degree, for completion of a program of study in the sciences in preparation for transfer to a senior institution; the Associate in Fine Arts degree, for completion of a program in fine arts in preparation for transfer to a senior institution; the Associate in Applied Science degree, for completion of a program of study in an occupational program; the Associate in Applied Technology degree, for completion of a program of study in an occupational program; and the Bachelor of Applied Science (BAS), to increase the educational pathways for professional and technical associate graduates. BAS degrees require a minimum of one hundred eighty (180) credits/units and a minimum Grade Point Average (GPA) of 2.0.; each associate degree requires a minimum of ninety (90) credits/units and a minimum Grade Point Average (GPA) of 2.0. Certificates of Proficiency are awarded upon completion of a minimum of forty-five (45) credits/units of specialized occupational training, including general education requirements, and require a minimum GPA of 2.0. Certificates of Achievement are granted upon completion of a program of specialized occupational training of less than forty-five (45) credits/units and require a minimum GPA of 2.0. Individual departments offer Certificates of Completion with varying credit/unit requirements.

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. Courses completed with a grade of 'D' or above shall normally be accepted in transfer (except at The Evergreen State College, where a minimum of 2.0 or 'C' is required for transfer). Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students receive equitable treatment.

A student may earn more than one career-technical degree and/or certificate at Clark College, and a student may earn a combination of academic and career-technical degrees and/or certificates. A student can also earn a Direct Transfer Agreement degree and an additional MRP degree (for instance, a student can earn a degree in both Business Administration – MRP and an Associate in Arts –Transfer).

### Academic Residency Requirements

In an effort to accommodate our mobile student population, Clark College has adopted a residency policy that recognizes the value of coursework completed from other institutions of higher learning.

To obtain a degree or certificate from Clark College, students are required to earn a minimum number of credits/units in residence at our institution. Clark College does allow students to transfer credits/units toward meeting degree or certificate program requirements. There is no restriction on the number of transfer credits/units allowed; however, students must meet the minimum in-residence credit/unit at Clark College for their specific program.

Refer to the following information for specific requirements and restrictions for each type of program:

### Bachelor Degree

A minimum of thirty (30) credits/units, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

### Associate Degree

A minimum of thirty (30) credits/units, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

### Certificate of Proficiency

A minimum of fifteen (15) credits/units, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

### Certificate of Completion

A minimum of ten (10) credits/units, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

### Certificate of Achievement

A minimum of ten (10) credits/units, pre-college or college level, must be completed at Clark College at any time to meet Academic Residency.

Non-traditional credit/unit and credit/unit earned through academic credit for prior learning may not be included within the minimum number of credits/units required.

## Academic Subplans

Clark College utilizes three types of subplans. Subplans allow for specialization within a program. Some subplans are transcribed on student transcripts and some are not.

### Academic Concentration

- Academic concentrations consist of 15 to 30 credits/units (on average) of course work applicable to transfer degree requirements, and the concentration must be earned concurrently with a transfer degree.
- Academic concentrations are transcribed on student transcripts.
- Academic concentrations must have some tangible transfer benefit for students (e.g., MOU or articulation agreement with specific transfer institutions).
- Academic concentrations must include one or more concentration-specific learning outcomes that are regularly assessed.
- Students are limited to one academic concentration per program (plan code).

### Academic Emphasis

- Academic emphases are designed to expose students to a subject matter/discipline and represent a "suggestion of classes" or "possible sequence" of classes.
- Emphasis areas are not transcribed on student transcripts but can be informally used to reference a breadth of work in an area.
- Emphasis areas are informed by Guided Pathways Maps and not driven by transferability, community partnerships or articulation agreements. They aim to support the student experience and provide exposure to a wider breadth of course work in an "area".

### Academic Option

- Options are available to Professional Technical/CTE programs only.
- Options represent a grouping of classes within a focus area and the option once completed is transcribed on student transcripts.
- Programs that offer multiple options (focus areas) can require that students select a specific option and complete the grouping of classes outlined as part of a degree path.

- Students are limited to one academic concentration per program (plan code).

## Online Learning Degrees

For information about Clark College eLearning programs and degrees, see Online Learning Degree Programs (<http://www.clark.edu/academics/eLearning/programs/>)

## Academic Residency Requirements for Veterans

Clark College, in compliance with the Department of Defense (DOD) Voluntary Education Partnership Memorandum of Understanding (MOU) and Executive Order 13607 of April 27, 2012, limits academic residency requirements for active-duty service members to no more than 25 percent of the degree program (22.5 credits/units); recognizes all credit/unit course work offered by the institution as applicable in satisfying academic residency requirements; and allows service members to satisfy academic residency requirements with courses taken from Clark College at any time during their program of study.

## Academic Honors

To be eligible for academic honors, students must have a minimum GPA of 3.4. Honors for the Associate in Arts degree and the Associate in Science – Transfer degree are based on the cumulative college-level GPA, while the Associate in Applied Science, Associate of Applied Technology and Certificate of Proficiency are based on the cumulative GPA. Honors for the Bachelor of Applied Sciences are based on cumulative college-level GPA. Students in the Bachelor of Applied Science and associate degree programs will earn the designation of “with honors” for a GPA of 3.4 to 3.89, and the designation of “with highest honors” for a GPA of 3.9 or higher. Certificates of Proficiency will be granted the designation of “with merit” for a GPA of 3.4 or higher (Certificates of Achievement are not eligible for honors designations). Those students participating in June ceremonies will receive recognition at the celebration based on their appropriate GPA on record at the end of winter term. If honor status changes once final grades are processed, adjustments will be made to the student record.

## Distribution Coding

The following codes may be included in some course descriptions and indicate the applicability of the course toward the general education requirements of Clark College degrees and certificates. Be sure to verify which courses have been approved to meet general education requirements for your particular degree or certificate program as Distribution Coding is not universally applied.

Code	General Education Requirement
CA	Written Communication Skills (AAS and CP only)
CP	Computational Skills
CT	Written Communication Skills (AAT only)
GE	General Elective
HA	Humanities Academic (A list)
HB	Humanities Performance (B list)
HE	Health
HPE	Health & Physical Education
HR	Human Relations

NS	Natural Sciences
NS-Lab	Natural Science with Lab
OC	Oral Communications
PE	Physical Education Activity
PPI	Power, Privilege and Inequity
Q	Quantitative/Symbolic Reasoning
SE	Specified Elective
SS	Social Sciences
WC	Written Communication Skills (Transfer only)

## Title IV Student Complaint Process

The Higher Education Act (HEA) prohibits an institution of higher education from engaging in a “substantial misrepresentation of the nature of its educational program, its financial charges, or the employability of its graduates.” 20 U.S.C. §1094(c)(3)(A). Further, each State must have “a process to review and appropriately act on complaints concerning the institution including enforcing applicable State laws.” 34 C.F.R. § 600.9. The Washington State Board for Community and Technical Colleges (SBCTC) maintains a process to investigate complaints of this nature brought by community and technical college students in the State of Washington. For more information, contact the SBCTC Student Services Office at 360-704-4315.





# TRANSFER DEGREE DISTRIBUTION LIST

## Transfer Degree Distribution List Communication [WC, OC]

10 credits/units

Please refer to specific degree for details regarding specified communication requirements.

## Quantitative Skills/Symbolic Reasoning [Q]

5 credits/units

Please refer to specific degree for details regarding specified quantitative skills requirements. If none are listed, please select from the following list

Code	Title	Credits/ Units
MATH 103	College Trigonometry	5
MATH 104	Finite Math with Support	5
MATH 105	Finite Mathematics	5
MATH 110	College Algebra With Support	5
MATH 111	College Algebra	5
MATH 122	Math for Elementary Teachers	5
MATH 123	Math for Elementary Teachers	5
MATH 124	Math for Elementary Teachers	5
MATH 140	Calculus for Life Sciences	6
MATH 147	Statistics II	3
MATH 215	Linear Algebra	5
MATH 221	Differential Equations	5
MATH& 107	Math In Society	5
MATH& 146	Introduction to Stat	5
MATH& 148	Business Calculus	5
MATH& 151	Calculus I	5
MATH& 152	Calculus II	5
MATH& 153	Calculus III	5
MATH& 254	Calculus IV	5
PHIL& 120	Symbolic Logic	5

## Health & Physical Education [HE, PE, HPE]

3 credits/units

### Option One

Code	Title	Credits/ Units
Complete two (2) credits/units of Health from the list below AND one (1) credit/unit of any college-level PE activity course.		

HLTH 100	Food and Your Health	
HLTH 101	Health for Adult Living	
HLTH 103	Environmental Health	
HLTH 108	Happiness and Your Health	
HLTH 206	Human Sexuality	
HLTH 207	Women's Health	
HLTH 210	Multicultural Health	

HLTH 212	Cannabis and Your Health	
PE activity		1
<b>Total Credits/Units</b>		<b>3</b>

### Option Two

Code	Title	Credits/ Units
HPE 258	Fitness-Wellness	3
or HPE 266	Mind Body Health	
or HPE 220	Occupational Wellness	
<b>Total Credits/Units</b>		<b>3</b>

## Humanities [HA, HB]

15 credits/units

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from any one subject area. A maximum of five (5) credits/units of "B" list coursework may be applied. A maximum of five (5) credits/units of 100-level world language can be applied.

Department	HA	HB
American Sign Language	ASL& 121, ASL& 122, ASL& 123, ASL& 221, ASL& 222, ASL& 223	
	ASL 125	
Art	ART& 100	ART 101, ART 103, ART 104, ART 105, ART 110, ART 117, ART 120, ART 121, ART 122, ART 123, ART 124, ART 125, ART 173, ART 174, ART 180, ART 181, ART 182, ART 189, ART 190, ART 191, ART 203, ART 204, ART 208, ART 257, ART 258, ART 259, ART 260, ART 261, ART 262, ART 270, ART 271, ART 273, ART 274, ART 290
Communication Studies	CMST& 102, CMST& 210, CMST& 220, CMST& 230	
	CMST 103, CMST 216	
Drama	DRMA& 101	DRMA 140, DRMA 141, DRMA 150, DRMA 152, DRMA 250
	DRMA 154	

English	ENGL& 113, ENGL& 114, ENGL& 226, ENGL& 227, ENGL& 228, ENGL& 244, ENGL& 245, ENGL& 246, ENGL& 254, ENGL& 255, ENGL& 256	ENGL 121, ENGL 125, ENGL 126, ENGL 127, ENGL 128, ENGL 275, ENGL 276, ENGL 277
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ENGL 112, ENGL 133,  
ENGL 143, ENGL 145,  
ENGL 150, ENGL 156,  
ENGL 173, ENGL 175,  
ENGL 176, ENGL 240,  
ENGL 242, ENGL 243,  
ENGL 267, ENGL 271,  
ENGL 272, ENGL 273

Japanese	JAPN& 121, JAPN& 122, JAPN& 123, JAPN& 221, JAPN& 222, JAPN& 223
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Journalism	JOUR 101, JOUR 111
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Music	MUSC& 104, MUSC& 141, MUSC& 142, MUSC& 143, MUSC& 231, MUSC& 232, MUSC& 233	MUSC& 121, MUSC& 122, MUSC& 123, MUSC& 221, MUSC& 222, MUSC& 223
	MUSC 116, MUSC 117, MUSC 118, MUSC 125, MUSC 127, MUSC 135	MUSC 101, MUSC 110, MUSC 115, MUSC 137, MUSC 138, MUSC 139, MUSC 150, MUSC 151, MUSC 152, MUSC 153, MUSC 154, MUSC 155, MUSC 170, MUSC 171, MUSC 172, MUSC 173, MUSC 174, MUSC 175, MUSC 180, MUSC 181, MUSC 182, MUSC 183, MUSC 184, MUSC 185, MUSC 186, MUSC 195, MUSC 196, MUSC 197, MUSC 201, MUSC 202, MUSC 210, MUSC 237, MUSC 238, MUSC 239, MUSC 250, MUSC 251, MUSC 252, MUSC 253, MUSC 254, MUSC 255, MUSC 270, MUSC 271, MUSC 272, MUSC 273, MUSC 274, MUSC 275, MUSC 280, MUSC 281, MUSC 282, MUSC 283, MUSC 284, MUSC 285, MUSC 290, MUSC 295, MUSC 296, MUSC 297
		All MUSCA courses

Philosophy	PHIL& 101, PHIL& 120
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PHIL 215, PHIL 216,  
PHIL 217, PHIL 240,  
PHIL 251

Spanish	SPAN& 121, SPAN& 122, SPAN& 123, SPAN& 221, SPAN& 222, SPAN& 223
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Women's Studies	WS 101, WS 201, WS 210
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## Power, Privilege, and Inequity [PPI]

3 credits/units

Power, Privilege and Inequity required course fulfill the PPI requirement within an existing distribution area. Check course description for further distribution information.

Code	Title	Credits/ Units
ART 250	Women Artists Through History	5
EDUC& 240	Diversity in Education	5
ENGL 175	Introduction to LGBTQ Studies	5
ENGL 176	Nature and the Humanities	5
ENGL 240	Literature By Women	5
ENGL 243	Queer Literature	5
ENGL 267	American Multiethnic Lit	5
HLTH 207	Women's Health	3
HLTH 210	Multicultural Health	3
SOC& 101	Introduction to Sociology (Updated 7/21/21)	5
SOC& 201	Social Problems: The Pursuit of Social Justice	5
SOC 230	Domestic Violence	5
SOC 240	Criminology and Delinquency	5
WS 101	Introduction to Women's Studies	5
WS 220	Race, Class, Gender and Sexuality-Women's Studies	5
WS 225	Racism & White Privilege In The U.S.-Women's Studies	3

### Social Sciences [SS]

15 credits/units

Select courses from at least three (3) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from any one subject area.

Department	Courses
Addiction Counseling	ACED 101
Anthropology	ANTH& 204, ANTH& 206, ANTH& 215
Communication Studies	CMST& 230
Economics	ECON& 201, ECON& 202  ECON 101, ECON 110, ECON 120
English	ENGL 175
Environmental Science	ENVS 231
Geography	GEOG& 100, GEOG& 102, GEOG& 200, GEOG& 207  GEOG 205, GEOG 220, GEOG 221, GEOG 222, GEOG 223, GEOG 224
History	HIST& 126, HIST& 127, HIST& 128, HIST& 146, HIST& 147, HIST& 148, HIST& 215, HIST& 219  HIST 231, HIST 251, HIST 252, HIST 285
Political Science	POLS& 203  POLS 111, POLS 131, POLS 220, POLS 221, POLS 222, POLS 223, POLS 224, POLS 231

Psychology	PSYC& 100, PSYC& 200  PSYC 102, PSYC 203
Sociology	SOC& 101, SOC& 201  SOC 121, SOC 131, SOC 161
Women's Studies	WS 101, WS 201, WS 210, WS 220, WS 225

### Natural Sciences [NS, NS-Lab]

15 credits/units

Select courses from at least two (2) subject areas for a minimum of fifteen (15) credits/units. You may include no more than ten (10) credits/units from one subject area. You must include at least one lab science.

Department	Lab Course	Non-Lab Course
Anthropolgy	ANTH& 215	ANTH& 245
Astronomy	ASTR& 101	
Biology	BIOL& 100, BIOL& 160, BIOL& 175, BIOL& 221, BIOL& 222, BIOL& 223, BIOL& 241, BIOL& 242, BIOL& 251, BIOL& 252, BIOL& 253, BIOL& 260 BIOL 101, BIOL 102, BIOL 105, BIOL 106, BIOL 150, BIOL 208, BIOL 224	BIOL 139, BIOL 140, BIOL 141, BIOL 142, BIOL 145, BIOL 167, BIOL 180
Chemistry	CHEM& 105, CHEM& 110, CHEM& 121, CHEM& 131, CHEM& 151, CHEM& 152, CHEM& 153, CHEM& 251, CHEM& 252, CHEM& 253  CHEM 106	CHEM& 141, CHEM& 142, CHEM& 143, CHEM& 241, CHEM& 242, CHEM& 243
Engineering	ENGR& 104	
Environmental Science	ENVS& 101  ENVS 109, ENVS 201, ENVS 208, ENVS 218,	ENVS 202
Geography		GEOG 205
Geology	GEOL& 101, GEOL& 103  GEOL 102, GEOL 218	GEOL 109
Meteorology	METR 101, METR 201	
Nutrition		NUTR& 101
Physical Science	PHSC 101, PHSC 102	PHSC 106

Physics	PHYS& 101, PHYS& 124, PHYS& 125, PHYS& 126, PHYS& 231, PHYS& 232, PHYS& 233	PHYS& 100, PHYS& 134, PHYS& 135, PHYS& 136, PHYS& 241, PHYS& 242, PHYS& 243
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## Elective Requirements

Complete a total of twenty-seven (27) credits/units from courses numbered 100 and above. The two areas of electives are listed below.

## Specified Electives [SE]

All courses numbered 100 and above (except 199 and 290) in the departments listed below may be used to meet the Specified Elective portion of the degree (some departments have chosen specifically listed courses only or have excluded specific courses). A maximum of two (2) credits/units in PE activity can apply toward this area.

Approved courses that apply: [HA, HB, HE, HPE, NS, OC, PPI, Q, SE, SS, WC] – 12 credits/units minimum.

Department	Courses
Accounting	ACCT& 201, ACCT& 202, ACCT& 203 only
Addiction Counseling	ACED 101 only
American Sign Language	
Anthropology	
Art	
Astronomy	
Biology	
Business	BUS& 101, BUS& 201; BUS 211 only
Chemistry	
Communication Studies	Excluding CMST 280
Computer Science & Engineering	
Computer Technology	CTEC 121, CTEC 122 only
Drama	
Early Childhood Education	ECED& 105, ECED& 120
Economics	
Education	EDUC& 201 only
Engineering	
English	
Environmental Science	
Forensic Science	
Geography	
Geology	
Health	Excluding HLTH 120, HLTH 123, HLTH 124
Health & Physical Education	Excluding HPE 280, HPE 290
History	
Human Services Substance Abuse	HSSA& 101
Japanese	
Journalism	JOUR 101, JOUR 111 only
Mathematics	
Meteorology	
Music	
Nutrition	

Philosophy
Physical Education <sup>1</sup>
Physical Science
Physics
Political Science
Psychology
Sociology
Spanish
Women's Studies

<sup>1</sup> A maximum of two (2) credits/units in PE activity can apply toward this area.

## General Electives [GE]

A maximum of fifteen (15) credits/units of general electives can apply. Courses must be 100-level or higher. Physical Education activity credits/units are limited to a maximum of three (3) credits/units regardless of distribution area in the DTA degree. Coursework in FLPC cannot apply.

<sup>1</sup> Many private non-profit colleges and universities have distinct general education requirements. Students should check with institution(s) they plan to attend regarding application of transfer credits/units that will meet general education requirements.

<sup>2</sup> Disciplines are sometimes called "subjects" or "subject matter areas" and designated by a prefix (i.e., PHIL for Philosophy and POLS for Political Science).

# CAREER AND TECHNICAL OVERVIEW

## Degree & Certificate Intent

The career and technical education degrees and certificates are designed for students interested in gaining specific technical career skills. Students focus on completing program-specific coursework, balanced by minimal general education courses. Although the Associate in Applied Science and the Associate in Applied Technology degree programs are not designed to guarantee transfer to a senior institution, some institutions may accept technical coursework for students in certain areas of study. Students should contact an advisor and/or the senior institution for additional information.

## Associates General Requirements

Complete a minimum number of credits/units in specified curriculum:

- Associate Degree: Ninety (90) credits/units minimum
  - Associate in Applied Sciences (AAS): Students must complete the courses listed in their career plan, plus electives as needed to meet the ninety (90) credit/unit requirement. Most occupational programs require more than fifty-nine (59) credits/units of specific requirements.
  - Associate in Applied Technology (AAT): Students must complete the courses listed in their career plan, plus electives as needed to meet the ninety (90) credit/unit requirement. All Associate in Applied Technology degree programs require at least seventy-five (75) credits/units of major-related requirements.
- Certificate of Proficiency: Forty-five (45) credits/units minimum
- Certificate of Achievement: Twenty-one (21) credits/units minimum
- Certificate of Completion: 19 credit/unit maximum
- Maintain a minimum cumulative grade point average (GPA) of 2.0 or higher

Meet academic residency requirements as follows:

- Associate Degree: Thirty (30) credits/units minimum must be completed at Clark College.
- Certificate of Proficiency: Fifteen (15) credits/units minimum must be completed at Clark College.
- Certificate of Achievement: Ten (10) credits/units minimum must be completed at Clark College.
- Earn a grade of "C" (2.0) or higher in each major area requirement and specifically listed courses unless otherwise noted in the department requirements for all courses taken at Clark College.

## General Credit/Unit Restrictions

- Academic Credit for Prior Learning: A maximum of sixty (60) credits/units from AP, IB, CI, course challenges, or industry certification credits/units can be applied to a degree. Credit by Challenge coursework will meet academic residency requirements.
- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits/units to be applied to a degree. credits/units will be used to fulfill general elective requirements only.
- Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits/units. If Tech Prep/Direct Credit

courses apply to a professional technical degree or certificate, there is no limit to the number of credits/units that can be applied.

- Cooperative Work Experience: No more than fifteen (15) credits/units may be applied to an associate degree.
- Special Projects: No more than fifteen (15) credits/units in Special Projects will be allowed to meet degree or certificate requirements unless specifically outlined by the program.
- Military Experience: credits/units may be earned by previous military experience but cannot exceed twenty five percent (25%) of the degree or certificate. Please contact the Credentials Evaluations Office at Clark College for further information.
- Pass/Fail Grading Option: Sixty (60) credits/units maximum in courses with Pass/Fail grading option for an associate degree.

## General Information

For Associate in Applied Science degrees, General Education courses are restricted to two (2) distribution areas in the general education area of the degree.

## Certificate of Achievement (CA)

The Certificate of Achievement is designed for students who wish to receive specialized occupational training for a specialized career objective requiring less than forty-five (45) credits/units, but more than twenty (20) credits/units. Students must maintain a cumulative grade point average (GPA) of 2.00 or better. Students are required to complete a minimum of ten (10) credits/units at Clark College to meet the Academic Residency requirement.

## Certificate of Completion (CC)

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of three to four courses, requiring twenty (20) or less credits/units. They are awarded by the department with the approval of the program advisory committee and the Office of Instruction. The courses can be taken simultaneously or individually as your schedule allows. These certificates are not awarded a standard Clark College diploma.

# CAREER AND TECHNICAL DEGREES AND CERTIFICATES DISTRIBUTION LIST

## Professional and Technical Degrees and Certificates Distribution Lists

**Associate in Applied Science (AAS)**  
**Associate in Applied Technology (AAT)**  
**Certificate of Proficiency (CP)**  
**Certificate of Achievement (CA)**  
**Certificate of Completion (CC)**

### Degree & Certificate Intent

The career and technical education degrees and certificates are designed for students interested in gaining specific technical career skills.

Students focus on completing program-specific coursework, balanced by minimal general education courses. Although the Associate in Applied Science and the Associate in Applied Technology degree programs are not designed to guarantee transfer to a senior institution, some institutions may accept technical coursework for students in certain areas of study. Students should contact an advisor and/or the senior institution for additional information.

### General Requirements

Complete a minimum number of credits/units in specified curriculum:

- Associate Degree: Ninety (90) credits/units minimum
  - Associate in Applied Sciences (AAS): Students must complete the courses listed in their career plan, plus electives as needed to meet the ninety (90) credit/unit requirement. Most occupational programs require more than fifty-nine (59) credits/units of specific requirements.
  - Associate in Applied Technology (AAT): Students must complete the courses listed in their career plan, plus electives as needed to meet the ninety (90) credit/unit requirement. All Associate in Applied Technology degree programs require at least seventy-five (75) credits/units of major-related requirements.
- Certificate of Proficiency: Forty-five (45) credits/units minimum
- Certificate of Achievement: Twenty-one (21) credits/units minimum
- Maintain a minimum cumulative grade point average (GPA) of 2.0 or higher

Meet academic residency requirements as follows:

- Associate Degree: Thirty (30) credits/units minimum must be completed at Clark College.
- Certificate of Proficiency: Fifteen (15) credits/units minimum must be completed at Clark College.
- Certificate of Achievement: Ten (10) credits/units minimum must be completed at Clark College.
- Earn a grade of "C" (2.0) or higher in each major area requirement and specifically listed courses unless otherwise noted in the department requirements for all courses taken at Clark College.

### General Credit/Unit Restrictions

- Physical Education Activity: Three (3) credits/units maximum in PE activity can apply toward an associates degree.
- Academic Credit for Prior Learning: A maximum of sixty (60) credits/units from AP, IB, CI, course challenges, or industry certification credits/units can be applied to a degree. Credit by Challenge coursework will meet academic residency requirements.
- College Level Examination Program (CLEP): Students may request up to fifteen (15) CLEP credits/units to be applied to a degree. Credits/Units will be used to fulfill general elective requirements only.
- Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits/units. If Tech Prep/Direct Credit courses apply to a professional technical degree or certificate, there is no limit to the number of credits/units that can be applied.
- Cooperative Work Experience: No more than fifteen (15) credits/units may be applied to an associate degree.
- Special Projects: No more than fifteen (15) credits/units in Special Projects will be allowed to meet degree or certificate requirements unless specifically outlined by the program.
- Military Experience: credits/units may be earned by previous military experience but cannot exceed twenty five percent (25%) of the degree or certificate. Please contact the Credentials Evaluations Office at Clark College for further information.
- Pass/Fail Grading Option: Sixty (60) credits/units maximum in courses with Pass/Fail grading option for an associate degree.

### General Education Requirements

Note: Some specific requirements of a program may also meet the General Education requirements.

### Communication Skills [CA, CT]

Department	AAS - 6 credits/ units minimum (CA)	AAT - 5 credits/ units minimum (CT)	CP - 3 credits/ units minimum (CA)
Business	BUS 107, BUS 211	BUS 107, BUS 211	BUS 107, BUS 211
Communication Studies <sup>1</sup>	CMST& 210 <sup>1</sup> , CMST& 220 <sup>1</sup> ,CMS		
English	ENGL 99	ENGL& 101, ENGL& 235	ENGL 99
Management	MGMT 107	ENGL& 101, ENGL& 102, ENGL& 235	ENGL& 101, ENGL& 102, ENGL& 235
Professional Technical Writing	PTWR 135	PTWR 135	PTWR 135

<sup>1</sup> Communication Studies courses cannot be counted toward the first three (3) credits/units of Communication Skills [CA, CT].

Note: Pharmacy Technician students may meet the Communication Skills requirement by achieving the following:

Placement into ENGL& 101.

### Health & Physical Education [HE, HPE, PE, PEDNC, PEMAR] - 3 credits/units

Select three credits/units from either Option One or Option Two:

Code	Title	Credits/ Units
<b>Option One</b>		
Select two credits/units from the following:		2
HLTH 100	Food and Your Health	
HLTH 101	Health for Adult Living	
HLTH 103	Environmental Health	
HLTH 108	Happiness and Your Health	
HLTH 206	Human Sexuality	
HLTH 207	Women's Health	
HLTH 210	Multicultural Health	
HLTH 212	Cannabis and Your Health	
Select one from the following:		1
College-level Physical Activity course		
<b>Option Two</b>		
Select one from the following:		3
HPE 220	Occupational Wellness	
HPE 258	Fitness-Wellness	
HPE 266	Mind Body Health	

### Computational Skills [CP]

Department	AAS - 3 credits/ units minimum	AAT - 5 credits/ units minimum	CP - 3 credits/ units minimum
Allied Health	AH 261	AH 261	AH 261
Business	BUS 102, BUS 150	BUS 102, BUS 150	BUS 102, BUS 150
Computer Science & Engineering	CSE 121, CSE 222, CSE 223, CSE 224	CSE 121, CSE 222, CSE 223, CSE 224	CSE 121, CSE 222, CSE 223, CSE 224
Computer Technology	CTEC 121	CTEC 121	CTEC 121
Mathematics	All MATH/ MATH& courses numbered 30 or higher EXCEPT MATH 199 or MATH 290	All MATH/ MATH& courses numbered 100 or higher EXCEPT MATH 199 or MATH 290	All MATH/ MATH& courses numbered 030 or higher EXCEPT MATH 199 or MATH 290
Professional Technical Computer Skills	PTCS 110	PTCS 110	PTCS 110

### Human Relations [HR]

Department	AAS - 3 credits/ units minimum	AAT - 5 credits/ units minimum	CP - 3 credits/ units minimum
Addiction Counseling	ACED 101, ACED 201	ACED 101, ACED 201	ACED 101, ACED 201
Automotive	AUTO 140	AUTO 140	AUTO 140
Business	BUS& 101	BUS& 101	BUS& 101
Communication	CMST 103, CMST& 210, CMST& 230	CMST 103, CMST& 210, CMST& 230	CMST 103, CMST& 210, CMST& 230

College	COLL 101	COLL 101	COLL 101
Computer Technology	CTEC 104, CTEC 165	CTEC 104, CTEC 165	CTEC 104, CTEC 165
Management	MGMT 101, MGMT 103, MGMT 106, MGMT 110, MGMT 112, MGMT 120, MGMT 128	MGMT 101, MGMT 103, MGMT 106, MGMT 110, MGMT 112, MGMT 120, MGMT 128	MGMT 101, MGMT 103, MGMT 106, MGMT 110, MGMT 112, MGMT 120, MGMT 128
Psychology	PSYC& 100, PSYC& 200	PSYC& 100, PSYC& 200	PSYC& 100, PSYC& 200
	PSYC 203	PSYC 203	PSYC 203
Sociology	SOC& 101, SOC& 201	SOC& 101, SOC& 201	SOC& 101, SOC& 201
	SOC 121, SOC 131	SOC 121, SOC 131	SOC 121, SOC 131
Women's Studies	WS 101	WS 101	WS 101

### Humanities [HA, HB] - AAS - 3 credits/units minimum

Department	HA	HB
American Sign Language	ASL& 121, ASL& 122, ASL& 123, ASL& 221, ASL& 222, ASL& 223	
	ASL 125	
Art	ART& 100	ART 101, ART 103, ART 104, ART 105, ART 110, ART 117, ART 118, ART 123, ART 124, ART 125, ART 173, ART 174, ART 180, ART 181, ART 182, ART 189, ART 190, ART 191, ART 203, ART 204, ART 208, ART 257, ART 258, ART 259, ART 260, ART 261, ART 262, ART 270, ART 271, ART 273, ART 274,ART 290
Communication Studies	CMST& 102, CMST& 210, CMST& 220, CMST& 230	
	CMST 216	
Drama	DRMA& 101	DRMA 140, DRMA 141, DRMA 150, DRMA 152, DRMA 250
	DRMA 154	



English ENGL& 226, ENGL 121, ENGL 125,  
ENGL& 227, ENGL 126, ENGL 127,  
ENGL& 228, ENGL 275, ENGL 276,  
ENGL& 244, ENGL 277  
ENGL& 245,  
ENGL& 246,  
ENGL& 254,  
ENGL& 255, ENGL& 256

ENGL 133, ENGL 143,  
ENGL 145, ENGL 150,  
ENGL 156, ENGL 173,  
ENGL 175, ENGL 176,  
ENGL 240, ENGL 243,  
ENGL 267, ENGL 272

Japanese JAPN& 121,  
JAPN& 122,  
JAPN& 123,  
JAPN& 221,  
JAPN& 222, JAPN& 223

Journalism JOUR 101, JOUR 111

Music MUSC& 104, MUSC& 121,  
MUSC& 141, MUSC& 122,  
MUSC& 142, MUSC& 123,  
MUSC& 143, MUSC& 221,  
MUSC& 231, MUSC& 222,  
MUSC& 232, MUSC& 223  
MUSC& 233

MUSC 101, MUSC 110,  
MUSC 116, MUSC 117, MUSC 115, MUSC 137,  
MUSC 118, MUSC 125, MUSC 138, MUSC 139,  
MUSC 127, MUSC 135 MUSC 150, MUSC 151,  
MUSC 152, MUSC 153,  
MUSC 154, MUSC 155,  
MUSC 170, MUSC 171,  
MUSC 172, MUSC 173,  
MUSC 174, MUSC 175,  
MUSC 180, MUSC 181,  
MUSC 182, MUSC 183,  
MUSC 184, MUSC 185,  
MUSC 186, MUSC 195,  
MUSC 196, MUSC 197,  
MUSC 201, MUSC 202,  
MUSC 210, MUSC 239,  
MUSC 250, MUSC 251,  
MUSC 252, MUSC 253,  
MUSC 254, MUSC 255,  
MUSC 270, MUSC 271,  
MUSC 272, MUSC 273,  
MUSC 274, MUSC 275,  
MUSC 280, MUSC 281,  
MUSC 282, MUSC 283,  
MUSC 284, MUSC 285,  
MUSC 290, MUSC 295,  
MUSC 296, MUSC 297

All MUSCA courses

Philosophy PHIL& 101, PHIL& 120

PHIL 215, PHIL 216,  
PHIL 217, PHIL 240,  
PHIL 251, PHIL 280

Spanish SPAN& 121,  
SPAN& 122,  
SPAN& 123,  
SPAN& 221,  
SPAN& 222, SPAN& 223

Women's Studies WS 101, WS 201,  
WS 210

### Social Sciences [SS] - AAS - 3 credits/units minimum

Department	Courses
Addiction Counseling	ACED 101
Anthropology	ANTH& 204, ANTH& 206, ANTH& 215
Communication Studies	CMST& 230
Economics	ECON& 201, ECON& 202  ECON 101, ECON 110, ECON 120
English	ENGL 175
Environmental Science	ENVS 231
Geography	GEOG& 100, GEOG& 102, GEOG& 200, GEOG& 207  GEOG 205
History	HIST& 126, HIST& 127, HIST& 128, HIST& 146, HIST& 147, HIST& 148, HIST& 215  HIST 231, HIST 251, HIST 252
Political Science	POLS& 203  POLS 111, POLS 131, POLS 231
Psychology	PSYC& 100, PSYC& 200  PSYC 203
Sociology	SOC& 101, SOC& 201  SOC 121, SOC 131
Women's Studies	WS 101, WS 201, WS 210, WS 220, WS 225

### Natural Sciences [NS-Lab/NS] - AAS - 3 credits/units minimum

Department	Lab Course	Non-Lab Course
Anthropology	ANTH& 215	ANTH& 245
Astronomy	ASTR& 101	

Biology	BIOL& 100, BIOL& 160, BIOL& 221, BIOL& 222, BIOL& 223, BIOL& 241, BIOL& 242, BIOL& 251, BIOL& 252, BIOL& 253, BIOL& 260	BIOL 139, BIOL 140, BIOL 141, BIOL 142, BIOL 145, BIOL 167, BIOL 180
	BIOL 101, BIOL 105, BIOL 150, BIOL 208, BIOL 224	
Chemistry	CHEM& 110, CHEM& 121, CHEM& 131, CHEM& 151, CHEM& 152, CHEM& 153, CHEM& 251, CHEM& 252, CHEM& 253	CHEM& 141, CHEM& 142, CHEM& 143, CHEM& 241, CHEM& 252, CHEM& 243
Engineering	ENGR& 104	
Environmental Science	ENVS& 101	
	ENVS 109, ENVS 218	
Geology	GEOL& 101, GEOL& 103	
	GEOL 102, GEOL 218	
Meteorology	METR 101	
Nutrition		NUTR& 101
Physical Science	PHSC 101, PHSC 102	PHSC 106
Physics	PHYS& 101, PHYS& 124, PHYS& 125, PHYS& 126, PHYS& 231, PHYS& 232, PHYS& 233	PHYS& 100, PHYS& 134, PHYS& 135, PHYS& 136, PHYS& 241, PHYS& 242, PHYS& 243

## Certificate of Achievement (CA)

The Certificate of Achievement is designed for students who wish to receive specialized occupational training for a specialized career objective requiring less than forty-five (45) credits/units, but more than twenty (20) credits/units. Students must maintain a cumulative grade point average (GPA) of 2.00 or better. Students are required to complete a minimum of ten (10) credits/units at Clark College to meet the Academic Residency requirement.

## Certificate of Completion (CC)

The Certificate of Completion is designed for students who wish to gain entry-level skills or for those who wish to upgrade their skills in a short period of time. Certificates of Completion typically consist of two to four courses, requiring twenty (20) or less credits/units. The courses can be taken simultaneously or individually as your schedule allows. Students must maintain a cumulative grade point average (GPA) of 2.00 or better. Students are required to complete a minimum of ten (10) credits/units at Clark College to meet the Academic Residency requirement.

# BACHELOR OF APPLIED SCIENCES

## General Degree Requirements

Except for the BAS in Dental Hygiene, in addition to completing a two-year degree (AA, AFA, AAS, AAT, AAS-T, AST1, AST2) students must also:

Complete all of the major or distribution area requirements:

- Complete a minimum of one hundred and eighty (180) college-level credits/units
- Minimum of sixty (60) upper division (300 or 400 level) credits/units
- Maintain a minimum cumulative college-level grade point average (GPA) of 2.00 or higher
- Thirty (30) credits/units minimum must be completed at Clark College to meet Academic Residency

## General Degree Credit/Unit Restrictions

- Academic Credit for Prior Learning: No more than forty-five (45) credits/units of can be applied to the Associate of Arts, Associate in Science Tracks 1 & 2, and Bachelor of Applied Science Degrees. This includes any combination of credits/units earned through Advanced Placement (AP), International Baccalaureate (IB), Cambridge International (CI), course challenges, or industry certifications.
- Course Challenge: Students may use credits/units earned from successful course challenges toward their degree or certificate, and the credits/units will apply towards academic residency requirements.
- Pass/Fail Grading Option: Sixty (60) credits/units maximum in courses with Pass/Fail grading option can apply toward the degree.
- Tech Prep/Direct Credit: Tech Prep/Direct Credit courses that are part of a professional program and fall into the restricted area in the DTA degree are limited to 15 credits/units. If Tech Prep/Direct Credit courses apply to a professional technical degree or certificate there is no limit to the number of credits/units that can be applied.
- Special Projects: No more than fifteen (15) credits/units in Special Projects will be allowed toward the Bachelor of Applied Science (BAS) degree.

## General Information on the Transfer of Grades

The grades assigned in transferable courses by the sending institution shall not be altered by the receiving institution. They also are not used in calculating students' Clark grade point average (GPA). Courses completed with a grade of "D" or above may be accepted in transfer. A grade of "D-" may not apply toward a completion of a Bachelor of Applied Science at Clark College. Nontraditional grading practices require special handling, depending on the nature and circumstances of the program from which and to which a student is transferring, but receiving institutions shall take steps to assure all students equitable treatment.

## General BAS Degree Requirements

1. Students must earn a cumulative grade point average (GPA) of at least 2.0, as calculated by the degree awarding institution. Please refer to specific program for additional GPA requirements.

2. The general education courses will include courses earned at either/ both the associate degree and/or applied bachelor's degree level, based on the total required 180 term hours of credit.

## Basic Requirements

### Communication Skills

(10 credits/units)

Must include at least two communication courses to include a minimum of one English composition course; e.g. ENGL&101. Remaining credits/units may be an additional composition course or designated writing-intensive courses or courses in basic speaking skills (e.g. speech, rhetoric, or debate).

### Quantitative/Symbolic Reasoning Skills

(5 credits/units)

- Five (5) credits/units of college level mathematics (a course with a Mathematics prefix numbered 100 or above) that furnishes the quantitative skills required in the commonly recognized educational transfer pathways toward a baccalaureate degree. Accepted courses in these pathways are: Pre-calculus or higher, Mathematics for Elementary Education, Business Pre-calculus/Finite Mathematics, Statistics, and Math in Society;

- or -

- Five (5) credits/units of a symbolic logic course that focuses on (a) sentence logic with proofs and (b) predicate logic with quantifiers and proofs and/or Aristotelian logic with Venn Diagrams.

## Distribution Requirements

### Humanities

(10 credits/units)

A maximum of five (5) credits/units of List B (performance) Humanities coursework can be applied. A maximum of five (5) credits/units of 100-level world language can be applied.

### Social Science

(10 credits/units)

### Natural Sciences

(10 credits/units)

At least five (5) credits/units in physical, biological and/or earth sciences. Shall include at least one laboratory course.

## Additional General Education Courses

(15 credits/units)

Remaining general education courses needed to achieve the required 60 credits/units shall be selected from the Basic and Distribution Requirements listed above.

## 300 and 400 Level General Education Courses

In addition to 100/200 level courses, colleges may elect to develop 300/400 level general education courses that best suit the curriculum needed of the baccalaureate degree. These courses must be selected from the Basic and Distribution Requirements listed above. Students who are enrolled in a combination of upper and lower division courses will be charged for all upper and lower credits/units based on the upper division tuition schedule.

Refer to the specific degree requirements for further information.

### **Transfer in General Education Requirements**

Students who have earned a baccalaureate degree from an institution accredited by one of the following agencies:

- Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges (ACCJC)
- Higher Learning Commission (HLC)
- Middle States Commission on Secondary Schools (MSA-CESS)
- Northwest Commission on Colleges and Universities (NWCCU)
- Southern Association of Colleges and Schools Commission on Colleges (SACSCOC)
- Middle States Commission on Higher Education (MSCHE)
- New England Commission of Higher Education (NECHE)
- WASC Senior College and University Commission (WSCUC)

will have met the general education requirements (basic and distribution areas) for an applied baccalaureate degree from a Washington State community or technical college. Students must still complete program-specific general education degree requirements if not otherwise satisfied.



# NON-TRADITIONAL CREDIT

## International Baccalaureate (IB)

360-992-2805

Clark College recognized the International Baccalaureate (IB) program as a coherent, challenging course of study and responds individually to each participant's petition for granting of college credit. Students may be awarded credit for completing individual areas of study within the program. Credit is posted with an "S" grade at the end of the quarter for which the score report was received, once a transcript record has been established. No credits/units will be awarded for an examination if the student has already earned credit in a duplicate course; a maximum of forty-five (45) credits/units in IB coursework can apply towards BAS, AA, or AST degree requirements.

Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits/units to be awarded. IB credits/units are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

Students should have an official copy of their IB scores sent to:

Clark College  
Attn: Enrollment Services/GHL 128  
1933 Fort Vancouver Way  
Vancouver, WA 98663

For a current list of available courses and available credit, please visit the Credential Evaluations website (<https://www.clark.edu/enroll/credential-evaluation/>).

## Advanced Placement (AP)

360-992-2805

Clark College grants credit for completion of the College Board's Advanced Placement (AP) examinations. AP is a cooperative educational endeavor between secondary schools and colleges and universities. The program provides motivated high school students with the opportunity to take college-level courses in a high school setting. AP courses are taught by high school teachers, following course guidelines developed and published by the College Board. Students who participate in the program gain college-level skills and also earn college credit. Credit is posted with an "S" grade at the end of the quarter for which the score report was received, once a transcript record has been established. No credits/units will be awarded for an examination if the student has already earned credit in a duplicate course; a maximum of forty-five (45) credits/units in AP coursework can apply towards BAS, AA, or AST degree requirements.

Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits/units to be awarded. AP credits/units are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

Students should send an official copy of their AP scores to:

Clark College  
Attn: Enrollment Services/GHL 128  
1933 Fort Vancouver Way

Vancouver, WA 98663

For a current list of available courses and available credit, please visit the Credential Evaluations website (<https://www.clark.edu/enroll/credential-evaluation/>).

## Where to Get AP Scores

The College Board: Advanced Placement Program  
PO Box 6671  
Princeton, NJ 08541-6671  
Phone: 609-771-7300  
TTY: 609-882-4118  
[www.collegeboard.org](https://www.collegeboard.org/) (<https://www.collegeboard.org/>)

## Cambridge International (CI)

360-992-2805

Clark College will grant a minimum elective credit for each Cambridge International Examination for A-level exam with a passing grade for approved examinations. Credit will be awarded on the basis of official Cambridge International Examination results, not transcript notation. Duplicate credit for the same subject taken on different exams will not be granted. Credit is posted with an "S" grade at the end of the quarter for which the score report was received, once a transcript record has been established. No credits/units will be awarded for an examination if the student has already earned credit in a duplicate course; a maximum of forty-five (45) credits/units in CI coursework can apply towards BAS, AA, or AST degree requirements.

Once scores are received and reviewed, an email will be sent to the student at the Clark College student email address regarding the credits/units to be awarded. CI credits/units are posted to the transcript at the end of the term in which the scores were submitted as long as the student is enrolled in that term.

Students should send an official copy of their CI scores to:

Clark College  
Attn: Enrollment Services/GHL 128  
1933 Fort Vancouver Way  
Vancouver, WA 98663

# CREDIT HOURS AND CREDIT LOAD

## 320.001 Credit Hours and Credit Load

The State Board for Community and Technical Colleges has established rules for how community and technical colleges determine course credit hours. These rules are based on the type of instructor contact hours and the ratio of those hours to the number of weeks in a quarter. "Credit hours" are defined as the unit by which an institution measures its course work. The number of credit hours assigned to a course is defined by the number of hours per week in class and the number of hours per week in out of class preparation. Clark College uses these rules to establish credit hours assigned to each course offered by the College. Credit loads are determined based on the credit hours for which a student enrolls.

Faculty members are charged with assessing student learning outcomes associated with course credit.

A credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

1. One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter of credit, or the equivalent amount of work over a different time; or
2. At least an equivalent amount of work as required in the above paragraph for other academic activities as established by the institution, including laboratory work, internships, practical's, studio work, and other academic work leading to the award of credit hours.

The following definitions have been established to guide instructional practice, with each definition equating to a minimum of three weekly hours of student's effort per credit.

Credit hours for three categories of instruction are:

- **Theory:** Students are engaged with faculty and class members in learning theoretical material and/or engaging in activities to apply the theory leading to mastery of course outcomes. Modes of instructional delivery could include but are not limited to: lecture, small group discussion, guided conversation, demonstration, case studies, role-playing, problem based inquiry, and collaborative activities. Instruction may be a mix of presentation, facilitation, and guided activities evidenced by frequent ongoing communication between instructor and students. Such activities could take place in a variety of instructional modalities. One credit is generated by one weekly contact hour of instruction or the equivalent amount of work over a different amount of time. Generally requires out-of-class student effort, typically two hours per class hour.
- **Guided Practice:** Students are actively engaged in practicing and mastering skills under the supervision of the instructor. This category of instruction could include but are not limited to labs, studios, shops, clinical experiences, computer-mediated learning, hands-on projects, or other skill building activities. Instruction may be individualized or group-focused and include skills assessment. Such activities could take place in a variety of instructional modalities. One credit is generated by two weekly contact hours of instruction or the

equivalent amount of work over a different amount of time. May also include out-of-class student effort, typically one hour per two class hours.

- **Field-Based Experience:** Students are engaged in autonomous study or related work activity under the intermittent supervision of the instructor. This mode includes working with or under the direction of professional practitioners and may include preceptorships, co-ops, internships, seminars, or service learning activities. Verification of learning outcomes is documented by college faculty in collaboration with professional practitioners. One credit is generated by a minimum of three weekly contact hours of supervised learning experience. Programs may determine that additional hours are needed for the student learning needs. However, only one credit will be generated for enrollment counting purposes.

All instructional modalities use the credit hour determination provided above. Credit hours for all instructional modalities are determined based on the equivalence of credit hours to the Clark College's traditional face-to-face courses. Listed below are all instructional modalities Clark College provides, including modalities Clark aims to provide:

Contact hours in online, hybrid and competency-based classes may vary from more traditional face-to-face classes. Students should demonstrate equivalent learning outcomes regardless of instructional modality.

### Traditional (face-to-face) classes

Students and instructors meet together for a certain number of hours, in a classroom and on a regular weekly schedule.

### Online classes

Online classes consist entirely of online elements with no face-to-face component. Some online classes require students to interact with each other, the faculty, and content at specific times, while others are entirely self-paced. The number of credits/units offered in an online course is based on equivalency of learning outcomes of face-to-face modality.

### Hybrid classes

Hybrid classes combine face-to-face classroom time with online instruction. Students in a hybrid class come to campus at scheduled times and meet face-to-face with instructors and students. Many class activities are conducted online, including class work assignments, discussions and group projects. The number of credits/units offered within a hybrid course is based on equivalency of learning outcomes of face-to-face modality.

### Flipped classes

The flipped classroom reverses the traditional educational arrangement by delivering instructional content outside of the classroom, often online. Students spend classroom time actively engaging in concepts to clarify and apply the knowledge, under the guidance of the instructor. Credits/Units are awarded based on learning outcomes earned equal to those offered within face-to-face modality.

### Competency-based education

Competency-based education (CBE) allows students to earn credit based on their proven mastery of a subject rather than classroom time. The number of credits/units offered within a CBE course is based on equivalency of learning outcomes of face-to-face modality. CBE courses are offered within the quarter system. A week of instruction within the CBE courses are any seven-day period in which the institution makes available to the students enrolled in the CBE program the instructional materials and faculty support to enable the student to engage in an educational activity. CBE courses are faculty led with weekly

consultations with faculty members to discuss academic course content in addition to assessments of learning.

Exceptions are noted in the quarterly schedule (some classes are not scheduled in the usual College class periods.)

This policy will be reviewed by Executive Cabinet according to the program review policy schedule.



# COLLEGE INFORMATION

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- Accreditation (p. 307)
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# HISTORY

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In the midst of the Great Depression, a group of educators boldly embraced a dream of higher education for Southwest Washington. That dream became reality when Clark College was founded as a private junior college in 1933.

The college was originally located in Vancouver's historic Hidden House, where it remained through 1937. During the next two decades, the college was housed at four different locations. In 1951, the college launched an evening program in the Applied Arts Center, the first building on the current 101-acre campus in Vancouver's Central Park.

Initial accreditation was granted during the 1936-37 academic year following a visit by professors from the University of Washington. In 1948, the college first received accreditation from the organization known as the Northwest Association of Secondary and Higher Schools. Today, that organization is known as the Northwest Commission on Colleges and Universities (NWCCU). Since its first accreditation in 1937, through periodic reviews, Clark College has remained accredited throughout its history.

Clark College first received state financial support in 1941. Five years later, the college was placed under the general supervision of the State Board of Education, with the Vancouver School Board serving as its policy-making body.

In 1967, the Washington State Legislature created a state system of community college districts. Clark College, in District No. 14, is one of 34 Washington community and technical colleges, and serves residents of Clark, Skamania and west Klickitat counties. The college is governed by a five-member board of trustees appointed by the Governor.

# ACCREDITATION

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Clark College is accredited by the Northwest Commission on Colleges and Universities<sup>1</sup> (8060 165th Avenue NE, Suite 100, Redmond, WA 98052), a regional institutional accrediting agency recognized by the Secretary of the U.S. Department of Education.

## Types of Accreditation

There are three types of accreditation in the United States: institutional, national, and specialized or programmatic. On July 1, 2020, the United States Department of Education's (USDE) regulations eliminated the designation of regional accreditor and, thus, the seven regional accreditors, such as NWCCU, are now referred to as institutional accreditors.

- An institution may not be accredited by more than one institutional accrediting agency. It may, however, be accredited by an institutional accreditor and a national accreditor and/or have one or more of its academic programs accredited by specialized or programmatic accrediting agencies.
- Students attending accredited institutions may be eligible to apply for U.S. federal financial aid. Accreditation also helps ensure that credits and degrees are generally recognized for purposes of transfer, admission to other institutions, and employment.
- In many countries, the maintenance of educational standards is a governmental function; in the U.S., in contrast, accreditation is peer-driven and accrediting organizations are funded by the dues paid by member institutions. Review teams predominantly comprising experts and representatives from similar institutions evaluate an institution for initial accreditation or reaffirmation of accreditation.
- No institution in the U.S. is required to seek accreditation, but because of the recognized benefits of the process, including student eligibility for Title IV and other federal and state funds, most eligible institutions have sought to become accredited.

## Several of the college's programs are also accredited by program-specific accrediting bodies:

- The associate degree Nursing program is accredited by the Accreditation Commission for Education in Nursing, Inc.<sup>1</sup> (formerly known as the National League for Nursing Accrediting Commission).
- The Dental Hygiene program is accredited by the American Dental Association, Commission on Dental Accreditation.<sup>1</sup>
- The Medical Assistant certificate program is accredited by the Commission on Accreditation of Allied Health Education Programs.
- The Addiction Counselor program is accredited by the National Addiction Studies Accreditation Commission.
- The Automotive T-TEN program is accredited by the National Automotive Technicians Education Foundation and is a certified Toyota Technician Training Education Network (T-TEN) program.

<sup>1</sup> Agency recognized by the U.S. Department of Education as one of the accrediting agencies.

# COLLEGE ASSESSMENT

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Clark College is committed to guiding individuals to achieve their educational and professional goals. To carry out that commitment, the college continuously assesses student learning by gathering information about the effectiveness of its programs and services, and the achievements and perspectives of its alumni. This information is used to monitor the effectiveness of educational programs as well as student and academic services.

Each Clark College student is expected to participate in the college's assessment efforts. Programs and services use various means to gather assessment information including portfolios, performances, achievement tests, comprehensive examinations, surveys, interviews, focus groups, evaluation forms, and other methods. Occasionally, Clark College faculty and staff may present information about their assessment projects at professional conferences or in publications, for the purpose of contributing to professional knowledge in the field of education. Aggregate assessment data may be used in these presentations, such as aggregate results from quizzes, surveys, etc. Students' consent must be obtained prior to presenting individual-level data.

# STUDENT RIGHTS AND RESPONSIBILITIES

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Clark College provides its community and students with education and services of the highest quality. Admission to Clark College carries with it the presumption that students will conduct themselves as responsible members of the college community. Clark College expects all students to conduct themselves in a manner consistent with its high standards of scholarship and conduct.

Student rights, responsibilities, and the Code of Student Conduct can be found at: [http://www.clark.edu/clark-and-community/about/policies-procedures/student\\_code.php](http://www.clark.edu/clark-and-community/about/policies-procedures/student_code.php) ([http://www.clark.edu/about/governance/policies-procedures/student\\_code.php](http://www.clark.edu/about/governance/policies-procedures/student_code.php)). A printed copy can be requested in the Office of the Vice President for Student Affairs, Gaiser Hall 204 (GHL 204). These standards of conduct for students promote Clark College's educational purposes and provide students a full understanding of their rights and responsibilities.

# NONDISCRIMINATION AND EQUITY

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Clark College recognizes, understands, confronts and challenges the institutional systems of privilege, power, and inequity so that all members of the Clark College community can support student learning. Clark College endeavors to facilitate student learning by providing the conditions that improve educational outcomes and eliminates systemic disparities among all groups.

Clark College is committed to freedom from discrimination for all members of the College community. The College expressly prohibits discrimination on the basis of race, color, national origin, age, perceived or actual physical or mental disability, pregnancy, genetic information, sex, sexual orientation, gender identity, marital status, creed, religion, honorably discharged veteran or military status, or use of a trained guide dog or service animal. In addition, the College is committed to freedom from all forms of harassment including sexual harassment, domestic violence and harassment in the workplace. All claims of discrimination and harassment will be investigated by the designee of the President.

Discrimination is prohibited by Title VI of the Civil Rights Act of 1964, Title VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Sections 504 and 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act and ADA Amendments Act, the Age Discrimination Act of 1975, the Violence Against Women Reauthorization Act, and Washington State's Law Against Discrimination, Chapter 49.60 RCW and its implementing regulations. For more information regarding the discrimination and harassment policy, please refer to [http://www.clark.edu/clark-and-community/about/policies-procedures/grievance\\_procedure.php](http://www.clark.edu/clark-and-community/about/policies-procedures/grievance_procedure.php) ([http://www.clark.edu/about/governance/policies-procedures/grievance\\_procedure.php](http://www.clark.edu/about/governance/policies-procedures/grievance_procedure.php))

Any person who believes she or he has been discriminated against or harassed by Clark College or its employee(s) or agent(s) on the basis of any status listed above, may request informal assistance and/or lodge a formal grievance. The College encourages the timely reporting of any incidents of discrimination or harassment. For complainants who wish to submit a complaint, a formal complaint form is available online at [http://www.clark.edu/campus-life/student-support/student\\_complaint/index.php](http://www.clark.edu/campus-life/student-support/student_complaint/index.php) ([http://www.clark.edu/campus-life/student-support/student\\_complaint/](http://www.clark.edu/campus-life/student-support/student_complaint/)). Hard copies of the complaint form are available at the following locations on campus:

**The Diversity Center**

Gaiser Hall 214 (GHL 214)

**The Office of the Vice President of Student Affairs**

Gaiser Hall 204 (GHL 204)

**The Office of Human Resources**

Baird Administration Building 144 (BRD 144)

# CLARK CARES: COLLABORATE, ASSESS, RESOURCE, AND ENGAGE STUDENTS

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Clark CARES team will provide an outlet the college community to report any concern related to the well-being of a Clark student. We do this to support retention, completion, close the opportunity gap for students and enhance campus safety.

The CARE process exists to support students as they face a variety of barriers to their success and well-being by collaborating with the reporter and through partnerships. This could include connecting students to the appropriate department, institutional process, identify college and/or community resources for assistance.

The college has a CARE Team that may be convened in the CARE process for situations that call for a heightened level of coordination and response. The core membership of this team consists of: Associate Director of Care & Community Standards, Dean of Student Engagement, Student Engagement & Community Standards Manager, Counseling, Safety & Security, and Instructional leadership. There may be times where additional campus officials might be involved. The team meets biweekly and the information shared within this group is considered private. The purpose of sharing CARE reports is to determine how best to coordinate appropriate support to the student. Additional information may be made available by CARE team members' respective offices.

CARE team members are trained in using the NABITA (National Association for Behavioral Intervention and Threat Assessment) tools. For more information, please visit [nabita.org](https://www.nabita.org/) (<https://www.nabita.org/>).

To learn more about Clark CARES team or to **submit a referral** visit the Student CARE Process ([clark.edu](https://www.clark.edu/campus-life/student-support/care-community-standards/care/)) (<https://www.clark.edu/campus-life/student-support/care-community-standards/care/>) page. **Email:** [clarkCARES@clark.edu](mailto:clarkCARES@clark.edu)

# NOTIFICATION OF STUDENTS' RIGHTS UNDER THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

Clark College conforms to the Family Educational Rights and Privacy Act (FERPA), as amended, which affords students certain rights as to their education records.

1. Students have the right to inspect and review their education records within 45 days of the day the college receives a written request for access. Students should submit, to the Registrar, written requests that identify the record(s) they wish to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the record(s) may be inspected. If the records requested are not maintained in Enrollment Services, the student will be advised of the correct official to whom the request should be addressed.
2. Students have the right to request the amendment of the education records that they believe are inaccurate or misleading. Students must write the college official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of the process by which the student may appeal the decision.
3. A student has the right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. With few exceptions (stated below), no one will have access to student records without the written consent of the student. Clark College will not release a student's record to a parent/guardian without the student's written permission. Such a policy is in effect regardless of the student's age or financial dependency upon the parent/guardian.

The college may release student directory information without student consent which includes student's name, major field of study, enrollment status, dates of attendance, participation in recognized sports, degrees and certificates earned, term degrees and certificates awarded, and honors. With regard to former students, such information also includes addresses for use by the Clark College Foundation.

Exceptions include school officials with a legitimate educational interest in a student's educational record. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the college has contracted (such as an attorney, auditor, collection agent, or the National Student Clearinghouse, an agency which acts as a clearinghouse for student loan deferment reporting); a person elected to the board of trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Exceptions also include accrediting agencies; student

financial aid agencies; and those who require student information in an emergency situation in which someone's health or safety is at risk. Clark College also discloses educational records without consent to officials of baccalaureate institutions in which a student seeks to, or intends to, enroll.

In compliance with the Higher Education Amendments of 1998, the college is authorized to disclose information to a parent or guardian about any school disciplinary violation involving alcohol or a controlled substance which has been found to have been committed by a student who is under the age of 21.

Pursuant to the Solomon Amendment, Clark College is authorized to disclose the following directory information to the military for recruitment purposes: student's name, address, telephone listing, date of birth, academic major, and degrees received from Clark College.

Students who do not wish to have directory information released by the college must file a student directory restriction request with Enrollment Services.

4. A student has the right to file a complaint with the U.S. Department of Education concerning alleged failures by Clark College to comply with the requirements of FERPA by writing to:

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Ave. S.W.  
Washington, DC 20202-8520

In some instances, records may be withheld by the college. Academic transcripts are routinely withheld if a student has a financial obligation to the college. The Security/Safety Office may request a hold on records if there is concern that such records may compromise a criminal investigation.

Copies of the complete FERPA policy may be obtained at Enrollment Services.



## **LIMITATION OF LIABILITY**

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The college's total liability for claims arising from a contractual relationship with the student in any way related to classes or programs shall be limited to the tuition and expenses paid by the student to the college for those classes or programs. In no event shall the college be liable for any special, indirect, incidental, or consequential damages, including but not limited to, loss of earnings or profits.

# GRADUATION RATES

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Below is the federal graduation rate survey (GRS) (3 year) information for student cohorts from 2008, 2009, 2010, and 2011 along with the GRS 200% (4 year) information for student cohorts from 2007, 2008, 2009, and 2010. The federal graduation rate survey definitions pertain to a specific cohort of Clark College students: new students attending full time, who plan to earn a degree or certificate, and without prior college experience.

- Combined (3 year) transfer out/completion/graduation rate, 4-year average: 43%
- GRS (3 year) completion or graduation rate, 4-year average: 26%
- GRS (3 year) transfer out rate, 4-year average: 18%
- GRS 200% (4 year) completion or graduation rate, 4-year average: 31%

Clark College provides this information pursuant to the federal Student Right to Know Act so that prospective students can make informed decisions about the college they might wish to attend. For help in interpreting these data, contact the Office of Planning & Effectiveness, 360-992-2506.

View the most recent cohort graduation rates at the National Center for Education Statistics website: <https://nces.ed.gov/collegenavigator/>

# EQUITY IN ATHLETICS

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The Equity in Athletics Disclosure Act (EADA) is designed to make prospective students aware of a school's commitment to providing equitable athletic opportunities for its male and female students. Any co-educational institution of higher education that participates in a federal student aid program must prepare an EADA report each October. For a copy of the report, please contact the Athletic Department, O'Connell Sports Center, 360-992-2691, or visit the EADA website at <http://ope.ed.gov/athletics/>.

## CONSUMER INFORMATION

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All consumer information, also known as Student Right to Know Information, is available on the Clark College website at [http://www.clark.edu/clark-and-community/about/policies-procedures/consumer\\_information/index.php](http://www.clark.edu/clark-and-community/about/policies-procedures/consumer_information/index.php) ([http://www.clark.edu/about/governance/policies-procedures/consumer\\_information/](http://www.clark.edu/about/governance/policies-procedures/consumer_information/)).

Information is available in paper format through the Office of the Dean of Student Enrollment and Completion located in Gaiser Hall.

# LOCATIONS AND CAMPUSES

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Clark College has one main campus and three satellite locations located throughout Clark County. Each of the locations includes a variety of programs to serve the community and help students complete a program at Clark College.

## Main Campus

Clark College's beautiful main campus is located on 101 acres in Vancouver's Central Park, just east of Interstate 5 and north of the Columbia River and Fort Vancouver Historic Reserve. This full-service campus includes a gym, music and theatre hall, library, student center, and a new dining space. Hours of Operation: 7am-10pm

## Columbia Tech Center

The Columbia Tech Center (CTC), located on the east side of Vancouver, opened in 2009. CTC provide access to education eastern portion of the college's service district, which includes Clark County communities like Camas and Washougal as well as parts of Skamania and Klickitat counties. The campus features state-of-the-art labs serving popular programs like network technology, biology, and mechatronics. Clark College Community and Continuing Education t is also located at CTC. Hours of Operation: M-TH 8am-6pm

## Clark College at WSU Vancouver

Clark College at Washington State University Vancouver, established in 2006, is the result of a longstanding partnership between Clark College and WSU Vancouver. Before WSU Vancouver moved to its current site in 1996, it was housed in Bauer Hall on Clark's main campus. The 63,334 square foot, three-story building provides additional classrooms, science laboratories, computer labs, and support space to accommodate growing enrollment and the desire to provide access to lower division courses for WSU Vancouver students. The beautiful facility is home to Clark's nationally-recognized nursing program as well as general education classes. Hours of Operation: 7am-9pm

## Clark College at Boschma Farms

Clark College at Boschma Farms is expected to be a boon for the region and represent a long-term visionary chapter for the college. Design of the first building is expected to start in 2017 on the 70-acre campus located just east of I-5 in Ridgefield, Washington. Construction is scheduled to start in 2022.

## Clark College Economic and Community Development

Clark College Economic & Community Development (ECD) is Southwest Washington's premier provider of workforce training and non-credit learning, serving more than 7,000 people annually. ECD offers classes at its main location in the Columbia Tech Center and Clark's main campus.

# FACULTY AND ADMINISTRATION

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- Board of Trustees (p. 319)
- Executive Cabinet (p. 320)
- Administration (p. 321)
- Faculty (p. 325)
- Foundation (p. 333)

# BOARD OF TRUSTEES

## Clark College Board of Trustees

**Jeanne Bennett, 2021-2024**

B.S. Portland State University

Retired CEO of Workforce Southwest Washington, a Vancouver resident, and a longtime community leader. She began her career working as a congressional staff member, first for Oregon Congresswoman Elizabeth Furse and then for Congressman Brian Baird in Washington. After that, she moved on to leadership positions in Evergreen School District 112's Youth Workforce Program, the Mount St. Helens Institute, and finally Workforce Southwest Washington, where she managed local investments of more than \$10 million annually in individuals' workforce skills training and development. In her retirement, Bennett remains active in her community, including serving as Board Chair for Columbia Play Project. Community activities include:

- Mount St. Helens Institute
- Mount Adams Institute
- Empower Women + Girls

**Cristhian A. Canseco Juarez, 2021-2026 (Vice Chair)**

B.A. Business Administration, Washington State University Vancouver

Community activities include:

- Treasurer and Secretary, Lighthouse Community Credit Union
- Treasurer, Southwest Washington LULAC Council
- Parish Council Member, St. John Evangelist Catholic Church

**Denise Gideon, 2021-2024**

A.A. Berkeley City College

B.A. Patten University

M.B.A. John F. Kennedy University

A Seasoned healthcare leader with an extensive record of service to communities. She is currently the System Vice President of Operations & Program Integration at PeaceHealth, based in Vancouver, Washington, where she also serves as the executive sponsor for the Black and Allies Network Group. Previously, professional career spanned leadership roles at UCSF Benioff Children's Hospital in Oakland and at Children's Hospital & Research Center Oakland, as well as at the Alameda Alliance for Health. She is the former co-chair of the Board of Directors of St. Martin De Porres Catholic School and is active in faith communities wherever she lives and works.

Gideon served as a Licensed Practical Nurse in the U.S. Army during Desert Storm.

Community activities include:

- Educational Opportunities for Children & Families of Southwest Washington
- Joyce Finley Foundation
- National Association for the Advancement of Colored People
- Rebuild Together Portland

**Paul Speer, 2018-2023 (Chair)**

Has extensive experience and skills in strategic planning, nonprofit fundraising and capacity building. A resident of Clark County for the past 37 years. Speer has long demonstrated a commitment to his community. For more than 25 years, he worked at Hewlett-Packard Company, where

he retired as Vice President of Development Strategy in the Office of Strategy and Technology.

Currently, is an executive advisor and coach, who also appears as a guest lecturer and panelist on topics including leadership, new business creation, business planning, venture philanthropy, sustainable energy, and encore careers.

Community activities include:

- The Historical Trust - Board Member
- Oregon Public Broadcasting - Board Member
- Social Venture Partners International - Past Board Member
- Leadership Clark County - Past Board Member
- iUrban Teen - Advisory Member
- Cascadia Tech Academy - Advisory Member
- Superintendent's Management Task Force for Vancouver Public Schools - Advisory Member
- University of Portland's Engineering Dean's Advisory Council - Past Council Chair
- University of Portland's Franz Center for Leadership, Entrepreneurship, and Innovation Board - Past Board Chair
- Pearson Field Education Center - Committee Chair

**Rekah Strong, 2012 – 2022**

B.S. Criminal Justice, Portland State University

M.A. Social Work/Administration, Portland State University

Ph.D. Social Work Research, Portland State University in progress

Ms. Strong is currently the Executive Director for Educational Opportunities for Children & Families. She has more than 16 years of experience working in public agencies and developing strategies to improve organizational cultural humility.

Community activities include:

- Board member, We Reign Youth Foundation
- Board member, Partners in Diversity

# EXECUTIVE CABINET

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**Brad Avakian (2021)**

Vice President of Human Resources  
J.D., Northwestern School of Law of Lewis and Clark College  
B.S. Oregon State University - Corvallis

**Michele Cruse (2020)**

Vice President of Student Affairs  
MPA Portland, OR  
PhD - Portland, OR

**Karin Edwards (2020)**

President  
MS, Educational Administration, SUNY Albany, NY  
Ed.D, Educational Leadership, Johnson & Wales University, RI

**Sudha Frederick (2023)**

Vice President of Information Technology  
MBA, George Fox University  
MA, Multnomah University  
MA, Madurai Kamraj University, Madurai

**Vanessa Neal (2022)**

Vice President of Diversity, Equity and Inclusion  
B.A. University of New Mexico  
Master's University of Denver

**Calen Oullette (2023)**

Chief Executive Officer  
B.A. Washington State University  
M.B.A. University of Southern California Marshall School of Business

**Sabra Sand (2014)**

Vice President  
B.A. Washington State University

**Jim Wilkins-Luton (2015)**

Interim Vice President of Instruction  
B.A Whitworth University  
M.A. Gonzaga University  
Ed.D. George Fox University



# ADMINISTRATION

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## A

### **Heather Adams** (2020)

Executive Assistant to the Vice President of Student Affairs  
B.A. Washington State University  
M.A. Northwestern State University of Louisiana

### **Megan Anderson** (2022)

Educational Planner  
B.A. Colorado Christian University  
M.Ed. University of Washington

### **Jorge Argueta** (2018)

Educational Planner  
B.A., M.A. California State Polytechnic University Pomona

### **Julie Austad** (2021)

Dean of Clark Libraries and Academic Success Services  
B.A. Linfield College  
M.L.S. Emporia State University

## B

### **Margit Brumbaugh** (2016)

Educational Planner  
B.A. University of Washington  
M.Ed. Concordia University

### **Cathleen "Cath" Busha** (2016)

Dean of Student Engagement  
B.S. Millersville University  
M.S.W. Arizona State University

### **Jay Buscher** (2021)

Environmental Health and Safety Manager  
B.A. Warner Pacific University

### **Evelyn Buschur** (2021)

Advanced Medical Practitioner  
B.S. University of Maine  
N.D. National University of Natural Medicine

## C

### **Aaron Campbell** (2023)

Associate Director of Advising Services  
B.A. University of Vermont  
M.A. Lewis & Clark College

### **Ann Campbell** (2022)

Director of Community and Continuing Education  
B.S. University of Oregon

### **Christy Campbell** (2014)

Assistant Director of Business Services  
B.S. Washington State University

### **April Cannon** (2017)

Educational Planner  
B.S. Oregon State University  
M.A. Eastern Michigan University

## D

### **Kevin Damore** (2018)

Director of Marketing  
B.S. Northern Arizona University

### **Carl Douglas** (2021)

Director of Center of Excellence - Semiconductor and Electronics Manufacturing  
AAST Clark College  
B.S. University of Phoenix

## F

### **Darci Feider** (2021)

Executive Assistant to Vice Preside of Human Resources and Compliance

### **Wendé Fisher** (2015)

Educational Planner - Professional/Technical  
A.A.S. Clark College  
B.A. Washington State University  
M.S. Oregon State University

### **Hudson Fox** (2022)

Accommodation and Retention Specialist  
B.A. Western Washington University

### **Traneesa Frazier** (2019)

Executive Assistant to the Vice President of Administrative Services  
A.A. Los Angeles Harbor Community College  
B.S. Warner Pacific College

## G

### **Gerald Gabbard** (2022)

Director of Labor and Compliance  
B.Mus. Lawrence University  
M.S. University of Wisconsin - Milwaukee  
Ph.D. Capella University

### **Glendi Gaddis** (2021)

Associate Dean of Financial Aid  
B.A. Whitworth University

### **Carrie Ann Gallagher** (2019)

Public Records Officer  
B.A. University of Portland

### **Marcy Gilchrist** (2017)

Educational Planner  
B.A. Central Washington University

### **Kael Godwin** (2007)

Enrollment Systems Analyst  
B.A., M.A. University of Nevada, Las Vegas

### **Terrah J. Goeden** (2022)

Interim MESA Director  
B.S. University of Washington  
M.S. Central Washington University

### **Michelle L. Golder** (2007)

Special Projects and Activities Manager  
B.S. University of Portland

**Sarah K. Gruhler** (2010)  
 Director of Student Life  
 B.A. Western Washington University  
 M.Ed. Seattle University

**Das Gupta** (2020)  
 Director of Information Technology - Client Services  
 B.B.A. Walsh College

## H

**Trisha Haakonstad** (2019)  
 Career Advisor  
 B.A. University of San Diego  
 M.S. Portland State University

**Degundrea Harris** (2019)  
 Executive Assistant  
 A.A. Clark College  
 B.S. Warner Pacific

**Nicole Harris** (2022)  
 Director of Student Equity and Inclusion  
 B.A., M.A. Warner Pacific University

**Jessica Hash** (2022)  
 Educational Planner  
 A.A. Clark College  
 B.A. Washington State University

**Bradford Hawkins** (2022)  
 Assistant Athletic Director  
 B.A. Washington State University

**Csendi Hopp** (2019)  
 International Admissions Manager  
 B.A. Southern Oregon University

## J

**Shannon Jackson** (2018)  
 Educational Planner  
 B.A., M.S. Portland State University

**Kate Jacky** (2015)  
 Associate Director of Financial Aid  
 B.A. Washington State University

**Megan Jasurda** (2015)  
 Director of Disability Support Services & ADA Compliance Officer  
 B.A. University of Wisconsin  
 M.Ed. Portland State University

**Joseph Jenkins** (2016)  
 Educational Planner - College Prep and Transfer  
 A.A. Clark College  
 B.A. Washington State University  
 M.S. Portland State University

**Rhianna Johnson** (2021)  
 Director of Guided Pathways and Partnerships  
 M.S. Portland State University

## K

**Catharine Keane** (2014)

Associate Director of Career Services  
 B.S. University of Vermont  
 M.P.A. Washington State University

**Tanya Kerr** (2017)  
 Internal Controls Business Analyst  
 B.A. University of Washington

**Alexandra Kison** (2022)  
 Workforce and Student Engagement Navigator  
 B.S. Eastern Washington University

**Rebecca Kleiva** (2018)  
 Associate Director of Workforce Education Services  
 A.A. Clark College

**Monica L. Knowles** (1998)  
 Bookstore and Production Printing Manager  
 A.A. Brooks College

## L

**Donna Larson** (2022)  
 Interim Associate Vice President of Instruction  
 B.S.A. Rhode Island College  
 M.S. Troy State University  
 Ph.D. Texas Tech University

**Michael Law** (2022)  
 Associate Director for Student Equity and Success  
 A.A. Spoon River Community College  
 B.A. University of Illinois  
 M.A. Loyola University

**Heather Leasure** (2021)  
 Student Communication and Retention Manager  
 A.A. Clark College  
 B.A. Washington State University

**Laura LeMasters** (2019)  
 Director of Athletics  
 B.A. Washington State University  
 M.A. California State University - Long Beach

**Yingcong Li** (2020)  
 Research Associate  
 B.S. Portland State University

**Kimberly Love** (2022)  
 Associate Director of Nursing Outcomes, Inclusion and Support  
 B.S. Warner Pacific University  
 M.Ed. City of University of Seattle  
 RN, Foothills School of Nursing, Calgary AB

## M

**Lance McIntire** (2017)  
 Environmental Health and Safety Manager  
 B.S. Missouri State University  
 M.P.H. Des Moines University

**Sherri Meadors** (2016)  
 Payroll Manager  
 A.A. Clark College

**Emily Moez** (2022)

Director of Advising and Career Services  
B.A. University of Washington  
M.A., Ed. California Polytechnic State University

## N O

**Jennifer Obbard** (2017)  
Associate Dean of Health Science  
B.S.N., M.N. Oregon Health Sciences University

**Shelley R. Ostermiller** (2018)  
Associate Registrar  
A.A. Clark College  
B.A. Washington State University, Vancouver  
M.S. Warner Pacific College

**Eriko Otsuka** (2012)  
Senior Manager of IT App Dev. & Data Services/Sr. Software Engineer  
B.S., M.S. Washington State University, Vancouver

## P

**Brooke Pillsbury** (2022)  
Senior Executive to the President  
B.A. Warner Pacific University

**Bryan Pettis** (2022)  
Custodial Services Manager  
A.A. Climate Control Institute  
B.S. University of Phoenix  
M.B.A. Baker University

**William Porter** (2022)  
Educational Program Director - LARCH Corrections Center

## Q R

**Tina Redd** (2023)  
Dean of Social Sciences and Fine Arts  
B.A. University of Missouri, St. Louis  
M.A. Southern Illinois University at Edwardsville  
Ph.D. University of Washington

**Julie L. Robertson** (2013)  
Director of Grant Development  
B.S. Lewis & Clark College  
M.S., M.S.W. Portland State University

**Nicole Rogers-Marcum** (2018)  
Director of Instructional Finance and Operational Support  
B.S. Western Oregon University  
M.B.A. Washington State University

## S

**Chris Samuels** (2022)  
Director of Facilities  
B.A. University of Oregon

**Sabra Sand** (2014)  
Vice President of Operations  
B.A. Washington State University

**Thao Schmidt** (2022)  
Director of Employment Services  
A.A. Clark College  
B.A. Washington State University

**Michael See** (2017)  
Director of Safety & Security  
B.S. College of Professional Studies  
M.S. Kaplan University

**Sara Seyller** (2019)  
Instructional Operations Analyst  
B.A., M.P.A. Washington State University

**Jody Shulnak** (2019)  
Associate Director of International Programs  
B.S. Northern Arizona University  
M.S. Portland State University

**Colleen Snarks** (2022)  
Risk Manager

**Grace Spadaro** (2022)  
Educational Planner  
B.A. California Lutheran University  
M.Ed. University of Vermont

**Heidi Summers** (2018)  
Associate Dean of Transitional Studies, English, Communications and Humanities  
B.S. Oregon State University  
M.A. Ed. Virginia Tech

## T

**Julie F. Taylor** (2005)  
Administrative Secretary

**Kevin Thomas** (2019)  
Director of Workforce Education Services  
B.A. Washington State University

**Abigail Thompson** (2018)  
Admissions Recruiter  
A.A. Clark College  
B.A. Portland State University

**Cole Timpone** (2022)  
Admissions Recruiter  
M.A. University of St. Andrews

**Tasaday Turner** (2015)  
Associate Director of Advising  
A.A.S. Clark College  
B.A. Washington State University  
M.S. Portland State University

## V

**Jacquelynn Vigeon** (2015)  
Clinical Placement Manager  
B.A., M.A. The University of New Mexico

**Michele Volk** (2015)  
Interim Dean of Social Sciences and Fine Arts  
Director of Services for Children and Families

A.A.S. Portland Community College  
B.S. Warner Pacific

**Alyssa Voyles** (2019)  
Associate Director of Employee Equity, Outreach and Engagement  
B.S. University of Oregon  
M.Ed. Oregon State University

## W

**Jim Watkins** (2003)  
Construction Project Manager  
B.A. New College

**Vanessa Watkins** (2015)  
Director of Entry Services  
B.S. Oregon State University  
M.S. Portland State University

**Jim Wilkins-Luton** (2015)  
Interim Vice President of Instruction  
B.A. Whitworth University  
M.A. Gonzaga University  
Ed.D. George Fox University

**Christi Williams** (2022)  
Associate Director of Student Care, Conduct and Complaints  
A.A. Clark College  
B.S. Portland State University  
M.S.W. Portland State university

**Carley Willis** (2018)  
Educational Planner  
B.S.W. George Fox University  
M.S.E. Capella University

**Patrick Willis** (2014)  
Career Advisor  
B.A., M.Div. George Fox University

## X

## Y

**Feddiena "Feddie" Young** (2022)  
Institutional Effectiveness Research Associate  
A.A. Clark College  
B.A. Central Washington University

## Z

# FACULTY

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## A

**Lisa Aepfelbacher** (2011)

Nursing  
B.S.N. Boston University  
M.S. Case Western Reserve University

**Glenna Afflerbaugh** (2015)

Dental Hygiene  
A.A.S. Clark College  
B.S. Eastern Washington University  
M.Ed. Concordia University

**Mohammed "Giga" Alqeeq** (2022)<sup>T-T</sup>

Cybersecurity  
B.A. Clark College  
A.T.A. Everett Community College  
CSIE, CSAE, CNSP, CNVP, CSAP, CASP+, PenTest+, CySA+, Sec+, MCSA, MCSA, MCP, 2xMS, 5xMTA

**Kathryn Anastasi** (2020)

Library  
B.S. Macalester College  
M.L.S. Queens College, City University of New York

**Roberto P. Anitori** (2013)

Biology  
B.S., Ph.D. University of New South Wales

**Donald L. Appert** (1990)

Music  
B.M, M.M., New England Conservatory  
D.M.A. University of Kansas

**Michael D. Arnold** (1989)

Exercise Science, Physical Education  
A.S. North Country Community College  
B.S.E. Northwest Missouri State University  
M.S. Northeast Missouri State University  
Certified Strength and Conditioning Specialist

**Patricia A. Atkinson** (2015)

Economics  
B.A. Marist  
M.S. Portland State University  
Ed.D. Washington State University

**Julie A. Austad** (2013)

Librarian  
B.A. Linfield College  
M.L.S. Emporia State University

## B

**Angie Bailey** (2009)

Nursing  
B.S.N., M.N., D.N.P. Washington State University

**Karl L. Bailey** (2006)

Chemistry  
B.S. California Polytechnic State University

Ph.D. University of California, Davis

**Kristine T. Barker** (1993)

Mathematics  
B.A. Willamette University  
M.A. University of Oregon

**Kayoko Y. Barnhill** (1994)

Mathematics  
B.A.S. University of California, Davis  
M.A. California State University, Sacramento

**Christina "Tina" Colby Barsotti** (1992)

Engineering  
B.S., M.S. Washington State University

**Rheannin Becke** (2016)

Transitional Studies  
M.S. Marquette University  
M.A. University of Alaska Southeast

**Gene Biby** (2011)

Drama  
B.S., M.S. Murray State University  
Ph.D. Southern Illinois University

**Aaron S. Bingham** (1994)

Mathematics  
B.A. University of California, Los Angeles  
M.A. California State University, Sacramento

**Mark E. Bolke** (2000)

Biology  
B.S., M.S. Portland State University

**Amy Bratton** (2017)

Communication Studies  
B.A. University of Memphis  
M.S. Portland State University

**Veronica P. Brock** (1995)

Health and Physical Education  
B.S. Eastern Washington University  
M.S. East Stroudsburg University

## C

**Paul A. Casillas** (1990)

Mathematics  
A.B. Augustana College, Illinois  
M.A. University of Iowa  
M.S. University of Oregon

**Amy Castellano** (2016)

Phlebotomy  
B.S. University of Arizona  
N.D. National College of Natural Medicine

**Carlos J. Castro** (2006)

Sociology  
B.A., M.A., M.C.R.P., Ph.D. University of Oregon

**Joseph Cavalli** (2018)

History  
B.A. Portland State University

M.A. University of Portland

**Michael V. Ceriello** (2007)

Political Science

B.A. University of California, Santa Barbara

M.A. Western Washington University

**Anthony J. Chennault** (2008)

Biology

B.A. University of Puget Sound

M.S. Portland State University

**Lindsay Christopher** (2014)

English

B.A. Mercyhurst University

M.A. University of Buffalo

Ph.D. University of Denver

**Steven Clark** (2011)

Biology

B.A. Linfield College

M.A. Lewis and Clark College

M.S. Portland State University

**Valerie S. Cline** (2011)

Nursing

A.D.N. Clark College

B.S.N. Washington State University, Vancouver

M.S.N. Walden University

**Cara Cocchiarella** (2016)

Health and Physical Education

B.A., M. S., Ed.D. University of Montana

**Adam Coleman** (2011)

Computer Technology

A.A.S. Clark College

B.S. Eastern Washington University

**Shayna Collins** (2012)

Counseling/Human Development

B.A., M.S. Minnesota State University, Mankato

**Lisa E. Conway** (2003)

Art

B.F.A. University of Michigan

M.F.A. Louisiana State University

**Kathryn "Kate" Cook** (2014)

Mathematics

B.A. Principia College

M.S. California State University

**Amanda Crochet** (2011)

Chemistry

B.S. Tulane University

Ph.D. University of California, Berkeley

**Catherine Crosby** (2016)

Biology

B.S. Western Washington University

M.S., Ph.D. Washington State University

**Meghan Crozier** (2021)<sup>T</sup>

Early Childhood Education

B.A. North Park University

M.A. Aurora University

**William T. Cushwa** (1995)

Biology

B.S. Virginia Polytechnic Institute and State University

M.S., Ph.D. University of California, Davis

## D

**Jill C. Darley-Vanis** (2006)

English

B.A. Oregon State University

M.A. Portland State University

**Kushlani de Soyza** (2013)

Women's Studies

B.S. Northwestern University

M.Ed. University of Cincinnati

M.A. Portland State University

M.F.A. Oregon State University

**Tanya Diaz-Kozlowski** (2020)

Women Studies

B.S. The University of Wisconsin Parkside

M.S. Eastern Illinois University

Ph.D. The University of Illinois at Urbana Champaign

**Marylynne Diggs** (1998)

English

B.A. University of Alabama

M.A., Ph.D. University of Oregon

**Alison Dolder** (2017)

Baking and Pastry Arts

A.A.S. Clark College

Certified Executive Pastry Chef

ServSafe Certified

**Elizabeth Donley** (2011)

English

B.A. DePaul University

M.A., M.F.A. Chapman University

## E

**Allen "Mark" Eddinger** (2018)<sup>T</sup>

Mathematics

B.S. DeVry Institute of Technology

M.S. Western Washington University

**Kevin Edwards** (2023)<sup>T</sup>

Technical Services and Systems Librarian

M.L.I.S., M.F.A. University of Washington

B.A. Southern Oregon University

**Bruce Elgort** (2020)<sup>T</sup>

Computer Technology

B.S. Stevens Institute of Technology

M.S. New York University – Polytechnic Institute

**Rebecca Engel** (2017)

American Sign Language

B.S. Oregon State University

M.Ed. Western Oregon University

**Mary E. Evens** (2000)  
Business Technology  
B.A. Central Washington University  
M.A. Pepperdine University

**Amy Ewing-Johnson** (2018)  
Dental Hygiene  
A.S., B.S., MEd.. Indiana University

## F

**Jason Fancher** (2022)<sup>T-T</sup>  
Anthropology  
B.A. Humboldt State University  
Ph.D. Washington State University

**Nadine L. Fattaleh** (2002)  
Chemistry-General  
B.A. Scripps College  
M.S. Carnegie Mellon University

**Melissa Favara** (2018)<sup>T-T</sup>  
English  
B.A. Western Michigan University  
M.A. The Pennsylvania State University

**Heidi Fay** (2009)<sup>T-T</sup>  
Pharmacy  
CP, A.A. Clark College

**Caron Ford** (2015)  
Transitional Studies  
A.S. Bakersfield College  
B.A. San Francisco State University  
M.A. California State University

**Nicholas C. Forrest** (1996)  
Political Science  
B.A. St. Joseph's College  
M.A., Ph.D. Northwestern University

**Van A. Forsyth** (1995)  
History  
B.A. University of California, Berkeley  
M.A. San Francisco State University

**Tyler Frank** (2019)<sup>T-T</sup>  
Transitional Studies  
B.A. University of Michigan  
M.A. University of Arizona

**Robert "Earl" Frederick** (2017)  
Culinary  
A.A.S. Johnson & Wales University  
B.S. Warner Pacific College

**Jacob Funk** (2016)  
Music  
B.S. John Brown University  
M.M. University of British Columbia  
D.M.A. University of Missouri - Kansas City

## G

**Sara L. Gallow** (1999)  
English as a Second Language  
B.A. Michigan State University  
M.A. Ball State University

**Michael A. Godson** (1995)  
Automotive Technology  
A.A.S. Clark College  
A.S.E. Master Automotive Technician

**Deena M. Godwin** (2008)  
Communication Studies  
B.A. Dana College  
M.S. South Dakota State University

**Donald M. Gonser** (1994)  
Diesel  
A.S. Oregon Institute of Technology  
A.S.E. Master Medium/Heavy Truck Technician

**Zachary M. Grant** (2006)  
Librarian  
B.A. Oregon State University  
M.L.S. Emporia State University

**Garrett C. Gregor** (2002)  
Mathematics  
B.S. University of Utah  
M.S. Humboldt State University

**Gothard C. Grey** (2004)  
Physics  
B.S. (Physics) University of Utah  
B.S. (Chemistry) University of Utah  
B.S. (Mathematics) University of Utah  
M.S. California Institute of Technology  
Ph.D. University of Wisconsin, Madison

**Aaron Guerra** (2017)  
Culinary  
A.O.S. Le Cordon Bleu Culinary College

## H

**Marilyn Hale** (2010)  
Transitional Studies  
B.S. University of Montana-Western  
M.Ed. Montana State University

**Kathrena L. Halsinger** (2001)  
Art/Graphic Design  
B.A. Western Washington University

**Adnan A. Hamideh** (2002)  
Business Administration  
B.A., B.S., Ed.D. Portland State University  
M.B.A. California State University

**Douglas Harris** (2018)<sup>T-T</sup>  
Music  
B.A. University of Florida  
M.M., D.A. University of Northern Colorado

**William Hausinger** (2018)

Welding  
GTAW, GMAW, FCAW-G, FCAW-S, SMAW, SAW Certifications

**Melanie Hendry** (2019)

Baking

**Rebecca Herman** (2015)

Dental Hygiene  
A.S. Clark College  
B.S., M.Ed. Concordia University

**Alejandra Herring** (2020)

Business Technology  
A.A. Clark College

**Grant N. Hottle** (2013)

Art  
B.F.A. University of Oklahoma  
M.F.A. University of Oregon

**Christina Howard** (2018)

Biology/Anatomy & Physiology  
B.S., M.S. Portland State University

**Garrett L. Hoyt** (2013)

Health and Physical Education  
B.S., PhD. Brigham Young University  
M.S. Colorado State University

**Carol C. Hsu** (2010)

Engineering  
B.S., M.S. The University of Texas, Austin

**Dwight W. Hughes** (2003)

Network Technology  
B.S. Northern Arizona University  
M.A. University of Phoenix  
Certifications in A+, Network+, MCP, CCAI, CCNA

**J****Hannah Jackson** (2016)

Mathematics  
B.S. Willamette University  
M.S. Syracuse University

**Debra R. Jenkins** (2000)

Early Childhood Education/Psychology  
A.A.S. Clark College  
B.A., M.A. Pacific Oaks College  
M.S., Ph.D. University of Phoenix

**Tina Jenkins** (2023)<sup>T-T</sup>

Mechatronics  
A.A., A.A.T, A.A.T Clark College  
B.S. Eastern Washington University

**Elizabeth Jochim** (2022)<sup>T-T</sup>

Allied Health  
M.A. Grand Canyon University  
B.S. Seattle University  
Certifications R.N.

**Andrew B. Johnson** (2013)

Business and Technology  
B.A. George Fox University  
M.A. University of Phoenix

**Brandon Johnson** (2022)<sup>T-T</sup>

Automotive  
A.S.E. Master Automotive Technician  
A.A.S. Universal Technical Institute

**Catherine E. Johnston** (2007)

English as a Second Language  
B.A. DePaul University  
M.A. University of San Francisco

**K****Yusufu Kamara** (2015)

Economics  
B.S. University of Sierra Leone  
M.A., Ph.D. University of Kansas

**Mark Keats** (2020)<sup>T-T</sup>

English  
A.A. Howard Community College  
B.A., M.F.A. University of Maryland-College Park  
Ph.D. Texas Tech University

**Sally J. Keely** (1996)

Mathematics  
B.S., M.S. Portland State University

**Darcy Kennedy** (2019)

Chemistry  
M.S. University of Washington

**Izad Khormae** (2003)

Computer Science and Engineering  
B.S., M.S. Iowa State University  
M.B.A. University of Oregon

**Travis T. Kibota** (1994)

Biology  
B.S. University of California, Los Angeles  
M.S., Ph.D. University of Oregon

**Raymond T. Korpi** (2000)

English  
B.S., M.A. University of Nebraska  
Ph.D. Washington State University

**David L. Kosloski** (1998)

Communication Studies  
Speech B.A. Georgia State University, Atlanta  
M.A. Central Michigan University

**Sarah Kuzera** (2017)

Medical Assisting  
A.S., B.S., Everest College  
M.B.A., Bryan University  
Ed.D. Capella University

**Jesse Kysar** (2020)

Engineering  
B.S., M.S., Washington State University



**L**

**Molly Lampros** (2022)<sup>T</sup><sup>T</sup>  
 Communication Studies  
 M.A. Pacific University  
 B.A., M.A. Portland State University

**Julie Lemmond** (2016)  
 Business Administration  
 B.S., M.B.A. Marylhurst University

**Josephine "Josie" Lesage** (2022)<sup>T</sup><sup>T</sup>  
 Environmental Sciences  
 B.S. University of California, Santa Barbara  
 M.A., Ph.D. University of California, Santa Cruz

**Xiunu "Sophie" Lin** (2016)  
 Physics  
 B.S. Xiamen University  
 Ph.D. University of Washington

**Mackenzie Loyet** (2021)<sup>T</sup><sup>T</sup>  
 Biology  
 B.A. Knox College  
 M.A., M.S. Indiana University Bloomington

**Kenneth S. Luchini** (2013)  
 Mechatronics  
 A.S. Diablo Valley College  
 B.S. California State University, Chico

**Dianne Lucia** (2022)  
 Nursing  
 B.S.N. University of Portland  
 M.S.N. Western Governors University

**Donald Ludwig** (2015)  
 Sociology  
 A.A. Spokane Community College  
 B.A. Whitworth College  
 M.S. Princeton Theological Seminary  
 M.S. Rutgers University  
 Ph.D. International University of Graduate Studies

**Michael Ludwig** (2014)  
 Dental Hygiene  
 A.A.S. Clark College  
 B.S. Eastern Washington University  
 M.Ed. Concordia University

**Nicholas Luisi** (2019)  
 Nursing  
 A.A.S. Raritan Valley Community College  
 M.S.N. Capella University

**Sarah M. Luther** (2013)  
 Mathematics  
 B.A., M.A. Lewis and Clark College  
 M.S. Texas A&M University

**Meredith Lynch** (2016)  
 Transitional Studies  
 B.A., M.A. University of Washington

**Olga Lyubar** (2019)

Health Information Management  
 B.S. University of Washington

**M**

**Nicholas Macias** (2017)  
 Computer Science and Engineering  
 B.S., M.S. George Washington University  
 M.A. Duke University  
 Ph.D. Virginia Polytechnic University

**Michelle D. Mallory** (2008)  
 Family Life/Early Childhood Education  
 B.S. Western Oregon State College  
 M.S. Portland State University

**Helen Martin** (2007)  
 Business  
 M.B.A. Georgia State University  
 Doctorandus, Leiden University

**Rebecca L. Martin** (2000)  
 Biology  
 B.A. Vassar College  
 M.A. Antioch University  
 M.S. Washington State University

**Mika Maruyama** (2013)  
 Psychology  
 B.A. Utah State University  
 M.S., Ph.D. Portland State University

**Kanchan Mathur** (2005)  
 Mathematics  
 B.A. Delhi University  
 M.S., Ph.D. Indian Institute of Technology

**Samuel May-Varas** (2016)  
 Transitional Studies  
 B.A. University of South Florida  
 M.A.T. City University of Seattle  
 Ed.D. Lewis & Clark College

**Heather J. McAfee** (2013)  
 Geography  
 B.A. University of Colorado, Colorado Springs  
 M.A. University of Oregon

**Brian McVay** (2014)  
 Welding  
 Certified Welding Educator  
 Certified Welding Inspector  
 Journeyman Ironworker Certification

**Natalie R. Miles** (2013)  
 Adult Basic Education  
 B.S., M.S. Valley City University

**Christopher E. Milner** (2007)  
 Mathematics  
 B.S. University of Puget Sound  
 M.S. Oregon State University

**John J. Mitchell** (2004)  
 Mathematics

B.Sc., M.Sc. University College Dublin

**April E. Mixon** (2005)

Chemistry  
B.S. Shippensburg University  
M.S. Oregon State University

**Brian Miyake** (2022)<sup>T†</sup>

Surveying and Geomatics  
B.A. University of Wyoming

**Victor Morales** (2022)<sup>T†</sup>

Philosophy  
B.A. California State University, Northridge  
M.A. California State University, Los Angeles  
M.A., Ph.D. California State University, Riverside

**Marisol Moreno-Ortiz** (2020)

Library  
B.A. Oregon State University  
M.A. Portland State University  
M.S.I.S. Louisiana State University

**Jesse Morse** (2022)<sup>T†</sup>

English  
B.A. Oberlin College  
M.F.A. Naropa University  
Ph.D. University of Denver

## N

**Laura Nagel** (2015)

Reference and Instruction Librarian  
B.A. Pacific Lutheran University  
M.A. University of Wisconsin - Madison

**Erika L. Nava** (2008)

Spanish  
B.A. Oregon State University  
M.A. University of Oregon

**Tracy J. Nehnevaj** (1992)

Mathematics  
B.A., M.S. Eastern Washington University

**Alexis Nelson** (2014)

English  
B.A. University of California  
M.A. Portland State University

**Julian Nelson** (2005)

English  
B.A., M.A. San Francisco State University  
Ph.D. University of California, Davis

**Nancy E. Novak** (2002)

English as a Second Language  
B.A. Dartmouth College  
Ed.M. Oregon State University  
TESL Seattle University School of TESL

## O

**Michiyo Okuhara** (2010)

Japanese

A.A. Seisen Women's Junior College

A.A. Clackamas Community College  
B.S., M.E. Portland State University

**Thomas Olsen** (2018)

Digital Media Arts  
B.S. University of Oregon  
Certificate Film Program, NW Film Center  
M.F.A. Chapman University

## P

**Kathleen M. Perillo** (1999)

Biology  
B.A. University of Delaware  
M.S. University of New Haven

**Tobias Peterson** (2014)

English  
B.A. Texas State University  
M.A. George Mason University  
M.F.A. Texas University

**Valentina Pishchchanskaya-Cayanan** (2019)

Counseling  
B.A., M.S. University of Nevada Las Vegas

**Joseph R. Pitkin** (2000)

English  
B.A. Utah State University  
M.A. New Mexico State University  
M.S. Washington State University

**Kristl Plinz** (1999)

Digital Media Arts  
B.S. California Polytechnic State University  
M.S. Rochester Institute of Technology

## R

**Heather Reynolds** (2021)<sup>T†</sup>

Nursing  
BSN University of Washington  
MSN Western Governors University

**Janine Rieck** (2022)<sup>T†</sup>

Health Information Management  
A.A.S. Central Oregon Community College  
B.S., M.S. University of Cincinnati

**Leslie J. Rivera** (1997)

English as a Second Language  
B.A. University of Portland  
M.A. San Francisco State University

**Gail R. Robinson** (1993)

English  
B.A. Miami University, Ohio  
M.A. Portland State University

**Marcia R. Roi** (2000)

Chemical Dependency  
B.S., M.S. Oklahoma State University  
Ph.D. Oregon State University

**Michele Roth** (2016)  
English as a Second Language  
B.A. Reed College  
M.A.T. University of Washington

**Bevyn Rowland** (2011)  
Counseling/Human Development  
B. A. University of Portland  
M.A., PsyD. Pacific University

**Jeff Rush** (2023)<sup>T-T</sup>  
Diesel Technology  
A.A.S., MHCC, Mount Hood Community College

**S. Layne Russell** (2006)  
Business  
B.A. University of Memphis  
J.D. College of William and Mary, Marshall Wythe School of Law

## S

**Katherine D. Sadler** (2005)  
History  
B.A. Portland State University  
M.A., Ph.D. University of California, Los Angeles

**Richa Sharma** (2019)  
Communications  
M.B.A. Lal Bahadur Shastri Institute of Management  
M.S. Portland State University

**Nicoleta Sharp** (2008)  
Physics  
B.S., M.S. Universitatea Alexandru Ioan Cuza

**Kristin Sherwood** (2018)  
College 101  
B.A. Lewis & Clark College  
M.P.A. Portland State University

**Dawn M.U. Shults** (2009)  
Pharmacy  
C.Ph.T. Clark College

**Christina Smith** (2018)  
English  
B.A. McDaniel College  
M.A. University of Utah

**Gerard M. Smith** (1991)  
English  
B.S. Bowling Green State University  
M.A. University of Toledo  
Ph.D. Bowling Green State University

**Suzanne Southerland** (2011)  
Communication Studies  
B.S. University of Portland  
M.S. Portland State University

**Erin Staples** (2011)  
Health & Physical Education  
B.S. University of North Texas  
M.P.H. Portland State University

**Senseney L. Stokes** (2007)  
Art/Photography  
B.F.A. Rhode Island School of Design  
M.F.A. University of New Mexico

**Michelle Stoklosa** (2016)  
Geology  
B.A. Franklin & Marshall College  
M.S., Ph.D. University of Wisconsin - Madison

**Kimberly A. Sullivan** (1992)  
English  
B.A. Belhaven College  
M.A. Mississippi State University

## T

**Kristina Taylor** (2010)  
Dental Hygiene  
A.A.S. Clark College  
B.S. Eastern Washington University  
M.S. Portland State University

**Sarah J. Theberge** (2000)  
Early Childhood Education/Family Studies  
A.A.S. Clark College  
B.A., M.A. Pacific Oaks College

**Cydney Topping** (2022)<sup>T-T</sup>  
English  
B.A. Eastern Oregon University  
M.A. DePaul University

**Elizabeth R. Torgerson** (2010)  
Nursing  
A.A. Clackamas Community College  
B.S.N. OHSU School of Nursing  
M.S.N. Washington State University, Vancouver

**Ruth Trejo** (2011)  
Chemistry  
B.S., M.S. University of California, San Diego

## U

**Elizabeth C. Ubiergo** (2008)  
Spanish  
B.A., M.A. University of Oregon

## V

**Amy Vahndijk** (2019)  
Nursing  
A.D.N. Clark College  
B.S.N., D.N.P. Washington State University

## W

**Michelle Walty** (2018)  
Mathematics  
B.S. George Fox University  
M.S., Ph.D. Texas Tech University

**Robert Weston** (2015)  
Mathematics  
B.S. Oregon State University

M.S. The City College of New York

**Caleb N. White** (2013)

Advanced Manufacturing  
A.O.S. Universal Technical Institute

**Alan Wiest** (2012)

Health & Physical Education  
A.S. Lane Community College  
B.S., M.S. University of Oregon

**X**

**Y**

**Tess Yevka** (2015)

Psychology  
B.S. Marylhurst University  
M.S. Portland State University

**Z**

**Gibran Zogbi** (2022)<sup>T<sup>T</sup></sup>

Accounting  
B.S. Miami University  
M.B.A. Cleveland State University  
D.B.A. George Fox University

Tenure Track is indicated by <sup>T<sup>T</sup></sup>

# FOUNDATION

---

## A

**Dominick Allen (2020)**  
 Director of Research  
 B.S. Portland State University  
 Certificate in nonprofit fundraising, WVDO & Portland State University

## B

## C

**Chandra Chase (2022)**  
 Director of Alumni Relations & Community Engagement  
 A.A. Clark College  
 B.A. Washington State University

**Kathy Chennault, GPC (2017)**  
 Development Director, Corporate and Foundation Relations  
 A.A. Riverside Community College  
 B.A. California State University, San Bernadino

## D

**Corey Dobbs (2017)**  
 Associate Director of Development, Annual Giving & Alumni Relations  
 A.A. Clark College

## G

**Lynne Groom (2021)**  
 Director of Annual Giving  
 B.B.A. University of North Texas

**Dion Gutkind (2017)**  
 Gift Entry and Records Manager  
 A.A., Bryant & Stratton College

## H

**Karen Hagen (1994)**  
 Administrative Assistant  
 Certificate, Clark College

**Miranda Harrington (2015)**  
 Associate Director of Partner Management & Research  
 B.A. University of Arkansas

## L

**Terri Lunde (2010)**  
 Executive Assistant to the President/Board  
 A.A. Clark College

## M

**Vivian Cheadle Manning, CFRE (2010)**  
 Director of Development & Gift Planning  
 B.A. Southern Methodist University  
 C.F.M. IUPUI/School of Philanthropy

**Kristina Martin, M.A. (2020)**  
 Director of Stewardship  
 M.A. Pacific University, Oregon

B.A. Pacific University, Oregon

**Rhonda Morin, M.L.S., EMT (2012)**  
 Executive Director of Communications & Marketing  
 B.S. University of Maine  
 M.L.S. Eastern Michigan University  
 EMT Maine Community College

## O

**Calen Ouellette, M.B.A. (2022)**  
 Chief Executive Officer & Chief Advancement Officer  
 B.A. Washington State University  
 M.B.A. University of Southern California Marshall School of Business

## P

**Andy Palmquist, M.A. (2019)**  
 Director of Partner Development  
 Grant Writing Certificate, Willamette Valley Development Officers  
 M.A. University of Maryland, College Park  
 B.A. Pacific Lutheran University

**Dan Palow (2018)**  
 Senior Director of Advancement Services  
 B.B.A. University of Alaska, Fairbanks  
 Certificate Leadership and Management, University of Vermont  
 Certificate Data Analytics, Clark College

**Kay Pedisich (2020)**  
 Accounting Specialist  
 State of Washington Contracting Certification  
 State of Washington GAAP Certification  
 State of Washington Internal Audit Certification  
 Federal Grant Management Certification

**Chris Plamondon (2000)**  
 Controller  
 B.A. Washington State University

## R

**Daniel Rogers, CPA (2010)**  
 Chief Financial Officer  
 B.A. Washington State University  
 A.A. Brigham Young University, Idaho

## S

**Shirley Schwartz (1999)**  
 Director of Scholarships  
 A.A., B.A. West Coast Christian College  
 M.A. Multnomah University

## T

**Angela Torretta (2019)**  
 Vice President of Development  
 B.A. University of Oregon

# DIRECTORIES AND ACADEMIC CALENDAR

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- Phone Directory (p. 335)
- Academic Calendar (p. 336)

# PHONE DIRECTORY

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Alphabetical Quick Dial Phone List: <http://www.clark.edu/directories/quick-dial/index.php> (<http://www.clark.edu/directories/quick-dial/>)

Employee Directory: <https://www.clark.edu/directories/employee-search.php>

ASCC Officers Phone List: <http://www.clark.edu/directories/quick-dial/ascc.php>

Clark College at Columbia Tech Center (CTC) Phone List: <http://www.clark.edu/directories/quick-dial/ctc.php>

Fax Numbers Phone List: <http://www.clark.edu/directories/quick-dial/fax.php>

Clark College at Washington State University Vancouver (WSUV) Phone List: <http://www.clark.edu/directories/quick-dial/wsuv.php>

# ACADEMIC CALENDAR

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<https://www.clark.edu/enroll/registration/academic-calendar.php>



# CORRECTIONS

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- Catalog Corrections (p. 338)
- Course Corrections (p. 339)
- Degrees and Certificate Corrections (p. 340)

# CATALOG CORRECTIONS

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# COURSE CORRECTIONS

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## DISTRIBUTION CORRECTION

### CHEMISTRY

<https://catalog.clark.edu/course-descriptions/chem/>

CHEM& 105: **ONLY** fulfills NS, SE, GE. It **DOES NOT** meet the C, HA, HPE, or HR.

### SOCIOLOGY

<https://catalog.clark.edu/degree-certificate-requirements/transfer-degree-distribution-list/>

SOC 131 fulfills PPI distribution.

## PREREQUISITE UPDATE

### ACCOUNTING

<https://catalog.clark.edu/course-descriptions/acct/>

NEW ACCT& 201 prerequisite: ENGL& 101 (grade of "C" or higher) and MATH 92 (grade of "C" or higher) or placement into Math level 30.

### ENGLISH

<https://catalog.clark.edu/course-descriptions/engl/>

NEW ENGL 90 prerequisite: Eligibility for ENGL 90 (<https://catalog.clark.edu/search/?P=ENGL%2090>) (CAP 64 (<https://catalog.clark.edu/search/?P=CAP%2064>), CAP 70 (<https://catalog.clark.edu/search/?P=CAP%2070>), or CAP 74 (<https://catalog.clark.edu/search/?P=CAP%2074>) (grade of "C" or higher), or recommending score on placement test, or HS GPA between 1.90 and 2.39)

# DEGREES AND CERTIFICATE CORRECTIONS

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## **Associate in Arts (AADTA)(Plan Code: LASDTAA)**

<https://catalog.clark.edu/academic-plans/general-transfer-aa/dtaa/>

Oral Communication include all the following: CMST& 210, CMST& 220, CMST& 230

## **Business Administration (DTA/MRP)(Plan Code: BUCBUAA)**

<https://catalog.clark.edu/academic-plans/business-administration/business-dta-mrp-aa/>

Corrected Total Credits/Units required: 90

## **Concentration in Honors (Plan Code: LASDTAA, Subplan Code: HONORS)**

<https://catalog.clark.edu/academic-plans/general-transfer-aa/honors/>

Updated program entrance requirements.

## **Marketing (AAS)(Plan Code: SALMAAPT)**

<https://catalog.clark.edu/academic-plans/marketing/marketing-aas/>

BUS 210 is NOT required. Corrected Total Credits/Units required: 91

# CATALOG ARCHIVES

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- 2022-2023 Catalog (<https://catalog.clark.edu/archives/2022-2023/>)
- 2021-2022 Catalog ([https://catalog.clark.edu/archives/2021-2022\\_Catalog\\_.pdf](https://catalog.clark.edu/archives/2021-2022_Catalog_.pdf))
- 2020-2021 Catalog (<https://catalog.clark.edu/archives/2020-2021/>)
- 2019-2020 Catalog (<https://catalog.clark.edu/archives/2019-2020/>)
- 2018-2019 Catalog (<https://catalog.clark.edu/archives/2018-2019/>)
  - 2018-2019 Corrections (<https://catalog.clark.edu/archives/degrees-certificate-corrections.pdf>)
- 2017 - 2018 Catalog (<http://www.clark.edu/academics/catalog/2017/>)
  - 2017 - 2018 Corrections (<http://www.clark.edu/academics/catalog/2017/corrections/>)
- 2016 – 2017 Catalog (<http://www.clark.edu/academics/catalog/2016/>)
  - 2016 – 2017 Corrections (<http://www.clark.edu/academics/catalog/2016/catalog-corrections/>)
- 2015 – 2016 Catalog (<http://www.clark.edu/academics/catalog/2015/>)
  - 2015 – 2016 Corrections (<http://www.clark.edu/academics/catalog/2015/catalog-corrections/>)
- 2014 – 2015 Catalog (<http://www.clark.edu/academics/catalog/2014/>)
  - 2014 – 2015 Corrections (<http://www.clark.edu/academics/catalog/2014/2014corrections.pdf>)
- 2013 – 2014 Catalog (<http://www.clark.edu/academics/catalog/2013/>)
  - 2013 – 2014 Corrections (<http://www.clark.edu/academics/catalog/2013/2013corrections.pdf>)
- 2012 – 2013 Catalog (<http://www.clark.edu/academics/catalog/2012/>)
  - 2012 – 2013 Corrections (<http://www.clark.edu/academics/catalog/2012/2012corrections.pdf>)
- 2011 - 2012 Catalog (<http://www.clark.edu/academics/catalog/2011/>)
  - 2011 - 2012 Corrections (<http://www.clark.edu/academics/catalog/2011/2011corrections.pdf>)

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