



**Ferndale High School**  
**Course Catalog**  
**2026-2027**

# **Ferndale High School**

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# Ferndale High School

## Graduation Requirements



To earn a high school diploma, a student must:

- Complete a High School and Beyond Plan (HSBP)
- Complete a Graduation Pathway
- Earn high school credits
- Complete Pacific Northwest History (middle school course)

Each course at Ferndale High School is worth .5 credit. Students will take eight classes plus advisory each semester for four years, for a total possibility of 34.0 credits. With 30.0 credits required for graduation, a student could lose credit in up to four elective classes during high school, and still meet the credit requirement for graduation. Should a student fail a specific graduation requirement, the class will need to be made up either through repeating it or taking it through credit retrieval or some other approved remedial program.

The following table highlights what credits are required to graduate from Ferndale High School:

Course	Graduation Requirements
English	4
Social Studies	3.5
Math	3
Science	3 (2 Lab)
Physical Education	2
CTE	1.5
Fine Arts	1
Health	0.5
Electives	11.5
<b>Total</b>	<b>30</b>

The following table highlights what is required to graduate from Ferndale High School and complete the minimum College Academic Distribution Requirements (CADRs) to be eligible to be accepted to a 4-year university:

Course	Graduation Requirements + College Academic Distribution Requirements
English	4
Social Studies	3.5
Math	3 (including Algebra 2)
Science	3 (2 Lab)
Physical Education	2
World Language	2
CTE	1.5
Fine Arts	1
Health	0.5
Electives	9.5
<b>Total</b>	<b>30</b>

Above are the minimum CADRs. The FHS Counseling department recommends 4 years of both mathematics and science to best prepare students for four-year universities.

# Ferndale High School

## Graduation Pathways & HSBP



### CTE Sequence Graduation Pathway

- Complete 2.0 or more CTE credits in the same CTE sequence area that either include a dual credit course, or lead to an industry recognized credential
- Complete a Core Plus program (Manufacturing, Construction and Maritime available)

### ASVAB Graduation Pathway

- AFQT Section Score = 31 (check State Board of Education website by 9/1 annually)

### Complete Math and English Language Arts (ELA) Graduation Pathway

- Can use any combination of the ELA and math options listed in this section
  - College Admissions Exams (ACT/SAT)

Exam	ELA	Math
ACT	N/A	16
ACT with Writing	14	16
SAT or SAT with Essay	410	430

- Dual credit courses (1.0 credit total each for math and/or ELA)
  - AP/IB/Cambridge: Earn a C+ or higher in state approved course (each term)
  - CTE Dual Credit (must earn at least high school credit) 1
  - College in the High School or Running Start (local approval of course options)
- Dual credit exams (for applicable state-approved courses in math and/or ELA)
  - Advanced Placement = 3 or higher exam score
  - Cambridge International = E or higher exam score
  - International Baccalaureate = 4 or higher exam score
- State-level assessments (SBA and WA-AIM)
  - SBA: ELA = 2548; math = 2595
  - WA-AIM: ELA = 104; math = 103
- Transition courses (1.0 credit total for math and/or ELA course over one school year)
  - Bridge to College courses (approved by state)
  - Locally articulation agreements between districts and sponsoring colleges

### High School & Beyond Plan

The High School and Beyond Plan is a state graduation requirement. Each student must have a High School and Beyond Plan (HSBP) to guide the student's high school experience and prepare the student for postsecondary education or training and career (ESHB 2224, Chapter 31, Laws of 2017). Students start their plan in seventh or eighth grade and then continue to revise them throughout high school to accommodate changing interests or educational and career goals.

# Ferndale High School

## CTE Sequence & Pathways



A coordinated, non-duplicative progression of courses that align secondary education with post-secondary education to adequately prepare students to enter into postsecondary education, an apprenticeship, and/or employment. Students must complete 2 credits in the same pathway. Worksite Learning & Special Projects can be applied to any of the sequences below. Updated February 2026. Note: \* denotes CTE Dual Credit and ^ denotes state approved IRC. School year denotes if/when the course became CTE, or when \*/^ went into effect.

Agricultural Sciences
Agricultural Leadership
Agricultural Science 1 ^ (S2 25-26)
Agricultural Science 2
Animal Science
AP Environmental Science* (23-24)
Aquaculture & Fisheries 1 ^ (25-26)
Aquaculture & Fisheries 2 ^ (25-26)
Floral Design ^ (S2 25-26)
Forestry Management (23-24)
Horticulture 1 ^ (S2 25-26)
Horticulture 2
Intro to the Trades
Landscaping
Metals Technology 1*
Metals Technology 2*
Metals Technology, Advanced*
Oceanography
Small Engines Overhaul
Veterinary Science*
Wildlife Management* (23-24)

Health Sciences
Basic Anatomy in Healthcare ^ (S2 25-26)
Healthcare Careers & Emergency Skills
Human Anatomy*
Principles of Biomedical Science
Sports Medicine ^
Sports Medicine, Advanced ^

Business & Marketing
Business 101*
Business Communications*
Business Computing ^
Business Law
Business Math*
Exploring Computer Science
Financial Algebra
Marketing
Marketing, Advanced
Intro to the World of Business ^ (S2 25-26)
Personal Finance*
Retail Management
Social Media Marketing*
Sports Marketing
Web Design*
Yearbook*

Family & Consumer Science
AP Psychology/Psych. 101* (24-25)
Baking & Pastry ^
Careers in Education 1*
Careers in Education 2*
Culinary 1* ^
Culinary 2* ^
Health (22-23) ^ (S2 25-26)
International Foods ^
Latinos in Action
Leadership 1 (23-24) ^ (S2 25-26)
Leadership 2 (23-24) ^ (S2 25-26)
Living on your Own ^ (S2 25-26)

Skilled & Technical Science
Architectural Design ^ (S2 25-26)
Architectural Design, Advanced ^ (S2 25-26)
Art 1 (24-25) ^ (S2 25-26)
Art 2 (24-25)
Art 3 (25-26)
Carpentry & Construction ^ (S2 25-26)
Ceramics 1 (24-25) ^ (S2 25-26)
Ceramics 2 (24-25)
Cybersecurity ^ (S2 25-26)
Graphic Design 1 ^
Graphic Design 2* ^
Information Technology*
Information Technology, Advanced*
Music Creation Lab (25-26)
Scoreboard Media
Theater Technology
Video Game Design ^ (S2 25-26)
2D Game Design ^ (S2 25-26)
3D Game Design ^ (S2 25-26)
Video Productions ^

STEM
Design & Construction ^ (S2 25-26)
Design & Construction, Advanced
Engineering Design 1 ^ (S2 25-26)
Engineering Design 2
Engineering Design, Advanced
Geometry STEM
Power & Energy*
Robotics ^ (S2 25-26)
Robotics 2

# Ferndale High School



## Dual Credit Opportunities

Ferndale High School has several programs in which students may receive dual credit for class at both the high school and college level. They include AP(Advanced Placement), College in the High School programs with UW, WWU, CWU, CTE Dual Credit, and Running Start. Courses taught at FHS with dual credit options are marked in the course description portion of this catalog.

### ADVANCED PLACEMENT (AP)

Advanced Placement courses enable students to complete college level studies while in high school and obtain college placement credit on the basis of their performance on rigorous AP examinations taken in May. Ferndale High School currently offers several courses that are designated AP with the AP symbol. Some are offered on alternating years. Courses with the AP designation follow a prescribed curriculum that prepares students for a specific AP examination. Though students are encouraged to take the AP exam, students are not required to take it. Please note that the curriculum in these courses are rigorous and are taught at the college level. Because of this, the College Board recommends that students do not take more than three AP classes at one time as the workload in those courses is time consuming and difficult. Please see your counselor for more details if you wish to take more than three AP courses at one time. Listed below are the AP courses and the specific AP examination. AP courses are offered based on student demand and enrollment numbers. All students may sign up as part of the regular scheduling process for any AP course in which they meet the prerequisites and grade level requirements. Please be aware that all students who sign up for an AP class will be required to sign a statement of understanding which outlines the requirements for AP courses and deadlines for withdrawing from an AP course.

AP Course	AP Test
Biology (AP)	Biology
Calculus AB (AP)	Calculus AB
Calculus BC (AP)	Calculus BC
English Language & Composition (AP)	English Language & Composition
English Literature & Composition (AP)	English Literature & Composition
Environmental Science (AP)	Environmental Science
Physics 1 (AP)	Physics 1
Physics 2 (AP)	Physics 2
Statistics (AP)	Statistics
U.S. Government & Politics (AP)	U.S. Government & Politics

# Ferndale High School



## Dual Credit Opportunities

### COLLEGE IN THE HIGH SCHOOL

FHS is currently offering college in the high school course through University of Washington, Central Washington University, and Western Washington University. These classes earn college credit but are taught on our campus.

Course	University	High School Credit	College Credit
Addiction in the Brain 101	UW	1.0	5.0
Calculus 172	CWU	1.0	5.0
Calculus 173	CWU	1.0	5.0
Chemistry 101	UW	1.0	5.0
English Literature and Composition – AP/WWU English 238:Society Through It's Literature	WWU	1.0	5.0
Environmental Science 101	WWU	1.0	5.0
Anatomy and Survey of Physiology 118/119	UW	1.2	7.0
Math in the Modern World 101	CWU	1.0	5.0
Physics 111	CWU	1.0	5.0
Physics 112	CWU	1.0	5.0
Psychology 101	UW	1.0	5.0
Precalculus 153	CWU	1.0	5.0
Precalculus 154	CWU	1.0	5.0
Spanish 103	UW	1.0	5.0
Spanish 201	UW	1.0	5.0
Wildlife & the Modern World 150	UW	1.0	5.0

### CTE DUAL CREDIT

CTE Dual Credit is a college preparatory program that offers high school students an opportunity to earn college credit for approved high school courses. Students enrolled in these courses may be eligible to receive college credit through articulation agreements with the Whatcom Community and Bellingham Technical Colleges. Students who complete approved CTE Dual Credit courses with a grade of "B" or better may request college credit.

College	Credit Amount	High School Course
WCC	2	Medical Terminology
WCC	5	Web Design
BTC	4	Metals Technology I
BTC	4	Metals Technology II
BTC	3	Power & Energy A
BTC	3	Power & Energy B
BTC/WCC	3	Information Technology
BTC/WCC	5	Information Technology
BTC/WCC	5	Information Technology
BTC	3	Culinary 1
BTC	3	Culinary 2
WCC	5	Careers in Education
WCC	5	Business 101
BTC	5	Business Communications
WCC/BTC	5	Business Math
WCC	5	Yearbook
BTC	2	Veterinary Science

# **English Sequence Options**

**FHS GRADUATION REQUIREMENT: 4 YEARS of ENGLISH**

<b>Grade</b>	<b>Options</b>
<b>9th</b>	<b>English 101 &amp; 102</b>
<b>10th</b>	<b>English 201 &amp; 202 English 201 &amp; 202, Honors</b>
<b>11th</b>	<b>English 301 &amp; 302 English Language &amp; Composition, AP</b>
<b>12th</b>	<b>English Literature &amp; Composition, AP WWU English 238:Society Through It's Literature English 401 &amp; 402</b>

# English Courses



## English 101 & 102

This is a required year-long English course. Course includes literature, and writing combined in these three units: short story, non-fiction and novels. Students will study mass media techniques and will write multi paragraph papers analyzing their reading during second semester. They will continue to develop their writing skills while studying drama and a novel.

GR: 9-12  
REQ: English 9  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

## English 201 & 202

During the first semester of English 201, units will include advanced practice in writing, communication skills, and close reading. Students will write brief writes and essays focusing on literary analysis and persuasive writing skills. They will participate in a variety of small and large group discussions and projects. Students will also read and analyze poetry, a novel, increasing academic vocabulary and understanding of literary devices through close reading. Students will build on literary analysis by interpreting how literature comes to life during the drama unit, novel unit, short stories, and literature circles. Each unit will include extended learning opportunities for students who choose advanced practice. All units will include preparation for state testing that will be embedded within these various units.

ENG201 + ENG202  
GR: 10-12  
REQ: English 10  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

## English 201 & 202 - Honors

This class is very similar to the curriculum of English 201 but goes more in depth and at a quicker pace. Additionally, this is a reading and writing intensive course. Students will learn about literary, satirical and rhetorical devices and study both how they work in a text and how to apply them in their own writing. Students will apply critical analysis to a variety of works from poetry to prose to novels and plays. Writing will include research, analysis, synthesis and timed writes. The class is a preparatory class for AP Language.

ENG203 + ENG204  
GR: 10  
REQ: English 10  
REPEATABLE: No  
PREREQUISITE: English 102  
LENGTH: Year-long

## English 301 & 302

A chronological approach to American Literature covers fiction, nonfiction, drama and poetry. The writing component includes persuasive writing, expository writing strategies, and literary analysis. During second semester the approach to American Literature continues with the Comic Imagination, and a novel unit. The writing builds on first semester skills, adding more expository writing strategies. The major project second semester is a formal research paper. Successful completion of the research paper is a requirement to pass second semester Junior English.

ENG301 + ENG302  
GR: 11-12  
REQ: English 11  
REPEATABLE: Yes  
PREREQUISITE: English 202  
LENGTH: Year-long

## English 401 & 402

This year-long course is designed to prepare students for their post-high school life. Students will read and learn to appreciate a variety of literary texts by diverse authors. Students will practice writing clearly to analyze and synthesize texts, as well as make connections between the texts and their lives. The course contains creative writing opportunities, films and cultural myths.

ENG401 + ENG402  
GR: 12  
REQ: English 12  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

# English Courses

## (continued)



### English Language & Composition – AP

Students will read and carefully analyze a broad and challenging range of nonfiction and fiction prose selections, deepening their awareness of rhetoric and how language works. Through close reading and frequent writing in various modes, students will develop their abilities to work with language and text with a greater awareness of purpose and strategy, while strengthening their own composing abilities. Students will also demonstrate the ability to research, analyze, synthesize and evaluate a topic for a research paper. Second semester will focus on studying intimations of argument; the strategies authors use to develop arguments and developing their own arguments. Students will also be preparing for the AP exam.

ENG303 + ENG304

GR: 11  
REQ: English 11  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### English Literature and Composition – AP/WWU English 238:Society Through It's Literature

This year-long course is designed to engage students in careful reading and critical analysis of literature as a product of the culture it comes from. This class relies heavily on participation through thoughtful discussion with peers and responding to narratives, poetry, and drama in analytical and personal writing. Emphasis will be placed on close reading to deepen understanding of the author's craft and the work's structure, style, and theme. Students can earn college credit through Western Washington University or by scoring a three or better on the AP Literature and Composition exam in May.

ENG405 + ENG 406

GR: 12  
REQ: English 12  
REPEATABLE: No  
PREREQUISITE: English 302 & Passed ELA SBA  
LENGTH: Year-long

### Business Communication – CTE Dual Credit

Business Communications is a course designed to develop students' effective verbal, non-verbal, written, and electronic 21st Century business communication skills. This course develops skills in multiple methods of communications, including social media, as well as electronic publishing, design, layout, composition, and video conferencing. Upon completion of this course, proficient students will be able to demonstrate successful styles and methods for professional business communications using the proper tools to deliver effective publications and presentations. This course counts as a senior English course.

BUS353 + BUS354

GR: 11-12  
REQ: CTE or English 12  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

# **Social Studies Sequence Options**

**FHS GRADUATION REQUIREMENT: 3.5 YEARS**

<b>Grade</b>	<b>Options</b>
<b>9th</b>	<b>World History</b>
<b>10th</b>	<b>U.S. History</b>
<b>11th</b>	<b>Civics U.S. Government &amp; Politics (AP)</b>
<b>12th</b>	<b>Business Law Contemporary World Cultures (CWC) Current World Problems (CWP) Economics U.S. Government &amp; Politics (AP)</b>

# Social Studies Courses

(in alphabetical order)



## Boys in the Boat & Book Thief

HIS205

While reading this book, students will learn about the larger historical context of the events. Grading will be based on class discussion, quizzes and short writing assignments. This option will fulfill requirements for an elective or one semester of World History or US History if the student previously failed. It will meet the same social studies standard of a semester of World History or US History for graduation requirements while giving students a unique opportunity to read and discuss a novel using historical lessons and references.

GR: 10-12  
REQ: Elective, World History, or US History  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Business Law

BUS351

In this course, students will learn about the Law and Courts, Criminal and Tort Law, Contract and Consumer Law, and Credit and Debt. During these units, we will discuss how these laws affect the students and their families. Students will be shown how to access local agencies and other helpful resources. Additionally, students participate in weekly discussions, analyze cases and complete research on current world problems.

GR: 11-12  
REQ: CTE or CWP  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Civics

HIS301

A required course for eleventh graders. This course covers processes of government, and the rights and responsibilities of citizens within the United States as individuals, groups, and parties. The course also includes Washington State government specifics.

GR: 11-12  
REQ: Civics  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Contemporary World Cultures (CWC)

HIS402

This is a course in which students will improve their awareness of contemporary world cultures and issues. Course topics include world geography, recent history, politics, religion, economics, recreation, the arts, and current events. Students will explore the following world regions: Asia, Africa, Middle East, South America, North America, and Europe.

GR: 12  
REQ: CWP  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Current World Problems (CWP)

HIS401

This course will explore the most difficult domestic and international issues facing the world today. Students will research world and domestic problems and the possible solutions to these problems. Topics will include terrorism, human rights, the environment, and cultures in conflict, population, immigration and other selected topics chosen by the instructor. Students should expect this to be a reading and writing intensive course.

GR: 12  
REQ: CWP  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Economics

HIS403

In this course you will learn how valuable goods and services are traded throughout the U.S. and world economies. Topics include supply and demand, personal investments, government and taxes, labor unions, and international trade. You will learn what influences prices, what role money plays in the economy, and how economic decisions are made. Key economic ideas such as scarcity, opportunity, cost, risk, and liquidity will also be explained.

GR: 12  
REQ: CWP or CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

# Social Studies Courses

(continued)



## Psychology 1

This is an introductory psychology course designed to give the student an overview of the approaches to psychology as well as in-depth studies into the brain, sensation and perception, consciousness, principles of learning, theories of personalities, healthy personalities, and mental disorders.

HIS210

GR: 10-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Psychology 101- UWHS

As a survey of major areas of psychological science, this course focuses on topics such as human social behavior, personality, psychological disorders and treatment, learning, memory, human development, biological influences and research methods. Related topics may include sensation, perception, states of consciousness, thinking, intelligence, language, motivation, emotion, stress and health, cross-cultural psychology and applied psychology.

The purpose of this two-semester University of Washington College in the High School psychology course is to give high school students the opportunity to learn and receive credit for a rigorous college-level course. There is an emphasis on study and test-taking skills, which is aimed at preparing students to be successful in their post-high school studies.

A successful student will earn 5 University of Washington credit. This is an introductory course that serves as a prerequisite for many 200-level PSYCH courses. Credit may qualify as a social science requirement or an elective.

FCS220+FCS221

GR: 10-12  
REQ: CTE or Elective  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

## U.S. Government & Politics – AP

This course meets graduation requirements for U.S. Government. Over the semester the course will cover the material suitable for U.S. Government in an accelerated manner for the college bound student. Students are prepared for the Advanced Placement exams in May. Material covered includes formation and processes of government, citizen rights and responsibilities, and analysis of primary documents of political organizations in the U.S. Students can expect a challenging, college-type course with extensive amounts of reading, writing and studying. Students are evaluated on a college standard.

HIS302+HIS303

GR: 11-12  
REQ: 2 CWP's or  
Civics/Elective  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

## U.S. History

This course will survey the major events in the history of the United States from 1880 to the present geographically, politically and socially. Included will be Native American history spanning the central plains to the west coast, westward expansion, post-World War I society, the Second World War, the Cold War era, Korean and Vietnam Wars.

HIS201 + HIS202

GR: 10-12  
REQ: US History  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

# Social Studies Courses

(continued)



## World History

World History is a two-semester course for ninth graders. Students will learn about historical patterns and connections spanning from the 16th to the 20th century. Students will study the geography and movement of peoples from the European Renaissance to the present-day struggles for democracy.

HIS101 + HIS 102

GR: 9-12

REQ: World History

REPEATABLE: No

PREREQUISITE: None

LENGTH: Year-long

# Mathematics Sequence Options

## FHS GRADUATION REQUIREMENT: 3 YEARS

COLLEGE ENTRANCE REQUIREMENTS MAY REQUIRE SPECIFIC COURSES—SEE YOUR COUNSELOR.

NCAA WILL NOT ACCEPT INTEGRATED ALGEBRA 2 FOR ELIGIBILITY

Below are several options for students to consider when planning the sequence of math classes that they will take at FHS. Options 1-5 will prepare students with the proper College Academic Distribution Requirements (CADRs) to be accepted at a 4-year university. All options prepare students to receive their high school diploma.

Grade	Option 1	Option 2	Option 3	Option 4
9th	Algebra 1	Geometry	Algebra 1	Algebra 1
10th	Geometry	Algebra 2	Geometry & Algebra 2	Geometry Geometry STEM
11th	Algebra 2	Precalculus AP Statistics	Precalculus AP Statistics	Integrated Algebra 2
12th	Precalculus AP Statistics	AP Calculus AB AP Statistics	AP Calculus AB AP Statistics	Algebra 2 AP Statistics

Grade	Option 5	Option 6	Option 7
9th	Extended Algebra A & B	Extended Algebra A & B	Algebra 1
10th	Extended Algebra C & D	Extended Algebra C & D	Geometry Geometry STEM
11th	Geometry	Geometry Geometry STEM	<u>Choose 1 credit worth of:</u> Business Math Carpentry & Construction* Engineering Design 2* Engineering Design, Advanced* Financial Algebra Math in the Modern World Personal Finance Physics*
12th	Algebra 2	Business Math Carpentry & Construction* Engineering Design 2* Engineering Design, Advanced* Financial Algebra Math in the Modern World Personal Finance Physics*	

\*Pre-requisite

# Mathematics Courses

(in alphabetical order)



## Algebra 1

During the first semester of this course, the student will learn to use and understand the language and methods of algebra that are essential in learning all branches of mathematics, including the idea of a function. The emphasis will be on problem-solving with linear models in particular, using equations, graphing, and tables. During the second semester, students will explore similar ideas under nonlinear models and extend to systems and inequalities. A scientific calculator is required (example TI-30).

MAT101 + MAT102

GR: 9-11  
REQ: Algebra 1  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

## Algebra 2

This two semester course builds upon and extends the previous two year's concepts of algebra, geometry, and discrete math. We will explore mathematical models, linear, quadratic, exponential and logarithmic functions, systems of equations, and trigonometry. A grade of B or better in Algebra 1 is highly recommended before enrolling in Algebra 2. A graphing calculator, (TI-84) is strongly recommended for students in Algebra 2 and subsequent classes. (A TI-Nspire or similar CAS calculator is not allowed on tests/quizzes).

MAT301 + MAT302

GR: 10-12  
REQ: 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Algebra 1 & Geometry Grade B or Better or Integrated Algebra 2  
LENGTH: Year-long

## Business Math – CTE Dual Credit

This course is designed to build upon prior knowledge of math concepts from other courses. This algebra- based CTE course features real-world algebra concepts found in banking, credit, income taxes, insurance, and household budgeting. Step-by-step strategies will help students learn the time value of money, how to evaluate the best cell phone contract, how to build a business plan by knowing costs, profits, and break- even points.

BUS331 + BUS332

GR: 11-12  
REQ: CTE or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Algebra 1 & Geometry  
LENGTH: Year-long

## Calculus AB – AP or CWUHS

During the first semester, the student will learn to use and apply differentiation techniques. Students will explore the derivative and its application to velocity, related rates, and maximum-minimum problems. Real world problems from Physics and Economics are studied. Instructional units in second semester examine the integral and its application to area, volume, and work. All students will prepare for the AP Calculus test, although taking the test is optional. Graphing calculators (example TI-84) are used daily. A TI-Nspire or similar CAS calculator is not allowed on tests/quizzes. Student may receive college credit through AP testing. See details under college/high school credit programs.

MAT485 + MAT486

GR: 12  
REQ: Math Elective  
REPEATABLE: No  
PREREQUISITE: Precalculus  
LENGTH: Year-long

## Calculus BC – AP

Students will study the same content as the AB Calculus students, but also be responsible for additional units, such as Sequences and Series. All students in the BC option will prepare for the AP Calculus test, although taking the exam is optional. All students in the CWU option will take the CWU final exam. Please consult with colleges regarding the credit options available for passing scores on the BC test. A "B" or better in Pre-Calculus is strongly recommended. Graphing calculators (example TI-84) are used daily.

MAT487 + MAT488

GR: 12  
REQ: Math Elective  
REPEATABLE: No  
PREREQUISITE: Precalculus  
LENGTH: Year-long

# Mathematics Courses

(continued)



## Carpentry & Construction Technology

Have you ever thought about a career in the construction industry? This course offers students with basic wood working experience the opportunity to explore all aspects of construction, from foundation to project management. Students will learn about the different trades associated in the building industry and ways to gain access to those trades. Topics covered include: Jobsite and Equipment Safety, Site lay out, Framing, Finish Carpentry, Electrical, Plumbing, Concrete and Cabinet Making. Students will also have the opportunity to work on large permanent construction projects around the school.

STS233 + STS234

GR: 10-12  
REQ: CTE or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Advanced Design & Construction  
LENGTH: Year-long

## Engineering Design 2

This is a continuation of Engineering Design I. In this section students learn advanced 3D modeling techniques including the basics of animation and vehicle design. Students will have the opportunity to build several working prototypes using the 3D printer and CNC router in order to test their design solutions.

STEM12

GR: 9-12  
REQ: CTE or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Engineering Design 1  
LENGTH: Semester-long

## Engineering Design, Advanced

This is an Advanced level course in 3D modeling. Students will learn advanced modeling techniques including surfacing and texturing of models and creation of "photo realistic" renderings. Students spend time working on extensive design projects developing working solutions to given problems including creation of functional prototypes. This is a fun, creative class where students are allowed to help guide their learning.

STEM22

GR: 10-12  
REQ: CTE or 3<sup>rd</sup> Year of Math  
REPEATABLE: Yes  
PREREQUISITE: Engineering Design 2  
LENGTH: Semester-long

## Extended Algebra 1 A & B

Grade 9. Students review Pre-algebra topics and study the first semester of Algebra 1 including writing and solving equations, graphing lines, area, perimeter, and the distributive property. Some topics from Geometry and Probability are also introduced. Students focus on effective study habits and practices in mathematics with an emphasis on laying the groundwork for success in future math courses.

MAT115 + MAT116

GR: 9  
REQ: Algebra 1/Elective  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

# Mathematics Courses

## (continued)



### Extended Algebra 1 C & D

Grade 10. Students review Algebra 1a topics and study the second semester of Algebra 1 including systems of linear equations, general forms of linear functions, quadratics, factoring, and graphing. Some topics from Geometry and Probability are also introduced. Students focus on effective study habits and practices in mathematics with an emphasis on laying the groundwork for success in future math courses.

MAT117 + MAT118

GR: 10  
REQ: Algebra 1/Elective  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Financial Algebra

Financial Algebra focuses on the application of mathematics and statistics to the finance industry, including the development, critique, and use of various financial models. The course includes instruction in probability theory; statistical analysis; and numerical, computation, and simulation methods. Students will learn about stochastic processes, economics, financial literacy, financial markets, and financial applications.

BUS333 + BUS334

GR: 10-12  
REQ: 3<sup>rd</sup> Year of Math or Algebra 1 Replacement  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Geometry

This course builds on students' intuitive understanding of shapes and angles towards the discovery and investigation of new and complex combinations and characteristics thereof. Logic and justification of reasoning based on previously determined facts are a significant component of the course. Problems in context are used to build conceptual understanding and to practice concepts learned. A scientific calculator is required (Example TI-30).

MAT201 + MAT202

GR: 9-12  
REQ: Geometry  
REPEATABLE: No  
PREREQUISITE: Algebra 1  
LENGTH: Year-long

### Geometry STEM

Geometry is used to describe, design, and build things. In Geometry STEM you will learn the proper terminology to accurately describe objects in both the real world and in the idealized world. You will precisely model these objects in Rhinoceros and Grasshopper (CAD software). You will be given design challenges that will require you to build what you design. This class will follow the statewide framework and will include the following seven units: Measurement/Precision, Two Dimensional Shapes, Three Dimensional Figures, Transformations, Trigonometry, Logic, and Applications. This class will require the same amount of time and effort as a standard geometry class, but the it will be taught through the design process. In addition, this class will keep your algebra skills fresh enough so that you can continue in Algebra II the following year.

STEM23 + STEM24

GR: 9-12  
REQ: Geometry or CTE  
REPEATABLE: No  
PREREQUISITE: Algebra 1 or Financial Algebra  
LENGTH: Year-long

# Mathematics Courses

(continued)



## Integrated Algebra 2

This course is designed as a bridge between Geometry and Algebra 2. This course is recommended for students who have earned grades C's or below in Algebra 1 and Geometry. This course explores linear, rational, radical, exponential, power, polynomial, and circular functions. Students also study logical reasoning, sequences, transformations, and linear programming. A graphing calculator is strongly recommended. Either a graphing calculator (example TI-84), or a scientific calculator (example TI-30) is required. NCAA athletes please see your counselor before requesting Int. Alg. 2.

MAT303 + MAT304

GR: 11-12  
REQ: 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Algebra 1 & Geometry C or Below  
LENGTH: Year-long

## Mathematics in the Modern World – CWUHS

Students will study selected topics from applications of mathematics within our society, designed to advance critical thinking and quantitative reasoning. Topics include estimation, modeling, and data analysis in contexts including inflation, finances, population growth, and ways to pick majorities. Students may receive college credit through the Cornerstone program. See details under college/high school credit programs. This course, will meet the graduation requirement for a 3<sup>rd</sup> year of math.

MAT305

GR: 11-12  
REQ: 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Algebra 1 & Geometry  
LENGTH: Semester-long

## Personal Finance

Learn how to manage your money wisely. Students will explore the fundamentals of budgeting, money management, checking, savings, credit, interest, the stock market, and real estate. This course is extremely important for students entering the workplace as well as those going to school, vocational or college, after high school. Students will discuss the merits of stocks and bonds over savings accounts for long or short-term goals. Personal Finance is an opportunity for students to become more money wise before venturing out on their own.

BUS335

GR: 11-12  
REQ: CTE or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Physics – CWUHS

This is a preparatory course for the WCAS state science assessment to be taken during the Junior year. The content of this course is based upon the Physical and Earth Science standards of the Next Generation Science Standards (NGSS). Physics is a laboratory science course where students actively engage in science and engineering practices to study the interaction of matter and energy. Students enrolled in Physics will receive an introduction to the central concepts of classical physics and earth and space science. This is an Algebra-based science course. This course may be taken concurrently with all other science electives.

SCI301 + SCI302

GR: 11-12  
REQ: Lab Science or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Chemistry  
LENGTH: Year-long

# Mathematics Courses

(continued)



## Precalculus – CWUHS

The first semester explores properties of polynomials, exponential and logarithmic functions; and trigonometry. These topics have been identified as being basic to most Calculus and Linear Algebra courses. Second semester examines sequences, series, limits, mathematical induction, vectors, polar coordinates and trig identities. These subjects are designed to prepare the student for Calculus and other technical or college level mathematics courses. A grade of "B" or better in prerequisites is strongly recommended. Graphing calculators (example TI-84) are used daily. A TI-Nspire or similar CAS calculator is not allowed on tests/quizzes. Student may receive college credit through the Cornerstone program. See details under college/high school credit programs.

MAT306 + MAT307

GR: 11-12  
REQ: 3<sup>rd</sup> Year of Math or Elective  
REPEATABLE: No  
PREREQUISITE: C+ or better in Algebra 2 (recommended)  
LENGTH: Year-long

## Statistics – AP

Part of this course will cover descriptive statistics, which is the process of collecting data, summarizing it, and describing its characteristics. Time will also be spent designing, executing, and interpreting experiments and simulations. Most of the emphasis, however, will be inferential statistics. This is the process of using data to obtain information about the world we live in. Topics will include describing data, data analysis, bivariate data, discrete probability distributions, the normal probability distribution, and tests of hypothesis. This course will give the successful student a taste of the statistical field and a strong foundation for a statistics course in college. TI-83 or TI-84 graphing calculators are used daily.

MAT308 + MAT309

GR: 11-12  
REQ: 3<sup>rd</sup> Year of Math or Elective  
REPEATABLE: No  
PREREQUISITE: C- in Algebra 2 or B+ in Integrated Algebra 2 (recommended)  
LENGTH: Year-long

# Science Sequence Options

## FHS GRADUATION REQUIREMENT: 3 YEARS SCIENCE (2 YR LAB SCIENCE)

Most 4-year universities require two science courses, with at least one year of an algebra-based course (chemistry or physics).

<b>Grade</b>	<b>4-Year University</b> All courses can be included in Career and CTE sequences as well.	<b>Career</b> Sequence does not limit all post-secondary options	<b>CTE</b> Sequence does not limit all post-secondary options May start first course in a pathway at any grade
<b>9th</b>	AP Environmental or Biology (Required)	Biology (Required)	Biology (Required) Horticulture 1 & 2 Sports Medicine Animal Science Aquaculture 1 Ag Science 1 & 2
<b>10th</b>	Chemistry 101 UW or Chemistry (Required) Wildlife UW*	Chemistry (Required) Forensics	Chemistry (Required) Horticulture 1 & 2 Sports Medicine Adv. Sports Medicine** Aquaculture 1 & 2 Ag Science 1 & 2 Floral Design*
<b>11th</b>	AP Biology AP/CWU Physics Addiction & the Brain* Wildlife*	Physics (Recommended) Astronomy* Oceanography* Forensics	Animal Science & Vet Science Horticulture 1 & 2 Sports Medicine Adv. Sports Medicine** Aquaculture 1/2 Ag Sci 1/2 Floral Design*
<b>12th</b>	AP Biology AP/CWU Physics AP Physics 2 Addiction & the Brain* Wildlife*	Physics (Recommended) Astronomy* Oceanography* Forensics	Animal Science & Vet Science Horticulture 1 & 2 Sports Medicine Adv. Sports Medicine** Aquaculture 1 & 2 Ag Science 1 & 2 Floral Design*

\*Elective \*\*Pre-requisite

# Science Courses

(in alphabetical order)



## Addiction and the Brain - UWHS

SCI210

THIS IS A UNIVERSITY OF WASHINGTON COURSE. All students in the class will receive on their high school transcript the (C) College in the High School designation. Home internet access required. Biology 100: Addiction and the Brain, is offered to university students who are fulfilling a liberal arts requirement for natural world distribution credits. Biology 100 is a rigorous introductory, non-majors course (intended for students with all interests) that focuses on mood-altering drugs and addiction. Biology 100 is a science class, not a life-style choices class. As such we will endeavor to understand the scientific basis for how drugs work as well as why some are addictive. We teach the biological basis of addiction, the reasons each drug has specific side effects and how our own genetics predisposes us to respond to drugs in a unique way. This course may be taken concurrently with all other science courses at FHS.

GR: 10-12  
REQ: Lab Science  
REPEATABLE: No  
PREREQUISITE: Chemistry  
LENGTH: Semester-long

## Agricultural Science 1

AG101

From apples to animals and field trips, we have it covered in this class! Would you enjoy taste testing apples? Have you ever wondered how you turn your love of plants and animals into your dream job? Want to take a try at livestock judging and animal ID? If you answered yes to any of the above, then take a journey through this dynamic & exploratory Agriculture Science I class...start by going on our annual field trip tour de Whatcom! Discover crops grown in Washington State, earn an appreciation for local agriculture and related jobs right here at home. Learn about FHS's amazing FFA program and career development events, mentor during project pals at local elementary schools, design Ag posters...and wrap up the semester with a handmade bow on your custom-built evergreen wreath you'll be proud to take home.

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Agricultural Science 2

AG102

Do you love french-fries & homemade ice cream? Let's make our own! Puppies got your heart? Volunteer with Ferndale's Doggie Daycare at Ferndale High! Want to learn how to raise young animals. Enjoy a field trip to a local buffalo ranch as well as team up with the Alternative Humane Society on how to train and care for your kittens and puppies. Interested in drones? Learn firsthand how they are being used in agriculture. Have a green thumb? Take a field trip to our local nursery and investigate soil. Plant seedlings in the FHS Greenhouse & take home your own beautiful hanging basket!

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Ag Sci 1  
LENGTH: Semester-long

## Animal Science

AG121

This class is for anyone who has an interest in animals and no experience is required. The course will focus on the scientific and hands-on principles of animal husbandry and will give you a basic knowledge of sound animal production practices and strategies. You will learn about animal behavior, training and handling. You will also learn about topics such as animal reproduction, artificial insemination, proper care and feeding, beef cattle management. You will have the opportunity to raise and train as well as fit and show an animal at the Lynden fair or choose another supervised agriculture Experience.

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Ag Sci 1  
LENGTH: Semester-long

# Science Courses

## (continued)



### Astronomy

SCI306

The content of this course is based upon the Physical and Earth Science standards of the Next Generation Science Standards (NGSS). Astronomy is a laboratory science course where students actively engage in science and engineering practices to study the composition and structure of the universe. In Astronomy students will explore the properties and motion of bodies in space. Students will also be introduced to astronomical instruments, historical astronomy, the solar system, the structure and life cycle of stars, and the earth-moon system. This is an Algebra-based science course. This course may be taken concurrently with all other science electives.

GR: 11-12  
REQ: Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Aquaculture & Fisheries 1

AG131 + AG132

This course framework introduces the scientific and algebraic principles to aquaculture and fisheries management. The course includes units on safety and well-being, stewardship and sustainability, biology and ecology of aquatic organisms, water quality and animal husbandry, data science and analysis, facility operations and maintenance, marketing, and communication, and career pathways. The course aligns with and can be used in conjunction with the Advanced Aquaculture and Fisheries framework. Students will complete a Supervised Agricultural Experience (SAE) as part of the course. The course is designed to meet requirements for 1.0 credit in lab science.

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Aquaculture & Fisheries 2

AG231 + AG232

This course framework applies scientific and mathematical principles to aquaculture and fisheries management. The course includes units on safety, well-being, and ethics; stewardship and sustainability, aquatic organisms' biology and ecology, water quality and animal husbandry, data science and analysis, facility and equipment operations and maintenance, communication, and marketing, and career pathways. The course aligns with and can be used with the Exploratory Introduction to Aquaculture and Fisheries framework. Students will complete a Supervised Agricultural Experience (SAE) as part of the course. The course is designed to meet requirements for 1.0 credit of lab science.

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Aqua & Fish 1  
LENGTH: Year-long

### Biology



SCI101 + SCI102

This is a preparatory course for the WCAS state science assessment to be taken during the Junior year. Biology content is based upon the life science standards of the Next Generation Science Standards (NGSS) integrated with earth science. Biology is a laboratory science course where students actively engage in science and engineering practices to study: the structures and processes of molecules and organisms; the interactions, energy, and dynamics of ecosystems; heredity and biological evolution. Full participation in this course is essential to a student's preparation for the Washington Comprehensive Assessment of Science taken in 11th grade.

GR: 9  
REQ: Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

# Science Courses

(continued)



## Biology – AP

AP Biology is designed to be the equivalent of a college introductory biology course taken by biology majors during their first year in college. It is intended for any student interested in a rigorous college preparatory class experience. Major topics include molecules and cells, heredity and evolution and organisms and populations. The class provides students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. This course may be taken concurrently with all other science courses at FHS.

SCI307 + SCI308

GR: 11-12  
REQ: Lab Science  
REPEATABLE: No  
PREREQUISITE: Chemistry recommended  
LENGTH: Year-long

## Chemistry



This is a preparatory course for the WCAS state science assessment to be taken during the Junior year. The content of this course is based upon the Physical and Earth Science standards of the Next Generation Science Standards (NGSS). Chemistry is a laboratory science course where students actively engage in science and engineering practices to study the interaction of matter and energy. Students will also explore the structure of the physical universe including atomic structure, chemical reactions, and the chemistry of the cosmos and our oceans. Full participation in this course is essential to a student's preparation for the Washington Comprehensive Assessment of Science taken in 11th grade. This is an Algebra-based science course. May be taken concurrently with Physics and all other science electives.

SCI201 + SCI202

GR: 10-12  
REQ: Lab Science  
REPEATABLE: No  
PREREQUISITE: Biology or AP Environmental Science  
LENGTH: Year-long

## Chemistry 101 UWHS

This course introduces students to fundamental concepts of chemistry and the use of laboratory equipment. It includes the study of matter, energy, atomic structure, chemical reactions and periodic trends. Second semester includes the study of phases of matter, stoichiometry, intermolecular forces, and gas laws. A grade of "C" or better in prerequisites is strongly recommended. Full participation in this course is essential to a student's preparation for the Washington Comprehensive Assessment of Science taken in 11th grade. This is an Algebra-based science course. May be taken concurrently with Physics and all other science electives.

SCI203 + SCI204

GR: 10-12  
REQ: Lab Science  
REPEATABLE: No  
PREREQUISITE: Algebra 1, Biology or AP Environmental Science  
LENGTH: Year-long

## Environmental Science – AP or WWUHS

AP Environmental Science is the advanced science option for 9th grade students AP Environmental Science content is based upon the life science standards of the Next Generation Science Standards (NGSS) integrated with earth and environmental science. AP Environmental Science is a laboratory science course where students actively engage in science and engineering practices to study: scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Full participation in this course is essential to a student's preparation for the Washington Comprehensive Assessment of Science taken in 11th grade. This course may be taken concurrently with all other science courses at FHS.

SCI103 + SCI104

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: 9TH Grade: B or better in Middle School Science + Algebra 1 recommended  
LENGTH: Year-long

# Science Courses

(continued)



## Floral Design

This course is a year-long class that explores the field of horticulture with an emphasis on the floral and greenhouse aspect. Units include topics such as floristry, with the students creating monthly arrangements, boutonnieres, and other creative projects. Also, the growing and care of greenhouse crops, botany, plant taxonomy, entomology, fertilizers, soils, propagation, tools, tissue culture, selected lab work, as well as other aspects of horticulture, will be covered. A wonderful opportunity to expand learning, will be included by CTE leadership activities of the FFA, and a Supervised Agricultural Experience (S.A.E.) Project.

AG211 + AG212

GR: 10-12  
REQ: CTE or Lab Science for 2<sup>nd</sup> Semester  
REPEATABLE: Yes  
PREREQUISITE: Hort 2 or B- or better in Hort 1  
LENGTH: Year-long

## Forensics

This engaging laboratory science course introduces students to the fascinating world of forensic investigation. The content of this course is based upon the Life, Physical, and Earth Science standards of the Next Generation Science Standards (NGSS). Forensics is a laboratory science course where students develop their observational and problem-solving skills to solve a variety of crimes. Topics covered include DNA, blood, trace evidence, entomology, hair and fibers, ballistics, and handwriting analysis. This course may be taken concurrently with all other science electives. Students should be concurrently enrolled in Chemistry and or Physics if they have not completed these core sciences.

SCI245 or SCI246

GR: 10-12  
REQ: Lab Science  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

## Geology & Natural Resources – WWUHS

Major ideas of modern geoscience; the study of rocks and minerals, plate tectonics, geologic time, the hydrologic cycle; processes that have produced the Earth and its landforms. Some lecture sections will be focused on specific topics within the geological sciences, such as planetary geology, climate and climate change, or National Parks. Includes lab.

SCI240

GR: 10-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Biology or Environmental Science  
LENGTH: Semester-long

## Horticultural 1

This course explores horticulture, the world of plants and flowers. Greenhouse time is included for growing and propagating selected as a semester project. Through this, you will have the opportunity to gain hands-on knowledge and greenhouse experience. Other areas of course work include exploring jobs in the field of horticulture, plant identification, plant anatomy, and plant physiology and propagation. Students will have the opportunity to develop a Supervised Agriculture Experience (S.A.E.) Project and participate in FFA leadership activities. This course is the pre-requisite for Horticulture 2 and students must earn a passing grade to advance.

AG111

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

# Science Courses

(continued)



## Horticultural 2

AG112

This course explores the greenhouse environment and how it relates to growing a wide array of annual flowers, vegetable starts, and hanging baskets. Students will gain firsthand greenhouse management experience by growing their own crops that will be sold at the spring FFA Plant Sale! It is offered second semester and is designed to explore more areas of horticulture for students who have successfully fulfilled the pre-requisite of Horticulture 1, and it applies knowledge and skills learned in Horticulture 1. Hands-on experience includes entomology, soils, fertilizing, floral designs, plant propagation, greenhouse management, gardening and vegetables, leadership/FFA, and other areas of interest. Students will have the opportunity to develop a Supervised Agriculture Experience (S.A.E.) Project.

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: Yes  
PREREQUISITE: Horticulture 1  
LENGTH: Semester-long

## Oceanography

SCI305

The content of this course is based upon the Life, Physical, and Earth Science standards of the Next Generation Science Standards (NGSS). Oceanography is a laboratory science course where students actively engage in science and engineering practices to study the exploration, composition, and function of the world's oceans. Students will explore the development and use of instrumentation to study oceans, properties of water, currents, waves, tides, coastlines, marine ecosystems, and environmental impacts on oceans. This course may be taken concurrently with all other science electives.

GR: 11-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Physics



This is a preparatory course for the WCAS state science assessment to be taken during the Junior year. The content of this course is based upon the Physical and Earth Science standards of the Next Generation Science Standards (NGSS). Physics is a laboratory science course where students actively engage in science and engineering practices to study the interaction of matter and energy. Students enrolled in Physics will receive an introduction to the central concepts of classical physics and earth and space science. This is an Algebra-based science course. This course may be taken concurrently with all other science electives.

SCI301 + SCI302

GR: 11-12  
REQ: Lab Science or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Chemistry  
LENGTH: Year-long

## Physics 1 – AP or CWUHS

SCI303 + SCI304

This is a Central Washington University course. CWU Physics 111/112 is equivalent to AP Physics 1. This course explores principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound. The course is based on six Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world. In the course students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. It is anticipated that students will spend 25% of instructional time devoted to hands-on laboratory work with an emphasis on inquiry-based investigations. This is an Algebra-based science course. Students may receive college credit through AP testing or the CWU Cornerstone Program. See details under college/high school credit programs. This course may be taken concurrently with Chemistry.

GR: 11-12  
REQ: Lab Science or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Algebra 2 or Integrated Algebra 2  
LENGTH: Year-long

# Science Courses

(continued)



## Physics 2 – AP

In AP Physics 2 students build upon their AP Physics 1 (CWU Physics 111/112) experiences to study electrostatics, electric circuits, magnetism, thermodynamics, fluids, optics, and modern physics in preparation for the AP Physics 2 Exam. AP Physics 2 is a challenging teacher-guided independent study course. Successful students will spend time, outside of class, working alone and in small groups, to master course material. It is anticipated that students will spend 25% of instructional time devoted to hands-on laboratory work with and on emphasis on inquiry-based investigations. This is an Algebra-based science course. Students may receive college credit through AP testing. See details under college high school credit programs.

SCI401 + SCI402

GR: 11-12  
REQ: Lab Science or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: AP Physics 1  
LENGTH: Year-long

## Principles of Biomedical Science

Dive into the fascinating world of biomedical science with this introductory course designed for students interested in health science careers. Through Project Lead the Way's innovative curriculum, students will explore the principles of biomedical science and the technologies that drive advancements in healthcare. This course covers a range of topics including human physiology, genetics, microbiology, and public health. Students will engage in hands-on activities and projects that simulate real-world biomedical challenges, such as diagnosing diseases, developing medical devices, and understanding the impact of biomedical innovations on society.

HSC115 + HSC116

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

## Veterinary Science – CTE Dual Credit

This one semester course offers students an opportunity to gain employability and technical skills needed in postsecondary education and careers in veterinary medicine or related occupations. Students in this course will learn clinical procedures including terminology, handling, pharmacology, anatomy, and other topics pertinent to the veterinary field. This class is for those who have a passion for animals and a drive to learn more. Our class will be linking with several local veterinarians and community members for lessons, labs and field trips. Students who complete this course are encouraged to continue their education and will have a strong foundation for programs such as the BTC Veterinary Assistant program, WSU Animal Science 101, and the Wenatchee Valley College Veterinary Tech program. Course prerequisite is earning a B or better in Agricultural Science, Biology, or instructor approval.

AG221

GR: 10-12  
REQ: CTE or Lab Science  
REPEATABLE: Yes  
PREREQUISITE: Biology or Agricultural Science  
LENGTH: Semester-long

## Wildlife & the Modern World – UWHS

THIS IS A UNIVERSITY OF WASHINGTON COURSE. All students in the class will receive on their high school transcript the (C) College in the High School designation. UW ESRM150: Wildlife in the Modern World covers major wildlife conservation issues in North America. Some global issues are also treated. Examples of topics include the conservation of large predators, effects of toxic chemicals on wildlife, old-growth wildlife, conservation of marine wildlife, recovery of the bald eagle, and gray wolf.

SCI236

GR: 10-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Biology or Environmental Science  
LENGTH: Semester-long

# World Languages Courses

(in alphabetical order)



## French 1

This is an introductory course for students interested in learning to read, write, pronounce, and understand the French language. Emphasis is placed on learning the basic skills, and to begin developing a proficiency in the language. This is a rigorously academic course that builds upon the skills developed daily. Students who choose to study a language must realize that this is a college-prep course and good study habits are essential to developing a proficiency in the language. Students must be willing to readily engage and talk with their classmates daily. Oral participation is required, and students need to try their best to practice French in order to truly acquire the language. French culture will be introduced throughout the course regarding music, food, crafts, and more.

WLA107 + WLA108

GR: 9-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

## French 2

This is the continuation of a two-year course for students who have succeeded in beginning French. Emphasis continues to be on formulating basic skills and proficiency in the language. Reading, writing, grammar, comprehension and speaking in addition to culture are covered in this course. Active oral participation in daily activities is required to successfully achieve in class.

WLA205 + WLA206

GR: 10-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: C or better in French 1 recommended  
LENGTH: Year-long

## French 3

Students wishing to continue their study of the French language beyond the second year may take a third- year intermediate French class. Class is taught modeling the immersion method: instruction and interaction are primarily in French. Students are introduced to more complicated grammatical concepts, expanded vocabulary, listening and reading comprehension activities, written expression and a vast array of speaking activities; all designed to improve the students' ability to use French to communicate. Students must actively participate in French daily with partners and in groups.

WLA303 + WLA304

GR: 11-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: B or better in French 2  
LENGTH: Year-long

## Lummi Language 1

This introductory course concentrates on basic vowel sounds of Xwlemi Chosen, the Lummi language. Emphasis is placed on learning the basic skills needed to read and write the language along with the development of conversation skills. Daily classroom exercises as well as attendance are required. Periodically, classes will include cultural consultants from the Lummi education system as well as honor Lummi elders.

WLA101 + WLA102

GR: 9-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

## Lummi Language 2

This course is a review of basic Xwlemi language. Emphasis is on learning advanced reading, writing, and conversational skills to be utilized in daily living. Class will include discussions of Xwlemi culture and history.

WLA201 + WLA202

GR: 10-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: Lummi Language 1  
LENGTH: Year-long

# World Languages Courses

## (continued)



### Spanish 1

This is an introductory course for students interested in learning to read, write, pronounce, understand, and speak Spanish. Students who choose to study a language must realize that this is a college-prep course and good study habits are essential to developing a proficiency in the language. Students must be willing to readily engage and talk with their classmates daily. Oral participation is required, and students need to try their best to practice Spanish in order to truly acquire the language. We will also explore the music, food, crafts, geography and culture of the Hispanic world.

WLA103 + WLA104

GR: 9-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Spanish 2

Second year Spanish continues to develop language learned in Spanish 1. Emphasis is on all aspects of language acquisition, including listening, speaking, reading, and writing. Active oral participation is required, and study habits are essential. Teachers will steadily increase their use of Spanish and students must follow. All communication is in Spanish by the end of the year.

WLA203 + WLA204

GR: 9-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: C or better in Spanish 1 (recommended)  
LENGTH: Year-long

### Spanish 3

In Spanish 3, students learn to express themselves using different verb tenses, expanded vocabulary and grammatical concepts in a variety of written and spoken ways - such as projects, daily conversations, skits and verbal/written exams. Active participation in Spanish is required to successfully achieve in class. Students and teacher will communicate in Spanish. This is a college-prep course and good study habits at home are essential to continue developing proficiency in the language.

WLA301 + WLA302

GR: 10-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: B or better in Spanish 2 (recommended)  
LENGTH: Year-long

### Spanish 103 – UWHS

UW Spanish 103 is a college level course open to all students who have successfully completed Spanish 3 with a B or better. UW tuition is only required if the student is seeking to earn 5 UW credits. We strongly encourage students and guardians to take advantage of this opportunity to earn college credits at a fraction of the usual cost. This course develops fluency through, listening, speaking, and writing compositions. Active participation in daily activities and strong study habits will help you to greatly improve your comprehension and ability to speak the language. 1st semester requires a \$5 fee for cultural activities. 2nd semester requires a \$10 fee for Final Oral Exam Field Trip in June.

WLA310 + WLA311

GR: 11-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: B or better in Spanish 3 (recommended)  
LENGTH: Year-long

### Spanish 201 – UWHS

Students who have successfully completed UW Spanish 103 may take UW Spanish 201. UW tuition is only required if the student is seeking 5 UW credits. The course is focused on Hispanic culture, film, cuisine and history, as well as listening comprehension, speaking, advanced grammatical concepts, ample vocabulary, composition writing, and reading comprehension. Active participation in daily activities and strong study habits will act as a springboard to fluency, further study in college, and study abroad programs.

WLA401 + WLA402

GR: 12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: B or better in Spanish 103(recommended)  
LENGTH: Year-long

# World Languages Courses

## (continued)



### Spanish for Heritage Speakers

This course is designed for students who have been raised at home where Spanish is spoken, speak or at least understand Spanish, and who are to some degree bilingual in Spanish and in English. Students in the course improve their reading and writing skills in Spanish. The class reads short stories and learns basic grammar, the rules of accentuation, and spelling. Students create interesting projects and presentations about Spanish speaking countries and cultures.

WLA105 + WLA106

GR: 9-12

REQ: Elective

REPEATABLE: Yes

PREREQUISITE: Native  
Spanish Speaker

LENGTH: Year-long

# Physical Education Courses



A wide selection of activities will be offered throughout the school year. Specific eighteen week units will be presented based on facility and teacher availability, and may include aerobics, archery, badminton, basketball, biking, bowling, flag football, floor hockey, golf, pickle ball, softball, tennis, volleyball, weight training, YMCA, or yoga. Locks are checked out for all students in PE. Failure to return a PE lock will result in a fine of \$10.

## Unified Physical Education

Adapted Physical Education is a developmentally appropriate class designed to support students of all abilities in building confidence, strength, and coordination through movement. This class offers engaging activities and games tailored to meet individual motor needs while fostering a sense of belonging and achievement. Adapted PE promotes inclusivity, encourages lifelong physical activity, and empowers all students to lead active and healthy lives. This course is open to anyone interested in participating in an inclusive and supportive environment, similar to Unified Sports. Peer mentors are also welcome to join, providing leadership and encouragement to their classmates.

PHY105 or PHY106

GR: 9-12  
REQ: PE  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

## Lifetime Activities

This class is designed for those students that enjoy both team games as well as individual sports. The goal of this course is to promote physical fitness through a variety of fitness activities and sports units. The activities and games will be based on facilities, weather, and teacher availability. Activities and games may include: Flag Football, Soccer, Basketball, Volleyball, Floor Hockey, Softball, Ultimate Frisbee, Team Handball, Tennis, Badminton, and Pickle Ball. Sport education will be discussed and reviewed in detail. A 20-30 minutes fitness component is included in all activity/individual sports classes.

PHY101 or PHY102

GR: 9-12  
REQ: PE  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

## Running & Weight Training

This course is designed to improve fitness levels through running and participating in various weightlifting routines. The goals of this course are to encourage running as an enjoyable, lifelong fitness activity, as well as promote total body conditioning through activities that improve cardiovascular endurance and total body strength.

PHY125 or PHY126

GR: 9-12  
REQ: PE  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

## Walking for Fitness

Walking is the number one fitness activity of American adults. If this interests you, then Walking for Fitness is the class for you. This class will use the school campus, community sidewalks, track, etc. to teach you everything you need to know to adopt a fitness walking lifestyle into your life. You will gain knowledge of heart rate and understanding of physical training through walking. Students will also improve in flexibility and muscular strength with stretching and core exercises weekly. Students will be required to walk outside most days (regardless of the weather) and will be required to have a signed off campus waiver.

PHY103 or PHY104

GR: 9-12  
REQ: PE  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

## Weights & Sports

This course is designed to improve fitness levels through sports/activities and participating in various weightlifting routines. The goals of this course give students access to several different sports and activities and the weight room, with the goal of improving cardiovascular endurance and total body strength.

PHY123 or PHY124

GR: 9-12  
REQ: PE  
REPEATABLE: Yes  
PREREQUISITE: None

# Physical Education Courses

## (continued)



A wide selection of activities will be offered throughout the school year. Specific eighteen week units will be presented based on facility and teacher availability, and may include aerobics, archery, badminton, basketball, biking, bowling, flag football, floor hockey, golf, pickle ball, softball, tennis, volleyball, weight training, YMCA, or yoga. Locks are checked out for all students in PE. Failure to return a PE lock will result in a fine of \$10.

## Weight Training for Women

This semester long course is intended to be a welcoming environment for females to build muscle strength, practice targeted exercises and participate in a variety of sports and activities. In this class, there will be a combination of weight training, games/sports, stretching and fitness activities designed to improve overall fitness.

PHY127 or PHY128

GR: 9-12

REQ: PE

REPEATABLE: Yes

PREREQUISITE: None

LENGTH: Semester-long

## Weight Training, Advanced

This is a weight training class that will focus on more of the Olympic style lifts while helping students manage their time in the weight room to help maximize their improvement. Pushing yourself each and every day is the expectation in this class.

PHY249 or PHY250

GR: 9-12

REQ: PE

REPEATABLE: Yes

PREREQUISITE: Prior Weight Class or Permission

LENGTH: Semester-long

## Yoga

This course presents yoga movements for beginning and intermediate students with an emphasis on relaxation and flexibility. Yoga helps students avoid strains and injuries by teaching how to efficiently use their bodies during exercise and daily activities. This class also includes various cooperative games to promote space awareness, teamwork, and cardiovascular improvement. Only repeatable twice.

PHY121 or PHY122

GR: 9-12

REQ: PE

REPEATABLE: Yes

PREREQUISITE: None

LENGTH: Semester-long

# Fine Arts Courses

(in alphabetical order)



## Unified Music

In this class all students will have access to music-making that is age appropriate as well as developmentally appropriate. We will explore the different genres of music through listening. We will work on music skills such as steady beat, dynamics, tempo, and pitch through activities like bucket drumming, rhythm stick playing, solfege hand signs, and movement with music. We will develop individual musical skill through singing and beginning keyboarding. Students will have an opportunity to put on a recital where they will show individual musical expression. This course is for students in Life Skills, students with IEP's, and anyone who is interested in learning about music at their own pace. Peer tutors may also choose to work in this class to develop mentorship skills.

FA109

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

## Art 1

Students in this class will be prepared with the vocabulary and technical skills using the elements and principles of art to make connections in historical and cultural art contexts. With a focus on the areas of drawing, painting, and design; students will learn skills needed to communicate in and respond to the visual world while developing an awareness of creative expression and artistic style.

FA101

GR: 9-12  
REQ: CTE or Art  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Art 2

This course is the second semester in the sequential art series. Art 2 helps each student broaden and refine their skills, while encouraging them to take artistic risks and improve their ability to communicate visually. Students will also initiate a greater emphasis on self-motivation and personal expression. Students will be expected to have 2 or more portfolio pieces by the end of the semester and should be successful in Art 2 before moving on to Art 3.

FA102

GR: 9-12  
REQ: CTE or Art  
REPEATABLE: No  
PREREQUISITE: Art 1  
LENGTH: Semester-long

## Art 3

This is the third course in the sequential art series. Art 3 provides the opportunity for each student to create a body of work within a common theme for the semester. This course is designed to prepare students for college level art classes. There will be an emphasis on self-expression as students communicate ideas visually through a cohesive body of work within multiple mediums. Students will present and critique while continuing to broaden and refine work. Students should feel fluent and successful in the language and skills taught Art 1 and 2 and have the desire to create a portfolio.

FA201

GR: 10-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: Art 2  
LENGTH: Semester-long

## Ballroom Dancing

This introduction to ballroom dance will emphasize basic patterns and fundamental steps of popular styles such as swing, fox trot, waltz, tango, salsa and cha-cha. The students will get to demonstrate mastery of these styles through choreographed and improvised class performances. Common rules of dance courtesy and a brief overview of ballroom dance history will be included. Music or dance background is not necessary. This course will meet the requirement for a Fine Arts credit, OR one semester of PE credit.

FA112

GR: 9-12  
REQ: Art or PE  
REPEATABLE: Once per Year  
PREREQUISITE: None  
LENGTH: Semester-long

# Fine Arts Courses

## (continued)



### Ceramics 1

FA211

This course is an introduction to hand building pottery techniques including pinch, coil, and slab. This course will also expose students to direct sculpting, surface decoration, and writing. Students are expected to keep journals and participate in classroom critiques. Students will develop the basic skills needed to communicate in and respond to the visual world through problem solving and guided practices in a structured and creative environment.

GR: 10-12  
REQ: CTE or Art  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Ceramics 2

FA212

Students will continue with the clay exploratory, with a focus on wheel throwing, glazing, and refining hand- building techniques. Students are required to complete a list of required skills to pass the class. Students can expect to be able to throw the same shape, build mugs, and sculpt 3D masks. Extra time outside of class time is usually required to become proficient at wheel throwing. Students are expected to keep a current journal of all studio work.

GR: 10-12  
REQ: CTE or Art  
REPEATABLE: No  
PREREQUISITE: Ceramics 1  
LENGTH: Semester-long

### Ceramics 3

FA311

Students in this course will experience an in-depth exploration of working with clay in specific skill areas and will also write about responding to clay works. Through guided practice, students will become proficient in wheel throwing, surface design, Raku, large scale sculpting and other mixed media techniques. Sketch books and oral participation in group critiques is expected. Works for submission to art shows will be created. Students will also prepare work and slides for portfolio review at college level standards. This course is designed to prepare students for college level classes.

GR: 11-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: Ceramics 2  
LENGTH: Semester-long

### Concert Choir

FA224 + FA225

This is a mixed performing group for advanced vocal students with previous experience in the techniques of vocal production, music reading, rehearsal and performance. The group performs at school and community events as well as festivals and other venues including a spring tour. Attendance of rehearsals, written and vocal performance tests, frequent practice outside of class, participation in concerts and contests are important parts of the assigned grade. Auditions will be held during March for the following school year. Performance apparel is the FHS choral robe. Performance fees apply. Students will be responsible for performance/tour fees and fund raising.

GR: 10-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: Audition  
LENGTH: Year-long

### Chamber Orchestra

FA222 + FA223

Chamber Orchestra students will focus on advanced string techniques and string chamber music repertoire. This smaller ensemble is a select group of advanced players who wish to develop the highest possible level of musicianship through rehearsal and performance. Participation in all performances and large group festival is required. Participation in the honor festival, solo and ensemble, and the spring trip is not required, but highly recommended. Auditions will be held in March for the following year.

GR: 10-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: Audition  
LENGTH: Year-long

# Fine Arts Courses

(continued)



## Drumming, Introduction

FA106

This course is for that person who has always want to play the drums but has never had the opportunity. This semester long class focuses on how to find a steady beat, the techniques of playing various drums and even some music reading. Before the semester is over each student will learn to play on a basic level the drum set, African drums, marching percussion, tambourines, shakers, cymbals and much more.

GR: 9-12  
REQ: Art  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Guitar, Beginning/Intermediate

FA110 + FA111

This course is designed for beginners and students with some prior experience to learn the basics of guitar and music theory. This course will focus on basic chords, both tablature and note reading, learning how to count rhythms, and broaden basic skills with student song choices. A limited number of school guitars are available to use, but students are encouraged to supply their own acoustic guitar if possible.

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

## History of Rock & Roll

FA105

This course is designed to be an introduction and exploration of the history of Rock and Roll throughout each era of music. Genres explored will include blues, jazz, classic rock, alternative, country, hip-hop, pop, punk, and heavy metal, among others. Students will familiarize themselves with standout groups and artists and music of each era, making the connection of how each have influenced and are connected to modern music of today. Activities will include listening, analyzing, watching videos, reflections, class discussions, research, and presentations.

GR: 9-12  
REQ: Art  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

## Jazz Band

FA130 + FA131

Jazz Band is a performing ensemble dedicated to playing and learning about pop, Latin, rock and jazz styles. Along with playing standard repertoire, this group will also be introduced to the history of the genre. This is a supplementary course meaning it is required that all Jazz Band students be enrolled in another music class in the same semester. The Jazz Band will perform at least 3 concerts during the year along with select extra-curricular performances and festivals. This class will meet at 7:00AM before school Monday-Thursday.

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: Playing Experience in Performing Ensemble or Permission  
LENGTH: Year-long

# Fine Arts Courses

## (continued)



### Music Creation Lab

This class is designed for students who are interested in creating their own music. We will cover units on Songwriting, Lyric writing, Composition using staff paper and notation, Electronic composition using computer programs/sampling. There will be opportunities to share your creations throughout the course. We will cover copyright law and “next steps” for budding musicians. Your musical creations will be as unique as you are. Discover the music inside you!

FA108

GR: 9-12  
REQ: Art or CTE  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

### Percussion Ensemble

This course is designed for students who wish to explore and expand their ability to create music with a variety of percussion equipment. Students will develop a vocabulary in the areas of snare, keyboard, percussion, timpani, auxiliary percussion and drum set. Music to be performed will come from a wide range of styles including Latin, rock, classical, marching and percussion. Students will be selected to play in the Wind Ensemble, Symphonic Band, Marching Band, Pep Band and Jazz Band based on ability. Public performances are required as scheduled. **Band Camp:** Is a non-graded activity that is highly recommended. The camp normally takes place the week prior to the start of school. **Marching Band:** Is a co-curricular activity that takes place during the fall. The marching band travels to four festivals throughout the Pacific Northwest. Students are required to pay a travel fee. Marching band is not a requirement for Symphonic Band and is not a graded activity.

FA122 + FA123

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Year-long

### Piano/Keyboard, Beginning

In this class, students will learn the basic skills necessary to play the piano. We will learn the note names and basic music reading skills. We will learn about hand positions. We will learn about reading melody lines and playing with chords and lyrics. No experience necessary. Students already studying piano may take this class as a peer mentor with some time for practicing. Shared keyboards will be provided in-class, but not for take-home.

FA107

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

### Swing Choir

This ensemble is a select group of advanced singers who desire to develop the highest possible level of musicianship through rehearsal and performance. It is encouraged that this class be taken concurrently with Concert Choir. The primary focus of study is on developing ensemble techniques through classical, pop, and jazz literatures. Attendance at rehearsals, written and vocal performance tests, frequent practice outside of class, and participation in concerts are parts of the assigned grade. Auditions are held during March for the following school year. Members are required to purchase selected performance apparel.

FA226 + FA227

GR: 10-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: Audition  
LENGTH: Year-long

# Fine Arts Courses

## (continued)



### Symphonic Band

This course of study prepares students for membership in the Wind Ensemble through intensive study, skill development, practice and testing to improve musicianship. The Symphonic Band performs as an independent unit in concerts throughout the year. Performances and extra rehearsals are occasionally required after school hours. Private lessons are strongly encouraged. Band Camp: Is a non-graded activity that is highly recommended. The camp normally takes place the week prior to the start of school. Marching Band: Is a co-curricular activity that takes place during the fall. The marching band travels to four festivals throughout the Pacific Northwest. Students are required to pay a travel fee. Marching band is not a requirement for Symphonic Band and is not a graded activity.

FA120 + FA121

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Year-long

### Symphony Orchestra

Symphony Orchestra students will focus on both the fundamentals and advancing levels of string technique through a wide variety of orchestral music and performances. This class will collaborate with the Advanced Chamber Orchestra to perform combined orchestra music for the seasonal concert. Participation in all performances and large group festival is required. Participation in the honor festival, solo and ensemble, and the spring trip is not required, but highly recommended. Students may audition for Advanced Chamber Orchestra in March for the following School year after completing one year of Symphony Orchestra.

FA124 + FA125

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: 2 or More Years  
Playing Experience or  
Permission  
LENGTH: Year-long

### Talons

The Talons choir is for Tenor/Baritone/Bass range vocal students of all ability levels, from beginner to advanced. Prior musical experience is welcome, but not required. This course will focus on developing the student's natural Tenor/Bass singing voice, and on building music reading ability, ensemble singing skills, and team building. The students enrolled in this choir understand that all performances are required. Performance outfits are required. No audition is required. Performance fees apply.

FA128 + FA129

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: Interest in  
Singing & Natural Tenor/Bass  
Range  
LENGTH: Year-long

### Theater Arts

Theatre Arts is designed for students who want to learn about the basics of theater to become a better performer and public speaker. They will be required to participate in a variety of activities in class as well as attend and review a live performance outside of class. Students will study improvisational techniques to improve their thinking skills, stage skills and collaboration skills. The culminating activity for this semester long elective is participation in the production of small group dramatic scenes. Theatre education is important for all students and has the ability to inspire creativity and confidence in students in any endeavor.

FA103 + FA104

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

# Fine Arts Courses

## (continued)



### Treble Choir

Treble Choir is for Soprano/Alto range vocal students of all abilities, from beginner to advanced. Prior musical experience is welcome, but not required. This course will focus on developing the student's natural Soprano/Alto singing voice, and on building music reading ability, ensemble singing skills, and team building. The students enrolled in this choir understand that all performances are required. No audition is required. Performance apparel is a FHS formal black dress. Performance fees apply.

FA126 + FA127

GR: 9-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: Interest in Singing & Natural Soprano/Alto Range  
LENGTH: Year-long

### Wind Ensemble

The Wind Ensemble is a culminating band experience for students in the Ferndale School District. Wind Ensemble performs as an independent unit in concerts throughout the year. Performances and extra rehearsals are occasionally required after school hours. Private lessons are strongly encouraged. Band Camp: Is a non-graded activity that is highly recommended. The camp normally takes place the week prior to the start of school. Marching Band: Is a co-curricular activity that takes place during the fall. The marching band travels to four festivals throughout the Pacific Northwest. Students are required to pay a travel fee. Marching band is not a requirement for Wind Ensemble and is not a graded activity.

FA220 + FA221

GR: 10-12  
REQ: Art  
REPEATABLE: Yes  
PREREQUISITE: Audition  
LENGTH: Year-long

### Video Production

This class is designed to teach students the basics of video production. Students will learn the fundamentals of video production, including camera operation, sound, lighting, editing, and storytelling. Through hands-on experience, students will learn how to create compelling videos. By the end of the course, students will have the skills and knowledge to create and edit their own professional-looking videos.

STS101 + STS102

GR: 9-12  
REQ: CTE or Art  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

# Career & Technical Education



## Agricultural Education

### Agricultural Leadership

Agriculture Leadership is a high-level Vocational Agriculture course designed for students who enjoy a variety of different hands on work opportunities. It expands leadership and vocational agriculture skills with an emphasis on leadership developed through the FFA organization. Students will enhance their ability to be independent and self-motivated to succeed. Activities often require attention outside of class hours as well. All skills applied in this course will be learned through real world work experience. Specific units include Project Pals, resumes, public communication, current agricultural issues, and promotion and advertisement of the FFA organization. An S.A.E. project will be required. Specific leadership involvement and FFA membership required.

AG241 + AG242

GR: 10-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Any Ag Class  
LENGTH: Semester-long

### Agricultural Science 1

From apples to animals and field trips, we have it covered in this class! Would you enjoy taste testing apples? Have you ever wondered how you turn your love of plants and animals into your dream job? Want to take a try at livestock judging and animal ID? If you answered yes to any of the above, then take a journey through this dynamic & exploratory Agriculture Science I class...start by going on our annual field trip tour de Whatcom! Discover crops grown in Washington State, earn an appreciation for local agriculture and related jobs right here at home. Learn about FHS's amazing FFA program and career development events, mentor during project pals at local elementary schools, design Ag posters...and wrap up the semester with a handmade bow on your custom-built evergreen wreath you'll be proud to take home.

AG101

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Agricultural Science 2

Do you love french-fries & homemade ice cream? Let's make our own! Puppies got your heart? Volunteer with Ferndale's Doggie Daycare at Ferndale High! Want to learn how to raise young animals. Enjoy a field trip to a local buffalo ranch as well as team up with the Alternative Humane Society on how to train and care for your kittens and puppies. Interested in drones? Learn firsthand how they are being used in agriculture. Have a green thumb? Take a field trip to our local nursery and investigate soil. Plant seedlings in the FHS Greenhouse & take home your own beautiful hanging basket!

AG102

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Ag Sci 1  
LENGTH: Semester-long

### Animal Science

This class is for anyone who has an interest in animals and no experience is required. The course will focus on the scientific and hands-on principles of animal husbandry and will give you a basic knowledge of sound animal production practices and strategies. You will learn about animal behavior, training and handling. You will also learn about topics such as animal reproduction, artificial insemination, proper care and feeding, beef cattle management. You will have the opportunity to raise and train as well as fit and show an animal at the Lynden fair or choose another supervised agriculture Experience.

AG121

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Ag Sci 1  
LENGTH: Semester-long

# Career & Technical Education



## Agricultural Education (continued)

### Aquaculture & Fisheries 1

This course framework introduces the scientific and algebraic principles to aquaculture and fisheries management. The course includes units on safety and well-being, stewardship and sustainability, biology and ecology of aquatic organisms, water quality and animal husbandry, data science and analysis, facility operations and maintenance, marketing, and communication, and career pathways. The course aligns with and can be used in conjunction with the Advanced Aquaculture and Fisheries framework. Students will complete a Supervised Agricultural Experience (SAE) as part of the course. The course is designed to meet requirements for 1.0 credit in lab science.

AG131 + AG132

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Aquaculture & Fisheries 2

This course framework applies scientific and mathematical principles to aquaculture and fisheries management. The course includes units on safety, well-being, and ethics; stewardship and sustainability, aquatic organisms' biology and ecology, water quality and animal husbandry, data science and analysis, facility and equipment operations and maintenance, communication, and marketing, and career pathways. The course aligns with and can be used with the Exploratory Introduction to Aquaculture and Fisheries framework. Students will complete a Supervised Agricultural Experience (SAE) as part of the course. The course is designed to meet requirements for 1.0 credit of lab science.

AG231 + AG232

GR: 10-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Aqua & Fish 1  
LENGTH: Year-long

### Environmental Science – AP or WWUHS

AP Environmental Science is the advanced science option for 9th grade students AP Environmental Science content is based upon the life science standards of the Next Generation Science Standards (NGSS) integrated with earth and environmental science. AP Environmental Science is a laboratory science course where students actively engage in science and engineering practices to study: scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them. Full participation in this course is essential to a student's preparation for the Washington Comprehensive Assessment of Science taken in 11th grade. This course may be taken concurrently with all other science courses at FHS.

SCI103 + SCI104

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: 9TH Grade: B or better in Middle School Science + Algebra 1 recommended  
LENGTH: Year-long

### Floral Design

This course is a year-long class that explores the field of horticulture with an emphasis on the floral and greenhouse aspect. Units include topics such as floristry, with the students creating monthly arrangements, boutonnieres, and other creative projects. Also, the growing and care of greenhouse crops, botany, plant taxonomy, entomology, fertilizers, soils, propagation, tools, tissue culture, selected lab work, as well as other aspects of horticulture, will be covered. A wonderful opportunity to expand learning, will be included by CTE leadership activities of the FFA, and a Supervised Agricultural Experience (S.A.E.) Project.

AG211 + AG212

GR: 10-12  
REQ: CTE or Lab Science  
REPEATABLE: Yes  
PREREQUISITE: Hort 2 or B- or better in Hort 1  
LENGTH: Year-long

# Career & Technical Education



## Agricultural Education (continued)

### Geology & Natural Resources – WWUHS

SCI240

Major ideas of modern geoscience; the study of rocks and minerals, plate tectonics, geologic time, the hydrologic cycle; processes that have produced the Earth and its landforms. Some lecture sections will be focused on specific topics within the geological sciences, such as planetary geology, climate and climate change, or National Parks. Includes lab.

GR: 10-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Biology or Environmental Science  
LENGTH: Year-long

### Horticultural 1

AG111

This course explores horticulture, the world of plants and flowers. Greenhouse time is included for growing and propagating selected as a semester project. Through this, you will have the opportunity to gain hands-on knowledge and greenhouse experience. Other areas of course work include exploring jobs in the field of horticulture, plant identification, plant anatomy, and plant physiology and propagation. Students will have the opportunity to develop a Supervised Agriculture Experience (S.A.E.) Project and participate in FFA leadership activities. This course is the pre-requisite for Horticulture 2 and students must earn a passing grade to advance.

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Horticultural 2

AG112

This course explores the greenhouse environment and how it relates to growing a wide array of annual flowers, vegetable starts, and hanging baskets. Students will gain firsthand greenhouse management experience by growing their own crops that will be sold at the spring FFA Plant Sale! It is offered second semester and is designed to explore more areas of horticulture for students who have successfully fulfilled the pre-requisite of Horticulture 1, and it applies knowledge and skills learned in Horticulture 1. Hands-on experience includes entomology, soils, fertilizing, floral designs, plant propagation, greenhouse management, gardening and vegetables, leadership/FFA, and other areas of interest. Students will have the opportunity to develop a Supervised Agriculture Experience (S.A.E.) Project.

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: Yes  
PREREQUISITE: Horticulture 1  
LENGTH: Semester-long

### Introduction to the Trades

AG171

This is an introductory class that is meant to connect students with various different trades and industries available in this area. It includes learning specifics of each of these trades while taking a "hands on" approach. Businesses/companies involved in these trades will be visited and/or incorporated within the classroom as much as possible. There is no prerequisite for this course. Preference given to juniors and seniors.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

# Career & Technical Education



## Agricultural Education (continued)

### Landscaping

AG213

In this course, students will learn through hands-on experience on campus and in the community. Topics include landscaping, turf basics, career development, leadership/FFA opportunities, plant identification, plant physiology, soils, IPM (Integrated Pest Management), planting container-grown plants, math calculations, irrigation equipment, turf equipment, landscape design, pruning, hardscaping/landscape construction, maintenance and current problems. To accommodate our work out in the field, this class will be scheduled during fourth and eighth period.

GR: 10-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: Permission for Grade 10  
LENGTH: Semester-long

### Metals Technology 1

AG151

In this basic introduction to agricultural mechanics the following subject areas will be covered: arc welding, Oxy-Acetylene welding and cutting, sheet metal layout and fabrication, metal tempering, sheet metal soldering, spot welding, tool sharpening, residential electricity, and hydraulics. Emphasis will be placed on safe shop practices and developing independent thinking skills in preparation for Metals Tech 2. Students may earn college credits through Bellingham Technical College by completing this course, Metals Technology 2, Advanced Metals Technology, and the content competencies with a grade of B or better.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Metals Technology 2

AG152

This will be a course that strengthens basic skills learned in Metals Technology 1. Arc welding using E6010 and E7018 electrodes, Oxy-Acetylene and plasma cutting, lathe operation, tool sharpening, wire feed welding for steel and aluminum, and Tungsten inert gas welding revolving around steel and aluminum. Emphasis will be placed on safe shop practices and further development of independent and critical thinking skills. Students may earn college credit through Bellingham Technical College by passing this course and Advanced Metals Technology with a "B" or better.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: Metals Tech 1  
LENGTH: Semester-long

### Metals Technology, Advanced

AG251 + AG252

Students will have the opportunity to increase technical skills and knowledge of materials, as well as the design and fabrication of various structures. Students will work independently and in small groups on projects that span the entire semester. Students will provide their own ideas for projects. Students will develop independent thinking skills, work habits and productivity. Students may earn college credits through Bellingham Technical College by completing this course's content competencies with a grade B or better.

GR: 10-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Metals Tech 2  
LENGTH: Semester-long

# Career & Technical Education



## Agricultural Education (continued)

### Oceanography

SCI305

The content of this course is based upon the Life, Physical, and Earth Science standards of the Next Generation Science Standards (NGSS). Oceanography is a laboratory science course where students actively engage in science and engineering practices to study the exploration, composition, and function of the world's oceans. Students will explore the development and use of instrumentation to study oceans, properties of water, currents, waves, tides, coastlines, marine ecosystems, and environmental impacts on oceans. This course may be taken concurrently with all other science electives.

GR: 11-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Small Engine Overhaul

AG161 + AG162

Students will be introduced to a 4-stroke small gasoline engine. They will gain basic theories of operation, tool identification and uses, measuring and determining engine wear, and basic engine diagnostics. Upon completion of their first engine, students are to bring in their own engines for the remainder of the semester. No automotive work will be allowed in this section, but a wide variety of four stroke engines will be studied, and many of the skills gained are very necessary to perform automotive work. A variety of support skills such as welding, shop safety, use of manuals and computers will be covered. Leadership opportunities through the FFA Chapter will be offered in this class.

GR: 9-12  
REQ: CTE  
REPEATABLE: With Permission  
PREREQUISITE: None  
LENGTH: Semester-long

### Veterinary Science

AG221

This one semester course offers students an opportunity to gain employability and technical skills needed in postsecondary education and careers in veterinary medicine or related occupations. Students in this course will learn clinical procedures including terminology, handling, pharmacology, anatomy, and other topics pertinent to the veterinary field. This class is for those who have a passion for animals and a drive to learn more. Our class will be linking with several local veterinarians and community members for lessons, labs and field trips. Students who complete this course are encouraged to continue their education and will have a strong foundation for programs such as the BTC Veterinary Assistant program, WSU Animal Science 101, and the Wenatchee Valley College Veterinary Tech program. Course prerequisite is earning a B or better in Agricultural Science, Biology, or instructor approval.

GR: 10-12  
REQ: CTE or Lab Science  
REPEATABLE: Yes  
PREREQUISITE: Biology or Agricultural Science  
LENGTH: Semester-long

### Wildlife & the Modern World – UWHS

SCI236

THIS IS A UNIVERSITY OF WASHINGTON COURSE. All students in the class will receive on their high school transcript the (C) College in the High School designation. UW ESRM150: Wildlife in the Modern World covers major wildlife conservation issues in North America. Some global issues are also treated. Examples of topics include the conservation of large predators, effects of toxic chemicals on wildlife, old-growth wildlife, conservation of marine wildlife, recovery of the bald eagle, and gray wolf.

GR: 10-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: Biology or Environmental Science  
LENGTH: Semester-long

# Career & Technical Education



## Business & Marketing

### Business 101 – CTE Dual Credit

Students are introduced to the broad field of business emphasizing opportunities, ownership, marketing, physical factors, human resources, finance, regulations, decision-making processes, strategic management and different types of control. By the end of the course, student will complete specific learning outcomes, a realistic business plan and partake in several ethical discussions. These activities incorporate 21st-century skills including thinking creatively, investigating, problem solving, reasoning, and collaborating. Students have the ability to earn five college credits.

BUS201 + BUS202

GR: 10-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Business Communication – CTE Dual Credit

Business Communications is a course designed to develop students' effective verbal, non-verbal, written, and electronic 21st Century business communication skills. This course develops skills in multiple methods of communications, including social media, as well as electronic publishing, design, layout, composition, and video conferencing. Upon completion of this course, proficient students will be able to demonstrate successful styles and methods for professional business communications using the proper tools to deliver effective publications and presentations. This course counts as a senior English course.

BUS353 + BUS354

GR: 11-12  
REQ: CTE or English 12  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Business Law

In this course, students will learn about the Law and Courts, Criminal and Tort Law, Contract and Consumer Law, and Credit and Debt. During these units, we will discuss how these laws affect the students and their families. Students will be shown how to access local agencies and other helpful resources. Additionally, students participate in weekly discussions, analyze cases and complete research on current world problems.

BUS351

GR: 11-12  
REQ: CTE or CWP  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Business Math – CTE Dual Credit

This course is designed to build upon prior knowledge of math concepts from other courses. This algebra- based CTE course features real-world algebra concepts found in banking, credit, income taxes, insurance, and household budgeting. Step-by-step strategies will help students learn the time value of money, how to evaluate the best cell phone contract, how to build a business plan by knowing costs, profits, and break- even points.

BUS331 + BUS332

GR: 11-12  
REQ: CTE or 3<sup>rd</sup> Year Math  
REPEATABLE: No  
PREREQUISITE: Algebra 1 & Geometry  
LENGTH: Year-long

### Exploring Computer Science

This course focuses on computer theory, computing problems and solutions, and the design of computer systems and user interfaces from a scientific perspective. Includes instruction in the principles of computational science, computer hardware, web design, programming and algorithms, data types and artificial intelligence.

BUS216

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

# Career & Technical Education



## Business & Marketing (continued)

### Introduction to the World of Business

BUS101

This class is designed to introduce students to the business classes offered at the high school. The different units will cover finance, marketing, sports/entertainment marketing & management, retail management, and advanced business. Each unit will be approximately two weeks long. If you are interested to learn an overview of the world of business, this class is designed for you.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Marketing, Introduction

BUS111

This class will explore current market strategies, the marketing environment, and marketing ethics. Students will get to know how marketing concepts work in the business and global economies. Students will learn how real companies face marketing challenges, and they will have the opportunity to market their own business by creating a marketing plan and website.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Personal Finance

BUS335

Learn how to manage your money wisely. Students will explore the fundamentals of budgeting, money management, checking, savings, credit, interest, the stock market, and real estate. This course is extremely important for students entering the work place as well as those going to school, vocational or college, after high school. Students will discuss the merits of stocks and bonds over savings accounts for long or short-term goals. Personal Finance is an opportunity for students to become more money wise before venturing out on their own.

GR: 11-12  
REQ: CTE or 3<sup>rd</sup> Year Math  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Retail Management

BUS241 + BUS242

This is a self-motivated class guided by the instructor in the advanced topics of marketing and general business operations. There will be opportunities to work in the Eagle Café to learn about sales, inventory, promotions and advertising, and merchandising. For many students, the café provides the first work experience; for others, it provides an opportunity to build management, supervision, and leadership skills. Additionally, students will have access to virtual business simulations to experience an even larger scope of the business world.

GR: 10-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: 1 semester of a business pathway course  
LENGTH: Year-long

### Social Media Marketing – CTE Dual Credit

BUS114 + BUS115

This class focuses on the use of social media in marketing and business. Concepts to be covered include online selling, promotion, advertising, content creation, and helping you or your business increase in popularity. Additionally, this class includes instruction in the use of social media to promote important causes and charitable organizations. Lastly students will get the opportunity to participate in a realistic social media simulation. In this simulation, students will learn how to write targeted social media ads, perform demographic targeting, implement social media content promotion strategies, and schedule content.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

# Career & Technical Education



## Business & Marketing (continued)

### Sports Marketing

BUS211

This introductory course helps students develop an understanding of the business-side and marketing concepts that apply to the sports and entertainment industry. Areas covered in this course include: the basics of marketing, target markets, sponsorship, event marketing, promotions, endorsements, and marketing plans. It also includes NCAA sports marketing, NIL, professional sports marketing, legal issues in sports, contracts/salary caps, agents, and careers/internships in the sports and entertainment industry.

GR: 10-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Web Design 1 – CTE Dual Credit

BUS137

Learn the essential lingo of web design to build a working multi-page website. Apply your newfound knowledge of color theory, page layout, typography (a fancy word for fonts), web graphics and more to wow your web surfing sidekicks. Sure, you'll have to learn to write code, but with some hard work, you'll be a code ninja by the end of the semester.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Web Design 2 – CTE Dual Credit

BUS138

You will take what you learned in Web 1 to the next level. Working mostly at your own pace, you will explore advance techniques, such a customizing website for phones, and tablets. Your previous experience and innate curiosity will help you as you design a site for a local business, non-profit or other client. You might integrate custom features ranging from motion graphics to widgets, and learn how to add advanced features and interactivity with JavaScript.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: Web Design 1  
LENGTH: Semester-long

### Work Site Learning

BUS310 + BUS311

Earn credits and dollars when you work! In order to both learn and earn you need to have a current job and work a little more than 10 hours a week (180 hours per semester) for .5 credit or 20 hours a week (360 hours per semester) for 1.0 credit. Students can earn a maximum of 2.0 credits per year for their hours.

GR: 11-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Qualifying  
Pathway Course + Job  
LENGTH: Semester-long

### Yearbook – CTE Dual Credit

BUS121 + BUS122

If you have an eye for design or are comfortable with a camera, you might qualify for a position in yearbook. Every year, students aim to publish a professional quality book, and will produce magazine-worthy pages with savvy copy and hip headlines. Get great interviews and tell compelling stories. If you stay with yearbook, you will be in line for a leadership position, such as executive, section or photo editor or, if you like making money, you might want to be a business manager. If you thrive on excitement in a creative environment, consider Aquila.

GR: 10-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Permission  
LENGTH: Year-long

# Career & Technical Education

## Family & Consumer Sciences



### Baking & Pastry

FCS303

If you loved baking in Culinary 1, you are going to LOVE this class dedicated to just Baking & Pastries! In this class, you will take your baking to the next level by focusing on both sweet & savory baked creations including quick breads, yeast breads, pastries and international baked foods. We will also explore many sweet treats including cookies, cakes, custards, mousses, plated desserts and more! Bring your WA State Food Handlers Card! This class is going to be sweet!

GR: 11-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: Culinary 1  
LENGTH: Semester-long

### Careers in Education 1

FCS201 + FCS202

Want to make a difference in your community? Enjoy working with youth? Ready for a rewarding career? In Careers in Education you will gain the knowledge, skills, and practices required for a teaching career. The course focuses on the general theory and practice of learning and teaching, the basic principles of educational psychology, the art of teaching, and the social foundations of education. In addition, you will be prepared them for the beginning levels of a variety of human service careers.

GR: 10-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Careers in Education 2

FCS203 + FCS204

Want to make a difference in your community? Enjoy working with youth? Ready for a rewarding career? In Careers in Education you will gain the knowledge, skills, and practices required for a teaching career. The course focuses on the general theory and practice of learning and teaching, the basic principles of educational psychology, the art of teaching, and the social foundations of education. In addition, you will be prepared them for the beginning levels of a variety of human service careers.

GR: 11-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Careers in Education 1  
LENGTH: Year-long

### Culinary 1 – CTE Dual Credit

FCS301

Culinary 1 is the introductory class and prerequisite class for Culinary 2, Baking & Pastry, and International Foods. In this class we will focus on culinary principles that will lay the foundation for any future kitchen experiences. Whether you just want to learn to cook for life on your own or you are planning a career in the food service industry-- this class is for you! In this class we will explore the fundamentals of food preparation and eating for a healthy lifestyle as we focus on baking and cooking from scratch using proper safety & sanitation procedures. As part of the class students will take the Washington State Food Handler's Test and purchase the Food Handler's Card online

GR: 11-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Culinary 2 – CTE Dual Credit

FCS302

Culinary 2 will build upon the culinary essentials that you have already learned in Culinary 1. In this class we will expand your knowledge of herbs, spices, cooking methods, kitchen tools & equipment, culinary terminology, garnishing & plating, and so much more! We will also introduce students to many different types of commercial equipment and explore careers in the Food Service Industry. Bring your WA State Food Handlers Card and get ready to cook! See you in Culinary 2!

GR: 11-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: Culinary 1  
LENGTH: Semester-long

# Career & Technical Education

## Family & Consumer Sciences (continued)



### Health

FCS101

Do you like yourself? Can you handle stress? Do you know the characteristics of good health? Would you be able to perform CPR to save a heart attack victim? This course explores a variety of topics such as drugs, nutrition, family living, and disease that will help you to make responsible decisions related to your health. One semester of Health is required of Ferndale High School students. The purpose of this course is to provide students an opportunity to make responsible decisions related to their physical, mental, and social well-being.

GR: 9-12  
REQ: Health/CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Latinos in Action

FCS111 + FCS112

LIA is a national program designed to provide students with the following 3 components: College & Career Readiness, Leadership Experiences & Development, and Community Service via Tutoring. Throughout this year-long elective course, students are immersed in a culturally-relevant curriculum that closes the opportunity gap for Latino youth. Students are provided an opportunity to serve their community by providing literacy tutoring to elementary students. You do not have to be Latino to partake in this course.

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Year-long

### Leadership 1

FCS211 + FCS212

The Leadership 1 class will allow students to learn basic leadership skills while focusing their efforts on serving and enriching the lives of others in their community. Leadership 1 is the class in which the mind and heart of FHS Leadership is developed. Topics covered include self-esteem, self-confidence, goal setting, group dynamics, problem-solving, and communication skills. Students must demonstrate knowledge and ability of these skills to take Leadership II. Students willing to take a risk are encouraged to register. Some out of class commitments are required.

GR: 10-11  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Leadership 2

FCS311 + FCS312

Students are encouraged to apply if they are willing to become actively engaged in increasing the sense of belonging, student involvement and school spirit at FHS. Leadership 2 is the class in which the hands and feet of FHS Leadership carry out our program purpose: To serve and enrich the lives of others in our community. Students who have completed Leadership 1 and are willing to take greater responsibility in our school are encouraged to apply. The class requires students to take ownership and lead of a passion project focused on our class purpose. Leadership 2 involves hands-on activities with the school and community. Students will be expected to complete school and community related service projects as assigned. Some out of class commitments will be required. Associated Student Body and Class Officers will be given priority during registration and application.

GR: 11-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Permission  
LENGTH: Year-long

# Career & Technical Education

## Family & Consumer Sciences (continued)



### Living on your Own

FCS313

In this course, students will gain the skills necessary to be successful living on their own after graduation. Students will learn how to: identify a career, search and apply for a job, impress employers in an interview, calculate earnings and payroll taxes, complete and file personal income tax forms, open and manage a checking account, be a responsible roommate and tenant, plan for long-term saving and investing, understand credit, identify insurance needs, understand the importance of nutrition, self-care, and more.

GR: 11-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Psychology 101 UW

FCS220 + FCS221

As a survey of major areas of psychological science, this course focuses on topics such as human social behavior, personality, psychological disorders and treatment, learning, memory, human development, biological influences and research methods. Related topics may include sensation, perception, states of consciousness, thinking, intelligence, language, motivation, emotion, stress and health, cross-cultural psychology and applied psychology.

The purpose of this two-semester University of Washington College in the High School psychology course is to give high school students the opportunity to learn and receive credit for a rigorous college-level course. There is an emphasis on study and test-taking skills, which is aimed at preparing students to be successful in their post-high school studies.

A successful student will earn 5 University of Washington credit. This is an introductory course that serves as a prerequisite for many 200-level PSYCH courses. Credit may qualify as a social science requirement or an elective.

GR: 10-12  
REQ: CTE or Elective  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

# Career & Technical Education



## Health Sciences

### Basic Anatomy in Healthcare

HSC101

There is great potential for futures in Healthcare. By 2026, there is a predicted shortfall of 2 million healthcare professionals. Health Sciences: Anatomy and Health is designed to create an awareness of basic structure and anatomy of the human body. Instruction includes beginning anatomy, physiology, and basic medical terminology. Also, creating healthy behaviors, creating life-long fitness, health maintenance, and understanding safe living as it relates to disease, and disorders. Students will develop practical skills for evaluating health such as blood pressure, heart rate, body fat testing, and other health metrics. The course prepares students for future coursework in Beginning Sports Medicine, Advanced Sports Medicine and Medical Terminology/ Anatomy & Physiology.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Healthcare Careers & Emergency Skills

HSC102

Interested in a career in healthcare? This is the class designed to give an insight into healthcare careers through healthcare professional guest speakers and to learn emergency response skills. This class is designed to develop insight into the current state of healthcare. A large portion of this class is looking at a variety of healthcare careers in the areas of therapeutic services, health informatics, diagnostic services, biotechnology, support services, and alternative medicine. Soft employability skills will be highlighted for future success as a healthcare professional. Students will also develop emergency response skills including Lay Responder CPR, First Aid, and AED. The course prepares students for future coursework in Beginning Sports Medicine, Advanced Sports Medicine and Medical Terminology/ Anatomy & Physiology.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Anatomy & Survey of Physiology - UWHS

HSC301 + HSC302

Anatomy and Survey of Physiology with Lab is a year long course with University of Washington credit for Survey of Physiology- BIOL118 5 credits and Human Physiology Lab- BIOL 119 2 credits. This course is designed to enhance a deeper knowledge and understanding of the structure (anatomy) and function (physiology) of the human body for preparation into careers in health science fields in healthcare, biology, and veterinary medicine. Hands-on learning through experiential learning through the state of the art Anatomage Table allows students to explore the systems (skeletal, muscular, cardiovascular, respiratory, digestive, nervous, urinary, reproductive, lymphatic, and immune, and integumentary) of the human body. The course aligns with foundational knowledge required for futures in healthcare with varying degree levels from internships, on the job training, technical schools, community college, bachelor's degrees, master's degrees, and all of the way to medical doctors, and healthcare specialists.

GR: 11-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

# Career & Technical Education



## Health Sciences (continued)

### Medical Terminology

HSC303

Are you interested in a future career in healthcare? This semester-long course introduces students to the language of medicine, providing the foundation needed for success in nursing, medicine, and allied health fields. You'll learn the meaning, spelling, and pronunciation of medical terms related to anatomy, physiology, and common diseases, while exploring real-world applications in healthcare settings. Aligned with Whatcom Community College's MA101, this class offers 2 college credits through the College in the High School program—giving you a head start on your college education and career. If you want to build confidence, strengthen your academic skills, and prepare for exciting opportunities in healthcare, this is the class for you!

GR: 11-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Principles of Biomedical Science

HSC115 + HSC116

Dive into the fascinating world of biomedical science with this introductory course designed for students interested in health science careers. Through Project Lead the Way's innovative curriculum, students will explore the principles of biomedical science and the technologies that drive advancements in healthcare. This course covers a range of topics including human physiology, genetics, microbiology, and public health. Students will engage in hands-on activities and projects that simulate real-world biomedical challenges, such as diagnosing diseases, developing medical devices, and understanding the impact of biomedical innovations on society.

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

### Sports Medicine

HSC111 + HSC112

Sports Medicine is designed to give students an opportunity to gain knowledge and skills in a healthcare field and apply them in a practicum setting within FHS. Students will have the opportunity to explore the Sports Medicine field and related allied health professions in a year-long course that will share time in both the classroom and the Sports Medicine/ Athletic Training Room. Students will learn applicable healthcare skills in emergency care, basic anatomy and physiology, prevention, care and rehabilitation of injuries, sports nutrition, strength and conditioning, and health-related issues to be used in a wide variety of future healthcare professions including but not limited to nursing, physical therapy, general medicine, family medicine, diagnostics (Xray, MRI, ultrasound) and emergency medical services. The major emphasis of the class is to acquire the skills in clinical situations and to help the student become more aware of the various allied health professions. Beginning Sports Medicine students are required to complete 60 hours per semester in the Sports Medicine/ Athletic Training Room (SMATR) after school and/or during athletic events or within a supervised internship. Students obtain an extra course credit in Sports Medicine Practicum for the extra time (Pass or No Credit, not letter grade).

GR: 9-12  
REQ: CTE or Lab Science  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Year-long

# Career & Technical Education



## Health Sciences (continued)

### Sports Medicine, Advanced

This course is offered to students that have successfully completed the Basic Sports Medicine class. Students will be required to complete ninety hours per semester after school in the Sports Medicine/ Athletic Training room with an assigned sports team and 15 hours of research/job shadow time. Students will develop sports medicine skills through discussions, group research, and independent studies on topics related to the allied health profession. They will commit to two 15 hour job shadowing experiences. Students involved in the Advanced Sports Medicine class will gain leadership skills by mentoring students from the beginning Sports Medicine class. The emphasis of the class is to apply skills in clinical situations and prepare the student for future jobs/education within a wide variety of allied health professions.

HSC201 + HSC202

GR: 10-12

REQ: CTE or Lab Science

REPEATABLE: Yes

PREREQUISITE: Sports  
Medicine & Practicum

LENGTH: Year-long

# Career & Technical Education

## Skilled & Technical Sciences



### Architectural Design

STS231

This is a fun, hands on course that offers students an introduction into home planning, design, and drawing. Units include, flow within a home, room size and placement, framing electrical layout, roof design, interior design and site plan layout. Emphasis is on design elements and each student builds a 3 D model of one of their house designs.

GR: 10-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: Engineering Design 1 or Grade 11/12  
LENGTH: Semester-long

### Architectural Design, Advanced

STS232

This is a continuation of Architectural Drawing. Heating and plumbing, details and schedules will be covered in reading and drawing assignments. House design and drawing of complete plans can be accomplished by repeating this course. Students will work at their own pace.

GR: 10-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Arch Design  
LENGTH: Semester-long

### Art 1

FA101

Students in this class will be prepared with the vocabulary and technical skills using the elements and principles of art to make connections in historical and cultural art contexts. With a focus on the areas of drawing, painting, and design; students will learn skills needed to communicate in and respond to the visual world while developing an awareness of creative expression and artistic style.

GR: 9-12  
REQ: CTE or Art  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Art 2

FA102

This course is the second semester in the sequential art series. Art 2 helps each student broaden and refine their skills, while encouraging them to take artistic risks and improve their ability to communicate visually. Students will also initiate a greater emphasis on self-motivation and personal expression. Students will be expected to have 2 or more portfolio pieces by the end of the semester and should be successful in Art 2 before moving on to Art 3.

GR: 9-12  
REQ: CTE or Art  
REPEATABLE: No  
PREREQUISITE: Art 1  
LENGTH: Semester-long

### Carpentry & Construction Technology

STS233 + STS234

Have you ever thought about a career in the construction industry? This course offers students with basic wood working experience the opportunity to explore all aspects of construction, from foundation to project management. Students will learn about the different trades associated in the building industry and ways to gain access to those trades. Topics covered include: Jobsite and Equipment Safety, Site lay out, Framing, Finish Carpentry, Electrical, Plumbing, Concrete and Cabinet Making. Students will also have the opportunity to work on large permanent construction projects around the school.

GR: 10-12  
REQ: CTE or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Advanced Design & Construction  
LENGTH: Year-long

# Career & Technical Education

## Skilled & Technical Sciences (continued)



### Ceramics 1

FA211

This course is an introduction to hand building pottery techniques including pinch, coil, and slab. This course will also expose students to direct sculpting, surface decoration, and writing. Students are expected to keep journals and participate in classroom critiques. Students will develop the basic skills needed to communicate in and respond to the visual world through problem solving and guided practices in a structured and creative environment.

GR: 10-12  
REQ: CTE or Art  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Ceramics 2

FA 212

Students will continue with the clay exploratory, with a focus on wheel throwing, glazing, and refining hand- building techniques. Students are required to complete a list of required skills to pass the class. Students can expect to be able to throw the same shape, build mugs, teapots, pitchers, and lidded vessels. Extra time outside of class time is usually required to become proficient at wheel throwing. Students are expected to keep a current journal of all studio work.

GR: 10-12  
REQ: CTE or Art  
REPEATABLE: No  
PREREQUISITE: Ceramics 1  
LENGTH: Semester-long

### Cybersecurity

STS112

This course introduces students to the fundamentals of cybersecurity. Students will explore key concepts related to protecting computer systems, networks, and sensitive data from cyber threats. The course covers topics such as network security, ethical hacking, risk management, cryptography, and digital forensics. Through hands-on labs and simulations, students will gain practical experience in identifying vulnerabilities, implementing security measures, and responding to cyberattacks. By the end of the course, students will have a foundational understanding of cybersecurity principles and be prepared for entry-level positions in the growing field of cybersecurity. This course provides an excellent foundation for students interested in pursuing advanced studies or certifications in cybersecurity and information technology.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Information Technology – CTE Dual Credit

STS111

In this fast-paced class, learn from professional level tutorial programs, labs, and lots and lots of hands-on experiences, as you solve real district hardware/software issues. Student Help Desk & Technology grants you the opportunity to prepare yourself for both an entry level tech job and additional technical trainings and programs at the collegiate level. Assignments include the preparation of written and recorded tutorials demonstrating your skills, various projects on the FHS campus and other FSD schools, a professional portfolio/resume highlighting your experiences and knowledge. This course also provides valuable customer service and troubleshooting experience solving while you work an active tech support Help Desk. Completing this course successfully, students will have the opportunity of earning an IT Fundamentals Professional Certificate which they can put on their resume when applying for an IT position.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

# Career & Technical Education

## Skilled & Technical Sciences (continued)



### Information Technology, Adv – CTE Dual Credit

STS211 + STS212

In this fast-paced class, we will focus on various hardware and software. This includes File Management, Peripheral Devices, Hacking, Cyber Security, Networking, Mobile Devices, Smart Home Devices, Printing and Microsoft Server Management. Student Help Desk & Technology grants you the opportunity to prepare yourself for both an entry level tech job by completing an Industry Certification and additional technical trainings and programs at the collegiate level. Assignments include the preparation of written and recorded tutorials demonstrating your skills, various projects on the FHS campus and other FSD schools, a professional portfolio/resume highlighting your experiences and knowledge. This course also provides valuable customer service and troubleshooting experience solving while you work an active tech support Help Desk.

GR: 10-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: IT  
LENGTH: Year-long

### Music Creation Lab

FA108

This class is designed for students who are interested in creating their own music. We will cover units on Songwriting, Lyric writing, Composition using staff paper and notation, Electronic composition using computer programs/sampling. There will be opportunities to share your creations throughout the course. We will cover copyright law and "next steps" for budding musicians. Your musical creations will be as unique as you are. Discover the music inside you!

GR: 9-12  
REQ: Art or CTE  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

### Scoreboard Media

STS113 + STS 114

In Scoreboard Media, students will gain hands-on experience in operating and creating dynamic content for the digital scoreboards used in high school sporting events. This semester-long course offers a unique opportunity to learn the technical aspects of scoreboard operation while also exploring the creative side of generating multimedia content for a variety of sports, including football, soccer, volleyball, basketball, and wrestling. Students will work with both outdoor and indoor digital scoreboards, learning to manage live game statistics, player information, and real-time score updates. Additionally, they will develop and display engaging graphics, animations, and video clips to enhance the fan experience.

GR: 9-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

### Theater Technology

STS115 + STS116

Theater Technology is for students with an interest in developing work-related skills in the theater tech and/or live production industry. Emphasis is on the development of skills in technical aspects of the theater, including scenic design and construction, scene painting, rigging, lighting and sound engineering and production, as well as individual projects in design and/or construction.

GR: 9-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

# Career & Technical Education

## Skilled & Technical Sciences (continued)



### Video Game Design, Introduction

STS121

Learn basic game design fundamentals while building 2D games for PC using Construct 3! In this class you will learn about the software, hardware, and techniques used to represent, display, and manipulate two-dimensional objects on a video screen. Topics include sprites, tilemaps, programming, level design, and more. Learn to think like a game designer by building your own simple video game! All students are welcome.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Video Production

STS101 + STS102

This class is designed to teach students the basics of video production. Students will learn the fundamentals of video production, including camera operation, sound, lighting, editing, and storytelling. Through hands-on experience, students will learn how to create compelling videos. By the end of the course, students will have the skills and knowledge to create and edit their own professional-looking videos.

GR: 9-12  
REQ: CTE or Art  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

### 2D Game Design, Advanced

STS221 + STS222

Take your game design and Construct 3 skills to the next level! Students will develop several retro style video games while exploring advanced topics like physics simulations, enemy A.I., procedural generation, arrays, menu systems, advanced level design and more!

GR: 10-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: Intro VGD  
LENGTH: Semester-long

### 3D Game Design – Unreal Engine, Introduction

STS223 + STS224

Learn game development with Unreal Engine 5. UE5 is the industry-leading 3D game design software that professionals use to make next gen games like Fortnite, Kingdom Hearts 4, and Tekken 8. This self-paced course will cover the following topics in thorough detail: Projects & Levels, Actor Types, Meshes & Brushes, Lighting, Materials, Characters & Input, Collisions, Blueprint Logic & Data, User Interfaces and Audio. Start your journey towards a career at studios like Square Enix, Respawn, Bandai Namco, and CD Project Red.

GR: 10-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Intro VGD  
LENGTH: Semester-long

# Career & Technical Education



## STEM

### Design & Construction

STEM13

This course is designed to introduce students to problem-solving, creative design, and manufacturing processes. Units covered will include safety, tool and machine operation, design/carpentry/manufacturing processes, and the application of critical thinking and problem-solving. Emphasis will be placed on the construction of assigned and student-selected projects/products.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Design & Construction, Advanced

STEM14 + STEM15

This course is designed to reinforce skills learned during design and construction. Students will be given advanced challenges in problem-solving, and wood working design. Emphasis will be placed on skill refinement and individual systems, including composites manufacturing. Costs will vary depending on projects selected. This course may be repeated for credit.

GR: 9-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Design & Construction  
LENGTH: Semester-long

### Engineering Design 1

STEM11

This is an introductory course in computer aided design, engineering and problem solving. In this exciting, fast-paced course, students learn the basics of 3D modeling and product development. They learn to apply the design process from problem statement to finished solution, including building prototypes with the 3D printer and CNC router.

GR: 9-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: None  
LENGTH: Semester-long

### Engineering Design 2

STEM12

This is a continuation of Engineering Design I. In this section students learn advanced 3D modeling techniques including the basics of animation and vehicle design. Students will have the opportunity to build several working prototypes using the 3D printer and CNC router in order to test their design solutions.

GR: 9-12  
REQ: CTE or 3<sup>rd</sup> Year of Math  
REPEATABLE: No  
PREREQUISITE: Engineering Design 1  
LENGTH: Semester-long

### Engineering Design, Advanced

STEM21 + STEM22

This is an Advanced level course in 3D modeling. Students will learn advanced modeling techniques including surfacing and texturing of models and creation of "photo realistic" renderings. Students spend time working on extensive design projects developing working solutions to given problems including creation of functional prototypes. This is a fun, creative class where students are allowed to help guide their learning.

GR: 10-12  
REQ: CTE or 3<sup>rd</sup> Year of Math  
REPEATABLE: Yes  
PREREQUISITE: Engineering Design 2  
LENGTH: Semester-long

# Career & Technical Education



## STEM (continued)

### Geometry STEM

Geometry is used to describe, design, and build things. In Geometry STEM you will learn the proper terminology to accurately describe objects in both the real world and in the idealized world. You will precisely model these objects in Rhinoceros and Grasshopper (CAD software). You will be given design challenges that will require you to build what you design. This class will follow the statewide framework and will include the following seven units: Measurement/Precision, Two Dimensional Shapes, Three Dimensional Figures, Transformations, Trigonometry, Logic, and Applications. This class will require the same amount of time and effort as a standard geometry class, but it will be taught through the design process. In addition, this class will keep your algebra skills fresh enough so that you can continue in Algebra II the following year.

STEM23 + STEM24

GR: 9-12  
REQ: Geometry or CTE  
REPEATABLE: No  
PREREQUISITE: Algebra 1  
LENGTH: Year-long

### Power & Energy – CTE Dual Credit

This fast-paced class gives students an opportunity to learn in a hands-on environment about types of energy, and how they are used to create power. We cover how electricity is made, transported, and used. We will also study and build different types of alternative energy sources. This includes soldering solar cells, carving wind turbine blades, making alternators from scratch, and creating biodiesel. When we learn about fuels, students actually make their own biodiesel processors. Electronics is also covered in this course. Local industries in Power and Energy are highlighted including careers with the oil refineries and Puget Sound Energy. Learn about sustainable energy sources and the jobs of tomorrow. This is a CTE Dual Credit articulated course, eligible for 3 CTE Dual Credit PER SEMESTER. Students can earn 6 college credits (PTEC 195 and PTEC 196) from BTC through this year long course.

STEM30 + STEM31

GR: 11-12  
REQ: CTE  
REPEATABLE: No  
PREREQUISITE: Algebra 1 and 2 years of Science  
LENGTH: Year-long

### Robotics 1

Students in this class will design, build, and program wireless robots. They will also explore various applications and processes of robotics. The goal of the course is to expose students to use basic engineering principles and technical skills in developing and using robotics. Includes instruction in the principles of robotics, design and operational testing, system maintenance and repair procedures, robotics computer systems, control language, and safety.

STEM16 + STEM17

GR: 9-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

### Robotics 2

Robotics 2 is a hands-on, high-tech course where you'll design, build, and program a competitive robot using VEX robotics kits. Working in teams, you'll apply engineering principles, coding skills, and strategic thinking to solve real-world challenges. There's a role for everyone—whether you're a programmer, designer, driver, builder, or statistician, your skills will help shape the team's success. Throughout the course, your robot will go head-to-head with others in multiple competitions as part of the Whatcom County Robotics League. Get ready to innovate, collaborate, and compete!

STEM26 + STEM27

GR: 9-12  
REQ: CTE  
REPEATABLE: Yes  
PREREQUISITE: Robotics 1 or Teacher Approval  
LENGTH: Semester-long

# Career & Technical Education

## STEM (continued)



### Unified Robotics

Unified Robotics is an inclusive, hands-on course that brings students of all abilities together to explore robotics and engineering using LEGO® Education SPIKE™ Prime kits. Students work collaboratively to design, build, program, and test robots while developing problem-solving, communication, and teamwork skills. The course emphasizes creativity, real-world STEM applications, and a supportive learning environment that fosters confidence and belonging. Unified Robotics encourages interest in STEM pathways and empowers all students to participate meaningfully in innovation and technology. Peer mentors are welcome to provide leadership and support to their teammates.

STEM18 + STEM19

GR: 9-12

REQ: CTE

REPEATABLE: Yes

PREREQUISITE: None

LENGTH: Semester-long

# Miscellaneous

(in alphabetical order)



## Academic Workshop

Have you ever wanted a class that would address your whole academic experience? This class will allow you time to understand and refine necessary skills for high school, develop habits of mind and work on the demands of your other classes. Each period will be a workshop with a teacher guided mini-lesson focused on a skill or habit of mind. In addition, time each day will be dedicated to independent work time with peer and teacher support focused on your personal goals.

MIS101 + MIS102

GR: 9-12  
REQ: Elective  
REPEATABLE: Yes  
PREREQUISITE: None  
LENGTH: Semester-long

## Oksale 1

This class is designed to be an introduction and exploration of Native American humanities, leadership, and study. The Since Time Immemorial: Tribal Sovereignty in Washington State Curriculum is integrated, which is an inquiry-based, place-based, and integrative approach to learning. Topics include treaties, tribal sovereignty, governance, and tribal history. This class will focus on learning through leadership which will involve mentoring, community service, and service-learning opportunities. Study skills/lab are integrated into the curriculum in order to create successful opportunities in other academic work.

MIS275 + MIS276

GR: 10-11  
REQ: Elective or PNW  
REPEATABLE: No  
PREREQUISITE: Permission  
LENGTH: Year-long

## Oksale 2

This class delves even further into Native American humanities, leadership, and study. The Since Time Immemorial: Tribal Sovereignty in Washington State Curriculum is integrated, which is an inquiry-based, place-based, and integrative approach to learning. Topics include social issues, environmental issues, modern reservations, civic action, and responsibility. This class will focus on learning through leadership which will involve mentoring, community service, and service-learning opportunities. Study skills/lab are integrated into the curriculum in order to create successful opportunities in other academic work.

MIS377 + MIS378

GR: 11-12  
REQ: Elective  
REPEATABLE: No  
PREREQUISITE: Permission  
LENGTH: Year-long

## Peer Tutor

Peer tutors will facilitate class activities as directed by classroom teacher by providing supplemental instructional support via 1 on 1 and small group to students. Peer tutor is not a traditional TA but is expected to work with other students on academic and curricular items. Peer tutor students that are strong in Math, Science, World Language, Social Studies and English are strongly encouraged to sign up for Peer Tutoring. Good communication and interpersonal skills are needed with a willingness to assist other students in learning

MIS301 + MIS302

GR: 10-12  
REQ: Elective  
REPEATABLE: Yes  
PREREQUISITE: Teacher Request  
LENGTH: Semester-long

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