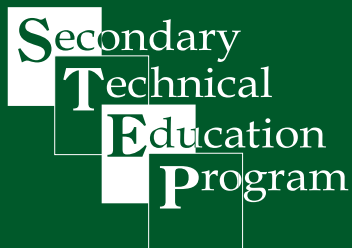




ANOKA-HENNEPIN SCHOOLS  
**HIGH SCHOOL**  
REGISTRATION GUIDE



2021-22 SCHOOL YEAR  
GRADES 9 THROUGH 12



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# A Message from SUPERINTENDENT LAW

Dear Anoka-Hennepin students,

High school is an exciting time. It's an opportunity to explore your interests as you plan for your life after graduation. Our goal is that every student will experience success in the career or educational path they choose.

This registration guide is helpful in outlining the broad range of required and elective courses available to you. As you review it, I encourage you to select new or challenging courses as your electives. There may be something that really didn't pique your interest at first glance, but after giving it a try you find it enjoyable. Taking a variety of courses will also help you explore career paths; there could never be a better time in your life to be doing this.

Talk your course choices over with your family and ask your teachers for advice. You can also speak with your school counselor or school career and college specialist. Your high school has dedicated staff who are happy to help you find the courses that are right for you.

It may seem that adulthood is a long way off, but your school years will go by quickly and you need to make the most of this time. Work hard, but also remember to have fun trying the many opportunities available to you. I wish you great success in your remaining school years and far beyond.

Sincerely,



David Law  
Superintendent

## Anoka-Hennepin School Board

Ms. Marci Anderson  
Ms. Anna Dirkswager  
Mr. Bill Harvey  
Ms. Nicole Hayes  
Ms. Erin Heers-McArdle  
Mr. Jeff Simon

This guide is also available at: [ahschools.us/documentcenter](https://ahschools.us/documentcenter)  
[click on the folder entitled "Registration Guides"].

If requested, this document will be provided in an alternate format for individuals with disabilities or in another language for individuals whose primary language is not English. A minimum of three days notice is needed. Please call the Family Welcome Center at 763-433-4680 to request an alternate format or language.



## ANOKA-HENNEPIN SCHOOLS A FUTURE WITHOUT LIMIT

The largest school district in Minnesota, Anoka-Hennepin serves approximately 39,000 students and more than 230,796 residents living in 13 municipalities in Anoka and Hennepin counties. The district was established in 1952.

### Educational Service Center

2727 N. Ferry St., Anoka, MN 55303  
763-506-1000  
[www.ahschools.us](http://www.ahschools.us)

### ADMINISTRATION

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*Associate Superintendent, High Schools*  
  
Dr. Eric Melbye  
*Associate Superintendent,  
Middle Schools and Student Services*  
  
Ms. Kim Pavlovich  
*Director of Secondary Curriculum,  
Instruction, and Assessment*

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Ms. Amy Gardner, School Counselor  
*Anoka High School*  
  
Ms. Laura Weisbrich, School Counselor  
*Blaine High School*  
  
Ms. Amy Harnack, School Counselor  
*Champlin Park High School*  
  
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*Graphic Designer*



ANOKA-HENNEPIN  
SCHOOLS  
*A future without limit*

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# Introduction to the Registration Guide

## TERMINOLOGY AND DEFINITIONS

This registration guide is designed to help you select your courses. The guide explains which courses you need for graduation and when you need to take them. It will also help you choose courses to meet your goals after high school, whether you want to get a particular kind of job, go to college, or enlist in military service.

### Here are the parts to this registration guide:

- This introduction will define important terms and answer frequently asked questions
- The planning guide for graduation gives information about district graduation requirements
- You will also find a graduation requirements checklist to track your progress toward graduation
- Assistance for students
- Program options
- Earn college credit in high school
- Activities eligibility
- Post-Secondary planning
- Course descriptions give detailed information about each course offered by the Anoka-Hennepin School District

For more information about these topics, or any other questions you may have, please contact your counselor. See the last page of this registration guide for school telephone numbers.

This guide is also available at:

**[ahschools.us/documentcenter](https://ahschools.us/documentcenter)**

[click on the folder entitled "Registration Guides"].

## Course Description Key

**Course Title** [Title of the course]\*

*Prerequisite/Selection Process:* [Courses needed before taking this course]

*Intended Audience:* [Grade level when most students take the course]

*Credit:* [Credits earned toward graduation when you pass the course]

*Major Outcomes:* [Topics covered in the course]

*Projects, Activities, etc.:* [Significant learning experiences connected to this course]

*Instructional focus:* [Describes structures used by teachers of the course]

*Co-curricular Connection:* [School activities that are connected to this course and students may enjoy]

\*Codes:

AC – Articulated credit; See "Earn College Credit" section later in this guide

AP – Advanced Placement; See "Earn College Credit" section later in this guide

Coll – Concurrent enrollment; See "Earn College Credit" section later in this guide

Honors – Courses with more rigorous expectations; See "Honors Courses" later in this guide

IB – International Baccalaureate; See "Earn College Credit" section later in this guide

NOCTI – National Occupational Competency Testing Institute

PLTW – Project Lead the Way; course uses science, technology, engineering, and math concepts

AndHS – Andover High School

AHS – Anoka High School

BHS – Blaine High School

CPHS – Champlin Park High School

CRHS – Coon Rapids High School

STEP – Secondary Technical Education Program

# Updates to Registration Guide

In this Registration Guide, families will find these differences from last year's guide.

## New courses that have been added to the curriculum:

Department	New Course Name	Page
Math	HS Algebra II	59
Math	Honors HS Algebra II	59
<b>New courses at Andover High School for 2021-22</b>		
World Language	Honors American Sign Language IV	102
<b>New courses at Anoka High School for 2021-22</b>		
Art/STEAM	Honors Arts Symposium	81
STEAM	Creative Problem Solving	73
STEAM	Design Studio	74
STEAM	Digital Music Composition II	76
<b>New courses at Blaine High School for 2021-22</b>		
World Language	Honors American Sign Language IV	102
<b>New courses at Champlin Park High School for 2021-22</b>		
English	CP English 11	45
<b>New courses at STEP for 2021-22</b>		
STEP	CAPS Creative Design I	86
STEP	CAPS Creative Design II	86
STEP	CAPS Business Administration I	86
STEP	CAPS Business Administration II	86
STEP	STEP Coll Foundations of Education	88
STEP	Intro to Computer Science	91
STEP	Fundamentals of Computer Science	91
STEP	Cybersecurity II	91

## Courses that have changed names:

Department	Old Course Name	New Course Name	Page
Business and Marketing Education	Business Internship Program [NOTCI]	Honors Business Internship Program [NOCTI]	37
Business and Marketing Education	Marketing and Management Internship Program	Honors Marketing and Management Internship Program	37
Career Technical Education	Health Science Internship	Honors Health Science Internship	39
Family and Consumer Science	Family and Consumer Sciences Internship	Honors Family and Consumer Sciences Internship	49
Technology Education	Design and Fabrication I	Honors Design and Fabrication I	99
Technology Education	Design and Fabrication II	Honors Design and Fabrication II	100
Technology Education	Trade and Industrial Internship Program	Honors Trade and Industrial Internship Program	100

### Minimum needed to graduate – 27 credits

English Language Arts – 4 credits

Social Studies – 4 credits

Mathematics – 3 credits

Science – 3 credits

Physical Education – 1.0 credit

Arts Choice – 1.0 credit

Health – 0.5 credits

Elective Choice - 10.5 credits

REQUIRED CREDIT COURSES	CREDIT	ADDITIONAL REQUIRED CREDITS	CREDIT
<b>English Courses</b>		<b>Mathematics Courses</b>	
English 9	1	<i>Graduating Class of 2022 and 2023</i>	
English 10	1	Intermediate Algebra	1
English 11	1	Geometry	1
English 12	1	Advanced Algebra	0.5
<b>Social Studies Courses</b>		Statistics and Probability	
Civics 9/Geography 9	1	or AP Statistics	0.5
U.S. History 10	1	<i>Graduating Class of 2024 and 2025</i>	
World History 11	1	HS Intermediate Algebra	1
Econ/US Govt and Politics 12	1	HS Geometry	1
<b>Health Courses</b>		HS Algebra II	1
Health	0.5	<b>Science Courses</b>	
<b>Physical Education Courses</b>		Physical Science 9 or Honors Physics 9	1
Physical Education I	0.5	Chemistry	1
Physical Education II	0.5	Biology	1
		<b>Arts Choice</b>	1
		<b>Electives</b>	10.5

The following assessments are offered to our students.

Assessment	Grade	Given
Practice ACT	All grade 10 and 11 students	October (offered during the school day)
ACT	All grade 11 students	April (offered during the school day)
Preliminary SAT (PSAT)	Grade 11 students	October

# Graduation Planning Chart

BY  
TRIMESTER

GRADE 9		
Civics	Geography	Physical Education I
Physical Science 9 or Honors Physics 9	Physical Science 9 or Honors Physics 9	Elective
Math	Math	Elective
English 9	English 9	Elective
Elective	Elective	Elective

GRADE 10		
U.S. History 10	U.S. History 10	Physical Education II
Chemistry	Chemistry	Elective or Health
Math	Math	Math or Elective
English 10	English 10	Elective
Elective	Elective	Elective

GRADE 11		
World History 11	World History 11	Elective
Biology	Biology	Elective or Health
Math	Math	Elective
English 11	English 11	Elective
Elective	Elective	Elective

GRADE 12		
US Government & Politics	Economics	Elective
English 12	English 12	Elective
Elective	Elective	Elective
Elective	Elective	Elective
Elective	Elective	Elective

Notes: At least two electives in high school must meet the Arts requirement.  
Each course per trimester equals 0.5 credits

# Arts Choices

## Options for the Arts course requirement:

### Courses with 0.5 credit (1 trimester)

Acting II	Drawing III	Painting III
Acting III	Fashion Merchandising	Social Media Marketing and Web Design
CAD III [Computer Aided Design]	Fabric, Apparel and Design	Sculpture I
Ceramics I	Floriculture	Sculpture II
Ceramics II	Graphic Design I	Sculpture III
Ceramics III	Graphic Design II	Dance Ensemble I*
Computer Art I	Graphic Design III	Dance Ensemble II*
Computer Art II	Honors Arts Symposium*	Dance Ensemble III*
Design Studio*	Interior Design and Housing	Video Art I
Digital Music Composition I*	Jewelry and Craft Design I	Video Art II
Digital Music Composition II*	Jewelry and Craft Design II	Wood Technology I
Digital Photography I	Music Exploration	Wood Technology II
Digital Photography II	Medical Illustration I <sup>+</sup>	World Drumming
Digital Videography I	Medical Illustration II <sup>+</sup>	
Drawing I	Painting I	<i>*Anoka HS only</i>
Drawing II	Painting II	<i>*Coon Rapids HS only</i>

### Courses with 1.0 credit (2 periods, 1 trimester)

Art Technology I	Music/Media Technology I
Advanced Fashion and Design Technologies	PLTW Civil Engineering and Architecture
Cosmetology and Barbering Careers I	PLTW Introduction to Engineering Design

### Courses with 1.0 credit (2 trimesters)

Drawing/Painting [Studio Art: 2-D Design/Drawing]	Photography [Studio Art: 2-D Design]
Ceramics/Sculpture [Studio Art: 3-D Design]	Architectural Design [Studio Art: 3-D Design]

### Courses with up to 1.5 credits (up to 3 trimesters)

Band I	Choir I	Orchestra I	IB Visual Arts
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### Math requirements for the Graduating Class 2025

1.0 credit	HS Intermediate Algebra
1.0 credit	HS Geometry
1.0 credit	HS Algebra II (or Advanced Algebra and Statistics & Probability)

There are many options available for students as they progress through their math learning experience. Included below are examples of the most common course pathways for a student entering high school in the fall of 2021.

**Students entering high school in a grade level math course (from Middle School Algebra in grade 8) that are highly motivated and interested in a way to accelerate their math experience may want to look closely and follow Option 3.** Students choosing to enroll in this accelerated pathway would be able to complete two additional math credits beyond those that are required for graduation. This acceleration would occur after the successful completion of the HS Intermediate Algebra course and would include a wrap-around of the HS Geometry and HS Algebra II courses. The wrap-around would allow students to start a course during 3<sup>rd</sup> Trimester and finish the course during the next school year. Students that choose this pathway will need to register, during their 9th-grade school year, for HS Intermediate Algebra (choosing 2 course numbers) and Honors HS Geometry with College Foundations A (choosing 1 course number). Refer to the Option 3 flowchart to see the math pathway for these students.

Currently in Grade 8...	MS Algebra w/ 1-period Block	MS Algebra	Honors HS Intermediate Algebra	Honors HS Geometry	Advanced Mathematics
Next year take...	HS Intermediate Algebra *	HS Intermediate Algebra *	Honors HS Geometry with College Foundations	Honors Advanced Algebra AND Statistics & Probability <u>or</u> AP Statistics <u>or</u> IB Math Course	Ask your Advanced Math teacher for the appropriate course

\* Students may be placed in an additional trimester of math based on a variety of achievement scores and teacher recommendation. Students passing this additional trimester course would receive an additional 0.5 elective credit.

### If a student is currently in grade 8 (graduating class of 2025) and in Middle School Algebra:

#### Option 1:

Gr 9	HS Intermediate Algebra	HS Intermediate Algebra
Gr 10	HS Geometry w/College Foundations	HS Geometry w/College Foundations
Gr 11	HS Algebra II	HS Algebra II
Gr 12	math elective	math elective

#### Option 2:

HS Intermediate Algebra	HS Intermediate Algebra	
Honors HS Geometry w/College Foundations	Honors HS Geometry w/College Foundations	Honors HS Geometry w/College Foundations
Honors HS Algebra II	Honors HS Algebra II	
math elective	math elective	

#### Option 3:

HS Intermediate Algebra	HS Intermediate Algebra	Honors HS Geometry w/College Foundations
Honors HS Geometry w/College Foundations	Honors HS Geometry w/College Foundations	Honors HS Algebra II
Honors HS Algebra II	Honors Precalculus	Honors Precalculus
math elective	math elective	

### If a student is currently in grade 8 (graduating class of 2025) and in Honors HS Intermediate Algebra:

#### Option 1:

Gr 9	HS Geometry w/College Foundations	HS Geometry w/College Foundations	HS Geometry w/College Foundations
Gr 10	HS Algebra II	HS Algebra II	
Gr 11	math elective	math elective	
Gr 12	math elective	math elective	

#### Option 2:

Honors HS Geometry w/College Foundations	Honors HS Geometry w/College Foundations	Honors HS Geometry w/College Foundations
Honors HS Algebra II	Honors HS Algebra II	
math elective	math elective	
math elective	math elective	

### If a student is currently in grade 8 (graduating class of 2025) and in Honors HS Geometry:

#### Option 1:

Gr 9	Honors Advanced Algebra	Statistics & Probability
Gr 10	math elective	math elective
Gr 11	math elective	math elective
Gr 12	math elective	math elective

#### Option 2:

	Honors Advanced Algebra	Honors Precalculus	Honors Precalculus
	AP Statistics	AP Statistics	
	math elective	math elective	
	math elective	math elective	

#### Option 3:

Honors Advanced Algebra	AP Statistics	AP Statistics
math elective	math elective	
math elective	math elective	
math elective	math elective	

### Math requirements for the Graduating Class of 2024

1.0 credit	HS Intermediate Algebra
1.0 credit	HS Geometry
1.0 credit	HS Algebra II (or Advanced Algebra and Statistics & Probability)

There are many options available for students as they progress through their math learning experience. Included below are examples of the most common course math pathways for a student.

The courses, Advanced Algebra (regular and honors) and Statistics & Probability, will be taught for the last time during the 2021-22 school year.

Currently in Grade 9	HS Intermediate Algebra	HS Geometry with College Foundations	Honors HS Geometry with College Foundations	Honors Advanced Algebra AND Statistics & Probability	Honors Precalculus
Next year take...	HS Geometry with College Foundations or Honors HS Geometry with College Foundations	Advanced Algebra AND Statistics & Probability	Honors Advanced Algebra AND Statistics & Probability or AP Statistics	Honors Precalculus	AP Calculus AB

### If a student is currently in grade 9 (graduating class of 2024) and in HS Intermediate Algebra:

#### Option 1:

Gr 10	HS Geometry w/College Foundations	HS Geometry w/College Foundations	HS Geometry w/College Foundations
Gr 11	HS Algebra II	HS Algebra II	
Gr 12	math elective	math elective	

#### Option 2:

Gr 10	Honors HS Geometry w/College Foundations	Honors HS Geometry w/College Foundations	Honors HS Geometry w/College Foundations
Gr 11	Honors HS Algebra II	Honors HS Algebra II	
Gr 12	math elective	math elective	

### If a student is currently in grade 9 (graduating class of 2024) and in HS Geometry with College Foundations:

#### Option 1:

Gr 10	Advanced Algebra	Statistics & Probability
Gr 11	math elective	math elective
Gr 12	math elective	math elective

#### Option 2:

Gr 10	Honors Advanced Algebra	Statistics & Probability
Gr 11	math elective	math elective
Gr 12	math elective	math elective

#### Option 3:

Gr 10	Honors Advanced Algebra	AP Statistics	AP Statistics
Gr 11	math elective	math elective	
Gr 12	math elective	Math elective	

### If a student is currently in grade 9 (graduating class of 2024) and in Honors HS Geometry with Coll Foundations:

#### Option 1:

Gr 10	Honors Advanced Algebra	Statistics & Probability
Gr 11	math elective	math elective
Gr 12	math elective	math elective

#### Option 2:

Gr 10	Honors Advanced Algebra	AP Statistics	AP Statistics
Gr 11	math elective	math elective	
Gr 12	math elective	math elective	

### Math requirements for the Graduating Class of 2023

1.0 credit	Intermediate Algebra
1.0 credit	Geometry
0.5 credit	Advanced Algebra
0.5 credit	Statistics & Probability (or AP Statistics)

There are many options available for students as they progress through their math learning experience. Included below are examples of the most common course math pathways for a student.

The courses, Advanced Algebra (regular and honors) and Statistics & Probability, will be taught for the last time during the 2021-22 school year. If you will not have successfully completed these two required courses by the end of the current school year, please be sure to include the course (or courses) in your registration request for next year.

Currently in Grade 10	HS Geometry with College Foundations	Honors HS Geometry with College Foundations	Advanced Algebra AND Statistics & Probability	Honors Advanced Algebra AND Statistics & Probability or AP Statistics	Honors Precalculus	AP Calculus AB
Next year take...	Advanced Algebra AND Statistics & Probability	Honors Advanced Algebra AND Statistics & Probability or AP Statistics	Coll Honors College Algebra through Modeling or Coll Honors College Algebra	Honors Precalculus or AP Statistics	AP Calculus AB or AP Statistics	AP Calculus BC or AP Statistics

### If a student is currently in grade 10 (graduating class of 2023) and in HS Geometry with College Foundations:

	<b>Option 1:</b>		<b>Option 2:</b>		<b>Option 3:</b>		
Gr 11	Advanced Algebra	Statistics & Probability	Honors Advanced Algebra	Statistics & Probability	Regular or Honors Advanced Algebra	AP Statistics	AP Statistics
Gr 12	math elective	math elective	math elective	math elective	math elective	math elective	

### If a student is currently in grade 10 (graduating class of 2023) and in Honors HS Geometry with College Foundations:

Gr 11		<b>Option 1:</b>		<b>Option 2:</b>		
		Honors Advanced Algebra	Statistics & Probability	Honors Advanced Algebra	AP Statistics	AP Statistics
Gr 12						
		math elective	math elective	math elective	math elective	

### If a student is currently in grade 10 (graduating class of 2023) and in Honors Advanced Algebra and Stats & Prob:

<b>Option 1:</b>		<b>Option 2:</b>		<b>Option 3:</b>		
Gr 11	Honors Precalculus	Honors Precalculus	AP Statistics	AP Statistics	College Algebra	College Algebra
Gr 12	math elective	math elective	math elective	math elective	math elective	math elective

### Math requirements for the Graduating Class of 2022

1.0 credit	Intermediate Algebra
1.0 credit	Geometry
0.5 credit	Advanced Algebra
0.5 credit	Statistics & Probability (or AP Statistics)

There are many options available for students as they progress through their math learning experience. Included below are examples of the most common course math pathways for a student.

The courses, Advanced Algebra (regular and honors) and Statistics & Probability, will be taught for the last time during the 2021-22 school year. If you will not have successfully completed these two required courses by the end of the current school year, please be sure to include the course (or courses) in your registration request for next year.

Currently in Grade 11	Advanced Algebra AND Statistics & Probability	Honors Advanced Algebra AND Statistics & Probability or AP Statistics	Coll Honors College Algebra through Modeling or Coll Honors College Algebra	Honors Precalculus	AP Calculus AB	AP Calculus BC
Next year take...	Coll Honors College Algebra through Modeling or Coll Honors College Algebra	Coll Honors College Algebra through Modeling or Coll Honors College Algebra or Honors Precalculus	Honors Precalculus or AP Statistics	AP Calculus AB or AP Statistics	AP Calculus BC or AP Statistics	AP Statistics

### If a student is currently in grade 11 (graduating class of 2022) and in Advanced Algebra and Stats & Prob:

Gr 12	<b>Option 1:</b>		<b>Option 2:</b>		<b>Option 3:</b>		
	College Algebra	College Algebra	AP Statistics	AP Statistics	Honors Advanced Algebra	Honors Precalculus	Honors Precalculus

### If a student is currently in grade 11 (graduating class of 2022) and in Honors Advanced Algebra and Stats & Prob:

Gr 12	<b>Option 1:</b>		<b>Option 2:</b>		<b>Option 3:</b>	
	Honors Precalculus	Honors Precalculus	AP Statistics	AP Statistics	College Algebra	College Algebra

### If a student is currently in grade 11 (graduating class of 2022) and in Honors Precalculus:

Gr 12	<b>Option 1:</b>		<b>Option 2:</b>		<b>Option 3:</b>	
	AP Calculus AB	AP Calculus AB	AP Calculus AB/BC	AP Calculus AB/BC	AP Statistics	AP Statistics

# Specialty School PROGRAMS

School	Specialty Program(s)	Contact Information
Anoka High School	<b>Science, Technology, Engineering, Arts &amp; Math (STEAM)</b> <b>– Grades 9, 10, 11, 12</b> <i>See page 12 for program information and 70 for course descriptions</i>	Rana Nestrud Coordinator, Center for Science, Technology, Engineering, Arts and Mathematics (763) 506-6399 Rana.Nestrud@ahschools.us www.ahschools.us/ahssteam
Blaine High School	<b>Center for Engineering, Mathematics, and Science (CEMS)</b> <b>– Grades 9, 10, 11, 12</b> <i>See page 13 for program information and 40 for course descriptions</i>	Jennifer Birkmeier Coordinator, Center for Engineering, Mathematics, and Science (763) 506-6641 Jennifer.Birkmeier@ahschools.us www.ahschools.us/bhscems
Champlin Park High School	<b>International Baccalaureate (IB)</b> <b>– Grades 11, 12</b> <i>See page 14 for program information and 51 for course descriptions</i>	Ashley Brown and Christopher Baker-Raivo Coordinators, International Baccalaureate (763) 506-6912 Ashley.Brown@ahschools.us Christopher.BakerRaivo@ahschools.us www.ahschools.us/cphsib
Coon Rapids High School	<b>Center for Biomedical Sciences and Engineering</b> <b>– Grades 9, 10, 11, 12</b> <i>See page 15 for program information and 31 for course descriptions.</i>	Lana Rice and Kelly Beulke Coordinators, Center for Biomedical Sciences and Engineering (763) 506-7359 Lana.Rice@ahschools.us Kelly.Beulke@ahschools.us www.ahschools.us/crhsbioeng
STEP	<b>Secondary Technical Education Program</b> <b>– Grades 10, 11, 12</b> <i>See page 16 for program information and 82 for course descriptions.</i>	Jessica Lipa Director, Secondary Technical Education Program (STEP) (763) 506-4000 Jessica.Lipa@ahschools.us www.ahschools.us/step

Science, Technology,  
Engineering, Arts and Math  
[STEAM]  
@ Anoka High School



STEAM is geared for students who are looking to explore the connections between creativity, technology, and critical problem-solving skills. Classes use the Design Thinking model to thoroughly engage students through project-based learning and peer collaboration, preparing them for future careers. In addition to the required core, students have elective options in engineering & robotics, drawing, dance, video game design, photography, music & so much more!

Applications accepted in Grades: 9 or 10.

### Benefits:

- Create a digital portfolio of your designs/projects/creations
- Participate in the Design Thinking Process
- Explore careers related to technology, the arts and engineering through field trips, industry speakers, and partnerships
- Develop and apply technology/computer science skills in the arts, science, engineering and math
- Earn AP and articulated college credit in a variety of elective courses
- As a senior, participate in the Honors Design and Development course or an internship

# Specialty School PROGRAMS

## STEAM Intended Audience

### For freshmen entering the STEAM program

(In addition to other required courses)

STEAM Foundations

STEAM Computer Skills

### For sophomores entering the STEAM program

(In addition to other required courses)

STEAM Computer Skills

STEAM Studio Lab A&B

### Juniors in the STEAM program

should enroll in:

STEAM English A & B

STEAM Electives

### Seniors in the STEAM program

should enroll in:

STEAM Honors Design and  
Development A & B or internship

*\*This program accommodates band,  
orchestra and choir students.*

Students will also choose from a large selection of electives to complete the minimum six required STEAM electives. Students meeting the requirements earn STEAM Certification on their transcript and will have a digital portfolio of their designs/projects/creations!

For more information go to:

**[ahschools.us/ahssteam](https://ahschools.us/ahssteam)**

or contact the STEAM coordinator at

**763-506-6399.**

*\*More information regarding applying for the  
STEAM program is available at [nws.k12.mn.us](https://nws.k12.mn.us)  
or by calling 763-450-1300*

# Specialty School PROGRAMS

## Center for Engineering, Mathematics and Science [CEMS] @ Blaine High School

### CEMS Intended Audience

#### For freshmen entering the CEMS program

In addition to other required courses, freshmen students entering the CEMS program should enroll in CEMS Block (PLTW Honors Introduction to Engineering Design, Honors English 9 CEMS, and Honors Physics 9), Computer Skills for Engineers CEMS, and Math CEMS.

#### For sophomores entering the CEMS program

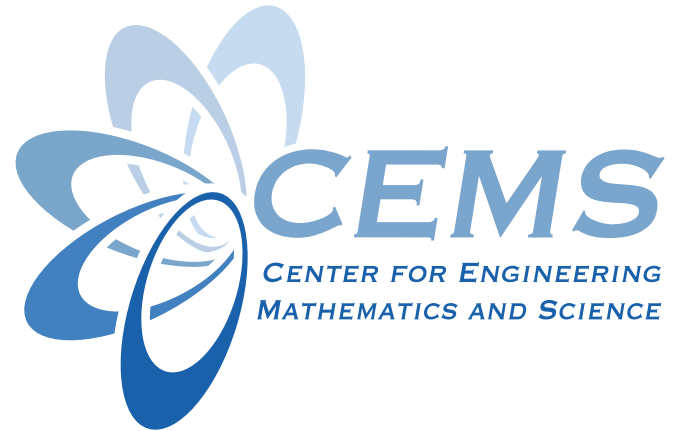
In addition to other required courses, sophomore students entering the CEMS program should enroll in PLTW Honors Principles of Engineering, Honors English 10 CEMS, plus a math and science course. Information meetings are conducted in the fall.

For more information go to:

**[ahschools.us/bhscems](https://ahschools.us/bhscems)**

or contact the CEMS coordinator at  
**763-506-6641.**

*\*More information regarding applying for the STEAM program is available at [nws.k12.mn.us](https://nws.k12.mn.us) or by calling 763-450-1300*



The Center for Engineering, Mathematics and Science [CEMS] at Blaine High School is a program designed for students who want an integrated and rigorous in-depth math, science and engineering focus. The classes will provide unique hands-on experiences for students with a strong interest in these areas and are open for enrollment by students within and outside of Blaine High School. CEMS is designed as a pre-engineering program to prepare students for post-secondary engineering programs and engineering careers.

Applications accepted in Grades: 9 or 10.

#### Benefits:

- Opportunity to explore engineering careers
- Opportunity to prepare for post-secondary engineering programs
- Brings a focus to math and science courses
- Students will receive transcribed credit subject to the following conditions: school is certified by PLTW, requirements for PLTW course are satisfied, student achieves an average of 85 percent or better in course, college credit exam is passed and required fee is paid [currently \$100 for a three-credit course].

# International Baccalaureate [IB] @ Champlin Park High School



International Baccalaureate [IB] is a rigorous program for 11th and 12th grade students interested in an honors pre-university or pre-workplace course of study. The IB Diploma Programme is a two-year, full time commitment at Champlin Park High School. The IB Career Programme is a two-year, full time commitment that combines IB Diploma courses with career and technical courses, some of which could be at STEP.

Spaces are available for students from all Anoka-Hennepin high schools. IB is offered at Champlin Park HS only (see pages 51-57 for IB course descriptions)

## Diploma Programme

### Benefits:

Comprehensive course of study that encompasses all subject areas.

- Skills Learned:
  - Sophisticated independent and collaborative study methods
  - Dynamic discussion and critical thinking skills
  - Writing and research abilities
- High scores on IB exams can earn college credit
- Internationally recognized program

### IB Diploma Programme is for you if:

- You are interested in a challenging unique curriculum to develop college level skills
- You plan to go to college and want to be well prepared
- You enjoy learning and are a hard worker

### Other information:

- All Diploma Programme students must take a world language and a one trimester course called Theory of Knowledge in both 11th and 12th grade.

# Specialty School PROGRAMS

## Career Programme

### Benefits:

Seven courses of study to choose from:

- Medical Pathway:
  - Certified Nursing Assistant
  - Emergency Medical Responder
  - Pharmacy Technician
  - Sports Management
- Education Pathway:
  - K-12 education, postsecondary education, corporate trainer, coaching
- Culinary Arts Pathway:
  - Hospitality, Food service/restaurant management, Baking and Pastry Chef, Catering
- Cybersecurity/IT Pathway
- All pathways result in certification in the field and/or articulated/concurrent college credit

### IB Career Programme is for you if:

- You enjoy hands-on, real world education in a challenging environment
- You want to be prepared for the workforce or continued education
- You desire to be a critical thinker and leader in your future career field

### Other information:

- All Career Programme students must take one trimester of Personal and Professional Skills in both the 11th and 12th grade years.
- All Career Programme students will also take 2 trimesters of a world language or ASL in the junior year.
- In the medical pathways, upper level career courses will be conducted at STEP

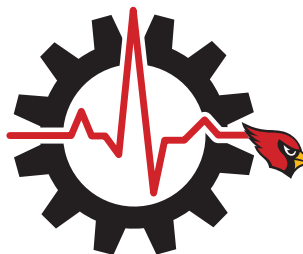
*Students in IB Courses are required to take the IB Exam. There is a minimal fee required for IB exams. IB College credit varies by school – be sure to review enrollment material from colleges you are considering attending.*

# Specialty School PROGRAMS

## Center for Biomedical Sciences and Engineering @ Coon Rapids High School

### Biomedical Sciences Program

Freshman Entering the Program	Sophomore Entering the Program	Junior Entering the Program
<ul style="list-style-type: none"> <li>• PLTW Honors Principles of Biomedical Sciences</li> <li>• Honors Physical Science 9 Biomed</li> <li>• Computer Skills for Biomed and Engineering</li> </ul>	<ul style="list-style-type: none"> <li>• PLTW Honors Principles of Biomedical Sciences</li> <li>• Honors English 10 Biomed and Engineering</li> <li>• Human Performance and Wellness (replaces Physical Education II)</li> <li>• Medical Terminology and Careers Biomed</li> </ul>	<ul style="list-style-type: none"> <li>• PLTW Honors Human Body Systems</li> <li>• College Biology</li> <li>• Focus on electives courses which prepare you for college and careers</li> </ul>



### Center for Biomedical Sciences and Engineering

COON RAPIDS HIGH SCHOOL

#### Biomedical Sciences Program

The Biomedical Sciences Program at Coon Rapids High School includes a sequence of Project Lead The Way courses that are hands-on and use a real-world problem solving approach. Students explore concepts of human medicine and are introduced to topics such as physiology, genetics, microbiology, and public health. The Biomedical Sciences Program focuses on four main career fields: Health and Biological Sciences, Biomedical Technology and Manufacturing, Health Administration and Partnering Careers, and Medical Sales.

Applications accepted in Grades: 9, 10 and 11

### Engineering Program

Freshman Entering the Program	Sophomore Entering the Program	Junior Entering the Program
<ul style="list-style-type: none"> <li>• PLTW Honors Introduction to Engineering Design</li> <li>• Computer Skills for Biomed and Engineering</li> <li>• Honors Physics 9</li> </ul>	<ul style="list-style-type: none"> <li>• PLTW Honors Introduction to Engineering Design</li> <li>• Honors English 10 for Biomed and Engineering</li> <li>• Programming elective</li> </ul>	<ul style="list-style-type: none"> <li>• PLTW Honors Introduction to Engineering Design</li> <li>• Programming elective</li> </ul>

#### Engineering Program

The Engineering Program at Coon Rapids High School is designed for students who want an integrated and rigorous in-depth math, science, and engineering focus. The Project Lead The Way courses will provide unique hands-on experiences for students with a strong interest in these areas. The curriculum is designed as a pre-engineering program to prepare students for post-secondary engineering programs and engineering careers.

Applications accepted in Grades: 9, 10, and 11

#### Benefits:

- Cohort family within a large high school
- Senior research-based capstone class
- Community mentors providing insight and guidance on student projects
- Opportunities for advanced learning and post-secondary programs
- Dynamic classes that are not offered elsewhere
- College credit possible

For more information, go to:

[ahschools.us/crhsbioeng](https://ahschools.us/crhsbioeng)

contact the Center for Biomedical Sciences  
and Engineering Program Coordinator at

**763-506-7359.**

*\*More information regarding applying for the  
Biomedical program is available at [nws.k12.mn.us](https://nws.k12.mn.us)  
or by calling 763-450-1300*

# Secondary Technical Education Program [STEP]

## Secondary Technical Education Program

Secondary Technical Education Program [STEP] is a high school specialty program in a college setting where students can explore careers, take academic courses, and have the opportunity to earn high school and college credit.

**Grades Eligible:** 10, 11, and 12

### STEP is for you if:

- You are in 10th, 11th, or 12th grade
- Expectations and pace of classes closely match college experience
- You want to explore advanced career and technical education
- You are ready to prepare for highly skilled workplaces

### Other information:

- Students who attend STEP may drive or take the bus to and from their home high school
- Students in 11th and 12th grade may attend STEP full-time
- Students in 10th, 11th and 12th grade may attend STEP part-time

# Specialty School PROGRAMS



**STEPAHEAD**  
ONLINE HIGH SCHOOL  
ANOKA-HENNEPIN SCHOOL DISTRICT

### What is StepAhead?

StepAhead is a online high school (grades nine through 12) offered through Minnesota's largest school district, Anoka-Hennepin. It offers a complete high school curriculum that meets all state graduation requirements.

StepAhead students receive support from a team of licensed education and school professionals. This experienced staff is committed to meeting the academic, social and post-secondary needs of each StepAhead student.

The program is approved from the Minnesota Department of Education. All Minnesota high schoolers are welcome to attend: grades nine through 12 can enroll fall 2019. For more information, visit the academic or enrollment pages.

### Mission and Vision

The online high school will meet the needs of the 21st Century learner:

- The online program will assess and provide relevant, rigorous curriculum that meets the postsecondary standards to assure that students are college and career ready;
- Students will obtain the skills as needed to be globally competitive in the 21st Century workforce; and
- Students will have the opportunity to earn a high school diploma from the Anoka-Hennepin School District entirely online.

### Administrative office

StepAhead Online High School's administrative office is based at Anoka-Hennepin's Secondary Technical Education Program (STEP) Campus at 1353 W Highway 10 in Anoka, Minn.

### Contact us

Have questions, comments or concerns about StepAhead Online High School? Send us an email at [info@stepaheadhs.com](mailto:info@stepaheadhs.com) or call 763-433-4001.

# Earn College Credit IN HIGH SCHOOL

College credit options are available to all high school students. Classes that can earn you college credit can be found in both required and elective areas. Studies show that students who complete some college credit in high school are more likely to attend college and graduate with a certificate, diploma or degree. Classes that can earn college credit are found by looking for one of the following codes in their title as shown in this registration guide.

## Advanced Placement [AP]

This is a college-level course that requires students to work at a high level of rigor and complete additional work outside of class. AP classes prepare you for the college experience.

### Benefits:

- Expectations and pace of classes closely match college experience
- An AP exam score may earn you college credit
- AP is recognized by post-secondary schools around the nation
- A grade of "C" or better earns a weighted grade

### Eligibility:

- AP classes available in grades 9, 10, 11, and 12
- Students should have strong reading and writing skills and plan on additional time outside of class for reading and assignments.
- Some classes may have prerequisites

### How to earn college credit:

- Take the AP exam in May. Many colleges award credit for scores of 3 or higher (scores range from 1-5)
- Check the website of the college you may attend to determine the credit policy

## Articulated Credit [AC]

Articulated credit classes are career related courses taught in high school. Articulated Credit is intended to provide technical and community college credit to students while they are attending high school classes.

### Benefits:

- Can earn technical and/or community college credits
- Stay in your own high school
- Explore career opportunities through high school courses

### Eligibility:

- AC classes available in grades 9, 10, 11, and 12
- Specific course outcomes required to earn AC

### How to earn college credit:

- Classroom teacher provides course requirements to earn AC
- Students register at [www.ctecreditmn.com](http://www.ctecreditmn.com)
- Class teacher indicates on the website if student earned AC when the course is completed

### Other information:

- Certificates are awarded to students who have earned college credits. The certificate is converted to college credit when the student enrolls and completes at least one semester course at the college listed on the certificate.
- Certificates are good for three to five years. Students should check with the college listed on the certificate.
- Students need to check with the college of their choice for specific criteria in a program or major.
- Colleges other than the listed colleges may accept AC credits depending on their criteria and program offerings. The student needs to check with the individual colleges.
- For more information about AC, visit [www.ctecreditmn.com](http://www.ctecreditmn.com) or talk to your counselor

### Articulated Credit may be used at:

- Anoka Technical College
- Anoka-Ramsey Community College
- Hennepin Community College
- St. Cloud Technical College
- Possibly other institutions

## Concurrent Enrollment [Coll]

Note: Some institutions refer to concurrent enrollment as dual enrollment. Concurrent enrollment classes are college classes taught in high school by high school teachers through a partnership with a specific college. Current concurrent enrollment partnerships include Anoka Technical College, Anoka-Ramsey Community College, St. Cloud State University, and the University of Minnesota - Twin Cities.

### Benefits:

- College course available in your high school
- A grade of C or better earns a weighted grade
- Students can earn college credit at the partnership college

### Eligibility:

- Concurrent enrollment classes available in grades 11 and 12
- Partnership colleges set eligibility requirements such as class rank. Check the course description.

### How to earn college credit:

- Successful completion of the class can earn you credit at the partnership college.

## International Baccalaureate [IB]

This is a college-level course that requires students to work at a high level of rigor and complete additional work outside of class. IB classes prepare you for the college experience. There are IB classes for both required and elective courses.

### Benefits:

- Expectations and pace of classes closely match college experience
- An IB exam score can earn you college credit
- IB is recognized by post-secondary schools around the nation
- A grade of "C" or better earns a weighted grade

### Eligibility:

- IB classes available in grades 11 and 12
- Students should have strong reading and writing skills and plan on additional time outside of class for reading and assignments.
- Some classes may have prerequisites

### How to earn college credit:

- Take the IB exam in May. Many colleges award credit for scores of 4 or higher (scores range from 1-7)
- Check the website of the college you may attend to determine the credit policy

### Other Information:

Detailed information regarding the IB Diploma Programme is located in the Specialty School Programs section toward the front of this registration guide.

## Minnesota Bilingual and Multilingual Seal and World Language Proficiency Certificate

"Language isn't a 'credit for graduation' to check off, but a skill that 'checks you in' to future opportunity."

-ACTFL, Egnatz, 2017

The MNBS is part of national movement currently comprising 43 states to recognize and encourage the long-term development of second language proficiency to the benefit of the individual, the employer, academic institutions, and government agencies that endeavor to create a citizenry that meets the needs of the global community in which we live. This seal will signal to potential employers, scholarship committees, university programs, and internships, among other things, the functional abilities a person possesses in English and another language irrespective of how those language skills were acquired.

To achieve functional language proficiency in more than one language a student must make it a long-term goal. This applies to both heritage speakers of languages other than English as well as students studying a world language. Proficiency is directly related to the number of hours spent studying the language over long-term, therefore, students should plan how they will achieve this goal over time. A student's chances of achieving functional proficiency increase the earlier a student starts studying a language.

### Benefits:

The Bilingual/Multilingual Seal program gives students in grades 10, 11 and 12 an opportunity to earn college credit from the Minnesota State system, a statewide network of 30 colleges and 7 universities with 54 campuses across Minnesota.

### Additional Benefits:

- To encourage students to study languages.
- To certify attainment of biliteracy.
- To provide employers with a method of identifying people with language biliteracy skills.
- To provide universities an additional method to recognize applicants seeking admission.
- To prepare learners with 21st century skills.
- To recognize the value of foreign language and native language instruction in public schools.
- To strengthen intergroup relationships, affirm the value of diversity, and honor the multiple cultures and languages of a community.

### Eligibility:

- Both heritage speakers and world language students who have worked towards functional proficiency in English and another language are eligible to test and to prove abilities.

- In addition to demonstrating the required proficiency levels in a language other than English on an assessment based on the America Council on the Teaching of Foreign Languages (ACTFL), students must demonstrate mastery of Minnesota's English language proficiency standards
- Satisfactorily complete all required English language arts credits
- Every high school in the AHSD has a system in place to verify and award the MN Bilingual/Multilingual Seal and World Language Proficiency Certificate.

## Post Secondary Enrollment Option [PSEO]

Postsecondary Enrollment Options (PSEO) is a program that allows 10th-, 11th- and 12th-grade students to earn both high school and college credit while still in high school, through enrollment in and successful completion of college-level, nonsectarian courses at eligible participating postsecondary institutions. Most PSEO courses are offered on the campus of the postsecondary institution; some courses are offered online. Each participating college or university sets its own requirements for enrollment into the PSEO courses. Eleventh and 12th-grade students may take PSEO courses on a full- or part-time basis; 10th graders may take one career/technical PSEO course. If they earn at least a grade C in that class, they may take additional PSEO courses.

There is no charge to PSEO students for tuition, books or fees for items that are required to participate in a course. Students must meet the PSEO residency and eligibility requirements and abide by participation limits specified in Minnesota Statutes, section 124D.09. Funds are available to help pay transportation expenses for qualifying students to participate in PSEO courses on college campuses. Schools must provide information to all students in grades 8-11 and their families by March 1, every year. Students must notify their school by May 30 if they want to participate in PSEO for the following school year. For current information about the PSEO program, visit the Minnesota Department of Education's Postsecondary Enrollment Options (PSEO) webpage at <http://education.state.mn.us/MDE/StuSuc/CollReadi/PSEO/index.html>.

Students must meet PSEO college admission requirements and must complete classes required for high school graduation. This option is for independent, highly responsible, and motivated students.

### Benefits:

- Can earn college credits that may be accepted by other colleges and/or universities following high school
- Gain college experience while in high school

### General education option:

- General Education option available in grades 11 and 12
- PSEO Colleges set academic requirements such as high school class rank
- PSEO families are responsible for providing transportation
- Further information can be found on each high school's counseling web page (high school homepage to "SUPPORT" and then "Counseling" in the drop-down menu)

### Career technical education option eligibility:

- Career Technical option available in grades 10, 11, and 12
- Must meet or exceed the standards on the 8th grade MCA Reading test.
- Only one class can be taken during a college semester
- PSEO families are responsible for providing transportation
- Courses eligible must be career technical education courses
- This option is only available at community and technical colleges
- Further information can be found on each high school's counseling web page (high school homepage to "SUPPORT" and then "Counseling" in the drop-down menu)

### Honors statement:

- Anoka-Hennepin recognizes the rigor of courses taken at colleges and universities through the Post Secondary Enrollment Option. Starting in the 2019-20 school year, PSEO courses at the college course number 1000 or above level are designated as honors courses on the high school transcript.

*Not on track to graduate: If a school district determines a student is not on track to graduate, the limits on PSEO participation does not apply to that student. Students who are not on track to graduate: In 2015, the following language was added to Minnesota Statutes, section 124D.09, subdivision 8: "If a school district determines a pupil is not on track to graduate, the limit on participation does not apply to that pupil." This applies only to public school students. In order to waive the participation limits, the postsecondary institution must submit the PSEO Verification of Extended PSEO Eligibility (ED-02480-01) as supporting documentation. This form must be completed and signed by the enrolling district.*

## High School Career and College Centers

### The Career and College Centers offer the following services and resources:

- Career and College planning
- College admissions process
- Individual planning w/students and parents
- Test prep – ACT, SAT, Accuplacer, ASVAB
- Naviance Support
- Financial Aid information
- Scholarship information
- College and career tours
- Local job postings

### Contact your school's:

College & Career Specialist. Check your high school's website for contact information.

# After High School

## ADMISSION REQUIREMENTS

### Admission Requirements for Minnesota Colleges and Universities

Listed below are general admission requirements for a variety of Minnesota post-secondary programs. You can use this information when making your registration choices, but it is your responsibility to check specific requirements for any college where you are planning on applying.

### Technical and Community Colleges: [www.minnstate.edu](http://www.minnstate.edu)

Minnesota's technical and community colleges have "open admission," which means that they accept any student with a high school diploma or GED. ACT or SAT test scores are not required; however, these schools may have their own placement tests. You may be accepted at any of these schools, but if you do not test into college-level courses, you will be required to take "developmental" courses before earning college credits. Also, many of these schools have popular programs with waiting lists; therefore applying early is always a good decision.

### Four-Year State Colleges and Universities: [www.minnstate.edu](http://www.minnstate.edu)

These programs have "liberal admission" requirements. Generally, students should complete the following minimum curriculum requirements, as stated on the website:

English	4 years
Math	3 years - minimum completion of Advanced Algebra/HS Algebra II
World Language	2 years of the same language
Social Studies	3 years
Science	4 years including: 1 year - Physical Science 9, 1 year - Biology with lab, 1 year - other physical science with lab
Other	1 year of visual or performing arts

Other admissions requirements:

Graduate in the top half of your class	If not in the top half, your ACT or SAT score will be used to determine acceptance. Check with the school where you are applying for their score requirements.
Take the ACT or SAT	You must take either test. Specific scores are used a student is not in the top 50th percentile.

### University of Minnesota: [www.umn.edu](http://www.umn.edu)

The University of Minnesota has 5 campuses—Twin Cities, Duluth, Morris, Crookston and Rochester. Selective admissions requirements include ACT [ACT with writing required for Twin Cities campus] or SAT and high school rank and GPA.

All five campuses have the following minimum curriculum requirements:

English	4 years: Emphasis on writing, including instruction in reading and speaking skills and in literary understanding and appreciation.
Mathematics	4 years: Intermediate Algebra, geometry, advanced algebra/HS algebra II [Integrated math 1, 2 & 3]. Examples of 4th year math include calculus [preferred], pre-calculus, analysis.
Science <small>Biological science, chemistry, and physics are required or Management, Biological Sciences, and Science and Engineering.</small>	3 years; Including one year each of biological and physical science, and including a laboratory experience.
Social Studies	3 years: including one year each of U.S history and geography [or a course that includes a geography component such as world history, western civilization, or global studies].
Single second language	2 years
Visual and/or performing arts	1 year: including instruction in the history and interpretation of the art form [e.g. theater arts, music, band, chorus, orchestra, drawing, painting, photography, graphic design, media production, theater production.]

**University of Minnesota Twin Cities:**  
**www.umn.edu**

Specific colleges within the U of M Twin Cities campus have these additional requirements:

Liberal Arts, Education and Human Development, Agriculture, Food, and Natural Resource Sciences	College prep curriculum grades 9 through 12, science strongly recommended for grade 12
Biological Sciences	4 years math, 4 years science, including a year of Physics [prefer physics courses over advanced biology courses]
Design	College prep curriculum grades 9 through 12, strong math, science and art skills
Science and Engineering	4 years of math through Precalculus [minimum]; 4 years science including a year of physics
Carlson School of Management	4 years of math through Precalculus [minimum]; 4 years science including a year of physics [prefer academic courses over business courses]

Since admission to the University of Minnesota-Twin Cities campus is very competitive, it is highly suggested that high school students take rigorous courses all four years. Most students accepted have taken advanced math and science during their senior year.

**Minnesota Private Colleges:**  
**www.mnprivatecolleges.com**

You are a strong candidate for college admission at Minnesota’s private colleges if you have taken:

English	4 years
Math	At least 3 years of math, including a minimum of Advanced Algebra/ HS Algebra II
Social Studies	3 or more years
Science	3 or more years of science with lab
World Language	2 or more years of a single world language
Arts	Several courses

Students are highly encouraged to take Honors, AP and/ or IB courses for a challenging, well-rounded college preparatory curriculum. ACT or SAT tests are required.

Both the practice and the actual ACT college and career readiness assessment will be offered during a school day. Students may elect to send results from the actual ACT to colleges as part of the college application process. Students that choose to participate in the Preliminary SAT (PSAT) and are U.S. citizens are entered into the National Merit Scholarship program. Additional information on the National Merit Scholarship program can be found at: <http://nationalmerit.org>.

Note that a student’s rigorous course curriculum, grade point average, class rank and ACT/SAT scores are considered in the final admission decision. If students have questions, they should contact the admissions department of the specific college or university.

The following Web sites are popular sites to search for college information beyond the Minnesota schools listed on this page:

- [www.collegeview.com](http://www.collegeview.com)
- [www.collegenet.com](http://www.collegenet.com)
- [www.collegeboard.com](http://www.collegeboard.com)
- [www.gocollege.com](http://www.gocollege.com)
- [www.petersons.com](http://www.petersons.com)
- [www.fastweb.monster.com](http://www.fastweb.monster.com)

Remember, for the most up-to-date, accurate college application information, you need to contact directly any school you are interested in applying to.

**NCAA Eligibility Center**

To be certified by the Eligibility Center, you must:

**Access information and application directly from the NCAA Eligibility Center web site:**  
**[www.eligibilitycenter.org](http://www.eligibilitycenter.org)**

**Naviance Family Connection**

All District 11 high school students will have access to Naviance Family Connection. This web-based program provides individual career assessments, resume building and college search/information. Through the use of this program, high school students will be able to start planning for their post-secondary goals through a series of school-based activities and on their own.

# General Information

## Academics

### Weighted Grades

#### Grade Point Average [GPA]

GPA calculations are based on a 4.0 system. Based on the five-period day, each trimester of a class equals 0.5 credit. See your counselor for more information about GPA and class rank.

Grade	Regular	Honor/AP
A	4.00	4.33
A-	3.67	4.00
B+	3.33	3.67
B	3.00	3.33
B-	2.67	3.00
C+	2.33	2.67
C	2.00	2.33
C-	1.67	1.67
D+	1.33	1.33
D	1.00	1.00
D-	0.67	0.67
F, I, NC	0.00	0.00
NG, P, RC	No Value Assigned	

### Class Rank

Class rank is calculated and reported based on GPA. It is the composite ordering of all students' GPAs. As GPAs change, so do class ranks. As grades are entered into the system, calculations are run and class ranks are produced. Most grades are entered into the system at the end of a trimester. However, situations that arise outside the usual grading window may affect class rank. These include:

- Incompletes that are changed to grades
- A transfer student's grades added to the system
- A dropped student's grades removed from the system
- PSEO grades added when received from the post-secondary institution

### Academic Letters

Academic letters will be presented to students with the following GPAs:

- Freshmen with a 3.9 weighted GPA
- Sophomores with a 3.85 weighted GPA
- Juniors with a 3.80 weighted GPA
- Seniors with a 3.75 weighted GPA

## Honors/AP Graduation Requirements

Honors courses have more rigorous expectations both in and out of class. Honors classes are described in the Course Selection section and have "Honors" or "AP" in the title. To receive honors credit, with a weighted grade, students must complete these courses with a C or above. (See chart on left side of page.)

Honors courses also meet the requirements for graduation. Honors courses are for you if:

- You have a strong interest in the subject
- You would like to learn at a faster pace
- You are looking for something more challenging
- You want to be prepared for college level coursework

In order to graduate with honors from Anoka-Hennepin, the following criteria must be met. Honors graduation status is determined by the cumulative, weighted GPA at the end of the trimester 2 of the senior year. PSEO students' status will be determined after the fall semester. Rounding will not occur.

### Category I: Honors

At least 3.3 weighted GPA. Requirements: There are no requirements concerning honors courses for this category

### Category II: High Honors

At least 3.6 weighted GPA. Requirements: Students must earn at least six credits in honors courses during their high school career.

### Category III: Highest Honors

At least 3.9 weighted GPA. Requirements: Students must earn at least 10 credits in honors courses from two or more departments during their high school career.

Students earning credit in honors courses will receive honors recognition and a weighted grade if they earn a "C" or higher in the course.

Academic Credit Requirement for Activities Eligibility

Students must be making satisfactory progress toward the Anoka-Hennepin School District requirements for graduation. Students must earn enough credits each term in order to maintain eligibility for graduation. Academic eligibility may be regained at the end of any trimester. Students need 27 credits to graduate.

Academic Eligibility [27 credits to graduate]

	First tri.	Second tri.	Third tri.
Grade 9	0.0	1.5	3.5
Grade 10	5.5	8.0	10.0
Grade 11	12.0	14.5	17.0
Grade 12	19.5	22.0	24.5

Academic Probation

If students are short credits that would prohibit them from participating in after-school activities, they should check with their activities office to see if they qualify for academic probation.

Awarding Credit By Assessment

Intent and Purpose

In accordance with state statute, the Anoka-Hennepin School District provides a process through which Credit by Assessment, or testing out of a course, is an option available for students who wish to fulfill graduation requirements for knowledge and skills acquired outside of the school setting. This option aligns with the district’s mission to provide learning opportunities that meet the individual learning needs of each student.

Policy

Anoka-Hennepin students in grades 9-12 may earn high school course credit by successfully demonstrating proficiency of the standards in courses offered by the district. Students who have the knowledge presented in a district course from information acquired through activities outside of school may demonstrate their mastery through a formal process of credit by assessment that may include College Level Examination Program (CLEP), Advanced Placement (AP) assessment, district course assessment(s) or other district approved assessments. Credit by

Assessment applicants may request the course syllabus and materials list, as well as review the course textbook prior to the start of any Credit by Assessment process.



Student Responsibility

A student interested in earning credit by assessment will follow the procedures outlined in the guidelines for awarding credit by assessment. The student will work through the requirements of the Credit by Assessment process with the appropriate school and district personnel.

If the student demonstrates proficiency in a satisfactory manner, the student’s transcript will show the course title, credit earned, and a course grade of “P”, therefore, a grade is not applied to the student’s district calculated GPA. The number of credits earned will be equal to the number of credits assigned to the course.

# Assistance for Students

IEP

SPECIAL EDUCATION

504

EL

## Individual Education Plan [IEP]

The IEP team shall identify needed accommodations to facilitate student participation in mainstream curriculum requirements. Students with significant disabilities for whom the IEP team determines the regular curriculum is not appropriate will have modified or alternative curriculum. All students will participate in district and statewide assessments for graduation. However, the IEP team determines which assessments are appropriate including if the student will participate in an alternate assessment designed by the state. The IEP team will determine which graduation required assessment is appropriate.

Students on an IEP will be provided reasonable accommodations to participate in these assessments and the IEP team will set targets to measure the student's progress toward graduation.

A multi-disciplinary team that includes the parent[s] or guardian[s] of the student will develop an IEP inclusive of transition planning. The IEP will define each student's educational program and graduation requirements. The IEP will be reviewed and revised annually. The amount and type of support will be based upon the student's educational needs as defined by the IEP team.

## Special Education

The Anoka-Hennepin School District provides educational programming to students with disabilities from birth to age 22. State and federal laws define categories of disabilities as follows:

- Autism Spectrum Disorders
- Emotional or Behavioral Disorders
- Deaf/Hard of Hearing
- Deaf/Blind
- Other Health Disability
- Physically Impaired
- Specific Learning Disability
- Speech or Language Impaired
- Traumatic Brain Injury
- Blind/Visually Impaired
- Developmental Cognitive Disability
- Severely Multiply Impaired

## Section 504 Accommodation

Students who demonstrate a substantial limitation in a major life function, such as talking, learning or socialization are eligible for an Accommodation Plan. Parents are invited to participate in identification and development of the plan for their child.

The plan will describe accommodations which the team has determined to be necessary to allow the student to access instruction, such as modified assignments, untimed tests, adaptive equipment, assigned seating, or adjusted schedule.

Students who are placed on an Accommodation Plan will participate in state and local assessments. The Accommodation Plan must identify accommodations necessary for the student's participation in the state and district-wide assessment.

## English Learners [EL]

The Anoka-Hennepin School District provides specific educational programming for students who demonstrate limited English proficiency. Students may qualify to receive EL services if they meet one or more of the following criteria: [1] The student first learned a language other than or in addition to English, [2] A language other than English is most often spoken in the home, or [3] The student usually speaks a language other than English.

The EL program in Anoka-Hennepin promotes students' growth in academic English.

Students are given the ACCESS assessment on an annual basis to determine continued eligibility for EL service. If you have questions, consult your counselor.

# Course Selection

## COURSE TITLES BY DEPARTMENT

<b>Art</b> .....	28	Honors Building Wealth .....	36	<b>Driver Education</b> .....	43
Ceramics I .....	28	IT Explorations for Business and Marketing .....	36	Driver Education .....	43
Ceramics II .....	28	Keyboarding .....	36	<b>English Language Arts</b> .....	44
Ceramics III .....	28	Computer Applications .....	36	English 9 .....	45
Computer Art I .....	28	Social Media Marketing and Web Design .....	36	Honors English 9 .....	45
Computer Art II .....	28	Video Game Design and Marketing .....	36	English 10 .....	45
Drawing I .....	28	Web Page Coding for Business [NOCTI] .....	36	English 10 with College Foundations .....	45
Drawing II .....	29	Computer Programming .....	36	Honors English 10 .....	45
Drawing III .....	29	AP Computer Science .....	36	English 11 .....	45
Jewelry and Craft Design I .....	29	PLTW Honors Computer Science Principles		CP English 11 .....	45
Jewelry and Craft Design II .....	29	[AHS, BHS only] .....	36	AP English Language and Composition .....	45
Medical Illustration I .....	29	Advertising and Sales .....	36	English 12 .....	45
Medical Illustration II .....	29	Business Management [NOCTI] .....	37	AP Literature and Composition .....	45
Painting I .....	29	Hospitality and Tourism .....	37	Coll Honors Introduction to Literature .....	45
Painting II .....	29	Marketing .....	37	Coll Honors University Writing .....	46
Painting III .....	29	Business and Consumer Law .....	37	Academic Writing Foundations .....	46
Sculpture I .....	29	Entrepreneurship .....	37	Acting I .....	46
Sculpture II .....	29	Honors International Business .....	37	Acting II .....	46
Sculpture III .....	30	Honors Business Internship Program [NOCTI] .....	37	Acting III .....	46
Video Art I .....	30	Honors Marketing and Management Internship		Creative Writing I .....	46
Video Art II .....	30	Program [NOCTI] .....	37	Creative Writing II .....	46
Drawing/Painting [AP Studio Art: 2-D Design/Drawing] .....	30	<b>Career Technical Education</b> .....	38	Exploring the Modern Novel .....	46
Ceramics/Sculpture [AP Studio Art: 3-D Design] .....	30	Investigating Careers .....	38	Honors Humanities .....	46
Honors Arts Symposium .....	30	Coll Career Development [AHS only] .....	38	Introduction to Journalism .....	46
<b>Center for Biomedical Sciences and</b>		Work Experience Program .....	38	Convergence Journalism .....	46
<b>Engineering at Coon Rapids High School</b> .....	31	Animal Management .....	38	Yearbook Lab I .....	47
<b>Biomedical Science Required Courses</b>		Pre-Vet Animal Science .....	38	Yearbook Lab II .....	47
Computer Skills for Biomed and Engineering .....	32	Coll Honors Animal Science .....	39	Yearbook Lab III .....	47
Honors Physical Science 9 Biomed .....	32	Fish and Wildlife Ecology .....	39	Television Journalism .....	47
Honors English 10 Biomed and Engineering .....	32	Fish and Wildlife Zoology .....	39	Debate I .....	47
Coll Honors Biology Biomed [CRHS only] .....	32	Seasonal Horticulture .....	39	Honors Debate II .....	47
Human Performance and Wellness Biomed .....	32	Floriculture .....	39	Public Speaking .....	47
Medical Terminology and Careers Biomed .....	32	Greenhouse Management .....	39	Coll Honors Public Speaking .....	47
PLTW Honors Principles of Biomedical Sciences .....	32	Global Food Challenge .....	39	<b>English Learners [EL]</b> .....	47
PLTW Honors Human Body Systems Biomed .....	32	Introduction to Holistic Healing .....	39	<b>Family and Consumer Sciences [FCS]</b> .....	48
PLTW Honors Medical Interventions Biomed .....	33	Medical Anatomy I .....	39	Introduction to Culinary Arts .....	48
PLTW Honors Biomedical Innovation .....	33	Medical Anatomy II .....	39	Culinary Arts I .....	48
<b>Biomedical Sciences Electives</b>		Medical Terminology and Careers .....	39	Culinary Arts II .....	48
Introduction to Holistic Healing .....	33	Honors Health Science Internship .....	39	Nutrition .....	48
Medical Illustration I .....	33	<b>CEMS at Blaine High School</b> .....	40	Food Science .....	49
Medical Illustration II .....	33	Honors Physics 9 .....	40	Child and Human Development .....	49
Medical Spanish .....	33	Computer Skills for Engineers CEMS .....	40	Early Childhood Careers .....	49
<b>Engineering Required Courses</b>		PLTW Honors Introduction to Engineering Design .....	40	Coll Foundation of Education .....	49
PLTW Honors Introduction to Engineering Design .....	33	PLTW Honors Principles of Engineering .....	41	Fabric, Apparel, and Design .....	49
Computer Skills for Biomed and Engineering .....	33	PLTW Honors Engineering Design and Development .....	41	Interior Design and Housing .....	49
Honors Physics 9 Engineering .....	33	HS Intermediate Algebra CEMS .....	41	Consumer Strategies .....	49
Honors English 10 Biomed and Engineering .....	34	Honors English 9 CEMS .....	41	Interpersonal Relationships .....	49
PLTW Honors Principles of Engineering .....	34	Honors English 10 CEMS .....	41	Honors Family and Consumer Sciences Internship .....	49
PLTW Honors Engineering Design and Development .....	34	PLTW Honors Digital Electronics .....	41	<b>Health</b> .....	50
<b>Engineering Electives</b>		PLTW Honors Computer Science Principles .....	41	Health .....	50
PLTW Honors Digital Electronics .....	34	PLTW Honors Computer Integrated Manufacturing .....	42	Healthy Living I .....	50
PLTW Honors Computer Integrated Manufacturing .....	34	PLTW Honors Civil Engineering and Architecture .....	42	Healthy Living II .....	50
<b>Business &amp; Marketing Education</b> .....	35	PLTW Honors Cybersecurity .....	42		
Accounting I .....	35	PLTW Honors Aerospace Engineering .....	42		
Accounting II [NOCTI] .....	35	PLTW Honors Environmental Sustainability .....	42		
Personal Money Management .....	35	PLTW Honors Computer Science A .....	42		

<b>IB at Champlin Park High School</b> .....	51-52
Honors Social Studies 10/Honors English 10 Block .....	52
IB English 11 HL .....	52
IB English/AVID 11 .....	52
IB English 12 HL .....	53
IB English/AVID 12 .....	53
IB English 12 HL Enrichment .....	53
IB French SL IV .....	53
IB German SL IV .....	53
IB Spanish SL .....	53
IB French V SL or HL .....	53
IB German V SL or HL .....	53
IB Spanish V SL or HL .....	54
IB Ab Initio French SL [Level I - Grade 11] and [Level II - Grade 12] .....	54
IB Ab Initio German SL [Level I - Grade 11] and [Level II - Grade 12] .....	54
IB Ab Initio Spanish SL [Level I - Grade 11] and [Level II - Grade 12] .....	54
Honors Social Studies 10/Honors English 10 Block .....	54
[AP European History]/IB History 11 HL .....	54
IB History of the Middle East & Africa 12 HL .....	54
IB Biology 11 SL .....	55
IB Biology 12 SL .....	55
IB Biology 12 HL .....	55
IB Chemistry 12 SL .....	55
IB Chemistry 12 HL .....	55
IB Sports Exercise and Health Science .....	55
IB Math Applications and Interpretations SL (A & B) .....	55
IB Math Applications and Interpretations SL (C & D) .....	56
IB Math Analysis and Approaches SL 11 .....	56
IB Math Analysis and Approaches SL 12 .....	56
[AP Calculus AB/BC]/IB Mathematics HL 11 .....	56
IB Math Analysis and Approaches HL12 .....	56
IB Music SL .....	56
IB Music HL .....	56
IB Business and Management SL-3 Tri .....	56
IB Psychology SL .....	57
IB Visual Arts SL .....	57
IB Theory of Knowledge I .....	57
IB Theory of Knowledge II .....	57
IB Personal and Professional Skills 11 .....	57
IB Personal and Professional Skills 12 .....	57

<b>Mathematics</b> .....	58
HS Intermediate Algebra .....	58
HS Geometry with College Foundations .....	59
Honors HS Geometry with College Foundations .....	59
Advanced Algebra .....	59
Honors Advanced Algebra .....	59
HS Algebra II .....	59
Honors HS Algebra II .....	59
Statistics and Probability .....	59
AP Statistics .....	59
Coll Honors College Algebra Through Modeling .....	60
Coll Honors College Algebra .....	60
Honors Precalculus .....	60
AP Statistics .....	60
AP Calculus AB .....	60
Calculus AB Seminar .....	60
AP Calculus BC .....	60
AP Calculus AB/BC .....	60
AP Calculus AB/BC/IB Mathematics HL 11 .....	60

<b>Music</b> .....	61
Band I .....	61
Band II .....	61
Honors Band III .....	61
Marching Band [CRHS only] .....	61
Concert Band [CRHS only] .....	61
Choir I .....	62
Choir II .....	62
Honors Choir III .....	62
Orchestra I .....	62
Orchestra II .....	62
Honors Orchestra III .....	62
Music Exploration .....	62
AP Music Theory .....	62
World Drumming [CPHS and CRHS only] .....	62

<b>Physical Education</b> .....	63
Physical Education I .....	63
Physical Education II .....	63
Accelerated Basketball I .....	63
Accelerated Basketball II .....	63
Accelerated Basketball III .....	63
Accelerated Volleyball I .....	63
Accelerated Volleyball II .....	63
Accelerated Volleyball III .....	64
Group Fitness I .....	64
Group Fitness II .....	64
Lifetime Activities Outdoors [Fall/Spring] .....	64
Lifetime Activities Outdoors [Winter] .....	64
Physical Education Elective 9 .....	64
Strength Training and Conditioning I .....	64
Strength Training and Conditioning II .....	64
Strength Training and Conditioning III .....	64
Strength Training and Conditioning IV .....	64
Team Sports .....	64
Total Sports I .....	64
Total Sports II .....	64

<b>Reading</b> .....	65
Academic Reading Prep I .....	65
Academic Reading Prep II .....	65
Coll Reading and Study Strategies .....	65

<b>Science</b> .....	66-67
Physical Science 9 .....	67
Honors Physical Science 9 .....	67
Honors Physics 9 [BHS, CPHS, CRHS] .....	67
Chemistry I .....	68
Honors Chemistry I .....	68
AP Chemistry .....	68
Biology I .....	68
AP Biology [AndHS, BHS, CRHS] .....	68
Coll Honors Biology .....	68
Honors Biology II: Genetics and Biotechnology .....	68
Honors Biology II: Physiology/Anatomy .....	68
Honors Chemistry II .....	69
Astronomy .....	69
Geology of Minnesota .....	69
Meteorology .....	69
Outdoor Adventures Fall Environmental Science .....	69
Outdoor Adventures Winter Environmental Science .....	69
Outdoor Adventures Spring Environmental Science .....	69
AP Physics 1: Algebra-Based .....	69
Physics .....	69

<b>STEAM at Anoka High School</b> .....	70-72
English 11 for STEAM .....	72
English 12 for STEAM .....	72
Honors Design & Development .....	72
STEAM Computer Skills .....	73
STEAM Foundations .....	73
STEAM Studio Lab I A & B .....	73
Creative Problem Solving .....	73
Animal Management .....	73
Fish and Wildlife Ecology .....	73
Fish and Wildlife Zoology .....	73
Floriculture .....	73
Seasonal Horticulture .....	73
Culinary Arts I .....	74
Culinary Arts II .....	74
Design Studio .....	74
Fabric, Apparel and Design .....	74
Fashion Merchandising .....	74
Interior Design and Housing .....	74
Coll Honors Animal Science .....	74
Food Science .....	74
Medical Anatomy I .....	74
Medical Anatomy II .....	75
Medical Terminology & Careers .....	75
Pre-Vet Animal Science .....	75
Creative Writing I .....	75
Creative Writing II .....	75
Honors Hispanic Studies I .....	75
Honors Humanities .....	75
Television Journalism .....	75
Yearbook Lab I .....	75
Yearbook Lab II .....	75
Yearbook Lab III .....	75
Acting I .....	76
Acting II .....	76
Acting III .....	76
Band I .....	76
Band II .....	76
Honors Band III .....	76
Choir I .....	76
Choir II .....	76
Honors Choir III .....	76
Digital Music Composition I .....	76
Digital Music Composition II .....	76
Music Exploration .....	76
Orchestra I .....	76
Orchestra II .....	77
Honors Orchestra III .....	77
Dance Ensemble I .....	77
Dance Ensemble II .....	77
Dance Ensemble III .....	77
Computer Programming .....	77
Introduction to Cybersecurity .....	77
Social Media Marketing and Web Design .....	77
Video Game Design and Marketing .....	77
Web Page Coding for Business .....	78
CAD III Engineering & Architecture [Computer Aided Design] .....	78
CAD/Technical Illustration .....	78
Design and Fabrication I .....	78
Design and Fabrication II .....	78
Digital Photography I .....	78
Digital Photography II .....	78

Digital Videography . . . . .	79	PLTW Honors Computer Science A . . . . .	87	AP US Government and Politics . . . . .	95
Graphic Design I . . . . .	79	PLTW Honors Computer Science Principles . . . . .	88	US Government and Politics Seminar . . . . .	96
Graphic Design II . . . . .	79	PLTW Honors Aerospace Engineering . . . . .	88	Globe Trekker . . . . .	96
Graphic Design III . . . . .	79	Advanced Fashion and Design Technologies . . . . .	88	America Through Multimedia . . . . .	96
Coll Honors Climate Crisis: Implementing Solutions . . . . .	79	Color In Industry . . . . .	88	Modern Global Issues . . . . .	96
Engineering and Robotics I . . . . .	79	Education Support Careers . . . . .	88	Multicultural Perspectives . . . . .	96
Engineering and Robotics II . . . . .	79	STEP Coll Foundations of Education . . . . .	88	Honors African-American History . . . . .	96
Ceramics I . . . . .	80	Salon, Spa, and Barbering Careers I . . . . .	88	Youth Issues . . . . .	96
Ceramics II . . . . .	80	Salon, Spa, and Barbering Careers II . . . . .	88	Sociology . . . . .	96
Ceramics III . . . . .	80	Accounting and Financial Careers I . . . . .	89	Psychology I . . . . .	96
Ceramics/Sculpture [AP Studio Art: 3-D Design] . . . . .	80	Accounting and Financial Careers II . . . . .	89	Psychology II . . . . .	96
Computer Art I . . . . .	80	Investigating Medical Careers . . . . .	89	AP Psychology . . . . .	96
Computer Art II . . . . .	80	Medical Anatomy I/II . . . . .	89	Criminal Justice . . . . .	96
Drawing I . . . . .	80	Medical Assistant Careers . . . . .	89		
Drawing II . . . . .	80	Honors Disease Conditions . . . . .	89	<b>Technology Education . . . . .</b>	<b>97</b>
Drawing III . . . . .	80	Pharmacy Technician . . . . .	89	Digital Photography I . . . . .	98
Drawing/Painting [AP Studio Art: 2-D Design/Drawing] . . . . .	80	Coll Emergency Medical Careers I . . . . .	89	Digital Photography II . . . . .	98
Honors Arts Symposium . . . . .	81	Coll Honors Emergency Medical Careers II . . . . .	89	Digital Videography I . . . . .	98
Jewelry and Craft Design I . . . . .	81	Dental Occupations . . . . .	90	Graphic Design I . . . . .	98
Jewelry and Craft Design II . . . . .	81	Nursing Assistant . . . . .	90	Graphic Design II . . . . .	98
Painting I . . . . .	81	Coll Nursing Assistant and HHA . . . . .	90	Graphic Design III . . . . .	98
Painting II . . . . .	81	Coll Sports Medicine: Prevention and		Photography [AP Studio Art: 2-D Design] . . . . .	98
Painting III . . . . .	81	Care of Athletic Injuries . . . . .	90	Outdoor Power Equipment . . . . .	98
Sculpture I . . . . .	81	Sports Medicine: Performance . . . . .	90	Power Sports Engines . . . . .	99
Sculpture II . . . . .	81	Advanced Culinary Arts I . . . . .	90	Automotive Technology I . . . . .	99
Sculpture III . . . . .	81	Advanced Culinary Arts II . . . . .	90	Automotive Technology II . . . . .	99
Video Art I . . . . .	81	Advanced Pastry . . . . .	90	Automotive Technology III . . . . .	99
Video Art II . . . . .	81	IT Essentials . . . . .	90	Architectural Drafting and Design . . . . .	99
		Intro to Computer Science . . . . .	91	Cabinetry I . . . . .	99
<b>Secondary Technical Education Program . . . . .</b>	<b>82-84</b>	Fundamentals of Computer Science . . . . .	91	Cabinetry II . . . . .	99
English 11 . . . . .	84	Cyber Security I . . . . .	91	Cabinetry III . . . . .	99
English 12 . . . . .	84	Cybersecurity II . . . . .	91	Honors Design & Fabrication I . . . . .	99
Advanced Algebra . . . . .	84	Firefighting I . . . . .	91	Honors Design & Fabrication II . . . . .	100
Statistics and Probability . . . . .	84	Law Enforcement I and Crime Scene Investigations . . . . .	91	Exploring Construction . . . . .	100
Biology . . . . .	84	Law Enforcement II: Police Procedures . . . . .	91	Architectural Design [AP Studio Art: 3-D Design] . . . . .	100
Social Studies 11: World History . . . . .	84	Coll Machine Technology I . . . . .	91	Introduction to Welding and Manufacturing . . . . .	100
Social Studies 12: Economics . . . . .	84	Coll Machine Technology II . . . . .	91	Welding and Manufacturing . . . . .	100
Social Studies 12: U.S. Government and Politics . . . . .	85	Coll Welding Technology I . . . . .	92	Honors Trade and Industrial Internship Program . . . . .	100
Building & Construction: Exterior (The House) . . . . .	85	Coll Welding Technology II: SMAW/GTAW . . . . .	92		
Building & Construction: Finishing (The House) . . . . .	85	Coll Welding Technology III: Processes and Blueprint . . . . .	92	<b>World Language . . . . .</b>	<b>101</b>
Building & Construction: Interior (The House) . . . . .	85	Coll Advanced Automotive I . . . . .	92	American Sign Language I . . . . .	101
Construction Careers: Building Trades . . . . .	85	Coll Advanced Automotive II . . . . .	92	American Sign Language II . . . . .	101
Construction Careers : Landscape . . . . .		Coll Advanced Automotive III . . . . .	92	Honors American Sign Language III . . . . .	101
Design and Construction . . . . .	85	Coll Advanced Automotive IV . . . . .	92	Honors American Sign Language IV . . . . .	102
Art Technology I . . . . .	85	Advanced Automotive: Summer Internship . . . . .	92	French I . . . . .	102
Art Technology II . . . . .	85			French II . . . . .	102
CAPS Creative Design I . . . . .	86	<b>Social Studies . . . . .</b>	<b>93</b>	Honors French III . . . . .	102
CAPS Creative Design II . . . . .	86	Civics 9 . . . . .	94	Honors French IV . . . . .	102
Music/Media Technology I . . . . .	86	Honors Civics . . . . .	94	Coll Honors College French IV . . . . .	102
Music/Media Technology II - Multimedia . . . . .	86	Geography 9 . . . . .	94	AP French V . . . . .	102
Music/Media Technology II - Recording and Production . . . . .	86	AP Human Geography . . . . .	94	German I . . . . .	103
CAPS Business Administration I . . . . .	86	US History 10 . . . . .	94	German II . . . . .	103
CAPS Business Administration II . . . . .	86	AP US History . . . . .	94	Honors German III . . . . .	103
Aviation Technology I . . . . .	86	US History Seminar . . . . .	94	Honors German IV . . . . .	103
Honors Aviation Technology II -		World History 11 . . . . .	94	AP German V . . . . .	103
Private Pilot Knowledge Certification . . . . .	86	AP World History . . . . .	94	Spanish I . . . . .	103
Coll Honors Unmanned Aerial Systems (Drones) . . . . .	87	World History Seminar . . . . .	95	Spanish II . . . . .	103
Honors Avionics (Electronic applications in Aerospace) . . . . .	87	Economics 12 . . . . .	95	Honors Spanish III . . . . .	103
PLTW Honors Introduction to Engineering Design . . . . .	87	Economics 12 Hybrid . . . . .	95	Honors Hispanic Studies I . . . . .	104
PLTW Honors Civil Engineering and Architecture . . . . .	87	AP Microeconomics . . . . .	95	Honors Hispanic Studies II . . . . .	104
PLTW Honors Engineering:		Coll Honors Microeconomics . . . . .	95	Honors Spanish IV . . . . .	104
Principles of Engineering . . . . .	87	US Government and Politics 12 . . . . .	95	AP Spanish V . . . . .	104
PLTW Honors Robotics and Automation Technology . . . . .	87	US Government and Politics Hybrid . . . . .	95	Medical Spanish . . . . .	104

## ART

ELECTIVE COURSES	GRADES	PREREQUISITES
Ceramics I	9, 10, 11, 12	
Ceramics II	9, 10, 11, 12	Ceramics I
Ceramics III	10, 11, 12	Ceramics II
Computer Art I	9, 10, 11, 12	
Computer Art II	10, 11, 12	Computer Art I
Drawing I	9, 10, 11, 12	
Drawing II	9, 10, 11, 12	Drawing I
Drawing III	10, 11, 12	Drawing II
Jewelry and Craft Design I	9, 10, 11, 12	
Jewelry and Craft Design II	9, 10, 11, 12	Jewelry and Craft Design I
Medical Illustration I [CRHS only]	10, 11, 12	
Medical Illustration II [CRHS only]	9, 10, 11, 12	Medical Illustration I
Painting I	9, 10, 11, 12	
Painting II	9, 10, 11, 12	Painting I
Painting III	10, 11, 12	Painting II
Sculpture I	9, 10, 11, 12	
Sculpture II	9, 10, 11, 12	Sculpture I
Sculpture III	10, 11, 12	Sculpture II
Video Art I	9, 10, 11, 12	
Video Art II	10, 11, 12	Video Art I
Drawing/Painting [AP Studio Art: 2-D Design/Drawing]	10, 11, 12	
Ceramics/Sculpture [AP Studio Art: 3-D Design]	10, 11, 12	
Honors Arts Symposium [AHS only]	11, 12	

For additional CPHS options in Art, see International Baccalaureate section.

### Ceramics I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Basic ceramic design
- Creative problem solving
- Learn hand-building construction
- Basic wheel throwing
- Glazing techniques
- Emphasis on aesthetics and art criticism

*Projects, Activities, etc.:* Thrown and hand-built pieces

*Instructional Focus:* Lab work

### Ceramics II

*Prerequisite/Selection Process:* Ceramics I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced ceramic design
- Advanced hand building construction
- Advanced wheel throwing
- Advanced glazing techniques
- Develop sets/series of functional forms
- Continued emphasis on aesthetics and art criticism

*Projects, Activities, etc.:* Sets of functional forms and sculptural ceramic pieces

*Instructional Focus:* Lab work

### Ceramics III

*Prerequisite/Selection Process:* Ceramics II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Course may be taken up to three trimesters.

One trimester = 0.5 credit

*Major Outcomes:*

- Offers students additional coursework to develop greater depth in studio discipline
- Continued emphasis on art history, aesthetics and art production

*Projects, Activities, etc.:* Sets of functional forms and sculptural ceramic pieces

*Instructional Focus:* Lab work

### Computer Art I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Coursework focuses on creative and artistic applications of computer art and technology. The course will also focus on the Elements of Art and Principles of Design as they apply to computer created artwork.
- Technical skills relating to the use of the computer, software, visual composition, creative expression and communication will be taught.

*Instructional Focus:* Lab work

### Computer Art II

*Prerequisite/Selection Process:* Computer Art I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced student exploration and creation of computer graphics utilizing a series of project structures that demonstrate personal voice, creativity and the understanding of the incorporation of aesthetic design principles in the work
- Additional emphasis will be placed on the analysis and evaluation of the images created utilizing industry standard software

*Instructional Focus:* Lab work

### Drawing I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Learn basic drawing skills: observation, proportion, perspective and shading
- Learn basic drawing techniques: pencil, ink, conte pastel and charcoal
- Draw from life
- Learn basic art history, aesthetic and art criticism
- Excellent starting point for other art courses

*Projects, Activities, etc.:* Multiple drawings and sketchbook

*Instructional Focus:* Lab work

**Drawing II***Prerequisite/Selection Process:* Drawing I*Intended Audience:* Grades 9, 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Expand skills developed in Drawing I: color use, composition and figure drawing
- Expand techniques developed in Drawing I: pencil, pastel and color work
- Draw from life and imagination
- Continued emphasis on art history, aesthetics and art criticism

*Projects, Activities, etc.:* Multiple drawings and sketchbook*Instructional Focus:* Lab work**Drawing III***Prerequisite/Selection Process:* Drawing II*Intended Audience:* Grades 10, 11, and 12*Credit:* Course may be taken up to three trimesters.*One trimester = 0.5 credit**Major Outcomes:*

- Offers students additional coursework to develop greater depth in studio discipline
- Continued emphasis on art history, aesthetics and art production

*Projects, Activities, etc.:* Multiple drawings and sketchbook*Instructional Focus:* Lab work**Jewelry and Craft Design I***Intended Audience:* Grades 9, 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Create wearable and usable art through multiple art projects
- Work with jewelry production using casting and fabrication techniques.
- Explore bookmaking using various printing /paper techniques
- Explore fiber and sculpture construction.
- Study the history of jewelry and craft design around the world.

*Instructional Focus:* Lab work**Jewelry and Craft Design II***Prerequisite/Selection Process:* Jewelry and Craft Design I*Intended Audience:* Grades 9, 10, 11, and 12*Course may be taken up to three trimesters.**Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Offers students additional coursework to develop greater depth in jewelry and craft design and production
- Continued emphasis on art history, aesthetics and art production

*Instructional Focus:* Lab work**Medical Illustration I***[CRHS only]**Intended Audience:* Grades 10, 11, and 12*Credit:* One trimester = 0.5 credit, meets art requirement*Major Outcomes:*

- Accurately interpret and portray body systems (organs, skeleton, tissues, etc.) through visual representations
- Transform complex information into visual images that have the potential to communicate to broad audiences

*Projects, Activities, etc.:* Texture and color theory, study of tissue, and color matching. Mediums will be graphite, pen and ink, watercolor, and an introduction to Photoshop.*Instructional Focus:* Lab work**Medical Illustration II***[CRHS only]**Prerequisite/Selection Process:* Medical Illustration I*Intended Audience:* Grades 10, 11, and 12*Credit:* One trimester = 0.5 credit, meets art requirement*Major Outcomes:*

- Expansion of accurately interpreting and portraying body systems (organs, skeleton, tissues, etc.) through visual representations
- Transform complex information into visual images that have the potential to communicate to broad audiences
- Digital finishing and graphic design

*Projects, Activities, etc.:* Posters, brochures, and info graphics designed to illustrate an idea or inform a viewer.*Instructional Focus:* Lab work**Painting I***Intended Audience:* Grades 9, 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Learn basic painting techniques
- Learn basic color theory
- Watercolor and acrylic painting
- Aesthetics and art criticism

*Projects, Activities, etc.:* Water color, tempera and acrylic paintings*Instructional Focus:* Lab work**Painting II***Prerequisite/Selection Process:* Painting I*Intended Audience:* Grades 9, 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Refinement of skills developed in Painting I
- Art awareness of modern artists
- Continued emphasis on art history, aesthetics and art criticism
- More self-expression in subject matter

*Projects, Activities, etc.:* Watercolor, tempera and acrylic paintings*Instructional Focus:* Lab work**Painting III***Prerequisite/Selection Process:* Painting II*Intended Audience:* Grades 10, 11, and 12*Credit:* Course may be taken up to three trimesters.*One trimester = 0.5 credit**Major Outcomes:*

- Offers students additional coursework to develop greater depth in studio discipline
- Continued emphasis on art history, aesthetics and art production

*Projects, Activities, etc.:* Watercolor, tempera and acrylic painting*Instructional Focus:* Lab work**Sculpture I***Intended Audience:* Grades 9, 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Work with 3-D art forms
- Exploration of multiple types of media as they relate to form and mass
- Learn about sculptors and history of sculpture
- Emphasis on aesthetics and art criticism

*Projects, Activities, etc.:* Additive and subtractive sculptural pieces*Instructional Focus:* Lab work**Sculpture II***Prerequisite/Selection Process:* Sculpture I*Intended Audience:* Grades 9, 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Theme-based concentration applied to working with 3-D art forms
- Greater emphasis on refinement and exploration of sculpture techniques
- Styles and works of a variety of noted sculptors studied
- Continued emphasis on aesthetics and art criticism

*Projects, Activities, etc.:* Fabrication, welding and stone carving

**Sculpture III***Prerequisite/Selection Process:* Sculpture II*Intended Audience:* Grades 10, 11, and 12*Credit:* Course may be taken up to three trimesters.*One trimester = 0.5 credit**Major Outcomes:*

- Offers students additional coursework to develop greater depth in studio discipline
- Continued emphasis on art history, aesthetics and art production

*Projects, Activities, etc.:* Fabrication, welding and stone carving**Video Art I***Intended Audience:* Grades 9, 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Coursework focuses on creative and artistic applications of video art and technology
- The course will also focus on the Elements of Art and Principles of Design as they apply to Media Art and video technology
- Technical skills relating to the use of digital video/camera equipment, sound recording, composition and editing will be taught

*Instructional Focus:* Lab work**Video Art II***Prerequisite/Selection Process:* Video Art I*Intended Audience:* Grades 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Advanced student exploration and creation of video production.
- Strong focus is placed on students demonstrating a personal voice through the filming and editing of their projects.
- Additional emphasis will be placed on film presentation, evaluation and analysis of their finished works.

*Instructional Focus:* Lab work**Drawing/Painting [AP Studio Art: 2-D Design]***Intended Audience:* Grades 10 (with teacher approval), 11 and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Exploration of studio art at the college-level
- Course is sponsored by the College Board
- Students are expected to be able to work independently as an adult member of the class
- Completion of comprehensive portfolio made up of Breadth, Concentration and Quality Sections that involve various media and subject matter that are created as 2 dimensional works of art. Focus on a variety of media and techniques
- Portfolio [exam] submitted to College Board for review in May.
- Course work will receive a separate grade from the teacher in addition to a rating from the College Board

*Projects, Activities, etc.:* Creation of a portfolio of artwork*Instructional Focus:* Comparable to an introductory college course in studio art**Ceramics/Sculpture [AP Studio Art: 3-D Design]***Intended Audience:* Grades 10 (with teacher approval), 11, and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Exploration of studio art at the college-level
- Course is sponsored by the College Board
- Students are expected to be able to work independently as an adult member of the class
- Completion of comprehensive portfolio made up of Breadth, Concentration and Quality Sections that involve various media and subject matter that are created as 3 dimensional works of art.
- Portfolio [exam] submitted to College Board for review in May.
- Course work will receive a separate grade from the teacher in addition to a rating from the College Board

*Projects, Activities, etc.:* Creation of a portfolio of artwork*Instructional Focus:* Comparable to an introductory college course in studio art**Honors Arts Symposium**

[AHS only]

*Intended Audience:* Grades 11 and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Learn and directly apply the elements of art and principles of design
- Explore a secondary discipline; noting the connections with art (ex. chemistry, specifically chemical reactions to metals and other materials used in jewelry design)
- Apply Design Thinking method to create solutions to various design challenges
- Design and create works that become part of an e-portfolio

*Projects/Activities, etc.:* Exploration of materials, original design work, development of art skills (ex. creating patinas on metal, use of jewelry equipment, designing original wearable art)*Instructional Focus:* Design Thinking, Makerspace equipment, student collaboration, student-driven and project-base design challenges, industry tours, guest speakers

# Center for Biomedical Sciences and Engineering @ Coon Rapids High School



The Center for Biomedical Sciences and Engineering program is a specialty program within Coon Rapids High School for students who want an integrated and rigorous, in-depth focus on science, math, and medical or engineering courses. Through the Project Lead The Way curriculum and various interdisciplinary courses, students will experience a sequence of courses that are hands-on and use a real-world problem solving approach. Additionally, students will build transferable skills such as problem solving, critical and creative thinking, communication, and collaboration. Students can explore careers related to Biomedical Science, Engineering, and Biomedical Engineering.

## CENTER FOR BIOMEDICAL SCIENCES AND ENGINEERING

BIOMEDICAL SCIENCES REQUIRED COURSES	GRADES	PREREQUISITES
Computer Skills for Biomed and Engineering	9	
Honors Physical Science 9 Biomed [CRHS only]	9	
Honors English 10 Biomed and Engineering [CRHS only]	10	
Coll Honors Biology Biomed [CRHS only]	11	
Human Performance and Wellness Biomed [CRHS only]	10, 11, 12	PLTW Honors Principles of Biomedical Sciences Biomed [CRHS only]
Medical Terminology and Careers Biomed [CRHS only]	10	
PLTW Honors Principles of Biomedical Sciences [CRHS only]	9, 10	
PLTW Honors Human Body Systems Biomed [CRHS only]	10, 11	PLTW Honors Principles of Biomedical Sciences [CRHS only] or Biology
PLTW Honors Medical Interventions Biomed [CRHS only]	11, 12	PLTW Honors Human Body Systems Biomed [CRHS only]
PLTW Honors Biomedical Innovation Biomed [CRHS only]	12	PLTW Honors Medical Interventions Biomed [CRHS only]
BIOMEDICAL SCIENCES ELECTIVES	GRADES	PREREQUISITES
Introduction to Holistic Healing [CRHS only]	10, 11, 12	
Medical Illustration I [CRHS only]	10, 11, 12	
Medical Illustration II [CRHS only]	10, 11, 12	
Medical Spanish [CRHS only]	10, 11, 12	Spanish II
ENGINEERING REQUIRED COURSES	GRADES	PREREQUISITES
PLTW Honors Introduction to Engineering Design	9, 10, 11	
Computer Skills for Biomed and Engineering	9	
Honors Physics 9 Engineering	9	
Honors English 10 Biomed and Engineering [CRHS only]	10	
PLTW Honors Principles of Engineering	10, 11, 12	
PLTW Honors Engineering Design and Development	12	PLTW Honors Principles of Engineering
ENGINEERING ELECTIVES	GRADES	PREREQUISITES
PLTW Honors Digital Electronics	11, 12	
PLTW Honors Computer Integrated Manufacturing	11, 12	PLTW Honors Introduction to Engineering Design, PLTW Honors Principles of Engineering

Acceptance into the Center for Biomedical Sciences and Engineering at CRHS is a required prerequisite for all Biomedical Sciences and Engineering courses.

## BIOMEDICAL SCIENCES REQUIRED COURSES

### Computer Skills for Biomed and Engineering [CRHS only]

*Prerequisite/Selection Process:* Acceptance into Biomedical Sciences and Engineering Program at CRHS

*Intended Audience:* Grade 9

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Proficiency in word processing, spreadsheet, database, graphic and charting presentations
- Introduction to gaming

*Projects, Activities, etc.:* Business and personal documents, computer-generated presentations

*Instructional Focus:* Hands-on computerized activities and Microsoft Office software.

### Honors Physical Science 9 Biomed

[CRHS only]

*Prerequisite/Selection Process:* Acceptance into Biomedical Sciences Program at CRHS

*Intended Audience:* Grade 9

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Knowledge of the basic concepts related to force, motion, and energy
- Knowledge of the structure of matter
- Apply understandings about matter and energy to earth systems
- Radioactivity
- History and nature of science

*Projects, Activities, etc.:* Medical related research project

*Instructional Focus:* Prepares Biomed students for advanced science courses, lab work, and group activities

### Honors English 10 Biomed and Engineering [CRHS only]

*Prerequisite/Selection Process:* Acceptance into Biomedical Sciences and Engineering Program at CRHS

*Intended Audience:* Grade 10

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Rhetorical analysis
- Interpretation and evaluation of literature and informational texts
- Understanding of fiction and nonfiction
- Public Speaking
- Technical Writing

*Instructional Focus:* Connection between rhetoric, medicine, and engineering including medical or engineering texts options and technical writing.

### Coll Honors Biology Biomed

[CRHS only]

Composed of SCSU BIOL 102 [The Living World]

*Prerequisite/Selection Process:* Acceptance into Biomedical Sciences Program at CRHS

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 credit, successful completion will earn 3 college credits.

*Major Outcomes:*

Students will understand:

- The nature of science, its methods, scope, and limitations
- Cell function
- The genetic basis of life
- Major concepts and theories of diversity, evolution, and ecology
- Plant form and function
- Organization and general function of the human body
- Significant biological issues facing society

*Projects, Activities, etc.:* Lab investigations and write-ups, research, presentations and college campus visit

*Instructional Focus:* Small and large group lecture, field and lab activities and use of college text

### Human Performance and Wellness Biomed

[CRHS only]

*Prerequisite/Selection Process:* PLTW Honors Principles of the Biomedical Sciences

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

Meets 10th grade PE requirement.

*Major Outcomes:*

- Expose future health professionals to the world where athletics meets academics. Students will research training options after thorough investigation of various abilities and health histories of participants.

*Projects, Activities, etc.:* Hands on training equipment and body sensors to optimize health and wellness of all citizens, Career and Education Research

*Instructional Focus:* This course allows students to use the latest technology and hands-on learning opportunities to blend academics with athletics.

### Medical Terminology and Careers Biomed

[CRHS only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into Biomedical Sciences Program at CRHS

*Intended Audience:* Grades 10

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Medical terminology
- Career exploration

*Projects, Activities, etc.:* Field trips and guest presenters

*Instructional Focus:* Taught by a health professional, guest presenters

*Co-curricular Connection:* HOSA

### PLTW Honors Principles of Biomedical Sciences

[CRHS only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into Biomedical Sciences Program at CRHS

*Intended Audience:* Grades 9 and 10

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Investigate various health conditions
- Determine the factors that led to the death of a fictional person
- Investigate lifestyle choices and medical treatments that might prolong life.
- Provides an overview of all the courses in the Biomedical Sciences program and lays the scientific foundation for subsequent courses.

*Projects, Activities, etc.:* Projects and problems designed with technology-rich curriculum

*Instructional Focus:* Research and design techniques on experiments and projects.

### PLTW Honors Human Body Systems Biomed

[CRHS only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* PLTW Honors Principles of the Biomedical Sciences Biomed

*Intended Audience:* Grades 10 and 11

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Examine interactions of body systems
- Design experiments using data acquisition software
- Explore science in action using real world cases
- Play the role of biomedical professionals to solve medical mysteries

*Projects, Activities, etc.:* Projects and problems, Use manikins to build body systems, Utilize specialized software for hands-on learning

*Instructional Focus:* Technology rich research and design.

**PLTW Honors Medical Interventions****Biomed**

[CRHS only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* PLTW Honors Human Body Systems*Intended Audience:* Grades 11 and 12*Credit:* Two Trimesters = 1.0 Credit

PLTW college credit can be earned

*Major Outcomes:*

- Students will investigate how to prevent, diagnose, and treat disease by exploring how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail.

*Projects, Activities, etc.:* Real world applications with project based activities*Instructional Focus:* Technology-driven curriculum**PLTW Honors Biomedical Innovation Biomed**

[CRHS only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* PLTW Honors Medical Interventions Biomed*Intended Audience:* Grade 12*Credit:* Three trimesters = 1.5 credits

PLTW college credit can be earned

*Major Outcomes:*

- Students will design innovative solutions for the most pressing health challenges of the 21st century by addressing topics ranging from public health and biomedical engineering to clinical medicine and physiology.

*Projects, Activities, etc.:* Real world applications with project based activities*Instructional Focus:* Independent design project with a mentor or advisor from a university, medical facility, or research institution.**BIOMEDICAL SCIENCES ELECTIVES****Introduction to Holistic Healing**

[CRHS only]

*Intended Audience:* Grades 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Future health professionals will be exposed to the world of Holistic Health with topics such as Chiropractic Care, Acupuncture, Dietary Supplements, and Mind-Body Therapies. Students will research and discuss various therapies in regards to their history, implementation, interaction with traditional medicine, and careers involved.

*Projects, Activities, etc.:* Various Holistic Medicine Speakers, Research, and Projects*Instructional Focus:* This course introduces students to non-traditional medical therapies and aligning careers in the biomedical pathway.**Medical Illustration I**

[CRHS only]

*Intended Audience:* Grades 10, 11, and 12*Credit:* One trimester = 0.5 credit, meets art requirement*Major Outcomes:*

- Accurately interpret and portray body systems (organs, skeleton, tissues, etc.) through visual representations
- Transform complex information into visual images that have the potential to communicate to broad audiences

*Projects, Activities, etc.:* Texture and color theory, study of tissue, and color matching. Mediums will be graphite, pen and ink, watercolor, and an introduction to Photoshop.*Instructional Focus:* Lab work**Medical Illustration II**

[CRHS Only]

*Prerequisite/Selection Process:* Medical Illustration I*Intended Audience:* Grades 10, 11, 12*Credit:* 0.5, meets art requirement*Major Outcomes:*

- Expansion of accurately interpreting and portraying body systems (organs, skeleton, tissues, etc.) through visual representations
- Transform complex information into visual images that have the potential to communicate to broad audiences
- Digital finishing and graphic design

*Projects, Activities, etc.:* Posters, brochures, and info graphics designed to illustrate an idea or inform a viewer.*Instructional Focus:* Lab work**Medical Spanish**

[CRHS only]

*Prerequisite/Selection Process:* Spanish II*Intended Audience:* Grades 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

This course is designed for Healthcare Professionals to assist them in communicating with those who speak a language other than English in the healthcare setting. Students will learn the vocabulary of Spanish medical terms, learn skills in medical reporting and medical communications, and apply cultural variations to medical practices.

*Projects, Activities, etc.:* Use conversational Spanish in medical scenarios*Instructional Focus:* Medical applications in the World Languages area**ENGINEERING REQUIRED COURSES****PLTW Honors Introduction to Engineering Design**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into Engineering Program at CRHS*Intended Audience:* Grades 9, 10, and 11*Credit:* Two trimesters = 1.0 credit

Meets arts requirement [1.0 credit]

PLTW college credit can be earned

*Major Outcomes:*

- Introduction to engineering design
- Problem solving using design development process
- Process of product design
- Develop, create and analyze product models

*Projects, Activities, etc.:* Engage in engineering animations*Instructional Focus:* Use computer 3-D modeling software for design and projects**Computer Skills for Biomed and Engineering**

[CRHS only]

*Prerequisite/Selection Process:* Acceptance into Biomedical Sciences and Engineering Program at CRHS*Intended Audience:* Grade 9*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Proficiency in word processing, spreadsheet, database, graphic and charting presentations
  - Introduction to gaming
- Projects, Activities, etc.:* Business and personal documents, computer-generated presentations
- Instructional Focus:* Hands-on computerized activities and Microsoft Office software

**Honors Physics 9 Engineering***Prerequisite/Selection Process:* Acceptance into Engineering Program at CRHS*Intended Audience:* Grade 9*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- In depth understanding of concepts related to mechanics, fluids, thermodynamics, waves [sound and light', electricity, and magnetism

*Projects, Activities, etc.:* Lab work and research investigations*Instructional Focus:* Computer-enhanced small and large group lecture and lab activities

**Honors English 10 Biomed and Engineering**  
[CRHS only]

*Prerequisite/Selection Process:* Acceptance into Biomedical Sciences and Engineering Program at CRHS

*Intended Audience:* Grade 10

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Rhetorical analysis
- Interpretation and evaluation of literature and informational texts
- Understanding of fiction and nonfiction
- Public Speaking
- Technical Writing

*Instructional Focus:* Connection between rhetoric, medicine, and engineering including medical or engineering texts options and technical writing.

**PLTW Honors Principles of Engineering**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into Engineering Program at CRHS

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Exploration of engineering and engineering technology
- Explore technology systems and manufacturing processes
- Use of math, science and technology in engineering problem solving process
- Social and political consequences of technological changes

*Projects, Activities, etc.:* Projects and problems

*Instructional Focus:* Use research and design techniques to analyze problems, inquiry bases

**PLTW Honors Engineering Design and Development**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into Engineering program at CRHS and PLTW Honors Principles of Engineering

*Intended Audience:* Grade 12

*Credit:* Three trimesters = 1.5 credits

PLTW college credit can be earned

*Major Outcomes:*

- Teams of students work together guided by the teacher and a community mentor to research design and construct a solution to an engineering problem
- Students will learn manufacturing skills to help in the development of their innovative project
- Teams will participate in an end of course presentation event at CRHS

*Projects, Activities, etc.:* Use research, experiments, and design techniques to aid in problem solving; write and develop a final presentation using technology presentation tools

**ENGINEERING ELECTIVES****PLTW Honors Digital Electronics**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into Engineering Program at CRHS

*Intended Audience:* Grades 11, 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Foundations in Electronics
- Logic Design
- Controlling Real World Systems

*Projects, Activities, etc.:* Design and build circuits, learn binary, soldering, random number generator, robotics

*Instructional Focus:* Learn the digital circuit design process to create circuits using design software and physical components to present solutions that can improve lives.

**PLTW Honors Computer Integrated Manufacturing**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into Engineering Program at CRHS, PLTW Honors Introduction to Engineering Design, PLTW Honors Principles of Engineering

*Intended Audience:* Grades 11, 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Principles of Manufacturing - Students will learn to use input and output devices as a foundation to model manufacturing processes
- Manufacturing Processes - Students analyze a product to consider design improvements, perform calculations to make manufacturing decisions, and recommend processes
- Elements of Automation -introduce students to robotic automation within a manufacturing system
- Integration of Manufacturing Elements

*Instructional Focus:* Hands on activities

# BUSINESS & MARKETING EDUCATION

ELECTIVE COURSES	GRADES	PREREQUISITES
<b>Finance</b>		
Accounting I	9, 10, 11, 12	
Accounting II [NOCTI]	9, 10, 11, 12	Accounting I
Personal Money Management	9, 10, 11, 12	
Honors Building Wealth	10, 11, 12	
<b>Information Technology</b>		
IT Explorations for Business & Marketing	9, 10, 11, 12	
Keyboarding	9, 10, 11, 12	
Computer Applications	9, 10, 11, 12	
Social Media Marketing and Web Design	9, 10, 11, 12	
Video Game Design and Marketing	9, 10, 11, 12	
Web Page Coding for Business [NOCTI]	9, 10, 11, 12	
Computer Programming	9, 10, 11, 12	
AP Computer Science	9, 10, 11, 12	Computer Programming
PLTW Honors Computer Science Principles [AHS, BHS only]	10, 11, 12	
<b>Marketing/Management</b>		
Advertising and Sales	9, 10, 11, 12	
Business Management [NOCTI]	9, 10, 11, 12	
Hospitality and Tourism	9, 10, 11, 12	
Marketing	9, 10, 11, 12	
Business and Consumer Law	10, 11, 12	
Entrepreneurship	10, 11, 12	
Honors International Business	10, 11, 12	
Honors Business Internship Program [NOCTI]	12	Application and interview required.
Honors Marketing and Management Internship Program [NOCTI]	12	Application and interview required.

For additional AHS options in Business and Marketing, see STEAM section.

For additional BHS options in Business and Marketing, see CEMS section.

For additional CPHS options in Business and Marketing, see International Baccalaureate section.

For additional CRHS options in Business and Marketing, see Biomedical Sciences and Engineering section.

## FINANCE

### Accounting I

[Students may earn Articulated College Credit]

Intended Audience: Grades 9, 10, 11, and 12

Credit: One trimester = 0.5 credit

Major Outcomes:

- Maintaining accounting records for a service business
- Exploring careers in accounting and finance

*Projects, Activities, etc.:* Complete the Accounting Cycle for records for a service business using spreadsheet and accounting software. Analyze financial statements to measure the financial health of a business.

*Instructional Focus:* Hands-on simulation using spreadsheet.

*Co-curricular Connection:* BPA, DECA

### Accounting II [NOCTI]

*Prerequisite/Selection Process:* Accounting I

Intended Audience: Grades 9, 10, 11, and 12

Credit: One trimester = 0.5 credit

Major Outcomes:

- Maintaining accounting records for a retail business
- Preparing payroll records for business
- Working with specialized accounting journals

*Projects, Activities, etc.:* Create and maintain financial records for a retail business using spreadsheet.

Analyze financial statements to measure the financial health of a business through simulations.

*Instructional Focus:* Hands-on simulation using spreadsheet.

*Co-curricular Connection:* BPA, DECA

### Personal Money Management

Intended Audience: Grades 9, 10, 11, and 12

Credit: One trimester = 0.5 credit

Major Outcomes:

- Develop student's financial literacy skills through spending, savings, and investing
  - Create a budget and maintain a checking account
  - Understand taxes and how to file income tax
  - Understand the responsible use of credit
- Projects, Activities, etc.:* Simulate your future finances by researching your potential income, budget for your wants and needs, examine how credit affects your life, understand the costs of credit, maintain a checking account, create a stock portfolio, and file taxes.

*Instructional Focus:* Hands-on activities and budgeting and stock market simulation.

*Co-curricular Connection:* BPA, DECA

## Honors Building Wealth

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Learn the “ins” and “outs” of investing in stocks, bonds, and mutual funds
- Use current market data to choose the best stock and bond mutual funds

*Projects, Activities, etc.:* Learn how to make money! Use tax advantaged methods of investing, such as 401K plans and IRA’s to help your money grow. Additional investment choices will be examined, such as real estate, options, and collectibles. You will have an understanding of Wall Street, the Dow Jones, and various financial markets. Create a stock portfolio and compete with classmates with return on investment.

*Instructional Focus:* Hands-on activities and speakers

*Co-curricular Connection:* BPA, DECA

## INFORMATION TECHNOLOGY

### IT Explorations for Business & Marketing

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Uses of computers in workplace and daily life
- Basic software skills
- MS Office, Google Docs, Internet research

*Projects, Activities, etc.:* Computer based projects for workplace readiness

*Instructional Focus:* Hands-on computerized activities

*Co-curricular Connection:* BPA

### Keyboarding

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Keying documents for college and career
- Skill development: speed, accuracy, and technique
- Introduction to business documents

*Projects, Activities, etc.:* Compose, create, and proofread documents such as letters, tables, reports, and flyers.

*Instructional Focus:* Hands-on computerized activities and keyboarding software

*Co-curricular Connection:* BPA, DECA

### Computer Applications

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Create Word documents using: table of contents, lists, and tables
- Create Excel documents using: financial functions, data tables, integrated charts, working with multiple Excel worksheets and workbooks
- Create PowerPoint presentations using: themes, animation, and transitions

*Projects, Activities, etc.:* Use Microsoft Office basic and advanced features to obtain job readiness and college skills in word processing, spreadsheet, and presentations.

*Instructional Focus:* Hands-on computerized activities. These skills are essential for success in college and in the career world.

*Co-curricular Connection:* BPA, DECA

### Social Media Marketing and Web Design

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit, Art Credit

*Major Outcomes:*

- Investigate online marketing tools such as internet forums, message boards, blogs, social networking, and online graphic design programs
- Develop and use your web design and graphic design skills to create professional, up-to-date web sites that are pleasing to the eye and easy to use

*Projects, Activities, etc.:* It’s all about Facebook, Instagram, Pinterest, Twitter, QR codes and apps. Learn how to use these digital and social media tools in the world of business.

Plan, design, and create multi-page websites.

*Instructional Focus:* Hands-on computerized activities

*Co-curricular Connection:* BPA, DECA

### Video Game Design and Marketing

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Understand programming concepts to develop a video game
- Use Unity game engine and C# programming to develop 2D and 3D video games.
- Create an advertising and packaging presentation to market your video game

*Projects, Activities, etc.:* Use programming concepts to create mini games and final game projects. Develop a game theme and storyboard for game concept. Develop a marketing plan and presentation.

*Instructional Focus:* Hands-on computerized activities

*Co-curricular Connection:* BPA, DECA

### Web Page Coding for Business [NOCTI]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Master a variety of web design concepts to create powerful websites
- Design websites that are practical to the business world
- Learn basic graphic design skills

*Projects, Activities, etc.:* Learn the secret techniques of web designers and the latest in web development. Design and create your own interactive site through HTML, CSS, and JavaScript coding. What you learn about the web design process will impress your future employer!

*Instructional Focus:* Hands-on computerized activities

*Co-curricular Connection:* BPA

## Computer Programming

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Write simple to complex programs using Java
- Design and implement programming code
- Develop problem solving skills and logical thinking
- Explore computer science careers

*Projects, Activities, etc.:* Write programs for daily applications.

*Instructional Focus:* hands-on computerized activities and career exploration

*Co-curricular Connection:* BPA

## AP Computer Science

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Computer Programming

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced programming design
- Advanced problem solving
- Advanced programming methods

*Projects, Activities, etc.:* Design and implement a Java-based game or simulation

*Instructional Focus:* Computer usage and problem solving, preparation for AP Computer Science exam

*Co-curricular Connection:* BPA

## PLTW Honors Computer Science Principles

[AHS, BHS only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimesters /two periods = 1.0 credit, meets arts requirement [1.0 credit] PLTW college credit can be earned

*Major Outcomes:*

- Introduce computational tools that foster creativity
- Problem solving with structured activities and progress to open-ended projects and problems
- Develop computational thinking

*Instructional Focus:* Use programming to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity

## MARKETING MANAGEMENT

### Advertising and Sales

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Launch an advertising campaign for an existing business
- Write television commercials, radio advertisements, create billboards, and promote mobile apps for an existing business
- Master the selling process to gain an entry-level sales position
- Understand consumer psychology through the selling process

*Projects, Activities, etc.:* You and your team have been approached by a real business that needs help. Develop a successful advertising campaign to attract new customers. Everyone sells! Learn the eight steps of the sale and to earn a sales certificate, get college credit, and develop skills to get your first job.

*Instructional Focus:* Industry based examples, project-based learning, important job-based skills, and hands-on activities

*Co-curricular Connection:* DECA

### **Business Management [NOCTI]**

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Develop the skills to plan, lead, staff, organize and control a successful business
- Learn about successful business leaders
- Explore management fundamentals as well as business, marketing and financial practices and principles

*Projects, Activities, etc.:* Enhance your management skills using a computer simulation to manage a small retail store: purchasing, pricing, promotion, staffing, and market research are all part of your management activities.

*Instructional Focus:* Case studies, group projects, hands-on activities

*Co-curricular Connection:* BPA, DECA

### **Hospitality and Tourism**

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Perform event planning in the Hospitality Sector
- Business to business selling
- Travel and Tourism Bureau rebranding
- Developing 21st century skills

*Projects, Activities, etc.:* Take on the role of a sales representative for a destination management company and develop events that will engage a large group arriving for a special event. You have been hired to rebrand a city's Travel and Tourism Department and creatively market the city as a tourist destination.

*Instructional Focus:* Industry based examples, project-based learning, important job-based skills, and hands-on activities, that stress creativity, innovation, communication, and collaboration.

*Co-curricular Connection:* DECA

### **Marketing**

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Discover the exciting world of marketing
- Team-based real-world projects and activities
- Conduct school-based survey
- Develop an innovative marketing plan and new brand

*Projects, Activities, etc.:* Your team's task is to develop a new brand and develop a marketing plan that will make it competitive in the marketplace.

Another team project involves identifying an issue, delivering a survey and making recommendations that have a meaningful impact within your school.

*Instructional Focus:* Realistic projects, Team-based learning, Collaborative assignments, hands-on activities that focus on innovative business skills, build problem solving and communication skills.

*Co-curricular Connection:* BPA, DECA

### **Business and Consumer Law**

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Consumer law related issues
- Contracts
- Negligence
- Negotiation
- Civil trials
- Product liability

*Projects, Activities, etc.:* Examine law through participation in a mock trial; including pre-trial discovery (fact finding, affidavits, depositions) and the actual trial (opening statements, direct and cross examination, closing arguments).

*Instructional Focus:* Case studies, role plays, speakers, group projects, mock trial

*Co-curricular Connection:* BPA, DECA

### **Entrepreneurship**

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Learn how to start your own business
- Explore business opportunities available to entrepreneurs
- Complete the steps necessary to develop a business plan

*Projects, Activities, etc.:* Create a business plan to start your own business.

*Instructional Focus:* Hands-on activities, guest speakers, case studies

*Co-curricular Connection:* BPA, DECA

### **Honors International Business**

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Determine the causes of globalization
- Understand cultural differences and similarities around the world
- Explore business in a changing world
- Understand the role of importing, exporting, currency conversion and trade relations
- Explain how a country's economic system affects their economic decisions

*Projects, Activities, etc.:* Create a team presentation based on business customs and cultures of other countries; examine an international globalized company, their trade practices and the trade practices of their home country.

*Instructional Focus:* Hands on activities

*Co-curricular Connection:* BPA, DECA

### **Honors Business Internship Program [NOCTI]**

*Prerequisite/Selection Process:* Application and interview required

*Intended Audience:* Grade 12 college and career-bound students pursuing business careers  
*Credit:* Up to three credits available (0.5 credit per trimester for seminar, 0.5 credit per trimester for work); students enroll for up to three trimesters which is preferred by employers/ internship sites

*Major Outcomes:*

- Paid business career experience
- Leadership development
- Development of business/computer skills
- Service/volunteerism
- Career development
- Communication skills
- Financial literacy

*Projects, Activities, etc.:* Develop a career portfolio, attend leadership conferences, participate in community and school service projects, and compete in business related competitions through BPA

*Instructional Focus:* On-the-job training, individualized career development and hands-on activities using Microsoft Office

*Co-curricular Connection:* BPA

### **Honors Marketing and Management Internship Program [NOCTI]**

*Prerequisite/Selection Process:* Marketing, Advertising and Sales, or Business Management recommended; application and interview required

*Intended Audience:* Grade 12 college and career-bound students pursuing marketing and management careers

*Credit:* Up to three credits available (0.5 credit per trimester for seminar, 0.5 credit per trimester for work); students enroll for up to three trimesters which is preferred by employers/internship sites

*Major Outcomes:*

- Initiative and self-direction
- Critical thinking and problem solving
- Communication and collaboration
- Financial literacy
- Leadership development
- Community service
- Creativity and innovation

*Projects, Activities, etc.:* Take on the role of designer, buyer, advertiser, and sales person as you try to create, order, market, and sell your product. Prepare yourself for a real job interview. Learn about how to manage your personal finances. Plan your future career and education.

*Instructional Focus:* Seminar class, on-the-job training and management of the school store

*Co-curricular Connection:* DECA

# CAREER TECHNICAL EDUCATION

CAREER COURSES	GRADES	PREREQUISITES
<b>Foundational Knowledge and Skills</b>		
Investigating Careers	9, 10, 11, 12	
Coll Career Development [AHS only]	10, 11, 12	
Work Experience Program	10, 11, 12	Referral only
<b>Agriculture, Food, and Natural Resources</b>		
Animal Management	9, 10, 11, 12	
Pre-Vet Animal Science	10, 11, 12	
Coll Honors Animal Science	11, 12	Pre-Vet Animal Science or Animal Management Recommended
Fish and Wildlife Ecology	10, 11, 12	
Fish and Wildlife Zoology	10, 11, 12	
Seasonal Horticulture	9, 10, 11, 12	
Floriculture	9, 10, 11, 12	
Greenhouse Management	9, 10, 11, 12	
Global Food Challenge "Can We Feed the World Without Destroying It?"	11, 12	
<b>Health Science Careers</b>		
Introduction to Holistic Healing [CRHS Only]	10, 11, 12	
Medical Anatomy I	10, 11, 12	
Medical Anatomy II	10, 11, 12	
Medical Terminology and Careers	10, 11, 12	
Honors Health Science Internship	12	Application and interview required

For additional CRHS options in Career Technical Education, see Biomedical Sciences and Engineering section.

## FOUNDATIONAL KNOWLEDGE AND SKILLS

### Investigating Careers

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Current and future career trends in high demand, high wage areas
- College/post-secondary planning
- College options, admissions, requirements, financial aid availability
- Getting a job and keeping it, defining success at the workplace
- Self-assessment for career planning
- Career research
- Personal portfolio that reflects student's work

*Projects, Activities, etc.:* Class portfolio, detailed career plan including goals and objectives, action path to get to chosen career. Students will have an overview of college offerings how to access and utilize resources. Students will create projects based on their self-assessment results and career choices.

*Instructional Focus:* Speakers, PowerPoints, variety of technology access. Students will use Internet accessing career and college information. Students will utilize career center and connect with Career Placement Specialists to become aware of colleges, college visits, test prep, financial aid, and business connections.

### Coll Career Development

[AHS only]

*Intended Audience:* Only Grade 10 [Passed MCA Reading Test with Meets or Exceeds], only Grade 11 [GPA in top 33 percent of class or GPA of 3.5 or above], and only Grade 12 [GPA in top 50 percent of class or GPA of 3.0 or above].

*Credit:* One trimester = 0.5 credit, successful completion will earn 2 college credits.

- Major Outcomes:* This is an Anoka Ramsey Community College course in which students will
- Assess students' interests, needs and abilities in order to recognize the many components that go into making career decisions.
  - Expand awareness of self and the world of work in order to make deliberate career choices throughout one's lifetime.
  - Help students learn skills that will enable them to make satisfying career decisions.
  - Explore the many ways the economy affects the job market.
  - Understand how social, economic, cultural, family and organizational changes can affect careers.
  - Explore strategies for implementing academic/career development plans.

*Projects/Activities, etc.:* Interest and career inventories, career development plan, case studies, career interview

*Instructional Focus:* Individualized approach focused on career pathway of student

### Work Experience Program

[WE/CEP, WED]

*Prerequisite/Selection Process:* Referral only

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Employability Skills
- Preparation for independent living
- Entry level employment or training in high schools, district sites and STEP.

*Projects, Activities, etc.:* Individual activities and group work.

*Instructional Focus:* Daily seminar class and on-the-job training.

## AGRICULTURE, FOOD, AND NATURAL RESOURCES

### Animal Management

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit, does not meet science credit requirements

*Major Outcomes:*

- Comprehensive analysis of the animal science industry as it relates to companion animals such as horses, dogs, cats, and other recreational animals.

*Projects, Activities, etc.:* Animal presentations, field trips, and career exploration

*Instructional Focus:* Hands-on, experiential activities, application of learning through digital assignments and active participation.

### Pre-Vet Animal Science

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Comprehensive exploration of the Veterinary and Animal Science Career Pathway. Units to include Anatomy, Physiology, Pathology, Reproduction, Nutrition and Careers.

*Projects, Activities, etc.:* Field trips, presentations, and career exploration.

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

### Coll Honors Animal Science

*Prerequisite/Selection Process:* Pre-Vet Animal Science or Animal Mgmt recommended  
*Intended Audience:* Grades 11 and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- This is a University of Minnesota Introduction to Animal Science (ANSC 1101) course with emphasis on genetics, physiology and nutrition. The course includes a study of production systems relative to the horse, dairy, sheep, poultry, swine and beef industries. Additional topics include man's relationship to animals, current issues and future perspectives of animal agriculture. Students will experience laboratories at the University of Minnesota relating to Animal Science. Students will be concurrently enrolled at the University of Minnesota and upon successful completion of this class; students will have four semester credits posted to their college transcript.

*Projects, Activities, etc.:* Field trips, presentations, and career exploration.

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

### Fish and Wildlife Ecology

*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit, does not meet science credit requirements  
*Major Outcomes:*

- Principles of Ecology
- Wildlife Management
- Principles of Forestry
- Relationships between organisms and the environment

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

### Fish and Wildlife Zoology

*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One Trimester = 0.5 credit, does not meet science credit requirements  
*Major Outcomes:*

- Principles of zoology
- Natural resources conservation
- Animal anatomy and structure
- Animal life functions

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

### Seasonal Horticulture

*Intended Audience:* Grades 9, 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Comprehensive exploration of the plant science [green] industry. Units to include: Careers in the Green Industry, Plant Pathology, Physiology, and Reproduction.

*Projects, Activities, etc.:* Plant identification; soils and medias; landscape practices and measurements; seasonal floral design; vegetable and herb gardening; landscape maintenance and installation  
*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

### Floriculture

*Intended Audience:* Grades 9, 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Learn the art of floral design through the construction of several arrangements and corsages  
*Projects, Activities, etc.:* Minimum of five floral arrangements, including holiday and special occasion  
*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

### Greenhouse Management

*Intended Audience:* Grades 9, 10, 11, and 12  
*Credit:* One trimester = 0.5 credit, elective credit, does not meet science credit requirements  
*Major Outcomes:*

- Learn and experience all of the components related to the propagation, growth, marketing and sale of greenhouse crops  
*Projects, Activities, etc.:* Spring plant sale, plant propagation, fertilizer and pesticide application, management of other growth factors as they apply to greenhouse production  
*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

### Global Food Challenge "Can We Feed the World Without Destroying It?"

*Intended Audience:* Grades 11, 12  
*Credit:* One Trimester = .5 credits  
*Major Outcomes:*

- Sustainable Food Systems Organic vs Conventional
- Antibiotic and Hormone use in Meat Animals
- Animal Welfare Impact on Food Production
- Use of Pesticides to Grow Crops
- Locally Sourced Food and Food Waste
- GMO's and other Genetic Concerns
- Impact of Population Growth and the Carrying Capacity on the Planet
- Land Usage, Urban Sprawl, and Urban Agriculture
- Hydroponics and Vertical Farming

*Projects, Activities, etc.:* Field trips, guest speakers, experiential computer based simulations, group discussion and research, socratic seminar based discussions and individual research  
*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

## HEALTH SCIENCE CAREERS

### Introduction to Holistic Healing

[CRHS only]  
*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Future health professionals will be exposed to the world of Holistic Health with topics such as Chiropractic Care, Acupuncture, Dietary Supplements, and Mind-Body Therapies. Students will research and discuss various therapies in regards to their history, implementation, interaction with traditional medicine, and careers involved.

*Projects, Activities, etc.:* Various Holistic Medicine Speakers, Research, and Projects

*Instructional Focus:* This course introduces students to non-traditional medical therapies and aligning careers in the biomedical pathway.

### Medical Anatomy I

[Students may earn Articulated College Credit]  
 [Medical Anatomy I/II may be taken in any order; both are needed for articulated credit.]  
*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Human anatomy and physiology of the integumentary, digestive, urinary, respiratory and musculoskeletal systems.

*Projects, Activities, etc.:* Dissections

*Instructional Focus:* Taught by a health professional

*Co-curricular Connection:* HOSA

### Medical Anatomy II

[Students may earn Articulated College Credit]  
 [Medical Anatomy I/II may be taken in either order; both are needed for articulated credit.]  
*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Human anatomy and physiology of the reproductive, sensory, cardiovascular, nervous and endocrine systems; current health issues

*Projects, Activities, etc.:* Dissections

*Instructional Focus:* Taught by a health professional

*Co-curricular Connection:* HOSA

### Medical Terminology and Careers

[Students may earn Articulated College Credit]  
*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Medical terminology
- Career exploration

*Projects, Activities, etc.:* Field trips and guest presenters

*Instructional Focus:* Taught by a health professional, guest presenters

*Co-curricular Connection:* HOSA

### Honors Health Science Internship

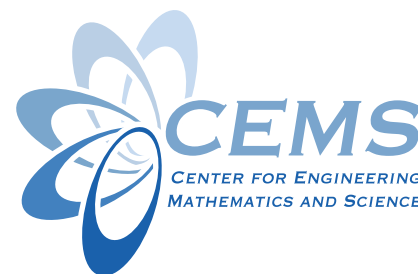
*Prerequisite/Selection Process:* Application and interview required

*Intended Audience:* Grade 12 pursuing careers in health service occupations including: chiropractic, dental, dietary, nursing, therapies and veterinary  
*Credit:* Up to three credits available [0.5 credit per trimester for seminar, 0.5 credit per trimester for work]; students may enroll for up to three trimesters which is preferred by employers/internship sites  
*Major Outcomes:*

- Career exploration
- Leadership development
- Effective work skills
- Community service

*Projects, Activities, etc.:* Job manual, career portfolio, leadership conferences, community and school service  
*Instructional Focus:* On-the-job training, career development and student organization  
*Co-curricular Connection:* HOSA

# Center for Engineering, Mathematics, and Science @ Blaine High School



The Center for Engineering, Mathematics and Science [CEMS] at Blaine High School is a program designed for students who want an integrated and rigorous in-depth math, science and engineering focus.

## CENTER FOR ENGINEERING, MATHEMATICS, AND SCIENCE

REQUIRED COURSES FOR CEMS	GRADES	PREREQUISITES
Honors Physics 9	9	
Computer Skills for Engineers CEMS	9	
PLTW Honors Introduction to Engineering Design	9	
PLTW Honors Principles of Engineering	10	
PLTW Honors Engineering Design and Development	12	PLTW Honors Principles of Engineering
<b>Mathematics CEMS</b>		
HS Intermediate Algebra CEMS	9	
<b>English CEMS</b>		
Honors English 9 CEMS	9	
Honors English 10 CEMS	10	
<b>ELECTIVE COURSES FOR CEMS</b>	<b>GRADES</b>	<b>PREREQUISITES</b>
PLTW Honors Digital Electronics	10, 11, 12	
PLTW Honors Computer Science Principles [BHS only]	10, 11, 12	
PLTW Honors Computer Integrated Manufacturing [BHS only]	11, 12	
PLTW Honors Civil Engineering and Architecture	11, 12	PLTW Honors Principles of Engineering
PLTW Honors Cybersecurity [BHS only]	11, 12	
PLTW Honors Aerospace Engineering	11, 12	PLTW Honors Principles of Engineering
PLTW Honors Environmental Sustainability	11, 12	PLTW Honors Principles of Engineering
PLTW Honors Computer Science A	11, 12	

Acceptance into CEMS at BHS is a required prerequisite for all CEMS courses.

### Honors Physics 9

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS

*Intended Audience:* Grade 9 enrolled in the CEMS program at BHS

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- In depth understanding of concepts related to mechanics, fluids, thermodynamics, waves [sound and light], electricity and magnetism

*Projects, Activities, etc.:* Lab work and research investigations

*Instructional Focus:* Computer-enhanced small and large group lecture and lab activities

### Computer Skills for Engineers CEMS

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS

*Intended Audience:* Grade 9

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Proficiency in word processing, spreadsheet, database, graphic and charting presentations
- Introduction to gaming

*Projects, Activities, etc.:* Business and personal documents, computer-generated presentations, participation in the Internet Science and Technology Fair

*Instructional Focus:* Hands-on computerized activities and Microsoft Office software

*Co-curricular Connection:* BPA

### PLTW Honors Introduction to Engineering Design

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS

*Intended Audience:* Grades 9

*Credit:* Two trimesters = 1.0 credit

Meets arts requirement [1.0 credit]

PLTW college credit can be earned

*Major Outcomes:*

- Introduction to engineering design
- Problem solving using design development process
- Process of product design
- Develop, create and analyze product models

*Projects, Activities, etc.:* Engage in engineering animations

*Instructional Focus:* Use computer 3-D modeling software for design and projects

**PLTW Honors Principles of Engineering**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance

into CEMS at BHS and PLTW Honors

Introduction to Engineering Design

*Intended Audience:* Grades 10

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Exploration of engineering and engineering technology
- Explore technology systems and manufacturing processes
- Use of math, science and technology in engineering problem solving process
- Social and political consequences of technological changes

*Projects, Activities, etc.:* Projects and problems

*Instructional Focus:* Use research and design techniques to analyze problems, inquiry bases

**PLTW Honors Engineering Design and Development**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance

into CEMS at BHS and PLTW Honors Principles of Engineering

*Intended Audience:* Grade 12

*Credit:* Three trimesters = 1.5 credits

PLTW college credit can be earned

*Major Outcomes:*

- Teams of students work together guided by the teacher and a community mentor to research design and construct a solution to an engineering problem
- Students will learn manufacturing skills to help in the development of their innovative project.
- Teams will participate in an end of course presentation event at BHS

*Projects, Activities, etc.:* Use research, experiments, and design techniques to aid in problem solving; write and develop a final presentation using technology presentation tools

**MATHEMATICS CEMS****HS Intermediate Algebra CEMS**

*Intended Audience:* Grade 9

*Credit:* \*\* Two trimesters = 1.0 credit

*Major Outcomes:* This course continues the extensive, connected, and applied study of Mathematics from previous courses. Emphasis is on the development of multiple strategies to solve problems and to recognize multiple ways of understanding concepts, especially as it pertains to quadratic and exponential functions. It has strong threads woven throughout the course focusing on multiple representations, justifying thinking, and communicating the meaning of a solution.

*The topics covered in the course are:*

- Functions, Linear Relationships
- Simplifying and Solving
- Sequences
- Modeling Two-Variable Data
- Exponential Functions
- Quadratic Functions
- Solving Quadratic and Inequalities

*Instructional Focus:* Instruction presented in a variety of ways; some hands-on activities and the use of a graphing calculator.

**ENGLISH CEMS****Honors English 9 CEMS**

*Prerequisite/Selection Process:* Acceptance

into CEMS at BHS

*Intended Audience:* Grade 9

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Reading and responding to CEMS related themes and ethical considerations in literature and informational texts
- Formal argument writing skills
- Research skills
- Multi-media group presentation skills
- Improved reading efficiency
- Large group discussion skills

*Project, Activities, etc.:* Literary analysis writing, argumentative essay writing, Socratic Seminars, small group presentations, reading comprehension quizzes

*Instructional Focus:* Organization of formal arguments, introduction to ethics, qualities of effective presentations, participation in open-ended large group discussion topics

**Honors English 10 CEMS**

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS

*Intended Audience:* Grade 10

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Rhetorical analysis writing
- Interpretation and evaluation of literature and informational texts
- Understanding of fiction and non-fiction
- Growth-based model of learning to read and write critically
- Process Essay writing
- Video Storytelling

*Projects, Activities, etc.:* Essay writing, video presentations, reading Literature and nonfiction

*Instructional Focus:* Connections between rhetoric and CEMS, using video to tell a story, philosophical foundations for scientific discovery or technological progress.

**ELECTIVE COURSES FOR CEMS****PLTW Honors Digital Electronics**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Foundations in Electronics
  - Logic Design
  - Controlling Real World Systems
- Projects, Activities, etc.:* Design and build circuits, learn binary, soldering, random number generator, robotics
- Instructional Focus:* Learn the digital circuit design process to create circuits using design software and physical components to present solutions that can improve lives.

**PLTW Honors Computer Science Principles**

[BHS only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Introduce computational tools that foster creativity
- Problem solving with structured activities and progress to open-ended projects and problems
- Develop computational thinking

*Instructional Focus:* Use programming to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity

### **PLTW Honors Computer Integrated Manufacturing**

[BHS Only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS

*Intended Audience:* Grades 11, and 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Principles of Manufacturing - Students will learn to use input and output devices as a foundation to model manufacturing processes
- Manufacturing Processes - Students analyze a product to consider design improvements, perform calculations to make manufacturing decisions, and recommend processes
- Elements of Automation - introduce students to robotic automation within a manufacturing system
- Integration of Manufacturing Elements

*Instructional Focus:* Hands on activities

### **PLTW Honors Civil Engineering and Architecture**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS and PLTW Honors Principles of Engineering

*Intended Audience:* Grades 11 and 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Introduction to the fundamental design and development aspects of civil engineering
- Introduction to architectural planning, including site planning and building design
- Project planning considering transportation, water resource and environmental issues

*Projects, Activities, etc.:* This is a Project Lead the Way course; projects and problems

*Instructional Focus:* Use research and design techniques to analyze problems, inquiry-based approach, field and lab activities

### **PLTW Honors Cybersecurity**

[BHS Only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS

*Intended Audience:* Grades 11, and 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Cybersecurity introduces the tools and concepts of cybersecurity and encourages students to create solutions that allow people to share computing resources while protecting privacy
- Students' knowledge of and commitment to ethical computing behavior is enhanced

*Instructional Focus:* This course aims to develop students' skills as consumers, friends, citizens, and employees who can effectively contribute to communities with a dependable cyber-infrastructure that moves and processes information safely

### **PLTW Honors Aerospace Engineering**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS and PLTW Honors Principles of Engineering

*Intended Audience:* Grades 11 and 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Introduction to aerodynamics design and testing
- Flight systems and aerospace materials
- Space life sciences and astronautics

*Instructional Focus:* Experiments, project testing and field trips

*Projects, Activities, etc.:* Gliders, flight simulator, model rockets, wind turbine, orbital mechanics modeling, Mars Rover robotics

*Instructional Focus:* Students explore fundamentals of flight in air and space through designing and testing components related to aerospace engineering.

### **PLTW Honors Environmental Sustainability**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS and PLTW Honors Principles of Engineering

*Intended Audience:* Grades 11 and 12

*Credit:* Two trimesters = 1.0 credit

PLTW college credit can be earned, does not meet science credit requirement

*Major Outcomes:*

- Build models of natural water systems
- Propose a genetic engineering solution to a global food security issue
- Biomanufacturing of biofuels

*Projects, Activities, etc.:* The growing market for jobs in biological engineering is playing a central role in energy and agricultural sustainability solutions. The ES course develops students' thinking skills and prepares them for emerging careers through topics such as genetic engineering, biofuels, and biomanufacturing.

*Instructional Focus:* Experiments and field trips

### **PLTW Honors Computer Science A**

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Acceptance into CEMS at BHS

*Intended Audience:* Grades 11 and 12

*Credit:* Three trimesters = 1.0 credit

PLTW college credit can be earned

*Major Outcomes:*

- Students focus on integrating technologies across multiple platforms and networks.
- Students create models and simulations that create solutions to real world problems found in science and industry.
- Students analyze, adapt, and improve each other's programs while working primarily in JAVA and other industry-standard tools.

*Instructional Focus:* This course prepares students for the AP Computer Science A Test

# DRIVER EDUCATION

ELECTIVE COURSES	GRADES	PREREQUISITES
Driver Education	9, 10, 11, 12	

## Driver Education

*Intended Audience:* Grades 9, 10, 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Fulfill Minnesota requirements for obtaining a learner's permit
- Saves lives by teaching responsible and safe driving practices and techniques
- Defensive driving practices
- Knowledge of Minnesota traffic safety laws and regulations
- Knowledge and skills to become a safe and efficient user of the highway transportation system as a driver, passenger and pedestrian

*Projects, Activities, etc.:* Eight hours of driving simulation, district mandated study guide, guest speakers, insurance scenarios and parent involvement meeting

*Instructional Focus:* Instruction strategies are utilized through visual, auditory and tactile methods

*Inter-disciplinary connection:* Technical and reading strategies, math and science

*Note:* Students who meet the Minnesota requirements -- of being at least 15 years of age, successfully complete this course, show proper I.D., register for Behind the Wheel and pay the Behind the Wheel fee -- will be eligible to take the permit test.

*Note:* Students who are not age 15 by the end of the course will be issued a valid course completion sheet or a blue card. This will allow the student to take the permit test at an exam station.

*After school and summer offerings:* A shortened version [38 hours] of this class may be provided after school and during the summer for students who are unable to register for this course during the school year. Course offerings are enrollment dependent. There will be an additional fee for this course.

# ENGLISH LANGUAGE ARTS [ELA]

REQUIRED COURSES	GRADES	PREREQUISITES
English 9 or Honors English 9	9	
English 10 or English 10 with College Foundations or Honors English 10	10	English 9 or Honors English 9
English 11 or AP English Language and Composition	11	English 10 or English 10 with College Foundations or Honors Social Studies 10/English 10 Block or Honors English 10
English 12 or AP Literature and Composition [AndHS only] or Coll Honors Introduction to Literature AND Coll Honors University Writing	12	English 11 or CP English 11 [CPHS only] or AP English Language and Composition
ELECTIVE COURSES	GRADES	PREREQUISITES
Academic Writing Foundations	10, 11, 12	
<b>Arts</b>		
Acting I	9, 10, 11, 12	
Acting II	9, 10, 11, 12	Acting I
Acting III	9, 10, 11, 12	Acting II
Creative Writing I	10, 11, 12	
Creative Writing II	11, 12	Creative Writing I
Exploring the Modern Novel	11, 12	
Honors Humanities	11, 12	
<b>Journalism</b>		
Introduction to Journalism	9, 10, 11, 12	
Convergence Journalism	9, 10, 11, 12	Introduction to Journalism or instructor approval
Yearbook Lab I	9, 10, 11, 12	Introduction to Journalism or instructor approval
Yearbook Lab II	9, 10, 11, 12	Yearbook Lab I
Yearbook Lab III	9, 10, 11, 12	Yearbook Lab II
Television Journalism	10, 11, 12	Introduction to Journalism or instructor approval
<b>Speaking</b>		
Debate I	9, 10, 11, 12	
Honors Debate II	9, 10, 11, 12	Debate I
Public Speaking	9, 10, 11, 12	
Coll Honors Public Speaking	11, 12	English 10

For additional AHS options in English Language Arts, see STEAM section.

For additional BHS options in English Language Arts, see CEMS section.

For additional CPHS options in English Language Arts, see International Baccalaureate section.

For additional CRHS options in English Language Arts, see Biomedical Sciences and Engineering section.

**English 9**

*Intended Audience:* Grade 9

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Reading and responding to literature and informational texts
  - Close reading skills
  - Academic writing skills
  - Research skills
  - Argumentative speaking
- Project, activities, etc.:* Essays, seminars, speeches and presentations, and independent reading
- Instructional Focus:* Writing and language exploration, critical thinking

**Honors English 9**

*Intended Audience:* Highly skilled readers and writers in grade 9

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Critical literacy and thinking skills
- Academic writing skills
- Argumentation skills
- Research skills
- Public speaking skills

*Project, activities, etc.:* Essays, seminars, and speeches

*Instructional Focus:* Faster pace, higher level thinking and rigorous activity

**English 10**

*Prerequisite/Selection Process:* English 9 or Honors English 9

*Intended Audience:* Grade 10

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Critical literacy and thinking skills
- Supporting ideas with textual evidence
- Research skills
- Speaking and presentation skills
- Academic writing skills
- Literary analysis

*Projects, Activities, etc.:* Close readings, essays, research, presentations, seminars, and independent reading

*Instructional Focus:* Writing and language exploration, critical thinking

**English 10 with College Foundations**

[This course is the highly recommended option for students not taking Honors English 10.]

*Prerequisite/Selection Process:* English 9 or Honors English 9

*Credit:* Three trimesters = 1.5 credit

(1.0 English credit, 0.5 Elective credit)

*Major Outcomes:*

- College readiness skills (goal setting, time management, note taking, reflection)
- Critical literacy and thinking skills
- Supporting ideas with textual evidence
- Research and interview skills
- Speaking and presentation skills

- Academic writing skills, including argumentation
  - Literary and rhetorical analysis
- Projects, activities, etc.:* Close readings, essays, research, interviews, presentations, seminars, and independent reading
- Instructional Focus:* Writing and language exploration, critical thinking, and reflection

**Honors English 10**

*Prerequisite/Selection Process:* English 9 or Honors English 9

*Intended Audience:* Highly skilled readers and writers in grade 10

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Introduction to rhetorical analysis
  - Interpretation and evaluation of literature and informational texts
  - Understanding of fiction and nonfiction
- Projects, Activities, etc.:* Essays, presentations, seminars, and independent reading
- Instructional Focus:* Faster pace and rigorous activity

**English 11**

*Prerequisite/Selection Process:* English 10 or Honors English 10

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Analysis of American literature and informational texts
  - Argumentation - reading, writing, speaking
  - Academic writing skills
  - Research skills
  - Supporting ideas with textual evidence
  - Speaking and presentation skills
- Projects, Activities, etc.:* Close readings, essays, research, presentations, seminars, and independent reading
- Instructional Focus:* Writing and language exploration, critical thinking

**CP English 11**

[CPHS Only]

*Prerequisite/Selection Process:* English 10, Honors English 10 or Honors Social Studies 10/English 10 Block

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Develop student expression (oral and written)
- Introduce students to a range of literary and nonliterary works, with a focus of American literature and informational texts.
- Develop the ability for detailed analysis
- Academic writing skills

*Projects, activities etc.:* analysis essays, research projects, oral presentations, seminars, independent reading, close readings of diverse texts.

**AP English Language and Composition**

[AP exam is in May each year]

*Intended Audience:* Highly skilled readers and writers in grade 11

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Reading texts from a variety of periods, disciplines and rhetorical contexts
  - Build skills in analyzing writer's purpose and use of rhetorical techniques.
  - Approach the AP exam with confidence
- Projects, Activities, etc.:* Various challenging writing and reading assignments
- Instructional Focus:* Faster pace and independent work; College credit may be earned based on AP exam score and institution.

**English 12**

*Prerequisite/Selection Process:* English 11 or AP English Language and Composition

*Intended Audience:* Grade 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Critical reading of literature and informational texts
- Study of advertising, propaganda, and news bias
- Academic writing
- Research

*Projects, Activities, etc.:* Essays, research, seminars, and presentations

*Instructional Focus:* Writing and language exploration, critical thinking

**AP Literature and Composition**

[AndHS only]

[AP exam is in May each year]

*Intended Audience:* Highly skilled readers and writers in grade 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Reading selected pieces of world literature from a variety of periods
  - Analyze literature for structure, style, theme, and use of language
  - Acquire skills necessary to succeed in college
  - Approach the AP exam with confidence
- Projects, Activities, etc.:* Writers notebook, small and large group discussions, individual reports, panels and oral reading of plays
- Instructional Focus:* Faster pace and independent work; College credit may be earned based on AP exam score and institution.

**Coll Honors Introduction to Literature**

College credit [University of Minnesota]

*Prerequisite/Selection Process:* GPA in top 20 percent or cumulative GPA in previously-taken English courses that exceeds a 3.25; English 11 or AP English Language and Composition; or by teacher recommendation

*Intended Audience:* Highly skilled readers and writers in grade 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Discussion and interpretation of literary forms
- Personal response to literature
- Experience with literary analysis composition
- Reader's notebook

**Projects, Activities, etc.:**

- Reader's notebook
- Textual Discussions

**Instructional Focus:** Rigorous and higher level critical thinking, multiple perspectives, seminars, some independent study

**Coll Honors University Writing**

College credit [University of Minnesota]

**Prerequisite/Selection Process:** GPA in top 20 percent or meet university entrance requirements [see counselor]; English 11 or AP English Language and Composition

**Intended Audience:** Highly skilled readers and writers in grade 12

**Credit:** One trimester = 0.5 credit

**Major Outcomes:**

- Knowledge of variety of writing assignments
- Defining purpose, organizing, developing content
- Skills in revision, editing project, activities, etc.; writing portfolio may include: personal narrative, ethnography, review of fine arts event, expository essay based on inquiry

**Instructional Focus:** Some independent study, discussion, seminars, writing and literary events

**Academic Writing Foundations**

**Prerequisite/Selection Process:** Based on writing achievement scores and counselor/teacher referral, students may re-take this course

**Intended Audience:** Grades 10, 11, and 12

**Credit:** One trimester = 0.5 credit

**Major Outcomes:**

- Improve writing fluency, organization and clarity
- Improve score on ACT writing test
- Improve ability to write on demand

**Projects, Activities, etc.:** In-class writing, analysis of writing prompts, examination of sample compositions, application of prewriting/planning strategies, creation of goals and examination of growth

**ARTS****Acting I**

**Intended Audience:** Grades 9, 10, 11, and 12

**Credit:** One trimester = 0.5 credit

**Note:** Course does not meet the Arts course requirement

**Major Outcomes:**

- Foundations of Theater
- Creativity
- Techniques for improvisation
- Beginning scene work
- Leadership and communication skills

**Projects, Activities, etc.:** Writing and performance, individual and group performance

**Instructional Focus:** Active participation and collaborative group work

**Acting II**

**Prerequisite/Selection Process:** Acting I or teacher permission

**Intended Audience:** Grades 9, 10, 11, and 12

**Credit:** One trimester = 0.5 credit

**Major Outcomes:**

- Original scripts
- Character analysis
- Collaborative scene work
- Acting styles and forms

**Projects, Activities, etc.:** Perform scenes from a variety of styles, write and perform original work

**Instructional Focus:** Active participation and collaboration

**Acting III**

**Prerequisite/Selection Process:** Acting II or teacher permission

**Intended Audience:** Grades 9, 10, 11, and 12

**Credit:** One or two trimesters = 0.5 credit or 1.0 credit

**Major Outcomes:**

- Prepare an audition piece
- Experience in blocking
- Analysis of dramatic literature
- Acting experience
- Scene work

**Projects, Activities, etc.:** Perform scenes from musicals, dramas, and comedies

**Instructional Focus:** Active participation

**Creative Writing I**

**Intended Audience:** Grades 10, 11, and 12

**Credit:** One trimester = 0.5 credit

**Major Outcomes:**

- Learn strategies to improve as a writer
- Development of writerly voice
- Collaborate with a community of writers
- Freedom to write innovatively

**Project, Activities, etc.:** Project-based learning: fiction, poetry, plays, and creative non-fiction

**Creative Writing II**

**Prerequisite/Selection Process:** Creative Writing I

**Intended Audience:** Grades 11 and 12 [grade 10 with special permission of teacher]

**Credit:** One trimester = 0.5 credit

**Major Outcomes:**

- Continue to develop a writerly voice
  - Experimentation with genre and style
  - Collaborate with other student writers
- Project, Activities, etc.:** Project-based learning: fiction, poetry, plays, and creative non-fiction

**Exploring the Modern Novel**

**Intended Audience:** Grades 11 and 12

**Credit:** One trimester = 0.5 credit

**Major Outcomes:**

- Explore novels from a variety of genres
- Use elements of genre and questions to guide reading, as well as connections to careers, current events, diverse perspectives, and influences

- Examine critical topics, such as the canon and censorship/banned books

**Projects, Activities, etc.:** Read 6 novels over the trimester: World/Culture, Historical, Sci-fi/Fantasy/Dystopian, and Graphic Novel; school-wide reading campaign; current events research project; Socratic seminars; and book commercial or movie trailer

**Instructional Focus:** Critical review of text

**Honors Humanities**

**Intended Audience:** Advanced students in grades 11 and 12

**Credit:** One trimester = 0.5 credit

**Major Outcomes:**

- Cross-cultural examination of philosophy, art, music, architecture, drama, and religion
- Exploration of relationships across cultures and arts
- Exploration of artistic expressions of historical periods, selected philosophies and people

**Projects, Activities, etc.:** Express ideas in written, oral or project form

**Instructional Focus:** Project-based learning in art, architecture, literature, drama, music, and philosophy

**JOURNALISM****Introduction to Journalism**

**Intended Audience:** Grades 9, 10, 11, and 12

**Credit:** One trimester = 0.5 credit

**Major Outcomes:**

- Reporting techniques
- News and feature writing
- Editorial and review writing
- Layout and photography
- Journalistic ethics

**Projects, Activities, etc.:** Students may write news stories, feature stories, sports stories, and opinion pieces. Students may create photography portfolios and page design layouts. [Articles submitted may be included in the school newspaper.]

**Instructional Focus:** Computer and hands-on activities

**Convergence Journalism**

**Prerequisite/Selection Process:** Introduction to Journalism or instructor approval

**Intended Audience:** Grades 9, 10, 11, and 12

**Credit:** One trimester = 0.5 credit; students may enroll in one, two, or three trimesters

**Major Outcomes:**

- Types and impact of digital media
- Multimodal media methods of reporting and production
- Emerging media platforms
- Degree of reporting and technical skills expected of multimedia journalists
- Constructing digital convergence news
- Role of a digital citizen and citizen reporter in today's world
- Ethical responsibility in producing social media news

*Project, Activities, etc.:* Introduction to media and the varied equipment and methods used; partnered research and production projects; collaboration and overseeing team story production; opportunities to explore an area of interest; focus will be on reporting, editing and managing roles necessary in today's journalism industry  
*Instructional Focus:* Using social media, digital literacy, and journalism skills to analyze, create, and publish in a variety of multimodal formats.

### Yearbook Lab I

*Prerequisite/Selection Process:* Introduction to Journalism or instructor approval  
*Intended Audience:* Grades 9, 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Copy writing
- Interviewing techniques
- Layout design
- Photo composition and development
- Advertising
- Time management

*Instructional Focus:* Hands-on activities

### Yearbook Lab II

*Prerequisite/Selection Process:* Yearbook Lab I  
*Intended Audience:* Grades 9, 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Copy writing
- Interviewing techniques
- Layout design
- Photo composition and development
- Advertising
- Time management

*Instructional Focus:* Hands-on activities

### Yearbook Lab III

*Prerequisites/Selection Process:* Yearbook Lab II or teacher permission  
*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Further development of skills learned in Yearbook Lab I and II

*Instructional Focus:* Hands-on activities

### Television Journalism

*Prerequisite/Selection Process:* Introduction to Journalism or instructor approval

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit; students may enroll for one, two, or three trimesters

*Major Outcomes:*

- Improve speaking skills
- Improve journalism and interviewing skills
- Write human interest stories, opinion pieces, and general announcements to be broadcast
- Work as reporters, news writers, news anchors, editors, camera operators, and technicians

*Instructional Focus:* Using journalism and broadcast skills to create informational news for school-wide announcements

## SPEAKING

### Debate I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Basic research skills
- Public speaking
- Understanding basic debate formats

*Projects, Activities, etc.:* Research and deliver major debates

*Instructional Focus:* Active participation, research and group work

### Honors Debate II

*Prerequisite/Selection Process:* Debate I or teacher permission

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced research skills
- Argumentation theory

*Project, Activities, etc.:* Research and deliver major debates and utilize argumentation theories  
*Instructional Focus:* More rigorous challenges, for example, types of research materials

### Public Speaking

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Confidence in public speaking situations
- Speaking skills
- Presentation skills

*Projects, Activities, etc.:* Interpretive speeches, informative presentation, persuasive speeches

*Instructional Focus:* Non-threatening course designed to help overcome fears

### Coll Honors Public Speaking

College credit [North Hennepin Community College]

*Prerequisite/Selection Process:* Minimum GPA of 2.0; additional criteria set by NHCC

*Intended Audience:* Grades 11 and 12; for students who want to improve speaking skills and earn honors and college credit

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Practice and improve public speaking skills
- Critically analyze own and others' speeches
- Explore advanced research techniques and organizational strategies
- Analyze audience and evaluate communication choices
- Participate effectively in groups with emphasis on critical listening and responding

*Instructional Focus:* Create and deliver speeches

## English Learners [EL]

Qualifying English Learners will be placed in the appropriate English Language (EL) course(s). This placement is based on state and district test scores and teacher recommendation. Your child will earn graduation credit for EL courses. For more information about the EL program, please see the Assistance for Students section in this guide or contact your child's school.

Do you have high functional ability in both English and another language? Read about how you could qualify to earn the Minnesota Bilingual/Multilingual Seal and possibly college credit. See page 17 in the "Earn College Credit in High School" section.

# FAMILY & CONSUMER SCIENCES [FCS]

ELECTIVE COURSES	GRADES	PREREQUISITES
<b>Hospitality</b>		
Introduction to Culinary Arts	9, 10, 11, 12	
Culinary Arts I	9, 10, 11, 12	Introduction to Culinary Arts or Food Preparation Fundamentals
Culinary Arts II	10, 11, 12	Culinary Arts I
Nutrition	9, 10, 11, 12	
Food Science	9, 10, 11, 12	
<b>Education, Training and Human Services</b>		
Child and Human Development	9, 10, 11, 12	
Early Childhood Careers	10, 11, 12	Child and Human Development
Coll Foundation of Education	10, 11, 12	
<b>Design and Visual Arts</b>		
Fabric, Apparel & Design	9, 10, 11, 12	
Interior Design and Housing	9, 10, 11, 12	
<b>Foundational Knowledge and Skills</b>		
Consumer Strategies	9, 10, 11, 12	
Interpersonal Relationships	9, 10, 11, 12	
Honors Family and Consumer Sciences Internship	12	Application and interview required

## HOSPITALITY

### Introduction to Culinary Arts

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Introduction to food industry Standards
- Experiential learning through food preparation and tasting
- Management of culinary tools and equipment
- Application of safety and sanitation skills

*Projects, Activities, etc.:* Food labs

*Instructional Focus:* Food preparation and demonstration

### Culinary Arts I

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Introduction to Culinary Arts or Food Preparation Fundamentals

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Meal planning and preparation
- Advanced cooking techniques-knife skills, plating and sauces
- Food Service Certification

*Projects, Activities, etc.:* Food labs and planning process, hospitality and advanced meal preparation, teamwork, weekly labs  
*Instructional Focus:* Demonstration, culinary skill development

### Culinary Arts II

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Culinary Arts I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit/meets elective credit requirements

*Major Outcomes:*

Students will be able to apply culinary preparation techniques and safety procedures needed to be successful when living independently as well as having skills that will prepare them for the job market. Students will be able to leave this class with a ServSafe certification that is accepted by industry for careers related to food preparation.

*Projects, Activities, etc.:* They will have the opportunity to research and experiences foods from other cultures in a lab classroom setting. They will be exposed through a field trip and guest speakers to careers that are related to the food industry.

*Instructional Focus:* Students will use hands on lab experiences to learn industry food safety and preparation techniques.

## Nutrition

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Personal Nutrition and wellness concerns
- Selecting & preparing Nutritious food
- Understand health conditions related to diet
- Stress managements, body image, eating disorders and sports nutrition

*Projects, Activities, etc.:* Create a personal nutrition/wellness plan, analysis of nutrition wellness issues, nutritious food labs, and stress relief and fitness walking.

*Instructional Focus:* Personal nutrition goals, research, application and guest presenters

## Food Science

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Students will be introduced to the fundamentals of food science
- Technology associated with providing safe and nutritious foods
- Analyze basic scientific principles that explain how and why we process, prepare, and store foods for human consumption

*Projects, Activities, etc.:* Hands-on activities

*Instructional Focus:* Examining food products using scientific methods that lead to product development and safety in our food supply

## EDUCATION, TRAINING AND HUMAN SERVICES

### Child and Human Development

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Study of human development (birth – death)
- Projects, Activities, etc.:*

- Explore careers related to child and human development throughout the lifespan: early childhood, elementary education, secondary education, postsecondary education, geriatric education etc.
- Observation of children
- Exploration and application of child and human development related research
- Knowledge of physical, intellectual, emotional and social development

*Instructional Focus:* Discussion, small/large group activities, project based activities, guest presenters, observation and research.

### Early Childhood Careers

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Child and Human Development

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Research child related careers and occupations such as education, child psychology, child life specialists, child-related medical fields, child-related businesses [books, games, toys, software, entertainment, clothing...] and human/social services, etc.
  - Plan and develop lessons and activities for children
  - Exploration and application of child related research
  - Non-paid class time internship in the onsite school readiness preschool
  - Leadership development, occupational development skills and service learning
- Co-Curricular Connection:* FCCLA

## Coll Foundation of Education

[Concurrent enrollment with Anoka Ramsey Community College]

*Intended Audience:* Only Grade 10 [Passed MCA Reading Test with Meets or Exceeds], only Grade 11 [GPA in top 33 percent of class or GPA of 3.5 or above], only Grade 12 [GPA in top 50 percent of class or GPA of 3.0 or above], or instructor approval.

*Credit:* Two trimesters/One Period = 1.0 credit Successful completion will earn 4 college credits.

*Major Outcomes:*

- Explore the education, teaching and training career pathway: the teaching profession, philosophy of education, the learner and the learning process, planning instruction, learning environment, assessment and instruction strategies

*Projects, Activities, etc.:* Lesson plan development and presentation, Field Observation, Career Plan

*Instructional Focus:* Research and observation, Project based activities, Guest speakers/presenters

## DESIGN AND VISUAL ARTS

### Fabric, Apparel, and Design

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Application of the principles and elements of design
- Explore all of the careers available in the fabric, apparel and design pathway
- Exposure to a variety of equipment, tools, and supplies for fashion, textiles and apparel construction, alteration and repair
- Clothing construction and design

*Projects, Activities, etc.:* Design sketches related to the principles and elements of design

*Instructional Focus:* Business and industry standards, students will be exposed to the latest technology and research taking place in the apparel and design pathway

### Interior Design and Housing

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Elements, principles of art and design related to housing
- Scale drawings and wall elevations
- Selection and arrangement of furniture
- Accessories

*Projects, Activities, etc.:* Create a design board for various rooms

*Instructional Focus:* Designing functional and attractive living spaces for individual and/or professional use

## FOUNDATIONAL KNOWLEDGE AND SKILLS

### Consumer Strategies

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Investing and Savings
- Careers and College
- Income and Taxes
- Banking and Credit
- Protecting your Identity
- Budgeting and Spending
- Housing

*Projects, Activities, etc.:* Develop a personal life plan

*Instructional Focus:* Guest presenters and interactive activities

### Interpersonal Relationships

*Intended Audience:* Grades 9, 10, 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Understanding self and Personal development
- Effective communication skills
- Understanding and developing healthy relationships
- Conflict resolution strategies
- Recognizing harassment, abuse and prejudice in relationships

*Projects, Activities, etc.:* Self surveys and reflection, In depth discussions, Practice of strategies to use

*Instructional Focus:* Scenarios, Self discovery, research and discussion

### Honors Family and Consumer Sciences Internship

*Prerequisite/Selection Process:*

Application and interview required

*Intended Audience:* Grade 12 college and career-bound students pursuing service occupation careers including; child care, consumer, cosmetology, design, education, food and social services

*Credit:* 0.5 credit per trimester for work;

*Major Outcomes:*

- Paid career experience
- Leadership development
- Effective work skills
- Community service

*Projects, Activities, etc.:* Reflective employment portfolio, career research, leadership conferences, community and school service

*Co-curricular Connection:* FCCLA, HOSA

# HEALTH

REQUIRED COURSES	GRADES	PREREQUISITES
Health	10	
ELECTIVE COURSES	GRADES	PREREQUISITES
Healthy Living I	11, 12	Health
Healthy Living II	11, 12	Healthy Living I

## Health

*Intended Audience:*

Grade 10 [grade 10 preferred]

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Examine how today's choices affect present and future quality of life in the following areas: mental health, chemical health, sexuality, fitness and nutrition, lifestyle diseases and prevention
- CPR instruction - Students will have the opportunity to be certified in CPR

*Instructional Focus:* Discussion, lecture, small/large group activities, guest speaker and research projects

## Healthy Living I

*Prerequisite/Selection Process:* Health

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Understand the connection between diet and fitness and the disease rates in America
- Understand the major vitamins and minerals and their effects on the body
- Understand the connection that lifestyle choices have on obesity and diabetes through personal fitness goals and implementation.

*Projects, Activities, etc.:* Create a personal nutrition and fitness program. Develop a community wellness project such as a bulletin board and PSA to be implemented in the schools or community. Participate in a book report and create a brochure.

*Instructional Focus:* Discussion, lecture, small group, large group activities, guest speakers, activity days, research projects and community involvement

## Healthy Living II

*Prerequisite/Selection Process:* Healthy Living I

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Understand the connection between diet and fitness and the disease rates in America
- Understand the major nutrients and their effects on the body
- Understand the connection that lifestyle choices have on obesity and diabetes through personal fitness goals and implementation.

*Projects, Activities, etc.:* Develop a personal nutrition and fitness program. Develop a healthy relationship/lifestyle choice In-Depth project. Participate in a group book study. Research specific diseases that are related to lifestyle choices/relationships and create a bulletin board.

*Instructional Focus:* Discussion, lecture, small group, large group activities, guest speakers, activity days, research projects and community involvement.

# International Baccalaureate [IB]

## @ Champlin Park High School

International Baccalaureate [IB] is a rigorous program for 11th and 12th grade students interested in an honors pre-university course of study. The IB Diploma Programme is a two-year, full-time commitment at Champlin Park High School.



INTERNATIONAL BACCALAUREATE		
COURSES	GRADES	PREREQUISITES
<b>Subject 1--English</b>		
Honors Social Studies 10/Honors English 10 Block [CPHS only]	10	English 9 and Social Studies 9
IB English 11 HL [CPHS only]	11	English 10 or Honors English 10 or Honors Social Studies 10/Honors English 10 Block
IB English/AVID 11 [CPHS only]	11	IB English/AVID 10 [CPHS only]
IB English 12 HL [CPHS only]	12	IB English 11 [CPHS only]
IB English/AVID 12 [CPHS only]	12	IB English/AVID 11 [CPHS only]
IB English 12 HL Enrichment [CPHS only]	12	IB English 12 HL [CPHS only]
<b>Subject 2--World Language</b>		
IB French SL IV [CPHS only]	11, 12	Honors French III
IB German SL IV [CPHS only]	11, 12	Honors German III
IB Spanish SL IV [CPHS only]	11, 12	Honors Spanish III
IB French V SL or HL [CPHS only]	12	Honors or IB French 4
IB German V SL or HL [CPHS only]	12	Honors or IB German 4
IB Spanish V SL or HL [CPHS only]	12	Honors or IB Spanish 4
IB Ab Initio French SL [Level I - Grade 11] and [Level II - Grade 12] [CPHS only]	11, 12	Only for full IB Diploma candidates with no previous world language instruction
IB Ab Initio German SL [Level I - Grade 11] and [Level II - Grade 12] [CPHS only]	11, 12	Only for full IB Diploma candidates with no previous world language instruction
IB Ab Initio Spanish SL [Level I - Grade 11] and [Level II - Grade 12] [CPHS only]	11, 12	Only for full IB Diploma candidates with no previous world language instruction
<b>Subject 3--History</b>		
Honors Social Studies 10/Honors English 10 Block [CPHS only]	10	English 9 and Social Studies 9
[AP European History]/IB History 11 HL [CPHS only]	11	AP US History 10 or Social Studies 10/English 10 Block or AVID10 Block
IB History of the Middle East & Africa 12 HL [CPHS only]	12	[AP European History]/IB History 11 HL [CPHS only] or Block10/AVID Block 10

# INTERNATIONAL BACCALAUREATE

<b>Subject 4--Sciences</b>		
IB Biology 11 SL [CPHS only]	11	Chemistry I
IB Biology 12 SL [CPHS only] or IB Biology 12 HL [CPHS only]	12	IB Biology 11 SL [CPHS only]
IB Chemistry 12 SL [CPHS only] or IB Chemistry 12 HL [CPHS only]	11, 12	Honors Chemistry I and Honors Advanced Algebra or Honors HS Algebra II
IB Sports Exercise and Health Science [CPHS only]	11, 12	Grade of B or better in Biology or IB Biology
<b>Subject 5--Mathematics</b>		
IB Math Applications and Interpretations SL A&B [CPHS only]	10, 11, 12	A or B in Geometry or Hon Geometry or Adv Alg or Stats or HS Algebra II
IB Math Applications and Interpretations SL C&D [CPHS only]	11, 12	IB Math Applications SLA&B
IB Math Analysis and Approaches SL 11 [CPHS only]	10, 11	Honors Advanced Algebra or Honors HS Algebra II
IB Math Analysis and Approaches SL12 [CPHS only]	11, 12	IB Math Analysis and Approaches SL 11 or Honors Precalculus and a Statistics course
[AP Calculus AB/BC]/IB Mathematics HL 11 [CPHS only]	11, 12	Honors Precalculus
IB Math Analysis and Approaches HL12 [CPHS only]	12	[AP Calculus AB/BC]/IB Mathematics HL 11
<b>Subject 6--Electives</b>		
IB Music SL [CPHS only]	11, 12	Must also be enrolled in Band III, Choir III, or Orchestra III
IB Music HL [CPHS only]	11, 12	Must also be enrolled in Band III, Choir III, or Orchestra III
IB Business and Management SL-3 Tri [CPHS only]	11, 12	Business Management
IB Psychology SL [CPHS only]	11, 12	
IB Visual Arts SL [CPHS only]	11, 12	2 lower level arts courses or Teacher Permission
<b>IB Core Course</b>		
IB Theory of Knowledge I [CPHS only]	11, 12	1 or more IB courses [CPHS only]
IB Theory of Knowledge II [CPHS only]	12	IB Theory of Knowledge I [CPHS only]
IB Personal and Professional Skills 11 [CPHS only]	11	Career Program Participant
IB Personal and Professional Skills 12 [CPHS only]	12	IB Personal and Professional Skills 11

## ENGLISH

### Honors Social Studies 10/ Honors English 10 Block

[CPHS only]

*Prerequisite/Selection Process:* Teacher or counselor recommendation, English 9 and Social Studies 9

*Intended Audience:* Grade 10

*Credit:* Two trimesters/two periods = 2.0 credits

*Major Outcomes:*

- Relationship of history, literature and communication skills

*Instructional Focus:* Students enrolled in Honors courses will be required to apply higher-order thinking and communication skills, study primary source documents and complete independent and/or group research projects

### IB English 11 HL

[CPHS only]

*Prerequisite/Selection Process:* English 10, Honors English 10 or Honors Social Studies 10/English 10 Block strongly recommended

*Intended Audience:* Grade 11

*Credit:* Four trimesters = 2.0 credits, two trimesters taken each year

*Major Outcomes:*

- Develop student expression [oral and written]
- Introduce students to a range of literary and nonliterary works
- Develop the ability for detailed analysis of written texts
- Internal and external assessments
- HL Exam required in grade 12

### IB English/AVID 11

[CPHS only]

*Prerequisite/Selection Process:* IB English/AVID 10

*Intended Audience:* Grade 11

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Develop student expression [oral and written]
- Introduce students to a range of literary and nonliterary works
- Develop the ability for detailed analysis of written texts
- Internal and external assessments
- HL Exam required in grade 12
- Students learn and use AVID strategies to assure college readiness

**IB English 12 HL**

[CPHS only]

*Prerequisite/Selection Process:* IB English 11*Intended Audience:* Grade 12*Credit:* Four trimesters = 2.0 credits, two trimesters taken each year*Major Outcomes:*

- Develop student expression [oral and written]
- Introduce students to a range of literary and nonliterary works
- Develop the ability for detailed analysis of written and visual texts
- Internal and external assessments
- HL Exam required in grade 12

**IB English/AVID 12**

[CPHS only]

*Prerequisite/Selection Process:* IB English/AVID 11 strongly recommended*Intended Audience:* Grade 12*Credit:* Three trimesters = 1.5 credits*Major Outcomes:*

- Develop student expression [oral and written]
- Introduce students to a range of literary and nonliterary works
- Develop the ability for detailed analysis of written and visual texts
- Internal and external assessments
- HL Exam required in grade 12
- Students learn and use AVID strategies to assure college readiness

**IB English 12 HL Enrichment (3rd Tri)**

[CPHS only]

*Intended Audience:* Grade 12*Prerequisite/Selection Process:* IB English 12 HL*Credit:* One Trimester = 0.5 credit*Major Outcomes:*

- Further Preparation for the IB Literature and Language Exam
- Introduction to preparation for the AP Lang and Comp and AP Lit and Comp Exam formats.
- Continued practice for advanced, college-level reading and writing strategies.

*Projects, Activities, etc.:* Close readings and essay exams*Instructional Focus:* Writing and language exploration, critical thinking.**WORLD LANGUAGE****IB French SL IV**

[CPHS only]

*Intended Audience:* Grades 11 or 12*Prerequisite/Selection Process:* Honors French III*Credit:* Four trimesters = 2.0 credits, two trimesters taken each year*Major Outcomes:*

- Integrated study of vocabulary, grammar, culture
- Relevant assessments of the four modalities
- Communicate in a variety of authentic situations, using appropriate register and syntax
- Internal and external assessments
- SL Exam required in grade 12

*Instructional Focus:* Curriculum delivered primarily in French**IB German SL IV**

[CPHS only]

*Prerequisite/Selection Process:* Honors German III*Intended Audience:* Grades 11 or 12*Credit:* Four trimesters = 2.0 credits, two trimesters taken each year*Major Outcomes:*

- Integrated study of vocabulary, grammar, culture
- Relevant assessments of the four modalities
- Communicate in a variety of authentic situations, using appropriate register and syntax
- Internal and external assessments
- SL Exam required in grade 12

*Instructional Focus:* Curriculum delivered primarily in German**IB Spanish SL IV**

[CPHS only]

*Prerequisite/Selection Process:* Honors Spanish III*Intended Audience:* Grades 11 or 12*Credit:* Four trimesters = 2.0 credits, two trimesters taken each year*Major Outcomes:*

- Integrated study of vocabulary, grammar, culture
- Relevant assessments of the four modalities
- Communication in a variety of authentic situations, using appropriate register and syntax
- Internal and external assessments
- SL Exam required in grade 12

*Instructional Focus:* Curriculum delivered primarily in Spanish*Projects, Activities, etc.:* Individual, small group and large group instruction incorporating authentic media.**IB French V SL or HL**

[CPHS only]

*[2387, 2388] to be offered concurrently with IB French V HL [2385, 2386]**Prerequisite/Selection Process:* Grade 12 students who have successfully completed IB French Level IV SL or Hon French IV*Intended Audience:* Grade 12*Credit:* 0.5 elective credit each of two trimesters taken in grade 12*Major Outcomes:*

- Integrated study of vocabulary, grammar, culture
- Relevant assessments of the four modalities
- Communicate in a variety of authentic situations, using appropriate register and syntax
- Internal and external SL or HL assessments
- SL or HL Exam required in grade 12

*Projects, Activities, etc.:* Individual, small group, large group instruction incorporating authentic media. HL students will also be required to complete extra readings and assignments outside of the SL class.*Instructional Focus:* Curriculum delivered primarily in French**IB German V SL or HL**

[CPHS only]

*[2485, 2486] to be taught concurrently with IB German V HL [2487, 2488]**Prerequisite/Selection Process:* Grade 12 students who have successfully completed IB German Level IV SL or Hon German IV*Intended Audience:* Grade 12*Credit:* 0.5 elective credit each of two trimesters taken in grade 12*Major Outcomes:*

- Integrated study of vocabulary, grammar, culture
- Relevant assessments of the four modalities
- Communicate in a variety of authentic situations, using appropriate register and syntax
- Internal and external SL or HL IB assessments
- SL or HL Exam required in grade 12

*Projects, Activities, etc.:* Individual, small group, large group instruction incorporating authentic media. HL students will also be required to complete extra readings and assignments outside of the SL class.*Instructional Focus:* Curriculum delivered primarily in German

**IB Spanish V SL or HL**

[CPHS only]

[2385, 2386] to be offered concurrently with IB Spanish V HL [2387, 2388]

*Prerequisite/Selection Process:* Grade 12 students who have successfully completed IB Spanish Level IV SL or Hon Spanish IV; teacher permission required to take the HL course

*Intended Audience:* Grade 12 students who have successfully completed Spanish IV

*Credit:* Two trimesters = 2.0 credits taken in grade 12

*Major Outcomes:*

- Integrated study of vocabulary, grammar, culture
- Relevant assessments of the four modalities
- Communication in a variety of authentic situations, using appropriate register and syntax, study of Spanish and Latin American literature
- Internal and external SL or HL IB assessments
- SL or HL Exam required in grade 12

*Projects, Activities, etc.:* Individual, small group and large group instruction incorporating authentic media. HL students will also be required to complete extra readings and assignments outside of the SL class

*Instructional Focus:* Curriculum delivered primarily in Spanish

**IB Ab Initio French SL****[Level I - Grade 11] and [Level II - Grade 12]**

[CPHS only]

*Prerequisite/Selection Process:* Only for full IB diploma candidates with no previous world language instruction

*Intended Audience:* Grades 11 and 12

*Credit:* Four trimesters = 2.0 credits, two trimesters taken each year

*Major Outcomes:*

- Provides a foundation for study of French
- Develops ability to communicate in speech and writing in French
- Introduces students to the cultures of French-speaking countries
- SL Exam required in grade 12

*Projects, Activities, etc.:* Two taped oral presentations externally moderated, two examination papers externally assessed

*Instructional Focus:* Develops listening, speaking, reading and writing skills in French

**IB Ab Initio German SL****[Level I - Grade 11] and [Level II - Grade 12]**

[CPHS only]

*Prerequisite/Selection Process:* Only for full IB diploma candidates with no previous world language instruction

*Intended Audience:* Grades 11 and 12

*Credit:* Four trimesters = 2.0 credits, two trimesters taken each year

*Major Outcomes:*

- Provides a foundation for study of German
- Develops ability to communicate in speech and writing in German
- Introduces students to the cultures of German-speaking countries
- SL Exam required in grade 12

*Projects, Activities, etc.:* Two taped oral presentations externally moderated, two examination papers externally assessed

*Instructional Focus:* Develops listening, speaking, reading and writing skills in German

**IB Ab Initio Spanish SL****[Level I - Grade 11] and [Level II - Grade 12]**

[CPHS only]

*Prerequisite/Selection Process:* Only for full IB diploma candidates with no previous world language instruction

*Intended Audience:* Grades 11 and 12

*Credit:* Four trimesters = 2.0 credits; two trimesters taken each year

*Major Outcomes:*

- Provides a foundation for study of Spanish
- Develops ability to communicate in speech and writing in Spanish
- Introduces students to the cultures of Spanish-speaking countries
- SL Exam required in grade 12

*Projects, Activities, etc.:* Two taped oral presentations externally moderated, two examination papers externally assessed

*Instructional Focus:* Develops listening, speaking, reading and writing skills in Spanish

**HISTORY****Honors Social Studies 10/  
Honors English 10 Block**

[CPHS only]

*Prerequisite/Selection Process:* Teacher or counselor recommendation, English 9 and Social Studies 9

*Intended Audience:* Grade 10

*Credit:* Two trimesters/two periods = 2.0 credits

*Major Outcomes:*

- Relationship of history, literature and communication skills

*Instructional Focus:* Students enrolled in Honors courses will be required to apply higher-order thinking and communication skills, study primary source documents and complete independent and/or group research projects. Preparatory class for IB English 11 & AP/IB European History 11 as well as for students wishing to enter the full IB diploma program.

**[AP European History]/IB History 11 HL**

[CPHS only]

*Prerequisite/Selection Process:* AP US History 10 or Honors Social Studies 10/English 10 Block

*Intended Audience:* Grade 11 Advanced Learners

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Prepare student for AP European History Exam and Year 1 of IB History Program
- Survey knowledge of European History from Renaissance through the Fall of USSR
- Producing and supporting a written thesis.
- Analytical discussion
- Research to gain multiple historical perspectives
- HL Exam required in grade 12

*Instructional Focus:* Understanding historical texts through lecture, reading, discussion, and essay writing.

**IB History of the Middle East & Africa 12 HL**

[CPHS only]

*Prerequisite/Selection Process:* [AP European History]/IB History 11 HL, AVID English 11 or HonBlock10

*Intended Audience:* Grade 12 Advanced Learners, students continuing onto IB History Year 2.

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Prepare students for required IB History Exam, including a review of selected European History topics from Year 1.
- Gain knowledge of relevant historical topics within the areas of the Modern Middle East & Africa and to understand how these regions have been impacted by Europe and the United States, as well as to gain a better understanding for the modern and current relationships among America, Europe, and the Middle East & Africa.
- To produce and support a written thesis.
- To have analytical discussions
- To engage in historical research in order to gain multiple historical perspectives
- HL Exam required in grade 12

*Instructional Focus:* Understanding historical texts through lecture, reading, discussion, and essay writing.

*Projects, Activities, etc.:* Required IB Internal Assessment: Historical Research Paper, Required IB External Assessment: 3 essay exams

## SCIENCES

### IB Biology 11 SL

[CPHS only]

*Prerequisite/Selection Process:* Chemistry I or Honors Chemistry I

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Knowledge of structure and function of human organ systems
- Learn concepts related to nucleic acids and proteins
- Understand principles and applications of genetics and DNA
- Knowledge of biological change over time, life processes and diversity of life
- Internal and external assessments
- Topics listed above studied at greater depth at the high level (HL)
- SL or HL Exam required in grade 12

*Projects, Activities, etc.:* Research project and field study, lab work with data analysis

*Instructional Focus:* College-level concepts through lecture and lab work; college text is used

### IB Biology 12 SL

[CPHS only]

*Prerequisite/Selection Process:* C or higher in IB Biology 11 SL

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Plant biology
- Cell respiration and photosynthesis
- Animal physiology including indepth genetics and evolution
- Neurobiology and behavior
- Internal and external assessments
- Topics listed above studied at greater depth at the higher level (HL)
- SL Exam required in grade 12

*Projects, Activities, etc.:* Major research project and field study, lab work with data analysis

*Instructional Focus:* College-level concepts through lecture and lab work; college text is used

### IB Biology 12 HL

[CPHS only]

*Prerequisite/Selection Process:* C or higher in IB Biology 11 SL

*Intended Audience:* Grade 12

*Credit:* Two trimesters = 1.0 credits

*Major Outcomes:*

- Plant biology
- Cell respiration and photosynthesis

- Animal physiology including indepth genetics and evolution
- Neurobiology and behavior
- Internal and external assessments
- HL Exam required in grade 12

*Projects, Activities, etc.:* Research project and field study, lab work with data analysis, Internal and external assessments, HL Exam in grade 12

*Instructional Focus:* College-level concepts through lecture and lab work; college text is used

### IB Chemistry 12 SL

[CPHS only]

*Prerequisite/Selection Process:* Honors Chemistry I AND Honors Advanced Algebra

*Intended Audience:* Grade 11 or 12

*Credit:* Two trimesters = 1.0 credits, two trimesters taken in the junior or senior year (Honors Chemistry 1 sophomore year is equivalent to Honors IB Chemistry 11)

*Major Outcomes:*

- Impart a body of chemistry principles and concepts
- Apply scientific principles
- Synthesize, evaluate, and analyze data gathered through scientific experimentation
- Develop experimental and inquiry skills
- Internal and external assessments
- SL Exam required in grade 11 or 12

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* Students considering a science-related career should take HL Chemistry rather than SL

### IB Chemistry 12 HL

[CPHS only]

*Prerequisite/Selection Process:* Honors Chemistry I AND Honors Advanced Algebra or Honors HS Algebra II

*Intended Audience:* Grade 11 or 12

*Credit:* Two trimesters = 1.0 credits, two trimesters taken in the junior or senior year (Honors Chemistry 1 sophomore year is equivalent to Honors IB Chemistry 11)

*Major Outcomes:*

- Impart a body of chemistry principles and concepts at a greater depth than SL Chemistry
- Apply scientific principles
- Synthesize, evaluate, and analyze data gathered through scientific experimentation
- Develop experimental and inquiry skills
- Internal and external assessments
- HL Exam required in grade 12

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* Students considering a science-related career should take HL Chemistry rather than SL

### IB Sports Exercise and Health Science

[CHPS only]

*Prerequisite/Selection Process:* Must have taken Biology or IB Biology and earned a B or better

*Intended Audience:* This course is a good preparation for courses in higher or further education related to sports fitness and health, and serves as useful preparation for employment in sports and leisure industries.

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Incorporate the disciplines of anatomy and physiology, biomechanics, psychology and nutrition
- Carry out practical investigation in both laboratory and field settings
- Apply scientific principles and critically analyze human performance
- SL Exam required in grade 11 or 12

*Projects, Activities, etc.:* Some physical activity required, labs, hands on experiences, tests, projects, and internal assessment for IB

*Instructional Focus:* Lecture, lab work, and student independent work

## MATHEMATICS

### IB Math Applications and Interpretations SL (A&B)

*Prerequisite/Selection Process:* A or B with teacher recommendation in Int Alg and Geometry/Hon Geometry OR completion of Adv Alg and Stats or HS Algebra II

*Intended Audience:* For students who are interested in developing their mathematics for describing our world, modelling and solving practical problems using the power of technology. Students who take Mathematics: Applications and Interpretations will be those who enjoy mathematics best when seen in a practical context.

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Statistics
- Probability
- Functions and Algebra
- SL Exam required in part C&D

*Projects, Activities, etc.:* Projects, written work, and exploratory activities

*Instructional Focus:* Instruction is provided in a variety of ways including using technology, hands on activities, and other assessments to prepare students for an understanding of what is on the required IB Exam in the part C and D of the course.

**IB Math Applications and Interpretations SL (C&D)**

*Prerequisite/Selection Process:* IB Math Applications and Interpretations SL (A&B)  
*Intended Audience:* For students who are interested in developing their mathematics for describing our world, modelling and solving practical problems using the power of technology. Students who take Mathematics: Applications and interpretation will be those who enjoy mathematics best when seen in a practical context.

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Geometry
- Trigonometry
- Calculus
- Exploration
- SL Exam required in this course

*Projects, Activities, etc.:* Projects, written work, and exploratory activities

*Instructional Focus:* Instruction is provided in a variety of ways including using technology, hands on activities, and other assessments to prepare students for an understanding of what is on the required IB Exam

**IB Math Analysis and Approaches SL 11**

*Prerequisite/Selection Process:* Honors Advanced Algebra or Honors HS Algebra II  
*Intended Audience:* Grades 10 and 11  
 Intended for students who will go on to study subjects with a more mathematical focus but not a need beyond Calculus

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Algebra, functions, and equations
- Circular functions and trigonometry
- Statistics and Probability
- SL Exam required in year 12

*Projects, Activities, etc.:* Written work and preparation for senior year exploration

*Instructional Focus:* Instruction encourages students to think at a higher level and combine previous and current knowledge to solve problems. Instruction is focused on preparing students for the required IB Exam in year 12

**IB Math Analysis and Approaches SL 12**

*Prerequisite/Selection Process:* IB Math Analysis and Approaches SL 11 OR Honors Pre calc and a Statistics course

*Intended Audience:* Intended for students who will go on to study subjects with a more mathematical focus but not a need beyond Calculus. For students who are interested in developing their mathematics for describing our world, modelling and solving practical problems using the power of technology. Students who take Mathematics: Applications and interpretation will be those who enjoy mathematics best when seen in a practical context.

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Calculus
- Internal exploration
- External assessment preparation
- SL Exam required in year 12

*Projects, Activities, etc.:* Exploration

*Instructional Focus:* Instruction encourages students to think at a higher level and combine previous and current knowledge to solve problems. Instruction is focused on preparing students for the required IB Exam components.

**[AP Calculus AB/BC]/IB Mathematics HL 11 [CPHS only]**

*Prerequisite/Selection Process:* Honors Precalculus

*Intended Audience:* Grades 11 and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Functions
- Limits, derivatives, integrals
- Improper integrals
- Partial fractions, infinite series
- Parametric, vector, and polar functions
- HL Exam required in year 12

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Same as AP Calculus AB for first two trimesters [1.0 credit course] and same as AP Calculus BC for one trimester course [0.5 credit course]

**IB Math Analysis and Approaches HL 12**

*Prerequisite/Selection Process:* AP/IB Calc AB/BC HL

*Intended Audience:* Students who will go on to study a subject with substantial mathematics content such as mathematics, engineering or physical sciences. It is designed for students who enjoy developing their mathematics to become fluent in the construction of mathematical arguments and develop strong skills in mathematical thinking. They will explore real and abstract applications, sometimes with technology, and will enjoy the thrill of mathematical problem solving and generalization.

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Algebra, functions and equations
- Circular functions and trigonometry
- Probability
- Statistics
- Calculus
- Limits, derivations and integrals
- HL Exam required in year 12

*Projects, Activities, etc.:* Exploration

*Instructional Focus:* .... Instruction presented in a variety of ways. Investigation of real life situations and applications to mathematical models. Instruction is focused on preparing students for the required IB Exam components.

**ELECTIVES****IB Music SL**

[CPHS only]

*Prerequisite/Selection Process:* Must also be enrolled in Band III, Choir III or Orchestra III

*Intended Audience:* Grades 11 and 12

*Credit:* Six trimesters = 3.0 credits

*Major Outcomes:*

- Study Western music from Middle Ages to present
- Gain awareness of music of selected non-Western cultures
- Gain knowledge of rudiments of music
- Understand notational systems
- Apply these elements by analyzing works of music
- Internal and external assessments
- SL Exam required in grade 12

*Projects, Activities, etc.:* A musical investigation project, plus one of the following: two compositions, solo performance CD or group performance CD

**IB Music HL**

[CPHS only]

*Prerequisite/Selection Process:* Must also be enrolled in Band III, Choir III or Orchestra III

*Intended Audience:* Grades 11 and 12

*Credit:* Six trimesters = 3.0 credits

*Major Outcomes:*

- Study Western music from Middle Ages to present
- Gain awareness of music of selected non-Western cultures
- Gain knowledge of rudiments of music
- Understand notational systems
- Apply these elements by analyzing works of music
- Internal and external assessments
- HL Exam required in grade 12

*Projects, Activities, etc.:* A musical investigation project, three compositions and a solo performance CD

**IB Business and Management SL-3 Tri**

[CPHS only]

*Prerequisite/Selection Process:* [AC] Business Management

*Intended Audience:* Grade 11 or 12 students who have completed Business Management and are interested in continuing on with higher level business curriculum.

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Business Activity and Environments
- Introduction to Finance and Accounts
- Marketing
- Human resource management

- Focus on: Change, Culture, Society, Ethics, Innovation and Strategy
- Applying content to “real world” business situations
- SL Exam required at the end of the course

*Projects, Activities, etc.:* Case Study approach, internal research paper, virtual business and external exam  
*Instructional Focus:* Variety of methods used to meet students needs

### IB Psychology SL

[CPHS only]

*Intended Audience:* Grades 11 and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Analyze and evaluate psychological theories and perspectives
- Replicate a psychological study, analyzing the results
- Evaluate the studies and theories that are associated with social psychology
- Internal and external assessments
- SL Exam required at the end of the course

*Projects, Activities, etc.:* Brain project, find, analyze and evaluate current journal articles in the field of psychology, Internal and external assessments, SL Exam taken at the end of the senior year

*Instructional Focus:* All class discussions and student led presentations

### IB Visual Arts SL

[CPHS only]

*Intended Audience:* Grades 11 or 12

*Prerequisite/Selection Process:* 2 lower level arts courses or teacher permission

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

At an advanced, college preparatory level—

- Identify and Describe artwork from differing contexts.
- Experiment with different media, materials and techniques in art-making.
- Critically analyze and discuss artworks created by themselves and others.
- SL Exam required at the end of the course

*Projects, Activities, etc.:* Comparative Presentation of various established works of art; Process Portfolio of student’s developing work; Exhibition of student’s completed work.

*Instructional Focus:* Artistic skills using a variety of media, writing, speaking, analysis, and critical thinking.

## IB CORE

### IB Theory of Knowledge I

[CPHS only]

[TOK I is required for all IB diploma candidates]

*Prerequisite/Selection Process:* IB diploma candidate or certificate scholar

*Intended Audience:* Grades 11 or 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Identify and analyze the various kinds of justifications used to support knowledge.
- Formulate, evaluate and attempt to answer knowledge questions
- Examine how academic disciplines/areas of knowledge generate and shape knowledge
- Understand the roles played by ways of knowing in the construction of shared and personal knowledge
- Explore links between knowledge claims, knowledge questions, ways of knowing and areas of knowledge
- Demonstrate an awareness and understanding of different perspectives and be able to relate these to one’s own perspective
- Explore a real-life/contemporary situation from a TOK perspective in the presentation

*Projects, Activities, etc.:* TOK presentation

*Instructional Focus:* Students participate in frequent seminar discussions and research assignments, knowledge issues

### IB Theory of Knowledge II

[CPHS only]

[TOK II is required for all IB diploma candidates]

*Prerequisite/Selection Process:* IB Theory of Knowledge I

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Identify and analyze the various kinds of justifications used to support knowledge.
- Formulate, evaluate and attempt to answer knowledge questions
- Examine how academic disciplines/areas of knowledge generate and shape knowledge
- Understand the roles played by ways of knowing in the construction of shared and personal knowledge
- Explore links between knowledge claims, knowledge questions, ways of knowing and areas of knowledge
- Demonstrate an awareness and understanding of different perspectives and be able to relate these to one’s own perspective
- Explore a real-life/contemporary situation from a TOK perspective in the presentation

*Projects, Activities, etc.:* TOK presentation

*Instructional Focus:* Student-led discussions, faster pace and independent work

### IB Personal and Professional Skills 11

*Prerequisite/Selection Process:* Admission to the IB Career Program

*Intended Audience:* Students interested in pursuing an IB Career-Related Program diploma.

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

By the end of the course, students will be able to:

- Identify their own strengths and develop areas for growth
- Demonstrate the ability to apply thinking processes to personal and professional situations.
- Recognize and be able to articulate the value of cultural understanding and appreciation for diversity
- Demonstrate the skills and recognize the benefits of communicating effectively and working collaboratively
- Recognize and consider the ethics of choices and actions.

*Projects, Activities, etc.:* Ethical analysis of the chosen career field through discussion, collaboration, and writing

### IB Personal and Professional Skills 12

[CPHS only]

*Prerequisite/Selection Process:* Admission to the IB Career Program

*Intended Audience:* Students interested in pursuing an IB Career-Related diploma

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Identify personal strengths and develop areas for growth
- Apply thinking processes to personal and professional situations.
- Recognize and be able to articulate the value of cultural understanding and appreciation for diversity
- Demonstrate the skills and recognize the benefits of communicating effectively and working collaboratively
- Recognize and consider the ethics of choices and actions.

*Projects, Activities, etc.:* Analysis of chosen field (research), reading and writing about the field from an ethical perspective

*Instructional Focus:* Development of the self within the context of the workplace, critically examining chosen field.

# MATHEMATICS

REQUIRED COURSES	GRADES	PREREQUISITES
HS Intermediate Algebra	9	
HS Geometry with College Foundations or Honors HS Geometry with College Foundations	10	HS Intermediate Algebra or Honors HS Intermediate Algebra
Advanced Algebra ♦ or Honors Advanced Algebra ♦	11	HS Geometry or Honors HS Geometry
HS Algebra II or Honors HS Algebra II	11	HS Geometry or Honors HS Geometry
Statistics and Probability ♦ or AP Statistics	11	HS Intermediate Algebra or Honors HS Intermediate Algebra
ELECTIVE COURSES	GRADES	PREREQUISITES
Coll Honors College Algebra through Modeling [AndHS, AHS, BHS, CRHS only]	11, 12	Advanced Algebra or Honors Advanced Algebra <i>Advanced Algebra with a grade of C+ or better and class rank considered</i>
Coll Honors College Algebra [AndHS, AHS, BHS, CRHS only]	11, 12	Advanced Algebra or Honors Advanced Algebra <i>Student must pass a placement test and class rank considered</i>
Honors Precalculus	11, 12	Advanced Algebra [with teacher recommendation] or Honors Advanced Algebra or Coll Honors College Algebra [AndHS, AHS, BHS, CRHS only] or Coll Honors College Algebra through Modeling [AndHS, AHS, BHS, CRHS only]
AP Statistics	11, 12	Honors Advanced Algebra
AP Calculus AB	11, 12	Honors Precalculus
Calculus AB Seminar	11, 12	AP Calculus AB
AP Calculus BC	12	AP Calculus AB
AP Calculus AB/BC [BHS]	12	Honors Precalculus
[AP Calculus AB/BC]/IB Mathematics HL 11 [CPHS only]	11, 12	Honors Precalculus

♦ Note: 2021-22 will be the last year that this course is offered.

For additional BHS options in Mathematics, see CEMS section.

For additional CPHS options in Mathematics, see International Baccalaureate section

## HS Intermediate Algebra

*Intended Audience:* Grade 9

*Credit:* \*\* Two trimesters = 1.0 credit

*Major Outcomes:* This course continues the extensive, connected, and applied study of Mathematics from previous courses. Emphasis is on the development of multiple strategies to solve problems and to recognize multiple ways of understanding concepts, especially as it pertains to quadratic and exponential functions. It has strong threads woven throughout the course focusing on multiple representations, justifying thinking, and communicating the meaning of a solution. The topics covered in the course are:

- Functions, Linear Relationships
- Sequences
- Exponential Functions
- Solving Quadratic and Inequalities
- Simplifying and Solving
- Modeling Two-Variable Data
- Quadratic Functions

*Instructional Focus:* Instruction presented in a variety of ways; some hands-on activities and the use of a graphing calculator.

\*\* Students may be placed in an additional trimester of math based on a variety of achievement scores and teacher recommendation. Students passing this additional trimester course would receive an additional 0.5 elective credit.

## HS Geometry with College Foundations

*Prerequisite/Selection Process:* Intermediate Algebra with College Foundations or Honors Intermediate Algebra

*Intended Audience:* Grade 10

*Credit:* Three trimesters = 1.0 math credit and 0.5 elective credit

*Major Outcomes:* This course continues the extensive, connected, and applied study of Mathematics from previous courses. It has strong threads woven throughout the course focusing on multiple representations, justifying thinking, and communicating the meaning of a solution. The topics covered in the course are:

- Shapes and Transformations
- Angles and Measurement
- Justification and Similarity
- Trigonometry and Probability
- Congruent Triangles
- Proof and Quadrilaterals
- Polygons and Circles
- Solids and Constructions
- Circles and Conditional Probability
- Solids and Circles

*Instructional Focus:* Instruction presented in a variety of ways; some hands-on activities.

## Honors HS Geometry with College Foundations

*Prerequisite/Selection Process:* Intermediate Algebra with College Foundations or Honors Intermediate Algebra

*Intended Audience:* Grade 10

*Credit:* Three trimesters = 1.0 math credit and 0.5 elective credit

*Major Outcomes:* This course continues the extensive, connected, and applied study of Mathematics from previous courses. It has strong threads woven throughout the course focusing on multiple representations, justifying thinking, and communicating the meaning of a solution. The topics covered in the course are:

- Shapes and Transformations
- Angles and Measurement
- Justification and Similarity
- Trigonometry and Probability
- Congruent Triangles
- Proof and Quadrilaterals
- Polygons and Circles
- Solids and Constructions
- Circles and Conditional Probability
- Solids and Circles

*Instructional Focus:* Instruction presented in a variety of ways; some hands-on activities, and more in-depth study of content.

## Advanced Algebra

*Prerequisite/Selection Process:* Geometry

*Intended Audience:* Grade 11

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Rational Functions
- Transformations
- Modeling with Exponential Functions
- Sequences and Series

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Instruction presented in a variety of ways, use of graphing calculator

## Honors Advanced Algebra

*Prerequisite/Selection Process:* Honors Geometry

*Intended Audience:* Students who plan to continue mathematical studies beyond Honors Advanced Algebra

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Rational Functions
- Transformations
- Modeling with Exponential Functions
- Sequences and Series

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Instruction presented in a variety of ways, use of graphing calculator, faster pace, higher level problem solving, and more in-depth study of content

## HS Algebra II

*Prerequisite/Selection Process:* HS Geometry with College Foundations or Honors HS Geometry with College Foundations

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 math credit

*Major Outcomes:* This course continues the extensive, connected, and applied study of Mathematics from previous courses. It has strong threads woven throughout the course focusing on multiple representations, justifying thinking, and communicating the meaning of a solution. The topics covered in the course are:

- Transformations of parent graphs
- Equivalent forms
- Solving and intersections
- Inverses and logarithms
- 3-D graphing and logarithms
- Trigonometric functions, polynomials
- Randomization and normal distributions
- Series
- Simulating sampling variability

*Instructional Focus:* Instruction presented in a variety of ways; some hands-on activities.

## Honors HS Algebra II

*Prerequisite/Selection Process:* HS Geometry with College Foundations or Honors HS Geometry with College Foundations

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 math credit

*Major Outcomes:* This course continues the extensive, connected, and applied study of Mathematics from previous courses. It has strong threads woven throughout the course focusing on multiple representations, justifying thinking, and communicating the meaning of a solution. The topics covered in the course are:

- Transformations of parent graphs
- Equivalent forms
- Solving and intersections
- Inverses and logarithms
- 3-D graphing and logarithms
- Trigonometric functions, polynomials
- Randomization and normal distributions
- Series
- Simulating sampling variability

*Instructional Focus:* Instruction presented in a variety of ways; some hands-on activities, and more in-depth study of content.

## Statistics and Probability

*Prerequisite/Selection Process:* Intermediate Algebra with College Foundations or Honors Intermediate Algebra

*Intended Audience:* Grades 10 and 11

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Using data to draw conclusions and identify trends
- Effects of display distortion and measurement error on the interpretation of data
- Application of theoretical probability to real world problems

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Instruction presented in a variety of ways, use of statistical software and some hands-on activities

## AP Statistics

[AP exam is in May each year]

*Prerequisite/Selection Process:* Honors Advanced Algebra

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Introduction to the major concepts and tools for collecting, analyzing and drawing conclusions from data
- Approach the AP exam with confidence

*Projects, Activities, etc.:* Varies by teacher  
*Instructional Focus:* Instruction presented in a variety of ways, use of statistical software, some hands-on activities and preparation for AP exam. College credit may be earned based on AP exam score and institution.

### Coll Honors College Algebra Through Modeling

[AndHS, AHS, BHS, and CRHS only]

College Credit [University of Minnesota - CI 1806]

*Prerequisite/Selection Process:* Advanced Algebra, Honors Advanced Algebra

*Intended Audience:* Grades 11 and 12; a grade of C+ or better in Advanced Algebra and class rank (50th-80th percentile) is considered

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Construct math models to describe real world phenomena
- Use math models to make predictions
- Apply linear, polynomial, rational, exponential, and logarithmic functions to real world situations

• Communicate and evaluate math reasoning

*Projects, Activities, etc.:* Modeling assignments solving realistic problems; utilize graphing calculators and spreadsheets to accurately represent the behavior of real-world data

*Instructional Focus:* Emphasis on real-world problem-solving applications

### Coll Honors College Algebra

[AndHS, AHS, BHS, CRHS only]

College Credit [AHS only: Anoka-Ramsey Community College – Math 1200] [AndHS, BHS, and CRHS: St. Cloud State University – Math 112]

*Prerequisite/Selection Process:* Advanced Algebra or Honors Advanced Algebra and a required math score on the placement test

*Intended Audience:* Only Grade 11 [GPA in top 33 percent of class] and only Grade 12 [GPA in top 50 percent of class]

*Credit:* Two trimesters = 1.0 credit, successful completion can earn college credit

*Major Outcomes:*

- Functions and function inverses
- Exponential and logarithmic functions
- Polynomial and Rational Functions
- Linear programming
- Systems of equations and inequalities

*Projects, Activities, etc.:* Group problem-solving sessions, group presentations, group activities, computer lab projects, individual student presentations, student portfolio creation

*Instructional Focus:* Small and large group discussions, concept mapping, presentations and use of a college text

### Honors Precalculus

*Prerequisite/Selection Process:* Honors Advanced Algebra or Coll Honors College Algebra [Advanced Algebra with teacher recommendation]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Two terms = 1.0 credit

*Major Outcomes:*

- Extension of algebraic and geometric concepts of relations, functions and graphing into trigonometric functions
- Applications of trigonometry

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Instruction presented in a variety of ways, use of graphic calculator

### AP Statistics

[AP test is in May each year]

*Prerequisite/Selection Process:* Honors Advanced Algebra

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Introduction to the major concepts and tools for collecting, analyzing and drawing conclusions from data

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Instruction presented in a variety of ways, use of statistical software, some hands-on activities and preparation for AP test

### AP Calculus AB

[AP exam is in May each year]

*Prerequisite/Selection Process:* Honors Precalculus

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two terms = 1.0 credit

*Major Outcomes:*

- Functions
- Limits, derivatives, integrals
- Approach the AP exam with confidence

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Instruction presented in a variety of ways; use of graphing calculator; preparation for AP exam; College credit may be earned based on AP exam score and institution.

### Calculus AB Seminar

*Prerequisite/Selection Process:* AP Calculus AB

*Intended Audience:* Students who have completed Calculus AB and desire to prepare for the AP Exam

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Review Calculus AB Concepts
  - Further in-depth study in Calculus Concepts
- Projects, Activities, etc.:* Practice AP Calculus AB Exams and discussion of AP testing strategies

### AP Calculus BC

[AP exam is in May each year]

*Prerequisite/Selection Process:* Students must have successfully completed AP Calculus AB or AP Differential Calculus AB and AP Integral Calculus AB

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Improper integrals
- Partial fractions, infinite series
- Parametric, vector and polar functions
- Approach the AP exam with confidence

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Instruction presented in a variety of ways; use of graphing calculator; preparation for AP exam; College credit may be earned based on AP exam score and institution.

### AP Calculus AB/BC

[BHS]

[AP Calculus AB and AP Calculus BC]

*Prerequisite/Selection Process:* Honors Precalculus

*Intended Audience:* Grade 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Functions
- Limits, derivatives, integrals
- Improper integrals
- Partial fractions, infinite series
- Parametric, vector and polar functions

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Same as AP Calculus AB for first two trimesters [1.0 credit course] and same as AP Calculus BC for one trimester course [0.5 credit course]

### [AP Calculus AB/BC]/IB Mathematics HL 11

[CPHS only]

*Prerequisite/Selection Process:*

Honors Precalculus

*Intended Audience:* Grades 11 and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Functions
- Limits, derivatives, integrals
- Improper integrals
- Partial fractions, infinite series
- Parametric, vector and polar functions

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Same as AP Calculus AB for first two trimesters [1.0 credit course] and same as AP Calculus BC for one trimester course [0.5 credit course]

# MUSIC

ELECTIVE COURSES	GRADES	PREREQUISITES
Band I	9	Minimum of one year of band instruction or private study and approval of band teacher
Band II	10, 11, 12	Band teacher determines level of placement
Honors Band III	10, 11, 12	Approval of band teacher
Marching Band [CRHS only] [Trimester 1 only]	9, 10, 11, 12	Minimum of one year of band instruction or private study and approval of band teacher
Concert Band [CRHS only] [Trimester 1 only]	9, 10, 11, 12	Minimum of one year of band instruction or private study and approval of band teacher
Choir I	9	No prior experience but approval of the vocal music teacher
Choir II	10, 11, 12	Vocal music teacher determines placement
Honors Choir III	10, 11, 12	Approval of vocal music teacher
Orchestra I	9	Minimum one year of orchestra instruction or private study, approval of the orchestra teacher
Orchestra II	10, 11, 12	Orchestra teacher determines placement
Honors Orchestra III	10, 11, 12	Approval of the orchestra teacher
Music Exploration	9, 10, 11, 12	
AP Music Theory	10, 11, 12	
World Drumming [CPHS, CRHS only]	9, 10, 11, 12	

For additional AHS options in Music, see STEAM section.

For additional CPHS options in Music, see International Baccalaureate section.

## Band I

*Prerequisite/Selection Process:* Minimum of one year of band instruction or private study and approval of the band teacher

*Intended Audience:* Grade 9

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of music
- Reading music
- Performance

*Instructional Focus:* Performance

## Band II

*Prerequisite/Selection Process:* Band teacher determines level of placement

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of music
- Reading music
- Performance

*Instructional Focus:* Performance

## Honors Band III

*Prerequisite/Selection Process:* Approval of band teacher

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Advanced development of skills in music elements, reading, and performance.

*Instructional Focus:* Performance

## Marching Band

[CRHS only] [Trimester 1 only]

*Prerequisite/Selection Process:* Minimum of one year of band instruction or private study and approval of band teacher

*Intended Audience:* Band Students in Grades 9, 10, 11, and 12

*Credit:* One Trimester = 0.5 credit

*Major Outcomes:*

- Development of the Elements of Musicianship and the Elements of Movement

*Projects, Activities, etc.:* The Marching Band is a highly visible and active music ensemble that includes band students in grades 9-12.

The ensemble requires a time commitment outside of the school day, including selected dates in August, Monday evening rehearsals in September and October, all home football games, marching band field show competitions, and possible other venues such as local community events. A calendar for the season is available now in the Band Office.

*Note:* This is a first trimester course of a yearlong band curriculum. Students should register for Band Level I, II or III for Trimesters 2 and 3. Students may enroll and receive credit for this course more than once. Students registered for Band III trimester 2 & 3 will receive Honors Credit [0.5 credit] for Marching Band.

## Concert Band

[CRHS only] [Trimester 1 only]

*Prerequisite/Selection Process:* Minimum of one year of band instruction or private study and approval of band teacher

*Intended Audience:* Band Students in Grades 9, 10, 11, and 12

*Credit:* One Trimester = 0.5 credit

*Major Outcomes:*

- Elements of Music
- Reading Music
- Performance

*Projects, Activities, etc.:* This course is intended for brass, woodwind and percussion performers not interested in participating in Marching Band. The ensemble will study and perform literature representing many stylistic and historical periods. Performances will include one concert.

*Note:* This is a first trimester course of a yearlong band curriculum. Students should register for Band Level I, II or III for Trimesters 2 and 3. Students may enroll and receive credit for this course more than once. Students registered for Band III trimester 2 & 3 will receive Honors Credit [0.5 credit] for Concert Band.

**Choir I**

*Prerequisite/Selection Process:* No prior experience, approval of the vocal music teacher

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of music
- Reading music
- Performance

*Instructional Focus:* Performance

**Choir II**

*Prerequisite/Selection Process:* Vocal music teacher determines placement

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of music
- Reading music
- Performance

*Instructional Focus:* Performance

**Honors Choir III**

*Prerequisite/Selection Process:* Approval of vocal music teacher

*Intended Audience:* Advanced singing students in grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Advanced development of skills in music elements, reading, and performance.

*Instructional Focus:* Performance

**Orchestra I**

*Prerequisite/Selection Process:* Minimum of one year of orchestra instruction or private study, approval of orchestra teacher

*Intended Audience:* Grade 9

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of Music
- Reading Music
- Performance

*Instructional Focus:* Performance

**Orchestra II**

*Prerequisite/Selection Process:* Placement determined by orchestra teacher

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of Music
- Reading Music
- Performance

*Instructional Focus:* Performance

**Honors Orchestra III**

*Prerequisite/Selection Process:* Enrollment is by approval of the orchestra teacher

*Intended Audience:* Advanced students in grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Advanced development of skills in music elements, reading, and performance.

*Instructional Focus:* Performance

**Music Exploration**

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Introduction to music composition, theory, history, analysis, and current performance practices
- Music Technology
- Music of various cultures

*Note:* See teacher for specific instructional focus.

**AP Music Theory**

[AP exam is in May each year]

*Prerequisite/Selection Process:* Enrollment in Level II or higher ensemble, or grade of C or higher in Music Exploration, or teacher permission

*Intended Audience:* Grades 10, 11 and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Develop the ability to recognize, understand, and describe basic materials and processes of music

- Learn and apply notational and aural skills
  - Learn and apply basic music concepts and terminology
  - Be prepared to pass the College Board Advanced Placement Music Theory Exam
  - Approach the AP exam with confidence
- Projects/Activities:* Listening to, analyzing, performing, and composing a wide variety of music

*Instructional Focus:* AP Music Theory corresponds to a typical introductory music theory two course sequence. College credit may be earned based on AP exam score and institution.

**World Drumming**

[CPHS, CRHS only]

*Prerequisite:* No musical experience necessary

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One Trimester = .5 credit

*Major Outcomes:*

- Performance skills and understanding the musical cultures and traditions of Africa and the Caribbean
- Opportunities to build teams and personal leadership
- Build musical listening and communication skills
- Learn to improvise and create new musical patterns

*Projects/Activities, etc:* World Drumming is an active participation class that will primarily focus on musical traditions and performance practices from West Africa and the Caribbean. Students will learn traditional beat patterns, create new ones, and learn how to lead and follow in a musical setting. Performance options will be available including pep fests and specialty programs.

# PHYSICAL EDUCATION

REQUIRED COURSES	GRADES	PREREQUISITES
Physical Education I	9	
Physical Education II	10	Physical Education I
ELECTIVE COURSES	GRADES	PREREQUISITES
Accelerated Basketball I	10, 11, 12	Physical Education I and Physical Education II
Accelerated Basketball II	10, 11, 12	Accelerated Basketball I
Accelerated Basketball III	10, 11, 12	Accelerated Basketball II
Accelerated Volleyball I	10, 11, 12	Physical Education I and Physical Education II
Accelerated Volleyball II	11, 12	Accelerated Volleyball I
Accelerated Volleyball III	11, 12	Accelerated Volleyball II
Group Fitness I	10, 11, 12	Physical Education I and Physical Education II
Group Fitness II	10, 11, 12	Group Fitness I
Lifetime Activities Outdoors [Fall/Spring]	11, 12	Physical Education I and Physical Education II
Lifetime Activities Outdoors [Winter]	11, 12	Physical Education I and Physical Education II
Physical Education Elective 9	9	Physical Education I
Strength Training and Conditioning I	10, 11, 12	Physical Education I and Physical Education II
Strength Training and Conditioning II	11, 12	Strength Training and Conditioning I
Strength Training and Conditioning III	11, 12	Strength Training and Conditioning II
Strength Training and Conditioning IV	11, 12	Strength Training and Conditioning III
Team Sports	10, 11, 12	Physical Education I and Physical Education II
Total Sports I	10, 11, 12	Physical Education I and Physical Education II
Total Sports II	10, 11, 12	Total Sports I

## Physical Education I

*Intended Audience:* Grade 9

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Fundamentals of individual physical fitness
- Instruction in varied physical activities

*Instructional Focus:* Physical activities designed to meet student interests

## Physical Education II

*Prerequisite/Selection Process:* Physical Education I

*Intended Audience:* Grade 10

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Development and implementation of personal fitness plan
- Instruction in varied physical activities

*Projects, Activities, etc.:* Fitness plan

*Instructional Focus:* Physical activity

## Accelerated Basketball I

*Prerequisite/Selection Process:* Physical Education I and Physical Education II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One Trimester = 0.5 credit

*Major Outcomes:*

- Individual offensive and defensive skills (dribbling, passing, shooting, rebounding)
- Proper warm up, rules of the game, etiquette, and terminology.

- Emphasis will be placed on person to person defense and a motion offense utilizing screens, cuts, spacing, and movement.

*Instructional Focus:* Physical activity

## Accelerated Basketball II

*Prerequisite/Selection Process:* Accelerated Basketball I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One Trimester = 0.5 credit

*Major Outcomes:*

- Improve individual skills and introduces more advanced offensive and defensive team concepts.
- Topics include half-court zone offense and defense, sideline and baseline out of bounds plays, full court press and press break, and officiating signals.
- Fitness components are specific to the game of basketball.
- Emphasis is placed on improving upon skills learned in Accelerated Basketball I and implementing them within a more advanced team dynamic.

*Instructional Focus:* Physical activity

## Accelerated Basketball III

*Prerequisite/Selection Process:* Accelerated Basketball II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Improve individual intermediate skills through self-analysis of strengths and weaknesses and introduce some of the most advanced offensive and defensive concepts in basketball
- Topics include full court zone press, trapping and switching defenses, secondary break offenses, and video analysis
- Emphasis on improving upon skills learned in Accelerated Basketball I/II and implementing them within a more advanced team dynamic

*Instructional Focus:* Physical activity

## Accelerated Volleyball I

*Prerequisite/Selection Process:* Physical Education I and Physical Education II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Basic and advanced power volleyball skills
- Team strategies

*Instructional Focus:* Physical activity

## Accelerated Volleyball II

*Prerequisite/Selection Process:* Power Volleyball I

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced volleyball skills
  - Team strategies for competitive power volleyball
- Instructional Focus:* Physical activity

## Accelerated Volleyball III

*Prerequisite/Selection Process:* Power Volleyball II

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced power volleyball skills
- Skill analysis, team-building concepts, coaching, and officiating

*Instructional Focus:* Physical activity

## Group Fitness I

*Prerequisite/Selection Process:* Physical Education I and Physical Education II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One Trimester = 0.5 credit

*Major Outcomes:*

- Improvement of personal fitness through a variety of group fitness activities
- Application of the Principles of Exercise and F.I.T.T.

*Projects, Activities, etc.:* Floor and Step Aerobics, Biking, Boot Camp, Cardio kickboxing, Circuit Training, Jogging, Jump Training, Plyometrics, Power Walking, Inline Skating, Yoga, Resistance Training with dumbbells, bands, stability balls, and the latest trends.

*Instructional Focus:* Active participation

## Group Fitness II

*Prerequisite/Selection Process:* Group Fitness I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One Trimester = 0.5 credit

*Major Outcomes:*

- Improvement of personal fitness through a variety of group fitness activities
- Continued application of the Principles of Exercise and F.I.T.T. in training
- Principles of a healthy lifestyle
- The opportunity to lead and develop group fitness workouts
- Participation at a more advanced level than Aerobics/Group Fitness I

*Projects, Activities, etc.:* Floor and Step Aerobics, Biking, Boot Camp, Cardio kickboxing, Circuit Training, Jogging, Jump Training, Plyometrics, Power Walking, Inline Skating, Yoga, Resistance Training with dumbbells, bands, stability balls, and the latest trends.

*Instructional Focus:* Active participation

## Lifetime Activities Outdoors [Fall/Spring]

*Prerequisite/Selection Process:* Physical Education I and Physical Education II

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Experience various indoor and outdoor activities
- Enhance fitness levels
- Develop appreciation for the outdoors

- Acquire leadership skills
  - Understand the importance of physical activity as it relates to a healthy lifestyle
- Projects, Activities, etc.:* Golf, rock climbing, canoeing, orienteering, court sports, fishing, biking, inline skating, hiking, and disc golf

## Lifetime Activities Outdoors [Winter]

*Prerequisite/Selection Process:* Physical Education I and Physical Education II

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Experience various indoor and outdoor activities
  - Enhance fitness levels
  - Develop appreciation for the outdoors
  - Acquire leadership skills
  - Understand the importance of physical activity as it relates to a healthy lifestyle
- Projects, Activities, etc.:* Snowshoeing, Nordic skiing, bowling, court sports, ice fishing, downhill skiing/snowboarding, broomball, ice skating and hockey

## Physical Education Elective 9

*Prerequisite/Selection Process:* Physical Education I

*Intended Audience:* Grade 9

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Expanded opportunities in individual, dual, and team activities
- Improvement in physical fitness

*Instructional Focus:* Physical activity

## Strength Training and Conditioning I

*Prerequisite/Selection Process:* Physical Education I and Physical Education II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Knowledge and application of basic strength and conditioning principles
- Development of associated skills and techniques

*Instructional Focus:* Individualized instruction and physical activity

## Strength Training and Conditioning II

*Prerequisite/Selection Process:* Strength Training and Conditioning I

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Further development in training techniques and skills
  - Emphasis on fitness-related issues
- Instructional Focus:* Individualized instruction and physical activity

## Strength Training and Conditioning III

*Prerequisite/Selection Process:* Strength Training and Conditioning II

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Improvement of skills learned in Strength Training and Conditioning I and II
  - Development of personal fitness program
- Projects, Activities, etc.:* Field trips
- Instructional Focus:* Individualized instruction and physical activity

## Strength Training and Conditioning IV

*Prerequisite/Selection Process:* Strength Training and Conditioning III

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Development of advanced training techniques, skills and concepts
  - Opportunity to explore a variety of advanced strength training protocols
- Instructional Focus:* Individualized instruction and physical activity

## Team Sports

*Prerequisite/Selection Process:* Physical Education I and Physical Education II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Basic skills and strategies of activities such as basketball, boot hockey, bowling, floor hockey, football, lacrosse, soccer, softball, team handball and volleyball

*Projects, Activities, etc.:* Field trips

*Instructional Focus:* Physical activity

## Total Sports I

*Prerequisite/Selection Process:* Physical Education I and Physical Education II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- This course is a combination of team and individual sport

*Projects, Activities, etc.:* Field trips

*Instructional Focus:* Physical activity

## Total Sports II

*Prerequisite/Selection Process:* Total Sports I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- This course is a combination of team and individual sports. Play is more advanced than in Total Sports I
- Projects, Activities, etc.:* Field trips
- Instructional Focus:* Physical activity

# READING

ELECTIVE COURSES	GRADES	PREREQUISITES
Academic Reading Prep I	9, 10	
Academic Reading Prep II	10, 11, 12	
Coll Reading and Study Strategies	11, 12	GPA Top 1/3 juniors, top 1/2 seniors, instructor permission

Qualifying students will be placed in a Reading intervention course in addition to their grade-level English course based on state and district test scores as well as teacher recommendation. Generally, ninth graders are placed in Reading Foundations I and tenth graders in Reading Foundations II. For more information, please contact your child's school.

## Academic Reading Prep I

*Intended Audience:* Grades 9 and 10

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Improve comprehension in nonfiction, textbook, and academic reading
- Improve academic vocabulary and study skills
- Improve test-taking skills

*Projects/Activities, etc.:* In-class and independent reading, journals, reading logs and goal setting

*Instructional Focus:* Academic vocabulary, comprehension strategies and test-taking strategies

## Academic Reading Prep II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Improve comprehension in nonfiction, textbook, and academic reading
- Improve academic vocabulary and study skills
- Improve test-taking skills

*Projects/Activities, etc.:* In-class and independent reading, journals, reading logs and goal setting

*Instructional Focus:* Academic vocabulary, comprehension strategies and test-taking strategies

## Coll Reading and Study Strategies

College credit [St. Cloud State University]

This course emphasizes ways to learn information for college classes. Topics include study strategies, note-taking, test-taking, decreasing procrastination, time management and test anxiety.

*Prerequisite/Selection Process:* GPA Top 1/3 juniors, top 1/2 seniors, instructor permission

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 high school credit. Successful completion may earn 2 college credits at St. Cloud State University

*Major Outcomes:*

- Application of higher-level thinking, reading strategies, and study skills leads to comprehension and improved academic performance
- Enhancing an academic vocabulary and an understanding of word parts will increase the ability to discern meaning

*Projects, Activities, etc.:* Create and utilize personal reading and notetaking strategies in order to achieve success in a college course.

*Instructional Focus:* Application of problem solving strategies, study strategies, note-taking and test-taking strategies to enhance individual learning experiences in order to prepare for college level course work.

# SCIENCE

REQUIRED COURSES	GRADES	PREREQUISITES
Physical Science 9 or Honors Physical Science 9 or Honors Physics 9 [BHS, CPHS, CRHS only]	9	
Chemistry I or Honors Chemistry I or AP Chemistry [AndHS only]	10	Physical Science 9 or Honors Physical Science 9 or Honors Physics 9 [CPHS, CRHS and BHS only]
Biology I	11	Chemistry I or Honors Chemistry I or AP Chemistry [AndHS only]
AP Biology [AndHS, BHS, CRHS only]	11	Chemistry I or Honors Chemistry I or AP Chemistry [AndHS only]
Coll Honors Biology [AHS only]	11	Honors Chemistry I
ELECTIVE COURSES	GRADES	PREREQUISITES
<b>Biological Science</b>		
Honors Biology II: Genetics and Biotechnology [AndHS, AHS, BHS, CPHS only]	11, 12	Biology I or Biology SL or HL [CPHS only] or Coll Honors Biology [AHS only] or AP Biology [AndHS, BHS, CRHS only]
Honors Biology II: Physiology/Anatomy [AndHS, AHS, BHS, CPHS only]	11, 12	Biology I or Biology SL or HL [CPHS only] or Coll Honors Biology [AHS only] or AP Biology [AndHS, BHS, CRHS only]
<b>Chemical Science</b>		
Honors Chemistry II	11, 12	Chemistry I with permission of teacher or Honors Chemistry I or AP Chemistry [AndHS only]
<b>Earth Science</b>		
Astronomy	10, 11, 12	Physical Science 9 or Honors Physical Science 9 or Honors Physics 9 [CPHS, CRHS and BHS only]
Geology of Minnesota	10, 11, 12	Physical Science 9 or Honors Physical Science 9 or Honors Physics 9 [CPHS, CRHS and BHS only]

Meteorology	10, 11, 12	Physical Science 9 or Honors Physical Science 9 or Honors Physics 9 [BHS, CPHS, CRHS only]
<b>Environmental Science</b>		
Outdoor Adventures Fall Environmental Science [AndHS, AHS, BHS, CPHS only]	12	Biology I or IB Biology SL or HL [CPHS only] or Coll Honors Biology [AHS only] or AP Biology [AndHS, BHS, CRHS only]
Outdoor Adventures Winter Environmental Science [AndHS, AHS, BHS, CPHS only]	12	Biology I or IB Biology SL or HL [CPHS only] or Coll Honors Biology [AHS only] or AP Biology [AndHS, BHS, CRHS only]
Outdoor Adventures Spring Environmental Science [AndHS, AHS, BHS, CPHS only]	12	Biology I or IB Biology SL or HL [CPHS only] or Coll Honors Biology [AHS only] or AP Biology [AndHS, BHS, CRHS only]
Outdoor Adventures AP Environmental Science [AndHS only]	12	Biology or AP Biology
<b>Physics</b>		
AP Physics 1: Algebra-Based	11, 12	Precalculus
Physics	10, 11, 12	Advanced Algebra/HS Algebra II or Honors Advanced Algebra/Honors HS Algebra II

For additional AHS options in Science, see STEAM section.

For additional BHS options in Science, see CEMS section.

For additional CPHS options in Science, see International Baccalaureate section.

For additional CRHS options in Science, see Biomedical Sciences and Engineering section.

### Physical Science 9

*Intended Audience:* Grade 9

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Knowledge of basic concepts related to force, motion and energy
- Knowledge of the structure of matter
- Apply understandings about matter and energy to earth systems
- Radioactivity
- History and nature of science

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* Small and large group lecture and lab activities and demonstrations

### Honors Physical Science 9

*Prerequisite/Selection Process:* Strong math skills recommended

*Intended Audience:* Grade 9

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Knowledge of basic concepts related to force, motion and energy
- Knowledge of the structure of matter
- Apply understandings about matter and energy to earth systems
- Radioactivity
- History and nature of science

*Projects, Activities, etc.:* Honors research project

*Instructional Focus:* Designed for the more independent science learner. Small and large group lecture and lab activities.

### Honors Physics 9

[BHS, CPHS, CRHS only]

*Prerequisite/Selection Process:* Middle School Algebra

*Intended Audience:* Grade 9 students considering IB program at CPHS or enrolled in the CEMS program at BHS

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Learn concepts related to motion, sound, light, electricity and magnetism
- Develop analytical reading and study techniques related to science
- In depth understanding of concepts related to mechanics, fluids, thermodynamics, waves [sound and light], electricity and magnetism

*Projects, Activities, etc.:* Lab work and honors research project

*Instructional Focus:* To prepare for IB science and advanced science courses in grades 11 and 12, lab work and group activities

### Chemistry I

*Prerequisite/Selection Process:* Physical Science 9, or Honors Physical Science 9 or Honors Physics 9

*Intended Audience:* Grade 10

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

Build understanding of:

- Composition, structure, interactions between substances
- Measurement
- Compounds
- Atoms
- Chemical reactions
- Kinetic theory

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* Rigorous high school-level concepts through small and large group lecture and lab activities; high school text is used

### Honors Chemistry I

*Prerequisite/Selection Process:* Physical Science 9, or Honors Physical Science 9, or Honors Physics 9

[This course is suggested in preparation for the IB Program]

*Intended Audience:* Grade 10

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

Build understanding of:

- Composition, structure, interactions between substances
- Measurement
- Compounds
- Atoms
- Chemical reactions
- Kinetic theory

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* College-level concepts through small and large group lecture and lab activities; college text is used

### AP Chemistry

[AndHS only]

[AP exam is in May each year]

*Prerequisite/Selection Process:* Physical Science 9 or Physical Science 9 (H)

*Intended Audience:* Grade 10

*Credit:* 3 trimesters = 1.5 credit

*Major Outcomes:*

Build understanding of:

- Structure of matter
- Intermolecular forces and bonding
- Chemical reactions
- Kinetics
- Laws of thermodynamics
- Chemical equilibrium
- Approach the AP exam with confidence

*Projects, Activities, etc.:* Inquiry based activities and lab work

*Instructional Focus:* College-level concepts through small and large group lecture and lab activities; college text is used. College credit may be earned based on AP exam score and institution

### Biology I

*Prerequisite/Selection Process:* Chemistry I or Honors Chemistry I or AP Chemistry [AndHS]

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Describe cycles and interactions in the natural world
- Understand structure and function of cells
- Understand principles and applications of genetics
- Knowledge of biological change over time
- Understand life processes and diversity of life on Earth

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* Small and large group lecture and lab activities

### AP Biology

[AndHS, BHS, CRHS only]

[AP exam is in May each year]

*Prerequisite/Selection Process:* Chemistry I or Honors Chemistry I or AP Chemistry [AndHS]

*Intended Audience:* Grade 11

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Science as a Process
  - Evolution
  - Energy Transfer
  - Continuity and Change
  - Relationship of Structure to Function
  - Regulation
  - Interdependence in Nature
  - Science, Technology, and Society
  - Approach the AP exam with confidence
- Projects, Activities, etc.:* Inquiry based activities and lab work

*Instructional Focus:* College-level concepts through small and large group lecture and lab activities; college text is used. College credit may be earned based on AP exam score and institution.

### Coll Honors Biology

[AHS only]

Composed of SCSU BIOL 102 [The Living World]

*Prerequisite/Selection Process:* Honors Chemistry I

*Intended Audience:* Only Grade 11 [GPA in top 33 percent of class] and only Grade 12 [GPA in top 50% of class].

*Credit:* Two trimesters = 1.0 credit, successful completion will earn 3 college credits.

*Major Outcomes:*

Students will understand:

- The nature of science, its methods, scope, and limitations
- Cell function
- The genetic basis of life
- Major concepts and theories of diversity, evolution, and ecology
- Plant form and function
- Organization and general function of the human body
- Significant biological issues facing society

*Projects, Activities, etc.:* Lab investigations and write-ups, research, presentations and college campus visit

*Instructional Focus:* Small and large group lecture, field and lab activities and use of college text

## BIOLOGICAL SCIENCE

### Honors Biology II: Genetics and Biotechnology

[AndHS, AHS, BHS, CPHS only]

*Prerequisite/Selection Process:* Biology I, IB Biology SL or HL, Coll Honors Biology or AP Biology [AndHS, BHS, CRHS]

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Identify and culture microscopic organisms
- Understand use and apply techniques and principles of biotechnology to microorganisms

*Projects, Activities, etc.:* Bacterial identification, genetic engineering, and DNA extraction/transfer; college text is used

### Honors Biology II: Physiology/Anatomy

[AndHS, AHS, BHS, CPHS only]

*Prerequisite/Selection Process:* Biology I, or IB Biology SL or HL, Coll Honors Biology or AP Biology [AndHS, BHS, CRHS]

*Intended Audience:* Grades 11 and 12

students interested in health-related careers

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Knowledge of structure and function of human organ systems

*Projects, Activities, etc.:* Mammal dissection

*Instructional Focus:* College-level concepts through small and large group lecture and lab activities; college text is used

## CHEMICAL SCIENCE

### Honors Chemistry II

*Prerequisite/Selection Process:* Chemistry I with permission of teacher or Honors Chemistry I or AP Chemistry [AndHS only]

*Intended Audience:* Grades 11 and 12 interested in pursuing science, medicine or engineering.

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Further development of advanced chemistry concepts

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* College-level concepts through small and large group lecture and lab activities; college text is used

## EARTH SCIENCE

### Astronomy

*Prerequisite/Selection Process:* Physical Science 9, or Honors Physical Science 9, or Honors Physics 9

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Knowledge of universe

*Projects, Activities, etc.:* Astronomy project

*Instructional Focus:* Small and large group lecture and lab activities

### Geology of Minnesota

*Prerequisite/Selection Process:* Physical Science 9, or Honors Physical Science 9, or Honors Physics 9

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Describe and locate local and regional geologic features
- Describe and locate natural and mineral resources
- Knowledge of geological history

*Projects, Activities, etc.:* Collections

*Instructional Focus:* Hands-on experiential learning

### Meteorology

*Prerequisite/Selection Process:* Physical Science 9, or Honors Physical Science 9, or Honors Physics 9

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Knowledge of weather basics
- Weather forecasting

*Projects, Activities, etc.:* Weather data collecting and interpretation

*Instructional Focus:* Small and large group lecture and lab activities

## ENVIRONMENTAL SCIENCE

### Outdoor Adventures Fall Environmental Science

[AndHS, AHS, BHS, CPHS only]

*Prerequisite/Selection Process:* Biology I, IB Biology SL or HL, Coll Honors Biology, or AP Biology [AndHS, BHS, CRHS only]

*Intended Audience:* Grade 12 students interested in ecology and outdoor activities.

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Understand natural systems
- Develop stewardship for the environment
- Experience outdoor activities with science

*Projects, Activities, etc.:* Wild edibles, taxonomy [plants and birds], exploration of seasonal Influences on outdoor activities through camping, fall ecology

*Units of study:* The living world, population and global change

### Outdoor Adventures Winter Environmental Science

[AndHS, AHS, BHS, CPHS only]

*Prerequisite/Selection Process:* Biology I, IB Biology SL or HL, Coll Honors Biology, or AP Biology [AndHS, BHS, CRHS only]

*Intended Audience:* Grade 12 students interested in ecology and outdoor activities.

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Understand natural systems
- Develop stewardship for the environment
- Experience outdoor activities with science

*Projects, Activities, etc.:* Independent project, orienteering, winter ichthyology through ice fishing, winter survival, exploration of seasonal influences on outdoor activities through winter camping, astronomy, winter ecology

*Units of study:* Energy resources and consumption, pollution and global change

### Outdoor Adventures Spring Environmental Science

[AndHS, AHS, BHS, CPHS only]

*Prerequisite/Selection Process:* Biology I, IB Biology SL or HL, Coll Honors Biology, or AP Biology [AndHS, BHS, CRHS only]

*Intended Audience:* Grade 12 students interested in ecology and outdoor activities.

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Understand natural systems
- Develop stewardship for the environment
- Experience outdoor activities with science

*Projects, Activities, etc.:* Meteorology, applied open water ecology through fishing, river morphology through canoeing/kayaking, geology, applied geology through rock climbing, exploration of seasonal influences on outdoor activities, spring ecology

*Units of study:* Land and water use, earth systems and global change

### Outdoor Adventures AP Environmental Science

[AndHS only]

[AP exam is in May each year]

*Prerequisite/Selection Process:* Biology or AP Biology

*Intended Audience:* Grade 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Understand natural systems
- Population and global change
- Energy resources and consumption
- Pollution and global change
- Land water use
- Earth systems and global change
- Approach the AP exam with confidence

*Projects/Activities:* Inquiry based activities and lab work

*Instructional Focus:* College level concepts through small and large group lecture and lab activities. College credit may be earned based on AP exam score and institution.

## PHYSICS

### AP Physics 1: Algebra-Based

[AP exam is in May each year]

*Prerequisite/Selection Process:* Precalculus

*Intended Audience:* Grades 11 and 12 students planning to take college courses

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Learn in depth concepts related to Newtonian mechanics; work, energy, power; mechanical waves, sound and electric circuits.
  - Develop deep understanding of the content and focus on applying their knowledge through labs that include inquiry.
  - Approach the AP exam with confidence
- Projects, Activities, etc.:* College credit may be earned based on AP exam score and institution
- Instructional Focus:* Computer-enhanced small and large group lecture and lab activities using higher-level mathematics

### Physics

*Prerequisite/Selection Process:* Advanced Algebra/HS Algebra II or Honors Advanced Algebra/Honors HS Algebra II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Learn concepts related to amusement park rides, projectiles, sound, light, electricity, and magnetism

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* Computer-enhanced small and large group lecture and lab activities

# Science, Technology, Engineering, Arts and Math @ Anoka High School



The STEAM Program at Anoka High School is designed for students who want an integrated focus of Science, Technology, Engineering, Arts and Math. Students will incorporate problem solving, collaboration, innovation and creativity as they prepare for careers in computer science, the arts and engineering.

## SCIENCE, TECHNOLOGY, ENGINEERING, ARTS AND MATH

REQUIRED COURSES FOR STEAM	GRADES	PREREQUISITES
English 11 for STEAM	11	
English 12 for STEAM	12	
Honors Design & Development or Internship STEAM Senior Experience- options	12	Must meet STEAM Elective minimum
STEAM Computer Skills	9, 10	
STEAM Foundations	9, 10	
STEAM Studio Lab I A & B	10, 11	
ELECTIVE COURSES FOR STEAM	GRADES	PREREQUISITES
Creative Problem Solving	11, 12	
AGRICULTURAL ARTS		
Animal Management	9, 10, 11, 12	
Fish and Wildlife Ecology	10, 11, 12	
Fish and Wildlife Zoology	10, 11, 12	
Floriculture	9, 10, 11, 12	
Seasonal Horticulture	9, 10, 11, 12	
FAMILY AND CONSUMER SCIENCES ARTS		
Culinary Arts I	10, 11, 12	Introduction to Culinary Arts
Culinary Arts II	10, 11, 12	Culinary Arts I
Design Studio	9, 10, 11, 12	
Fabric, Apparel and Design	9, 10, 11, 12	
Fashion Merchandising	9, 10, 11, 12	
Interior Design and Housing	9, 10, 11, 12	
HEALTH/SCIENCE		
College Honors Animal Science	11, 12	Pre Vet Animal Science
Food Science	9, 10, 11, 12	
Medical Anatomy I	10, 11, 12	
Medical Anatomy II	10, 11, 12	
Medical Terminology & Careers	10, 11, 12	
Pre-Vet Animal Science	10, 11, 12	
LANGUAGE ARTS AND CULTURE		
Creative Writing I	10, 11, 12	
Creative Writing II	10, 11, 12	Creative Writing I
Honors Hispanic Studies I	11, 12	Honors Spanish III
Honors Humanities	11, 12	
Television Journalism	10, 11, 12	
Yearbook I	9, 10, 11, 12	
Yearbook II	9, 10, 11, 12	Yearbook I
Yearbook III	9, 10, 11, 12	Yearbook II

# SCIENCE, TECHNOLOGY, ENGINEERING, ARTS AND MATH

<b>PERFORMING ARTS</b>		
Acting I	9, 10, 11, 12	
Acting II	9, 10, 11, 12	Acting I
Acting III	9, 10, 11, 12	Acting II
Band I	9, 10, 11, 12	
Band II	9, 10, 11, 12	Approval of the instructor
Honors Band III	9, 10, 11, 12	Approval of the instructor
Choir I	9, 10, 11, 12	
Choir II	9, 10, 11, 12	Approval of the instructor
Honors Choir III	9, 10, 11, 12	Approval of the instructor
Digital Music Composition I	9, 10, 11, 12	
Digital Music Composition II	9, 10, 11, 12	Digital Music Composition I
Music Exploration	9, 10, 11, 12	
Orchestra I	9, 10, 11, 12	
Orchestra II	9, 10, 11, 12	Approval of the instructor
Honors Orchestra III	9, 10, 11, 12	Approval of the instructor
Dance Ensemble I	9, 10, 11, 12	
Dance Ensemble II	9, 10, 11, 12	Dance Ensemble I
Dance Ensemble III	9, 10, 11, 12	Dance Ensemble II
<b>SCIENCE</b>		
Coll Honors Climate Crisis: Implementing Solutions	11, 12	Students must have earned a B or better in at least one rigorous science course such as physics, chemistry, environmental science, earth science or biology and have earned a B or better in at least one upper level math course such as algebra 2/trigonometry, pre-calculus calculus, modeling, probability or statistics.
Engineering and Robotics I	10, 11, 12	Physical Science 9
Engineering and Robotics II	10, 11, 12	Engineering and Robotics I
<b>TECHNOLOGY/COMPUTER SCIENCE</b>		
Computer Programming	9, 10, 11, 12	
Introduction to Cybersecurity	10, 11, 12	
Social Media Marketing and Web Design	9, 10, 11, 12	
Video Game Design and Marketing	9, 10, 11, 12	
Web Page Coding for Business [NOCTI]	9, 10, 11, 12	
<b>TECHNOLOGY EDUCATION ARTS</b>		
CAD III Engineering & Architecture	9, 10, 11, 12	Design and Fabrication II
CAD/Technical Illustration	10, 11, 12	CAD I
Design and Fabrication I	9, 10, 11, 12	
Design and Fabrication II	9, 10, 11, 12	Design and Fabrication I
Digital Photography I	9, 10, 11, 12	
Digital Photography II	9, 10, 11, 12	Digital Photography I
Digital Videography	9, 10, 11, 12	Digital Photography I and II
Graphic Design I	9, 10, 11, 12	
Graphic Design II	9, 10, 11, 12	Graphic Design I
Graphic Design III	9, 10, 11, 12	Graphic Design II

# SCIENCE, TECHNOLOGY, ENGINEERING, ARTS AND MATH

VISUAL ARTS		
Ceramics I	9, 10, 11, 12	
Ceramics II	9, 10, 11, 12	Ceramics I
Ceramics III	9, 10, 11, 12	Ceramics II
Ceramics/Sculpture [AP Studio Art: 3-D Design]	10, 11, 12	
Computer Art I	9, 10, 11, 12	
Computer Art II	9, 10, 11, 12	Computer Art I
Drawing I	9, 10, 11, 12	
Drawing II	9, 10, 11, 12	Drawing I
Drawing III	9, 10, 11, 12	Drawing II
Drawing/Painting [AP Studio Art: 2-D Design/Drawing]	10, 11, 12	
Honors Arts Symposium	11, 12	
Jewelry and Craft Design I	9, 10, 11, 12	
Jewelry and Craft Design II	9, 10, 11, 12	Jewelry and Craft Design I
Painting I	9, 10, 11, 12	
Painting II	9, 10, 11, 12	Painting I
Painting III	9, 10, 11, 12	Painting II
Sculpture I	9, 10, 11, 12	
Sculpture II	9, 10, 11, 12	Sculpture I
Sculpture III	9, 10, 11, 12	Sculpture II
Video Art I	9, 10, 11, 12	
Video Art II	9, 10, 11, 12	Video Art I

Acceptance into STEAM at AHS is a required prerequisite for all STEAM courses.

## English 11 for STEAM

*Intended Audience:* Grade 11

*Credit:* Two Trimesters = 1 credit

*Major Outcomes:*

- Establish a variety of workplace reading and writing strategies
- Use situated literacy to ground real world skills
- Apply skills such as writing, reading, and collaboration in practical ways
- Connect American literature (all eras) to contemporary issues
- Cultivate reading strategies for technical reading as well as literature
- Use research in an effective and informative way
- Acquire writing skills to create an effective Argumentative Essay
- English 11 for STEAM meets the prerequisite requirements for ARCC course 1121, College Writing and Critical Reading

*Projects, Activities, etc.:* Reading literature, writing an Argumentative essay, research project, creating literature for a scaffolding project, applying new reading and writing strategies.

*Instructional Focus:* Application of practical literacy skills in real-world situations and connection of literature to real-world experiences.

## English 12 for STEAM

*Intended Audience:* Grade 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Establish a variety of workplace reading and writing strategies
- Use situated literacy to ground real world skills
- Apply skills such as writing, reading, and collaboration in practical ways
- Deepen analysis through the use of lenses
- Analyze media bias
- Write in an effective narrative structure
- Use research in an effective and informative way

*Projects, Activities, etc.:* Reading literature and media through different lenses, strategies to effectively communicate research, reading and writing strategies, creating manuals, blueprints, recipes, etc. and using reading strategies to create a final product

*Instructional Focus:* Application of practical literacy skills in real-world situations and connection of literature to real-world experiences

## Honors Design & Development for STEAM

*Prerequisite/Selection Process:* Completion of 2 years in the STEAM program.

*Intended Audience:* Grade 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Teams of students work together guided by a teacher and community mentor using the Design Thinking Process to research, design and construct an innovative solution to a problem.
- Students will enhance design and manufacturing skills to help in the development of their creative/innovative project
- Teams will participate in an end of course presentation event at AHS

*Projects, Activities, etc.:* Use Design Thinking® to aid in problem solving; write and develop a final presentation using technology presentation skills

## STEAM Computer Skills

*Prerequisite/Selection Process:* Acceptance into STEAM at AHS

*Intended Audience:* Grade 9 and 10 STEAM Students at Anoka High School

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Create Excel worksheets using formulas, financial functions, and integrated charts
- Gain a basic understanding of the computer programming process through the visual programming language Scratch.
- Establish a basic understanding of the analysis and design of a database used in the process of database development and administration using MySQL.
- Improve business communication skills through professional emails with mentors in STEAM related careers
- Design an online efolio to capture and showcase projects created throughout the STEAM program

*Projects, Activities, etc.:* Hands-on technology based activities

*Instructional Focus:* Technology based projects and activities to develop baseline skills for STEAM Career Pathways

*Co-curricular Connection:* BPA

## STEAM Foundations

*Prerequisite/Selection Process:* Acceptance into STEAM at AHS

*Intended Audience:* Grades 9 and 10 STEAM students at Anoka High School

*Credit:* One trimester = .5 credit

*Major Outcomes:*

- Recognize and demonstrate the principles of design and elements of art as they are applied to visual and culinary arts through a variety of projects.
- Identify key characteristics of engineering and architectural drawings
- Edit/draw three dimensional objects using CAD software to produce a finished product on a laser, router or 3-D printer.
- Brainstorm, originate and demonstrate understanding of the concepts underlying design using various studio-based media
- Transfer initial design ideas/concepts to the computer for transforming and finalizing a design using computer software.
- Explore various STEAM related careers through speakers, interviews, and field trips.
- Gain an awareness of current problems in various areas of medical practice and use the Design Thinking process to brainstorm, research, design and present solutions.

*Projects, Activities, etc.:* Hands-on activities, collaborative projects

*Instructional Focus:* Science, technology, engineering, the arts and math through varied allied arts subjects

## STEAM Studio Lab I A & B

*Prerequisite/Selection Process:* Acceptance into STEAM at AHS

*Intended Audience:* STEAM students at AHS

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Utilize design thinking to solve engineering related problems
- Design, build, and program with microcontrollers
- Incorporate multiple technologies and software in creative applications

*Projects, Activities, etc.:* Hands on activities and group projects

*Instructional Focus:* Use hands on and practical skills to develop and apply engineering principles to solve real-world challenges and problems.

## ELECTIVE COURSES FOR STEAM

### Creative Problem Solving

College credit [University of Minnesota]

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit (potential 3 University of Minnesota credits)

*Major Outcomes:*

- Identify, define, and solve problems
- Understand diverse philosophies and ideas within and across societies and convey that understanding to others
- Understand role of creativity and innovation in own work and other disciplines
- Move outside of existing comfort zone and recognize value of that exploration

*Projects, Activities, etc.:* Design Rube Goldberg type machines, complete a series of "do something different" challenges, other hands-on activities

*Instructional Focus:* Use hands-on and practical skills to develop and apply creative principles to solve challenges and problems

## AGRICULTURAL ARTS

### Animal Management

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit, does not meet science credit requirements

*Major Outcomes:*

- Comprehensive analysis of the animal science industry as it relates to companion animals such as horses, dogs, cats, and other recreational animals.

*Projects, Activities, etc.:* Animal presentations, field trips, and career exploration

*Instructional Focus:* Hands-on, experiential activities, application of learning through digital assignments and active participation.

## Fish and Wildlife Ecology

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit, does not meet science credit requirements

*Major Outcomes:*

- Principles of Ecology
- Wildlife Management
- Principles of Forestry
- Relationships between organisms and the environment

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

## Fish and Wildlife Zoology

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One Trimester = 0.5 credit, does not meet science credit requirements

*Major Outcomes:*

- Principles of zoology
- Natural resources conservation
- Animal anatomy and structure
- Animal life functions

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

## Floriculture

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Learn the art of floral design through the construction of several arrangements and corsages

*Projects, Activities, etc.:* Minimum of five floral arrangements, including holiday and special occasion

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

## Seasonal Horticulture

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Comprehensive exploration of the plant science [green] industry. Units to include: Careers in the Green Industry, Plant Pathology, Physiology, and Reproduction.

*Projects, Activities, etc.:* Plant identification; soils and medias; landscape practices and measurements; seasonal floral design; vegetable and herb gardening; landscape maintenance and installation

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

## FAMILY AND CONSUMER SCIENCES ARTS

### Culinary Arts I

*Prerequisite/Selection Process:* Introduction to Culinary Arts

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Meal planning and preparation
- Advanced cooking techniques-knife skills, plating and sauces
- Food Service Certification

*Projects, Activities, etc.:* Food labs and planning process, hospitality and advanced meal preparation, teamwork, weekly labs

*Instructional Focus:* Demonstration, culinary skill development

### Culinary Arts II

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Culinary Arts I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit/meets elective credit requirements

*Major Outcomes:*

Students will be able to apply culinary preparation techniques and safety procedures needed to be successful when living independently as well as having skills that will prepare them for the job market. Students will be able to leave this class with a ServSafe certification that is accepted by industry for careers related to food preparation.

*Projects, Activities, etc.:* They will have the opportunity to research and experiences foods from other cultures in a lab classroom setting. They will be exposed through a field trip and guest speakers to careers that are related to the food industry.

*Instructional Focus:* Students will use hands on lab experiences to learn industry food safety and preparation techniques.

### Design Studio

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Application of the elements of art and principles of design
- Explore current industry trends such as sustainability, textile design, and technology in the fashion, fabrics/textiles, housing, and interior design fields
- Apply Design Thinking method to create solutions to various design challenges using latest technology and equipment
- Develop employability skills and e-portfolio of projects
- Explore career and college opportunities

*Projects, Activities, etc.:* Projects in sustainability, current industry technology, textile design

*Instructional Focus:* Design Thinking, Makerspace equipment, student collaboration, student-driven and project-based design challenges, industry tours, guest speakers

### Fabric, Apparel, and Design

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Explore all of the careers available in the fabric, apparel and design pathway
- Exposure to a variety of equipment, tools, and supplies for fashion, textiles and apparel construction, alteration and repair
- Clothing construction and design

*Projects, Activities, etc.:* Hands on experience in construction, pattern selection and design, alter and sustain textile and apparel products

*Instructional Focus:* Business and industry standards, students will be exposed to the latest technology and research taking place in the apparel and design pathway

### Fashion Merchandising

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Explore the fashion industries as they relate to design and promotion
- Become aware of the many career opportunities that exist in fashion merchandising
- Rights and laws regarding the fashion and cosmetic imports and exports along with ethical issues

*Projects, Activities, etc.:* Research, Visual Merchandising presentation and display, Hands-on design, Field experience

*Instructional Focus:* Project based activities, computer applications and guest speakers

### Interior Design and Housing

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Elements, principles of art and design related to housing
- Scale drawings and wall elevations
- Selection and arrangement of furniture
- Accessories

*Projects, Activities, etc.:* Create a design board for various rooms

*Instructional Focus:* Designing functional and attractive living spaces for individual and/or professional use

## HEALTH/SCIENCE

### Coll Honors Animal Science

*Prerequisite/Selection Process:* Pre-Vet Animal Science

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- This is a University of Minnesota Introduction to Animal Science (ANSC 1101) course with emphasis on genetics, physiology and nutrition. The course includes a study of production systems relative to the horse, dairy, sheep, poultry, swine and beef industries. Additional topics include man's relationship to animals, current issues and future perspectives of animal agriculture. Students will experience laboratories at the University of Minnesota relating to Animal Science. Students will be concurrently enrolled at the University of Minnesota and upon successful completion of this class; students will have four semester credits posted to their college transcript.

*Projects, Activities, etc.:* Field trips, presentations, and career exploration.

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

### Food Science

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Students will be introduced to the fundamentals of food science
- Technology associated with providing safe and nutritious foods
- Analyze basic scientific principles that explain how and why we process, prepare, and store foods for human consumption

*Projects, Activities, etc.:* Hands-on activities

*Instructional Focus:* Examining food products using scientific methods that lead to product development and safety in our food supply

### Medical Anatomy I

[Students may earn Articulated College Credit]

[Medical Anatomy I/II may be taken in any order; both are needed for articulated credit.]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Human anatomy and physiology of the integumentary, digestive, urinary, respiratory and musculoskeletal systems.

*Projects, Activities, etc.:* Dissections

*Instructional Focus:* Taught by a health professional

*Co-curricular Connection:* HOSA

## Medical Anatomy II

[Students may earn Articulated College Credit]  
[Medical Anatomy I/II may be taken in either order; both are needed for articulated credit.]  
*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Human anatomy and physiology of the reproductive, sensory, cardiovascular, nervous and endocrine systems; current health issues

*Projects, Activities, etc.:* Dissections

*Instructional Focus:* Taught by a health professional

*Co-curricular Connection:* HOSA

## Medical Terminology and Careers

[Students may earn Articulated College Credit]  
*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Medical terminology
- Career exploration

*Projects, Activities, etc.:* Field trips and guest presenters

*Instructional Focus:* Taught by a health professional, guest presenters

*Co-curricular Connection:* HOSA

## Pre-Vet Animal Science

*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Comprehensive exploration of the Veterinary and Animal Science Career Pathway. Units to include Anatomy, Physiology, Pathology, Reproduction, Nutrition and Careers.

*Projects, Activities, etc.:* Field trips, presentations, and career exploration.

*Instructional Focus:* Hands on experiential activities, application of learning through digital assignments, and active participation.

## LANGUAGE ARTS AND CULTURE

### Creative Writing I

*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Learn strategies to improve as a writer
- Development of writerly voice
- Collaborate with a community of writers
- Freedom to write innovatively

*Project, Activities, etc.:* Project-based learning: fiction, poetry, plays, and creative non-fiction

### Creative Writing II

*Prerequisite/Selection Process:* Creative Writing I  
*Intended Audience:* Grades 11 and 12  
[grade 10 with special permission of teacher]  
*Credit:* One trimester = 0.5 credit  
*Major Outcomes:*

- Continue to develop a writerly voice
- Experimentation with genre and style
- Collaborate with other student writers

*Project, Activities, etc.:* Project-based learning: fiction, poetry, plays, and creative non-fiction

### Honors Hispanic Studies I

*Prerequisite/Selection Process:* Honors Spanish III A and III B or placement exam results.  
*Intended Audience:* Students entering Spanish IV and or Spanish V who wish to take their Spanish abilities to the next level, be it for college and or career aims, by studying Spanish for a full academic year. Also for students who desire to maintain the abilities they acquired through level III, but don't have room in their schedule for more than one trimester.

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Ability to participate in an immersive Spanish language experience while examining the Spanish-Speaking world. Students will learn by exploring unit essential questions through thematically organized unit topics.
- Ability to demonstrate Spanish at an intermediate-mid level as defined by ACTFL's Performance Descriptors for Language Learners via real-world unit performance evaluations.
- Ability to demonstrate emerging understanding of cultures of the Hispanic world by completing real-world unit performance evaluations with emphasis on verb tense control

### Honors Humanities

*Intended Audience:* Advanced students in grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Cross-cultural examination of philosophy, art, music, architecture, drama, and religion
- Exploration of relationships across cultures and arts
- Exploration of artistic expressions of historical periods, selected philosophies and people

*Projects, Activities, etc.:* Express ideas in written, oral or project form

*Instructional Focus:* Project-based learning in art, architecture, literature, drama, music, and philosophy

### Television Journalism

*Prerequisite/Selection Process:* Introduction to Journalism  
*Intended Audience:* Grades 10, 11, and 12  
*Credit:* One trimester = 0.5 credit; students may enroll for one, two, or three trimesters  
*Major Outcomes:*

- Improve speaking skills
- Improve journalism and interviewing skills
- Write human interest stories, opinion pieces, and general announcements to be broadcast
- Work as reporters, news writers, news anchors, editors, camera operators, and technicians

*Instructional Focus:* Using journalism and broadcast skills to create informational news for school-wide announcements

### Yearbook Lab I

*Prerequisite/Selection Process:* Introduction to Journalism  
*Intended Audience:* Grades 9, 10, 11, and 12  
*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Copy writing
- Interviewing techniques
- Layout design
- Photo composition and development
- Advertising
- Time management

*Instructional Focus:* Hands-on activities

### Yearbook Lab II

*Prerequisite/Selection Process:* Yearbook Lab I  
*Intended Audience:* Grades 9, 10, 11, and 12  
*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Copy writing
- Interviewing techniques
- Layout design
- Photo composition and development
- Advertising
- Time management

*Instructional Focus:* Hands-on activities

### Yearbook Lab III

*Prerequisites/Selection Process:* Yearbook Lab II or teacher permission  
*Intended Audience:* Grades 9, 10, 11, and 12  
*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Further development of skills learned in Yearbook Lab I and II

*Instructional Focus:* Hands-on activities

## PERFORMING ARTS

### Acting I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Foundations of Theater
- Creativity
- Techniques for improvisation
- Beginning scene work
- Leadership and communication skills

*Projects, Activities, etc.:* Writing and performance, individual and group performance

*Instructional Focus:* Active participation and collaborative group work

### Acting II

*Prerequisite/Selection Process:* Acting I or teacher permission

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Original scripts
- Character analysis
- Collaborative scene work
- Acting styles and forms

*Projects, Activities, etc.:* Perform scenes from a variety of styles, write and perform original work

*Instructional Focus:* Active participation and collaboration

### Acting III

*Prerequisite/Selection Process:* Acting II or teacher permission

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One or two trimesters = 0.5 credit or 1.0 credit

*Major Outcomes:*

- Prepare an audition piece
- Experience in blocking
- Analysis of dramatic literature
- Acting experience
- Scene work

*Projects, Activities, etc.:* Perform scenes from musicals, dramas, and comedies

*Instructional Focus:* Active participation

### Band I

*Prerequisite/Selection Process:* Minimum of one year of band instruction or private study and approval of the band teacher

*Intended Audience:* Grade 9

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of music
- Reading music
- Performance

*Instructional Focus:* Performance

### Band II

*Prerequisite/Selection Process:* Band teacher determines level of placement

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of music
- Reading music
- Performance

*Instructional Focus:* Performance

### Honors Band III

*Prerequisite/Selection Process:* Approval of band teacher

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Advanced development of skills in music elements, reading, and performance.

*Instructional Focus:* Performance

### Choir I

*Prerequisite/Selection Process:* No prior experience, approval of the vocal music teacher

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of music
- Reading music
- Performance

*Instructional Focus:* Performance

### Choir II

*Prerequisite/Selection Process:* Vocal music teacher determines placement

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of music
- Reading music
- Performance

*Instructional Focus:* Performance

### Honors Choir III

*Prerequisite/Selection Process:* Approval of vocal music teacher

*Intended Audience:* Advanced singing students in grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Advanced development of skills in music elements, reading, and performance.

*Instructional Focus:* Performance

### Digital Music Composition I

*Intended Audience:* Grades 9, 10, 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Learn the foundations of music theory - melody, chord structure, form
- Understand the elements of creating or modifying digital music
- Analyze and evaluate music
- Have an understanding of basic recording techniques

*Project, Activities, etc.:* Project based learning, independent work, collaborative environment with teachers

*Instructional focus:* Small unit focus, leads to a culminating final project

### Digital Music Composition II

*Prerequisite/Selection Process:* Digital Music Composition I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Learn the foundations of music theory - melody, chord, structure, form
- Understand the elements of creating or modifying digital music
- Analyze and evaluate music
- Have an understanding of basic recording techniques

- Learn the foundations of acoustics

*Projects, Activities, etc.:* Project based learning, independent work, collaborative environment with teachers

*Instructional Focus:* Final portfolio demonstrating various forms, styles, and compositional techniques

### Music Exploration

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Introduction to music composition, theory, history, analysis, and current performance practices

- Music Technology

- Music of various cultures

*Note:* See teacher for specific instructional focus.

### Orchestra I

*Prerequisite/Selection Process:* Minimum of one year of orchestra instruction or private study, approval of orchestra teacher

*Intended Audience:* Grade 9

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of Music
- Reading Music
- Performance

*Instructional Focus:* Performance

## Orchestra II

*Prerequisite/Selection Process:* Placement determined by orchestra teacher

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Elements of Music
- Reading Music
- Performance

*Instructional Focus:* Performance

## Honors Orchestra III

*Prerequisite/Selection Process:* Enrollment is by approval of the orchestra teacher

*Intended Audience:* Advanced students in grades 10, 11, and 12

*Credit:* Three trimesters = 1.5 credits

*Major Outcomes:*

- Advanced development of skills in music elements, reading, and performance.

*Instructional Focus:* Performance

## Dance Ensemble I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Develop dance technique through a variety of genres.
- Gain broader movement vocabulary through in-depth study of dance elements.
- Develop technical skills and artistry while exploring their personal voices as choreographers and performers.

*Projects, Activities, etc.:* Individual and group work, perform at school-wide performances

*Instructional Focus:* Gain movement skills and develop confidence and enjoyment through movement; grow unity and celebrate diversity as a performing ensemble.

## Dance Ensemble II

*Prerequisite/Selection Process:* STEAM Dance Ensemble I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One Trimester = .5 credit

*Major Outcomes:*

- Further develop dance technique through a growing variety of genres
- Gain broader movement vocabulary and a wide view of dance through the principles of choreography and awareness of dance and its cultural, aesthetic and historical components
- Further develop the technical skills, creativity and artistry as citizen-artists-athletes in a global community
- Expand exposure to a variety of styles, choreographers, repertoire and music
- Perform in school-wide dance concerts

## Dance Ensemble III

*Prerequisite/Selection Process:* STEAM Dance Ensemble II

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = .5 credit

*Major Outcomes:*

- Further develop dance technique through a growing variety of genres
- Gain broader movement vocabulary and a wide view of dance through the principles of choreography and awareness of dance and its cultural, aesthetic and historical components
- Further develop the technical skills, creativity and artistry as citizen-artists athletes in a global community
- Expand exposure to a variety of styles, choreographers, repertoire and music
- Perform in school-wide dance concerts

## TECHNOLOGY/COMPUTER SCIENCE

### Computer Programming

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Design and implement programming code
- Develop problem solving skills and logical thinking
- Explore computer science careers

*Projects, Activities, etc.:* Using JAVA, write simple to complex programs for daily applications. Use your programming skills to create graphic images.

*Instructional Focus:* hands-on computerized activities and career exploration

*Co-curricular Connection:* BPA

### Introduction to Cybersecurity

[AHS Only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Explore what cybersecurity is and what it means for you personally and professionally
- Learn how to be safe online by understanding the most common threats, attacks and vulnerabilities
- Find out how businesses protect their operations from cyber attacks and why jobs are growing

*Instructional Focus:* Hands-on activities, research, and speakers.

*Co-curricular Connection:* BPA

## Social Media Marketing and Web Design

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Investigate online marketing tools such as internet forums, message boards, blogs, wikis, podcasts, picture sharing, video sharing, and social networking
- Develop and use your web design and graphic design skills to create professional, up-to-date web sites that are pleasing to the eye and easy to use

*Projects, Activities, etc.:* It's all about Facebook, Instagram, Pinterest, Twitter, QR codes and apps. Learn how to use these new digital and social media tools in the world of business. Plan, design, and create multi-page websites.

*Instructional Focus:* Hands-on computerized activities

*Co-curricular Connection:* BPA

## Video Game Design and Marketing

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Understand programming concepts to develop an actual video game
- Use a 3-D game editor to create a three-dimensional game environment
- Use a rectangular coordinate system to place objects in the 3-D game
- Create advertising and packaging to market your video game
- Prepare sales presentations and written reports to market your game

*Projects, Activities, etc.:* Utilize the original Carbonade Game Template; create a new game template for aspiring gamers. Story-board the initial game concept, develop a target audience for the game, establish the number of players and game theme and develop a plan to market the game to the public.

*Instructional Focus:* Hands-on computerized activities

*Co-curricular Connection:* BPA, DECA

**Web Page Coding for Business [NOCTI]**

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Using today's web standard for coding, students will master a variety of web design concepts to create powerful websites
- Topics include: formatting websites using cascading style sheets [CSS], tables, forms, and JavaScript
- Design websites that are practical to the business world
- No programming knowledge is required to succeed in this class

*Projects, Activities, etc.:* Learn the secret techniques of web designers and the latest in web development. Design and create your own interactive site through HTML coding and JavaScript. What you learn about the web design process will impress your future employer!

*Instructional Focus:* Hands-on computerized activities

*Co-curricular Connection:* BPA

**TECHNOLOGY EDUCATION ARTS****CAD III Engineering & Architecture**

**[Computer Aided Design]**

*Prerequisite/Selection Process:* CAD II

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

*Architectural:*

- Architectural design
- Advanced CAD skills

*Mechanical:*

- Designing machine parts, tools, & equip.
- Revolutions, Rotations, and Perspectives

*Instructional Focus:* Computer/CAD software

*Projects, Activities, etc.:* Production of drawings for personal project; Drawings of mechanical parts and devices

*Instructional Focus:* Computer/CAD software as it relates to engineering

**CAD/Technical Illustration**

*Prerequisite/Selection Process:* CAD I

*Intended Audience:* Students who enjoy sketching and drawing in grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Inking, shading and airbrushing
- Technical illustration

*Projects, Activities, etc.:* Technical drawings that will be used for mechanical or architectural drawings

*Instructional Focus:* Computer/CAD software as it relates to engineering and manufacturing with an emphasis on mathematics

**Design & Fabrication I**

*Intended Audience:* Grades 9, 10, 11, 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Students will be able to demonstrate basic engineering design skills using CAD software.
- Students will demonstrate understanding of the four career pathways and explore one pathway in depth by designing and fabricating a product in that pathway.
- Students will demonstrate understanding of the materials (properties and selection) and processes used in product fabrication.
- Students will demonstrate the ability to correctly program/code CNC and 3D printing equipment.
- Students will demonstrate the safety attitudes and procedures required in the use of fabrication materials and equipment.
- Students will experience and be able to articulate the critical attributes of manufacturing careers needed to be successful in MN businesses and industries.

*Instructional Focus:*

- This course will focus instruction on students developing and then applying their knowledge and skills in the design and fabrication of a product. Students will be allowed to choose the career pathway of focus.
- Students will also be expected to integrate STEM and other content knowledge into their product design and fabrication.
- This is an "application-based course" with students demonstrating real-world application of knowledge and skills in the use of high-tech cutting-edge equipment, software and materials

**Design & Fabrication II**

*Prerequisite/Selection Process:* Design and Fabrication I

*Intended Audience:* All interested students in Grades 9, 10 and 11 (or any first time Tech Ed upper class student since this course hasn't previously been available).

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Students will be able to demonstrate engineering design skills using CAD software.
- Students will demonstrate understanding of the four career pathways and explore one pathway in depth by designing and fabricating a product in that pathway. As the second course in the sequence, the products in this course will allow for greater complexity and personalization in focus.

- Students will demonstrate understanding of the materials (properties and selection) and processes used in product fabrication.
- Students will demonstrate the ability to correctly program/code CNC and 3D printing equipment.
- Students will demonstrate the safety attitudes and procedures required in the use of fabrication materials and equipment.
- Students will experience and be able to articulate the critical attributes of manufacturing careers needed to be successful in MN businesses and industries.

*Instructional Focus:*

- This course will focus instruction on advancing students' knowledge and skills in the design and fabrication of products. Students will be allowed to choose the career pathway of focus.
- Students will also be expected to integrate STEM and other content knowledge into their product design and fabrication.
- This is an "application-based course" with students demonstrating real-world application of knowledge and skills in the use of high-tech cutting-edge equipment, software and materials.

**Digital Photography I**

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Course work will focus on the basics of photographic composition, lighting, camera positioning, workflow digital photography, and digital manipulation.
- Introduction to Adobe Photoshop, Adobe CS6, Adobe Bridge, I-Photo [or similar], and Photo Booth [or similar] software will be integrated with apps available for mobile devices including, but not limited to: Instagram, Adobe PS Express, etc.
- Images will be taken with, and technical training will be provided for; DSLR, Digital Cameras, Smartphones, and tablets.

*Instructional Activities:* Taking photographs in various settings on campus, in and out of the lab, and off campus either as a work assignment or field trip.

**Digital Photography II**

*Prerequisite/Selection Process:* Digital Photography I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Course work will focus on advanced site selection, lighting, camera positioning, and all aspects of a creative photo shoot.

- Mastery in linking workflow photography to final shot manipulation/enhancement using both computer and mobile software [i.e. Adobe Photoshop, Adobe CS6, Adobe Bridge, I-Photo [or similar], and Photo Booth [or similar], Instagram, Adobe PS Express etc.
- Emphasis will be placed on creativity, and using multiple photographic technologies, including but not limited to DSLR, SLR, Digital Cameras, Smartphones, and tablets.

*Instructional Activities:* Lab work, photo-shoots, both on and off campus, field-trips.

### Digital Videography

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Course work will focus on the basics of Videography composition, camera positioning, and editing as it applies to the Videography field in both freelance and industry.
- Introduction to Adobe Premier, Final Cut Pro, and I-Movie [or similar] will be integrated with apps available for mobile devices including, but not limited to: I-Movie, Viddy, Director, etc. for editing of videos.
- Images will be taken with, and technical training will be provided for; DSLR Hybrids, Video Cameras [both mobile and studio], Go Pros, Smartphones, and tablets.

*Instructional Activities:* Shooting videos in various settings on campus, in and out of the lab, and off campus either as a work assignment or field trip.

### Graphic Design I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Utilizing Adobe Creative Suite software
- Screen and offset printing processes

*Projects, Activities, etc.:* Creation of portfolio, offset printing activities [calendars, memo pads] and screen-printing activities [shirts, hoodies, mirrors, skate/snowboard decks]

*Instructional Focus:* Introduction to the graphics industry with an emphasis on computers, lab work and mathematics and technical reading as it relates to the graphics industry

### Graphic Design II

*Prerequisite/Selection Process:* Graphic Design I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:* More independent use of

- Adobe Creative Suites software
- Screen and offset printing processes in multiple color designs

*Projects, Activities, etc.:* Creation of a portfolio, screen-printing activities [shirts, hoodies, mirrors, skate/snowboard decks], and offset printing activities [calendars, memo pads]

*Instructional Focus:* Introduction to the graphics industry with an emphasis on computers, lab work, and mathematics as it relates to the graphics industry

### Graphic Design III

*Prerequisite/Selection Process:* Graphic Design II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:* More independent use of

- Adobe Creative Suites software
- Students will create printing company and produce orders.
- Screen and offset printing processes in
- Multiple color designs

*Projects, Activities, etc.:* Creation of a manufacturing company with their own logo, screen-printing activities [shirts, hoodies, mirrors], and offset printing activities [memo pads]

*Instructional Focus:* Introduction to the manufacturing of printing processes, with an emphasis on computers, lab work, and mathematics as it relates to the graphics industry.

## SCIENCE

### Coll Honors Climate Crisis: Implementing Solutions

[AHS only]

*Prerequisite/Selection Process:* Students must have earned a B or better in at least one rigorous science course such as physics, chemistry, environmental science, earth science or biology and have earned a B or better in at least one upper level math course such as algebra 2/trigonometry, pre-calculus, calculus, modeling, probability or statistics.

*Intended Audience:* Grades 11, 12

*Credit:* 1.0

*Major Outcomes:*

- Investigate the scientific evidence for climate change and its impact.
- Understand conventional and alternative energy resources and the basis of harnessing energy from them.
- Use calculations of electrical output and efficiency to evaluate the costs, constraints, and impacts of available energy sources.

- Understand the importance of minimizing energy usage by increasing energy efficiency and conservation.
- Become informed citizens with an understanding of energy policy and how personal choices can affect climate change.

*Projects, Activities, etc.:* Hands on activities and labs including design/engineering projects.

Weekly homework assignments.

*Instructional Focus:* Students will learn the fundamentals related to harnessing energy from various sources (conventional and renewable), their environmental consequences, and the impact on society. The energy sources will be compared in terms of their costs, constraints, and environmental impacts all within the context of social values and public policy. Four credits may be earned in the "Technology and Society" theme at the University of Minnesota. (EE1701: Climate Crisis: Implementing Solutions)

### Engineering and Robotics I

[AHS only]

*Prerequisite/Selection Process:* Physical Science 9 A/B

*Intended Audience:* Grades 10 - 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Utilize design thinking to solve engineering related problems
- Design, build, and program robotics
- Incorporate multiple technologies and software in creative applications

*Projects, Activities, etc.:* Hands on activities and group projects

*Instructional Focus:* Use hands on and practical skills to develop and apply engineering principles to solve robotics challenges and problems.

*Co-curricular Connection:* Robotics Club

### Engineering and Robotics II

[AHS only]

*Prerequisite/Selection Process:* Engineering and Robotics I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Focus on wireless communication and IoT applications
- Utilize design thinking to solve engineering related problems
- Design, build, and program automated systems
- Incorporate multiple technologies and software in creative application

*Projects, Activities, etc.:* Hands on activities and group projects.

*Instructional Focus:* Use hands on and practical skills to develop and apply engineering principles to solve robotics challenges and problems.

*Co-curricular Connection:* Robotics Club

## VISUAL ARTS

### Ceramics I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Basic ceramic design
- Creative problem solving
- Learn hand-building construction
- Basic wheel throwing
- Glazing techniques
- Emphasis on aesthetics and art criticism

*Projects, Activities, etc.:* Thrown and hand-built pieces

*Instructional Focus:* Lab work

### Ceramics II

*Prerequisite/Selection Process:* Ceramics I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced ceramic design
- Advanced hand building construction
- Advanced wheel throwing
- Advanced glazing techniques
- Develop sets/series of functional forms
- Continued emphasis on aesthetics and art criticism

*Projects, Activities, etc.:* Sets of functional forms and sculptural ceramic pieces

*Instructional Focus:* Lab work

### Ceramics III

*Prerequisite/Selection Process:* Ceramics II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Course may be taken up to three trimesters.

One trimester = 0.5 credit

*Major Outcomes:*

- Offers students additional coursework to develop greater depth in studio discipline
- Continued emphasis on art history, aesthetics and art production

*Projects, Activities, etc.:* Sets of functional forms and sculptural ceramic pieces

*Instructional Focus:* Lab work

### Ceramics/Sculpture [AP Studio Art: 3-D Design]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Exploration of studio art at the college-level
- Course is sponsored by the College Board
- Students are expected to be able to work independently as an adult member of the class

- Completion of comprehensive portfolio made up of Breadth, Concentration and Quality Sections that involve various media and subject matter that are created as 3 dimensional works of art.

- Portfolio [exam] submitted to College Board for review in May.

- Course work will receive a separate grade from the teacher in addition to a rating from the College Board

*Projects, Activities, etc.:* Creation of a portfolio of artwork

*Instructional Focus:* Comparable to an introductory college course in studio art

### Computer Art I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Coursework focuses on creative and artistic applications of computer art and technology. The course will also focus on the Elements of Art and Principles of Design as they apply to computer created artwork.
- Technical skills relating to the use of the computer, software, visual composition, creative expression and communication will be taught.

*Instructional Focus:* Lab work

### Computer Art II

*Prerequisite/Selection Process:* Computer Art I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced student exploration and creation of computer graphics utilizing a series of project structures that demonstrate personal voice, creativity and the understanding of the incorporation of aesthetic design principles in the work
- Additional emphasis will be placed on the analysis and evaluation of the images created utilizing industry standard software

*Instructional Focus:* Lab work

### Drawing I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Learn basic drawing skills: observation, proportion, perspective and shading
- Learn basic drawing techniques: pencil, ink, conte pastel and charcoal
- Draw from life
- Learn basic art history, aesthetic and art criticism
- Excellent starting point for other art courses

*Projects, Activities, etc.:* Multiple drawings and sketchbook

*Instructional Focus:* Lab work

### Drawing II

*Prerequisite/Selection Process:* Drawing I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Expand skills developed in Drawing I: color use, composition and figure drawing
- Expand techniques developed in Drawing I: pencil, pastel and color work
- Draw from life and imagination
- Continued emphasis on art history, aesthetics and art criticism

*Projects, Activities, etc.:* Multiple drawings and sketchbook

*Instructional Focus:* Lab work

### Drawing III

*Prerequisite/Selection Process:* Drawing II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Course may be taken up to three trimesters.

One trimester = 0.5 credit

*Major Outcomes:*

- Offers students additional coursework to develop greater depth in studio discipline
- Continued emphasis on art history, aesthetics and art production

*Projects, Activities, etc.:* Multiple drawings and sketchbook

*Instructional Focus:* Lab work

### Drawing/Painting [AP Studio Art: 2-D Design/Drawing]

*Intended Audience:* Grades 10, 11 and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Exploration of studio art at the college-level
- Course is sponsored by the College Board
- Students are expected to be able to work independently as an adult member of the class
- Completion of comprehensive portfolio made up of Breadth, Concentration and Quality Sections that involve various media and subject matter that are created as 2 dimensional works of art. Focus on a variety of media and techniques
- Portfolio [exam] submitted to College Board for review in May.
- Course work will receive a separate grade from the teacher in addition to a rating from the College Board

*Projects, Activities, etc.:* Creation of a portfolio of artwork

*Instructional Focus:* Comparable to an introductory college course in studio art

### Honors Arts Symposium

[AHS only]

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Learn and directly apply the elements of art and principles of design
- Explore a secondary discipline; noting the connections with art (ex. chemistry, specifically chemical reactions to metals and other materials used in jewelry design)
- Apply Design Thinking method to create solutions to various design challenges
- Design and create works that become part of an e-portfolio

*Projects/Activities, etc.:* Exploration of materials, original design work, development of art skills (ex. creating patinas on metal, use of jewelry equipment, designing original wearable art)

*Instructional Focus:* Design Thinking, Makerspace equipment, student collaboration, student-driven and project-based design challenges, industry tours, guest speakers

### Jewelry and Craft Design I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Create wearable and usable art through multiple art projects
- Work with jewelry production using casting and fabrication techniques.
- Explore bookmaking using various printing /paper techniques
- Explore fiber and sculpture construction.
- Study the history of jewelry and craft design around the world.

*Instructional Focus:* Lab work

### Jewelry and Craft Design II

*Prerequisite/Selection Process:* Jewelry and Craft Design I

*Intended Audience:* Grades 9, 10, 11, and 12

Course may be taken up to three trimesters.

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Offers students additional coursework to develop greater depth in jewelry and craft design and production
- Continued emphasis on art history, aesthetics and art production

*Instructional Focus:* Lab work

### Painting I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Learn basic painting techniques
- Learn basic color theory
- Watercolor and acrylic painting
- Aesthetics and art criticism

*Projects, Activities, etc.:* Water color, tempera and acrylic paintings

*Instructional Focus:* Lab work

### Painting II

*Prerequisite/Selection Process:* Painting I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Refinement of skills developed in Painting I
- Art awareness of modern artists
- Continued emphasis on art history, aesthetics and art criticism
- More self-expression in subject matter

*Projects, Activities, etc.:* Watercolor, tempera and acrylic paintings

*Instructional Focus:* Lab work

### Painting III

*Prerequisite/Selection Process:* Painting II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Course may be taken up to three trimesters.

One trimester = 0.5 credit

*Major Outcomes:*

- Offers students additional coursework to develop greater depth in studio discipline
- Continued emphasis on art history, aesthetics and art production

*Projects, Activities, etc.:* Watercolor, tempera and acrylic painting

*Instructional Focus:* Lab work

### Sculpture I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Work with 3-D art forms
- Exploration of multiple types of media as they relate to form and mass
- Learn about sculptors and history of sculpture
- Emphasis on aesthetics and art criticism

*Projects, Activities, etc.:* Additive and subtractive sculptural pieces

*Instructional Focus:* Lab work

### Sculpture II

*Prerequisite/Selection Process:* Sculpture I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Theme-based concentration applied to working with 3-D art forms
- Greater emphasis on refinement and exploration of sculpture techniques
- Styles and works of a variety of noted sculptors studied
- Continued emphasis on aesthetics and art criticism

*Projects, Activities, etc.:* Fabrication, welding and stone carving

### Sculpture III

*Prerequisite/Selection Process:* Sculpture II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Course may be taken up to three trimesters. One trimester = 0.5 credit

*Major Outcomes:*

- Offers students additional coursework to develop greater depth in studio discipline
- Continued emphasis on art history, aesthetics and art production

*Projects, Activities, etc.:* Fabrication, welding and stone carving

### Video Art I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Coursework focuses on creative and artistic applications of video art and technology
- The course will also focus on the Elements of Art and Principles of Design as they apply to Media Art and video technology
- Technical skills relating to the use of digital video/camera equipment, sound recording, composition and editing will be taught

*Instructional Focus:* Lab work

### Video Art II

*Prerequisite/Selection Process:* Video Art I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced student exploration and creation of video production.
- Strong focus is placed on students demonstrating a personal voice through the filming and editing of their projects.
- Additional emphasis will be placed on film presentation, evaluation and analysis of their finished works.

*Instructional Focus:* Lab work

# SECONDARY TECHNICAL EDUCATION PROGRAM

REQUIRED COURSES	GRADES	PREREQUISITES
<b>ENGLISH</b>		
English 11	11	English 10
English 12	12	English 11
<b>MATHEMATICS</b>		
Advanced Algebra	11, 12	Geometry
Statistics and Probability	11, 12	Geometry or Honors Geometry
<b>SCIENCE</b>		
Biology [Online, PSEO only]	11	Physical Science 9, Chemistry I, Honors Chemistry I
<b>SOCIAL STUDIES</b>		
Social Studies 11: World History	11	US History or AP US History
Social Studies 12: Economics	12	World History or AP World History
Social Studies 12: U.S. Government and Politics	12	World History or AP World History
<b>ELECTIVE COURSES</b>	<b>GRADES</b>	<b>PREREQUISITES</b>
<b>ARCHITECTURE AND CONSTRUCTION CAREERS</b>		
Building & Construction: Exterior (The House)	11, 12	
Building & Construction: Finishing (The House)	11, 12	
Building & Construction: Interior (The House)	11, 12	
Construction Careers: Building Trades [STEP only]	10, 11, 12	
Construction Careers: Landscape Design and Construction [STEP only]	10, 11, 12	
<b>ARTS, AUDIO/TECHNOLOGY CAREERS</b>		
Art Technology I [STEP only]	10, 11, 12	
Art Technology II [STEP only]	10, 11, 12	Art Technology I and/or teacher recommendation
CAPS Creative Design I	10, 11, 12	
CAPS Creative Design II	10, 11, 12	
Music/Media Technology I [STEP only]	10, 11, 12	
Music/Media Technology II - Multimedia	11, 12	Music/Media Technology I [STEP only]
Music/Media Technology II - Recording and Production	11, 12	Music/Media Technology I [STEP only]
<b>BUSINESS, MANAGEMENT, AND ADMINISTRATION</b>		
CAPS Business Administration I	10, 11, 12	
CAPS Business Administration II	10, 11, 12	
<b>ENGINEERING CAREERS</b>		
Aviation Technology I [STEP only]	10, 11, 12	
Honors Aviation Technology II - Private Pilot Knowledge Certification [STEP only]	11, 12	Aviation Technology I strongly recommended
Coll Honors Unmanned Aerial Systems (Drones)	10, 11, 12	
Honors Avionics (Electronic applications in Aerospace) [STEP only]	10, 11, 12	
PLTW Honors Introduction to Engineering Design [STEP only]	10, 11, 12	
PLTW Honors Civil Engineering and Architecture [STEP only]	11, 12	
PLTW Honors Engineering: Principles of Engineering [Includes credit of Physics A] [STEP only]	10, 11, 12	
PLTW Honors Robotics and Automation Technology	11, 12	
PLTW Honors Computer Science A [STEP ONLY]	10, 11, 12	PLTW Honors Computer Science Principles
PLTW Honors Computer Science Principles [STEP only]	10, 11, 12	
PLTW Honors Aerospace Engineering [includes credit of Physics A] [STEP only]	10, 11, 12	
<b>FASHION MERCHANDISING CAREERS</b>		
Advanced Fashion and Design Technologies [STEP only]	10, 11, 12	
Color In Industry	10, 11, 12	

# SECONDARY TECHNICAL EDUCATION PROGRAM

<b>HUMAN SERVICES CAREERS</b>		
Education Support Careers [STEP only]	11, 12	
STEP Coll Foundation of Education	10, 11, 12	
Salon, Spa, and Barbering Careers I [STEP only]	10, 11, 12	
Salon, Spa, and Barbering Careers II [STEP only]	10, 11, 12	Cosmetology and Barbering Careers I
<b>FINANCE CAREERS</b>		
Accounting and Financial Careers I [STEP only]	11, 12	Accounting I
Accounting and Financial Careers II [STEP only]	11, 12	Accounting and Financial Careers I and a GPA of 2.5 or above
<b>HEALTH SCIENCE CAREERS</b>		
Investigating Medical Careers	10, 11, 12	
Medical Anatomy I/II	10, 11, 12	
Medical Assistant Careers [STEP only]	11, 12	
Honors Disease Conditions	11, 12	Medical Anatomy I or Medical Anatomy II or Medical Terminology and Careers
Pharmacy Technician	12	
Coll Emergency Medical Careers I	10, 11, 12	Grade 10 needs to be in the top 10th percentile or a GPA of 3.0 or above. 11th and 12th grades need a GPA of 2.5 or above.
Coll Honors Emergency Medical Careers II	12	Coll Emergency Medical Careers I [STEP only] with a C or higher and a GPA of 2.5 or above
Dental Occupations	11, 12	Medical Anatomy I, Medical Anatomy II or Medical Terminology and Careers
Nursing Assistant	11, 12	
Coll Nursing Assistant and HHA [STEP only]	11, 12	Concurrent Enrollment with Anoka Technical College, Minimum GPA 2.5 or above
Coll Sports Medicine: Prevention and Care of Athletic Injuries	11, 12	Only Grade 11 [GPA in top 33 percent of class] and only Grade 12 [GPA in top 50 percent of class]
Sports Medicine: Performance	11, 12	
<b>HOSPITALITY AND TOURISM CAREERS</b>		
Advanced Culinary Arts I	10, 11, 12	Intro to Culinary Arts
Advanced Culinary Arts II [STEP only]	11, 12	Hotel/Restaurant/Baking Careers or Advanced Culinary I
Advanced Pastry [STEP only]	11, 12	Hotel/Restaurant/Baking Careers or Advanced Culinary I
<b>INFORMATION TECHNOLOGY CAREERS</b>		
IT Essentials	10, 11, 12	
Intro to Computer Science	11, 12	
Fundamentals of Computer Science	11, 12	
Cybersecurity I	11, 12	A+ PC Troubleshooting and Repair I [STEP only]
Cybersecurity II	11, 12	Cybersecurity I
<b>LAW, PUBLIC SAFETY, CORRECTION, AND SECURITY CAREERS</b>		
Firefighting I	10, 11, 12	
Law Enforcement I and Crime Scene Investigations	11, 12	
Law Enforcement II: Police Procedures [STEP only]	11, 12	Law Enforcement I and Crime Scene Investigations [STEP only] with a grade of C or higher
<b>MANUFACTURING CAREERS</b>		
Coll Machine Technology I [STEP only, concurrent enrollment with Anoka Technical College]	10, 11, 12	Grade of C or higher in high school Tech Ed class. Grade 10 needs to be in the top 10th percentile or a GPA of 3.0 or above. Grades 11 & 12 need a GPA of 2.5 or above, or instructor approval.
Coll Machine Technology II [STEP only, concurrent enrollment with Anoka Technical College]	11, 12	Machine Technology I. GPA of 3.0 or higher. concurrent enrollment with Anoka Technical College

# SECONDARY TECHNICAL EDUCATION PROGRAM

Coll Welding Technology I [STEP only, <b>concurrent enrollment with Anoka Technical College</b> ]	11, 12	C in a high school Tech. Ed class and GPA of 2.5 or above
Coll Welding Technology II: SMAW/GTAW [STEP only, <b>concurrent enrollment with Anoka Technical College</b> ]	11, 12	Coll Welding Technology I with a grade of C or higher and a GPA of 2.5 <b>concurrent enrollment with Anoka Technical College</b>
Coll Welding Technology III Processes and Blueprint [STEP only, <b>concurrent enrollment with Anoka Technical College</b> ]	11, 12	Coll Welding Technology II with a grade of C or higher and a GPA of 2.5 <b>concurrent enrollment with Anoka Technical College</b>
<b>TRANSPORTATION CAREERS</b>		
Coll Advanced Automotive I [STEP only]	11, 12	Automotive Technology I and a GPA of 2.5
Coll Advanced Automotive II [STEP only]	11, 12	Advanced Automotive I. GPA of 2.5 [STEP only]
Coll Advanced Automotive III [STEP only]	11, 12	Advanced Automotive II. GPA of 2.5 [STEP only]
Coll Advanced Automotive IV [STEP only]	11, 12	Advanced Automotive III. GPA of 2.5 [STEP only, <b>concurrent enrollment with Anoka Technical College</b> ]
Advanced Automotive Summer Internship [STEP only]	12	Advanced Automotive IV [STEP only, <b>concurrent enrollment with Anoka Technical College</b> ]

## ENGLISH

### English 11

*Prerequisite/Selection Process:* English 10

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Research
- Analysis of American literature
- Persuasion
- Analytical essay
- Personal essay

*Projects, Activities, etc.:* Essays and presentations

### English 12

*Prerequisite/Selection Process:* English 11

*Intended Audience:* Grade 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Critical reading of literature and informational texts
- Study of advertising, propaganda, and news bias
- Academic writing
- Research

*Projects, Activities, etc.:* Essays, research, and presentations

## MATHEMATICS

### Advanced Algebra

*Prerequisite/Selection Process:* Geometry

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Rational Functions
- Transformations
- Modeling with Exponential Functions
- Sequences and Series

*Projects, Activities, etc.:* Varies by teacher  
*Instructional Focus:* Instruction presented in a variety of ways, use of graphing calculator

## Statistics and Probability

*Prerequisite/Selection Process:* Geometry or

Honors Geometry

*Intended Audience:* Grade 11 and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Using data to draw conclusions and identify trends
- Effects of display distortion and measurement error on the interpretation of data
- Application of theoretical probability to real world problems

*Projects, Activities, etc.:* Varies by teacher

*Instructional Focus:* Instruction presented in a variety of ways, use of statistical software and some hands-on activities

## SCIENCE

### Biology

[Online, PSEO only]

*Prerequisite/Selection Process:* Physical

Science 9, Chemistry I, Honors Chemistry I

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Describe cycles and interactions in the natural world
- Understand structure and function of cells
- Understand principles and applications of genetics
- Knowledge of biological change over time
- Understand life processes and diversity of life on Earth

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* Small and large group lecture and lab activities

## SOCIAL STUDIES

### Social Studies 11: World History

*Prerequisite/Selection Process:* US History or AP US History

*Intended Audience:* Grade 11

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Study of significant events, people, issues, and perspectives from Africa, Asia, Europe, Latin America, and the Middle East
- A balance of cultural, economic, geographic, political, and social history are presented
- Gain an appreciation and understanding of diverse perspectives

### Social Studies 12: Economics

*Prerequisite/Selection Process:* World History or AP World History

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Concept of scarcity and its impact on choices of individuals, organizations, businesses, and government
- Market structures
- Supply and demand
- Personal Finance
- Macroeconomics
- Global Economy

*Projects, Activities, etc.:* Investigations of public issues, identification of problems and proposed solutions

## Social Studies 12:

### U.S. Government and Politics

*Prerequisite/Selection Process:* World History or AP World History

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Examines the political system of the American government
- Focuses on the political processes of local, state and national government, the three branches of government, as well as, applying Constitutional principles to the American legal system
- Learn how to be active citizens
- Debate and analyze public policy issues, including foreign policy
- Understand how the Legislative, Executive, and Judicial branches work together
- Understand the importance of the American Legal system including criminal, civil, and constitutional law
- Analyze public policy issues including foreign policy
- Investigate state and local government and politics
- Analyze primary sources and court cases to understand the role of government during major periods of social and political change

*Instructional Focus:* State/Local Public Issue Project [5 Youth Service Hours], Constitutional Law Project

## ARCHITECTURE AND CONSTRUCTION CAREERS

### Building & Construction:

#### Exterior (The House)

[Students may earn Articulated College Credit]

[STEP only]

*Prerequisite/Selection Process:* None. Home Maintenance class is strongly recommended

*Intended Audience:* Grades 11, and 12

*One trimester/two periods = 1.0 credit*

*Major Outcomes:*

- Exterior Framing
  - Roofing
  - Window & Exterior Door Installation
- Projects, Activities, etc.:* Construction of a 3 bedroom home!

*Instructional Focus:* Math-related program understandings are addressed; hands-on experience and use of power tools with emphasis on mathematical concepts related to carpentry.

### Building & Construction:

#### Finishing (The House)

[Students may earn Articulated College Credit]

[STEP only]

*Prerequisite/Selection Process:* None. Home Maintenance class is strongly recommended

*Intended Audience:* Grades 11, and 12

*One trimester/two periods = 1.0 credit*

*Major Outcomes:*

- Interior finishing
- Exterior finishing

*Projects, Activities, etc.:* Construction of a 3 bedroom home!

*Instructional Focus:* Math-related program understandings are addressed; hands-on experience and use of power tools with emphasis on mathematical concepts related to carpentry.

### Building & Construction:

#### Interior (The House)

[Students may earn Articulated College Credit]

[STEP only]

*Prerequisite/Selection Process:* None. Home Maintenance class is strongly recommended

*Intended Audience:* Grades 11, and 12

*One trimester/two periods = 1.0 credit*

*Major Outcomes:*

- Interior Framing
- Mechanicals
- Electrical
- Insulation
- Drywall

*Projects, Activities, etc.:* Construction of a 3 bedroom home!

*Instructional Focus:* Math-related program understandings are addressed; hands-on experience and use of power tools with emphasis on mathematical concepts related to carpentry.

### Construction Careers: Building Trades

[STEP only]

*Intended Audience:* Grades 10, 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Tool use and safety
- Concrete and masonry
- Plumbing and electrical wiring

*Projects, Activities, etc.:* Work on customized building projects; emphasis on building terminology and mathematical concepts related to major outcomes

*Instructional Focus:* Hands-on activities and use of tools

*Co-curricular Connection:* SkillsUSA

### Construction Careers: Landscape Design and Construction

[STEP only]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 1.0 credit

*Major Outcomes:*

- Students will learn to design landscapes, estimate materials and costs, install various projects.

*Projects, Activities, etc.:* Create detailed landscape drawings, identification and proper use of landscape materials, install decks and other wood features, patios [pavers/blocks/concrete], planting beds and retaining walls

*Instructional Focus:* Hands-on experiential activities, application learning through digital assignments and active participation

## ARTS, AUDIO/ TECHNOLOGY CAREERS

### Art Technology I

[STEP only]

[Students may earn Articulated College Credit]

[Satisfies the arts graduation requirement]

*Intended Audience:* Grades 10, 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Work with Photoshop and Illustrator to create graphic design projects
- Apply the elements and principles of design to projects
- Learn historical overview, industry used computer accessories, common applications, basic design principles, layout and advertising concepts, typographical creativity, and common tools.
- Explore industry related career and college options
- Give students necessary skills to create and design graphics for a variety of different projects.

*Instructional Focus:* Lab work, skill tutorials; best practices with current software and equipment

*Co-curricular Connection:* SkillsUSA

### Art Technology II

[STEP only]

[Students may earn Articulated College Credit]

[Satisfies the arts graduation requirement]

*Prerequisite/Selection Process:* Art Technology I and/or teacher recommendation

*Intended Audience:* Grades 10, 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Work with Photoshop, Illustrator, InDesign and Dragon Frame to create Graphic Design Projects, 3-D Package Designs, and Stop Motion Animation

- Apply the elements and principles of design to projects
- The student will be exposed to Adobe Creative Suite and software currently being used in the industry and through lectures and projects will explore the role of the interactive designer in the production of different types of multimedia.
- Explore industry related career and college options

*Instructional Focus:* Lab work, skill tutorials, text-book activities; best practices with current software and equipment; interactive/multimedia focus  
*Co-curricular Connection:* SkillsUSA

### **CAPS Creative Design I**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Career Readiness Skills
- Industry exposure
- Design Methods
- Theory
- Creative Problem Solving

*Projects, Activities, etc.:* Real world problem based projects

*Instructional Focus:* Profession Based/Experiential Learning

### **CAPS Creative Design II**

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* CAPS Creative Design I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Career Readiness Skills
- Industry exposure
- Design Methods
- Theory
- Creative Problem Solving

*Projects, Activities, etc.:* Real world problem based projects

*Instructional Focus:* Profession Based/Experiential Learning

### **Music/Media Technology I**

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11 and 12

*Credit:* One trimester/two periods = 1.0 credits  
*Major Outcomes:*

- Exploration of music/audio technology careers
- Hands-on experience with a variety of equipment and software for electronic music production including: LOGIC Pro, QuickTime Pro, MIDI keyboards, microphones, Mixing Board, lighting equipment, video cameras and more.

*Projects, Activities, etc.:* Audio recording, basic piano technique, songwriting (beats), live performance, animation SFX production.  
*Instructional Focus:* Hands-on and lab activities

### **Music/Media Technology II - Multimedia**

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:*

Music/Media Technology I

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- DSLR Camera Operation
- iMovie and Adobe Premiere Video Production Software
- Dragonframe Stop Motion Software
- Camera angle and shot types
- Video Editing
- Audio for Video

*Projects, Activities, etc.:* Video Storytelling, Silent Film, Short Film, Stop Motion and Music Video

*Instructional Focus:* Hands-on and lab activities

### **Music/Media Technology II - Recording and Production**

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:*

Music/Media Technology I

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Advanced Beat Making
- Music Theory
- Live Performance
- Sound Design and Post Production
- Continued study of copyright law & career exploration

*Projects, Activities, etc.:* A completed multi-media production

*Instructional Focus:* Hands-on and lab activities

## **BUSINESS, MANAGEMENT, AND ADMINISTRATION**

### **CAPS Business Administration I**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Profession based learning
- Industry exposure
- Empowered to be independent learners
- Self-discovery and critical thinking skills.

*Projects, Activities, etc.:* Real world problem based projects

*Instructional Focus:* Profession Based/Experiential Learning

### **CAPS Business Administration II**

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* CAPS Business Administration I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* CAPS One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Profession based learning
- Industry exposure
- Empowered to be independent learners
- Self-discovery and critical thinking skills.

*Projects, Activities, etc.:* Real world problem based projects

*Instructional Focus:* Profession Based/Experiential Learning

## **ENGINEERING CAREERS**

### **Aviation Technology I**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Explore careers in aviation
  - Physics and math principles as related to aviation
  - Testing conducted to private pilot standards
- Projects, Activities, etc.:* Students are given the opportunity to explore careers in aviation including pilot, air traffic control, aviation maintenance, airport management, and aeronautical engineering

*Instructional Focus:* Hands-on simulations, guest speakers and field trips

### **Honors Aviation Technology II - Private Pilot Knowledge Certification**

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Aviation Technology I strongly recommended

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit  
 [successful completion can earn 4.0 college credits]

*Major Outcomes:*

- In compliance with Federal Aviation Regulations
- Aerodynamics
- Meteorology
- Aircraft Performance
- Weight and Balance
- Cross Country flight planning and simulation
- Testing and Certification to Federal Aviation Administration Standards

*Projects, Activities, etc.:* Flight Simulation – Students are given the opportunity to receive Certified Flight Teacher sign off to take the Private Pilot Knowledge test

**Instructional Focus:** This course offers students the opportunity to obtain their Private Pilot Knowledge Certificate [written]. Pilots, air traffic controllers, aviation mechanics, airport service/management positions, aircraft dispatchers, and meteorologists benefit from the completion of this exam, for pilots the test is required. With the use of current software and FAA teaching strategies implemented by a Certified Flight Teacher, this course is designed to prepare the student to pass the Federal Aviation written exam [the Knowledge Test]. Successful completion of the class can also earn the students college credit at Minnesota State University Mankato [Articulated credit] 4 credit hours in AVIA 150.

### Coll Honors Unmanned Aerial Systems (Drones)

[Students may earn Articulated College Credit] [STEP, concurrent enrollment with Northland Technical College]

**Prerequisite/Selection Process:** Grade 10 needs to be in the top 10th percentile or a GPA of 3.0 or above. Grades 11 & 12 needs a GPA of 2.5 or above.

**Intended Audience:** Grades 10, 11, and 12

**Credit:** One trimester/two periods = 1.0 credit

**Major Outcomes:**

- Utilize demonstrated concepts with the focus of sUAS methodologies supporting civil aviation, environmental research and law enforcement mission requirements
- Research FAA regulations and publications related to flight operations pertaining to unmanned aerial systems (UAS)
- Demonstrate accident reporting in accordance with FAA requirements
- Explain, identify, describe, or demonstrate the areas of operations as outlined in the FAA part 107 Remote Pilot test standards
- Explain basic aerodynamic principles and aircraft performance characteristics
- Identify aircraft components and systems
- Research specific assembly and programming documentation for a sUAS
- Demonstrate acceptable wiring techniques
- Identify unmanned aircraft payloads appropriate for the applicable system
- Assemble a sUAS
- Demonstrate safe operation utilizing aeronautical decision making process

**Instructional Focus:** Experiments, project testing and field trips

### Honors Avionics

#### (Electronic applications in Aerospace)

[STEP only]

[Students may earn Articulated College Credit]

**Intended Audience:** Grades 10, 11 and 12

**Credit:** One trimester/two periods = 1.0 credit, PLTW college credit can be earned

**Major Outcomes:**

- Logic of electronics
  - Investigate digital circuitry
  - Field programmable logic
  - Design, construct and test digital circuitry
- Projects, Activities, etc.:** Design, test and construct circuits and devices

**Instructional Focus:** Use computer simulation software to design and test circuitry

### PLTW Honors Introduction to Engineering Design [STEP only]

[Students may earn Articulated College Credit]

**Intended Audience:** Grades 10, 11, and 12

**STEP Credit:** One trimester/two periods = 1.0 credit, meets arts requirement [1.0 credit]

PLTW college credit can be earned

**Major Outcomes:**

- Introduction to engineering design
  - Problem solving using design development process
  - Process of product design
  - Develop, create and analyze product models
- Projects, Activities, etc.:** Engage in engineering animations

**Instructional Focus:** Use computer 3-D modeling software for design and projects

### PLTW Honors Civil Engineering and Architecture

[STEP only]

[Students may earn Articulated College Credit]

**Intended Audience:** Grades 11 and 12

**Credit:** One trimester/two periods = 1.0 credit, PLTW college credit can be earned

Meets arts credit [1.0 credit]

**Major Outcomes:**

- Introduction to the fundamental design and development aspects of civil engineering
  - Introduction to architectural planning, including site planning, and building design
  - Project planning considering transportation, water resource, and environmental issues
- Projects, Activities, etc.:** This is a Project Lead the Way course; projects and problems
- Instructional Focus:** Use research and design techniques to analyze problems, inquiry-based approach, field and lab activities

### PLTW Honors Engineering: Principles of Engineering

[STEP only]

[Students may earn Articulated College Credit]

**Intended Audience:** Grades 10, 11, and 12

**Credit:** One trimester/two periods = 1.0 credit, PLTW college credit can be earned, 0.5 credit in Physics A can be earned

**Major Outcomes:**

- Introduction to engineering
- Investigate careers in engineering

- Product development
  - Fluid, electrical and controls systems
  - Strength of materials and linear motion
- Projects, Activities, etc.:** Bridge building, Fuel cells and solar energy projects engineering animations robotics manufacturing system using Vex Robotics and Cortex C programming.
- Instructional Focus:** Use research and design techniques on experiments, field trips, and projects

### PLTW Honors Robotics and Automation Technology

[STEP only]

[Students may earn Articulated College Credit]

**Intended Audience:** Grades 11 and 12

**Credit:** One trimester/two periods = 1.0 credit, PLTW college credit can be earned

**Major Outcomes:**

- Explore the fundamentals of computerized manufacturing technology
- Key concepts include:
  - 1] **Computer Modeling** - using a 3-D solid modeling software package with mass property analysis
  - 2] **CNC Equipment** - understanding the machine tools and its operating and programming aspects
  - 3] **CAM Software** - converting computer generated geometry into a program to drive CNC machine tools
  - 4] **Robotics** - using a robot for materials handling and assembly operations Vex robotics and RobotC programming is used.
  - 5] **Flexible Manufacturing Systems** - students working in teams to design manufacturing workcells and table top factory simulations

**Instructional Focus:** Hands-on activities

### PLTW Honors Computer Science A

[STEP only]

[Students may earn Articulated College Credit]

**Prerequisite/Selection Process:** PLTW Honors Computer Science Principles

**Intended Audience:** Grades 10, 11, and 12

**Credit:** One trimesters /two periods = 1.0 credit

**Major Outcomes:**

- Students focus on integrating technologies across multiple platforms and networks. This course prepares students for the AP Computer Science -A course
- Projects, Activities, etc.:** Students create models and simulations that create solutions to real world problems found in science and industry.
- Instructional Focus:** Students analyze, adapt and improve each other's programs while working primarily in JAVA and other industry-standard tools. Students collaborate to produce programs that integrate mobile devices and leverage those devices for distributed collection and data processing.

**PLTW Honors Computer Science Principles**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12*Credit:* One trimesters /two periods = 1.0

credit, meets arts requirement [1.0 credit]

PLTW college credit can be earned

*Major Outcomes:*

- Introduce computational tools that foster creativity
- Problem solving with structured activities and progress to open-ended projects and problems
- Develop computational thinking

*Instructional Focus:* Use programming to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity

**PLTW Honors Aerospace Engineering**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11 and 12*Credit:* One trimester/two periods = 1.0 credit,

PLTW college credit can be earned, 0.5 credit in Physics can be earned

*Major Outcomes:*

- Introduction to aerodynamics design and testing
- Flight systems and aerospace materials
- Space life sciences and astronautics

*Instructional Focus:* Experiments, project testing and field trips

**FASHION MERCHANDISING CAREERS****Advanced Fashion and Design Technologies**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12*Credit:* 1.0 credit*Major Outcomes:*

- Career exploration in fashion and design industries
- Advanced application of entry-level garment construction techniques
- Reverse Engineering in Patterns (Lay Out, Cutting and Marking, Fabrics)
- Implementation of industry current skills and technology

*Projects, Activities, etc.:* Creating/Adjusting Patterns and Designs, Pressing techniques, Fashion Illustration, Recycled/Up-Cycled Design, Fashion Show Planning and Presentation

*Instructional Focus:* Hands-on Skill driven learning, Technology Tools, Industry Speakers, and Field Trips

*Co-Curricular Connections:* FCCLA & SkillsUSA Meets arts credit [1.0 credit]

**Color In Industry**

[STEP only]

*Prerequisite/Selection Process:* None*Intended Audience:* Grades 10, 11, and 12*Credit:* One trimester/two periods = 1.0 credit

*Projects, Activities, etc.:* Lecture, Research Papers, Video Reflections, Demonstration, Industry Tours, Color Portfolio, Industry Speakers, Market Research and Product Development and Student Presentations.

*Instructional Focus:* Color curriculum in the areas of Design, History and career opportunities in the field of design and manufacturing and related industries, Problem Solving Skills related to Design, Color Psychology, Principles of Marketing, Product Development, and Trend Research & Tracking.

**HUMAN SERVICES CAREERS****Education Support Careers**

[STEP only]

*Intended Audience:* Grades 11 and 12*Credit:* One trimester/two periods = 1.0 credit*Major Outcomes:*

- Explore educational support careers
- Experience the daily role of a paraprofessional educator
- Develop and implement student support frameworks to ensure student success
- Review academic content contained in the ParaPro Assessment & use it to develop classroom activities that support student learning

*Projects, Activities, etc.:* Relationship building exercises, exploring teaching strategies and learning styles, developing Integrated Reading, Writing, and Mathematics activities for learners

*Instructional Focus:* Discussion, small/large group activities, project based activities, guest presenters, observation and research.

**STEP Coll Foundations of Education**

[STEP only]

[Concurrent enrollment with Anoka Ramsey Community College]

*Intended Audience:* Only Grade 10 [Passed MCA Reading Test with Meets or Exceeds], only Grade 11 [GPA in top 33 percent of class or GPA of 3.5 or above], only Grade 12 [GPA in top 50 percent of class or GPA of 3.0 or above], or instructor approval.

*Credit:* One trimester/Two Periods = 1.0 credit Successful completion will earn 4 college credits.

*Major Outcomes:*

- Explore the education, teaching and training career pathway: the teaching profession, philosophy of education, the learner and the learning process, planning instruction, learning environment, assessment and instruction strategies

*Projects, Activities, etc.:* Lesson plan development and presentation, Field Observation, Career Plan

*Projects, Activities, etc.:* Guest speakers/presenters

*Instructional Focus:* Research and observation,

**Salon, Spa, and Barbering Careers I**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12*Credit:* 1.0 credit*Major Outcomes:*

- Introduction to the salon, spa, and barbering industries
- Hands-on application of entry level salon, spa, and barbering concepts
- Implementation of industry current skills and technology

*Projects, Activities, etc.:* Hair, Skin, Massage, and Nail service application, Key Communication, Customer Service Scenarios, Leadership Development, and Industry Connections

*Instructional Focus:* Hands-on Skill driven learning, Technology Tools, Industry Speakers, and Field Trips

*Co-Curricular Connections:* FCCLA & SkillsUSA Meets arts credit [1.0 credit]

**Salon, Spa, and Barbering Careers II**

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Salon, Spa, and Barbering Careers I

*Intended Audience:* Grades 10, 11, and 12*Credit:* 1.0 credit*Major Outcomes:*

- Career exploration salon, spa, and barbering industries
- Advanced application of entry-level salon, spa, and barbering concepts
- Implementation of industry current skills and technology

*Projects, Activities, etc.:* Design theory and Hair Color Application Methods, moulage and special effects makeup, advanced skin care and facials, leading massage techniques, nail extension application, Business management, leadership development, and industry connections

*Instructional Focus:* Hands-on Skill driven learning, Technology Tools, Industry Speakers, and Field Trips

*Co-Curricular Connections:* FCCLA & SkillsUSA Meets arts credit [1.0 credit]

## FINANCE CAREERS

### Accounting and Financial Careers I

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Accounting I

*Intended Audience:* Grades 11 and 12

[seeking an introductory college course]

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- A review of accounting and business finance
- Analyzing and recording transactions for merchandising operations
- Inventories and cost of sales
- Cash and internal controls
- Automated Accounting

*Projects, Activities, etc.:* Career exploration, review and discussion of financial events past and present, group and individual projects that solidify learning

*Instructional Focus:* Hands-on activities

*Co-curricular Connection:* BPA, DECA

### Accounting and Financial Careers II

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Accounting and Financial Careers I and a GPA of 2.5 or above

*Intended Audience:* Grades 11 and 12

[seeking an introductory college course]

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Experience accounting operations of a mid-sized company
- Automated Accounting Software
- Analyze business transactions and understand their effect on financial statements

*Projects, Activities, etc.:* Career projects and accounting simulation

*Instructional Focus:* Hands-on activities

*Co-curricular Connection:* BPA, DECA

## HEALTH SCIENCE CAREERS

### Investigating Medical Careers

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12

*Credits:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Introduction to medical careers including biomedical, informatics, therapeutics, diagnostics, nursing, nuclear medicine, laboratory sciences, physicians, and their specialties

*Projects, Activities, etc.:* Career related portfolios and guest speakers from medical fields

*Instructional Focus:* Variety of Instructional presentations with an emphasis on hands-on projects in medical careers

*Co-curricular Connection:* HOSA

### Medical Anatomy I/II

[Students may earn Articulated College Credit]

[Medical Anatomy I/II may be taken in any order; both are needed for articulated credit.]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Human anatomy and physiology of the integumentary, digestive, urinary, respiratory and musculoskeletal systems.

*Projects, Activities, etc.:* Dissections

*Instructional Focus:* Taught by a health professional

*Co-curricular Connection:* HOSA/Skills USA

### Medical Assistant Careers

[STEP Only]

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Demonstrate knowledge of clinical procedures, laboratory techniques and diagnostic tests in a medical practice setting.
- Identify, interpret and apply ethical, legal and social issues applied to the medical assistant scope of practice.
- Employ a variety of administrative policies, procedures and techniques in a medical practice to deliver cost effective and quality healthcare.
- Demonstrate confidentiality, effective communication and collaboration within medical teams
- Use computer literacy skills to maintain electronic health records.
- Illustrate a caring and empathic approach to all people and cultures when interacting with a diverse patient population in the health-care field.
- Reinforce healthy lifestyles through health promotion education of teaching individuals, families, and the community.

*Instructional Focus:* Taught by a health professional

*Co-curricular Connection:* HOSA

### Honors Disease Conditions

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Medical

Anatomy I or Medical Anatomy II or Medical Terminology and Careers

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Exploration of common diseases and disorders
- Treatment, prevention, prognosis for certain diseases

*Projects, Activities, etc.:* Research

*Instructional Focus:* Discussion, lecture, small and large group activities, guest speakers and research project

*Co-curricular Connection:* SkillsUSA

### Pharmacy Technician

[Students may earn Articulated College Credit]

*Intended Audience:* Grade 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Demonstrate and describe ethics, communication skills, customer service, and knowledge of human body structure and function as it relates to the pharmacy technician.

*Projects, Activities, etc.:* Supervised Clinical Experience, receiving prescription requests, counting tablets, and labeling bottles.

*Instructional Focus:* Pharmacy technicians help licensed pharmacists prepare prescription

### Coll Emergency Medical Careers I

[STEP only, concurrent enrollment with Anoka Technical College.]

*Intended Audience:* Grade 10 needs to be in the top 10th percentile or a GPA of 3.0 or above. Grades 11 & 12 need a GPA of 2.5 or above.

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Operation of emergency medical equipment
- Certification in First Aid
- Certification in CPR
- Certification in Emergency Medical Responder

*Projects, Activities, etc.:* Emergency Care Skills

*Instructional Focus:* Instruction presented in Lecture with an emphasis on hands-on skills in Emergency Medical Response

*Co-curricular Connection:* HOSA/SkillsUSA

### Coll Honors Emergency Medical Careers II

[STEP only, concurrent enrollment with Anoka Technical College.]

*Prerequisite/Selection Process:* Coll Emergency Medical Careers I

[STEP only] with a C or higher and a GPA of 2.5 or above

*Intended Audience:* Grade 12 students seeking an Emergency Medical Technician Certificate

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Advanced training in emergency medical skills
- Opportunity to take National Registry Exam for Emergency Medical Technician
- Leadership development

*Projects, Activities, etc.:* Interpersonal communications, clinicals with Ambulance Service, and prep for the opportunity to take skills test for NREMT

*Instructional Focus:* Hands-on activities, lecture and group work

*Co-curricular Connection:* HOSA/SkillsUSA

**Dental Occupations**

[Students may earn Articulated College Credit]  
[STEP only]

*Prerequisite/Selection Process:* Medical Anatomy I or Medical Anatomy II or Medical Terminology and Careers

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Importance of oral health, hygiene, and diet
- Perform a wide range of dental services
- Explore various recognized Entry-Level, Technical, and Professional Dental Careers

*Projects, Activities, etc.:* Hands on Activities

*Instructional Focus:* Discussion, lecture, small and large group activities, and guest speakers

*Co-curricular Connection:* HOSA

**Nursing Assistant**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Basic nursing skills
- **Optional** Supervised clinical experiences
- **Optional** CNA Certification

*Projects, Activities, etc.:* Lab work

*Instructional Focus:* Classroom instruction, **option** of 24 hours of supervised clinical experience outside of school time and opportunity for certification as nursing assistant

*Co-curricular Connection:* HOSA/SkillsUSA

**Coll Nursing Assistant and HHA**

[STEP only]

*Prerequisite/Selection Process:* Concurrent Enrollment with Anoka Technical College, Minimum GPA 2.5 or above.

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Basic nursing skills
- Supervised clinical experiences
- Home Health Aid Certification
- CNA Certification

*Projects, Activities, etc.:* Medical terminology, Lab work, Required online certification work outside of class time

*Instructional Focus:* Classroom instruction, Required online homework, 24 hours of supervised clinical experience outside of school time and opportunity for certification as nursing assistant

*Co-curricular Connection:* HOSA/SkillsUSA

**Coll Sports Medicine: Prevention and Care of Athletic Injuries**

[STEP only]

*College credit* [Southwest Minnesota State University and Anoka-Ramsey Community College collaboration]

*Prerequisite/Selection Process:* Only Grade 11 [GPA in top 33 percent of class] and only Grade 12 [GPA in top 50 percent of class]

*Intended Audience:* Grades 11 and 12 students interested in Sports Medicine and similar careers such as Athletic Training, Physical Therapy, Strength Coach, Exercise Science. Required course to earn coaching certificate in college.

Part of collaboration to offer a Bachelor of Science Degree in Exercise Science from SMSU through Anoka-Ramsey Community College.

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Explore how injuries occur, research common sports related injuries, practice emergency management and injury assessment, and learn taping and wrapping methods.

*Projects, Activities, etc.:* Field trips, hands-on activities

*Instructional Focus:* Taught by a health professional

*Co-curricular Connection:* HOSA

**Sports Medicine: Performance**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Explore science of sports performance enhancement, design conditioning programs, research sports nutrition, analyze sports movements, and compare different training methods

*Projects, Activities, etc.:* Field trips, hands-on activities

*Instructional Focus:* Taught by a health professional

*Co-curricular Connection:* HOSA

**HOSPITALITY AND TOURISM CAREERS****Advanced Culinary Arts I**

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Intro to Culinary Arts

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- ProStart Level I
- Basic food preparation techniques
- Safety and sanitation issues
- Beginning food service supervisory skills
- Nationally certified program ProStart introducing students to a wide variety of careers in the hospitality area
- Opportunity to receive ServSafe certification

*Projects, Activities, etc.:* Bakery production, fundamental culinary skills, opportunities to compete in state and national competition

*Instructional Focus:* Hands-on activities in a commercial kitchen, speakers, research,

project-based learning

*Co-curricular Connection:* FCCLA

**Advanced Culinary Arts II**

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Hotel/ Restaurant/ Baking Careers I or Advanced Culinary Arts I

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- ProStart Level II
- Continued career exploration
- Advanced skills associated with food service industry
- Beginning culinary techniques
- Food service supervisory/management skills

*Projects, Activities, etc.:* New product development, ProStart certificate available, opportunities to compete in state and national competition, menu development and design

*Instructional Focus:* Hands-on activities in a commercial kitchen, research, and speakers

*Co-curricular Connection:* FCCLA

**Advanced Pastry**

[STEP only]

[Students may earn Articulated College Credit]

*Prerequisite/Selection Process:* Hotel/Restaurant/ Baking Careers I

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Exhibit professional, safe and sanitary work practices
- Define baking terms
- Discuss equipment and utensils used in baking and their proper use and care
- Demonstrate proper selection of ingredients, equipment and utensils for specific application
- Apply basic math skills to recipe conversions

*Instructional Focus:* Hands-on activities in a commercial kitchen, research, and speakers

*Co-curricular Connection:* FCCLA

**INFORMATION TECHNOLOGY CAREERS****IT Essentials**

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester/Two periods = 1.0 credit

*Major Outcomes:*

- Install, configure, and troubleshoot computers and mobile devices

- 70 hour CISCO academy course
  - Identify common security threats like phishing and spoofing
  - Develop critical thinking and problem skills
  - Prepare for CompTIA A+ Certification
- Instructional Focus:* Hands-on activities, research, and speakers.  
*Co-curricular Connection:* Skills USA

### Intro to Computer Science

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grade 11, and 12

*Credit:* One trimester/Two Periods = 1.0 credit

*Major Outcomes:*

- Describe algorithms and their role in solving problems
- Develop algorithmic solutions using appropriate programming structures
- Express algorithms using pseudocode, flow-charts or other design notation
- Demonstrate knowledge of common algorithms, such as binary search, finding the minimum/maximum value in a list, and quadratic sort

*Instructional Focus:* Hands-on activities, current events, and technology exploration

*Co-curricular Connection:* SkillsUSA/BPA

### Fundamentals of Computer Science

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grade 11, and 12

*Credit:* One trimester/Two Periods = 1.0 credit

- Input/output using standard input/output
- Input/output using secondary storage
- Convert mathematical formulas into equivalent programming

*Instructional Focus:* Hands-on activities, current events, and technology exploration

*Co-curricular Connection:* SkillsUSA/BPA

### Cybersecurity I

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/Two Periods = 1.0 credit

*Major Outcomes:*

- Explore what cybersecurity is and what it means for you personally and professionally
- Learn how to be safe online by understanding the most common threats, attacks and vulnerabilities
- Find out how businesses protect their operations from cyber attacks and why jobs are growing
- Examine legislation related to data confidentiality, integrality and availability
- Understand personal responsibilities and liabilities when working with confidential information
- Recognize the threats and risk to modern data and information systems

- Understand risk management and methods used to address risk

*Instructional Focus:* Hands-on activities, research, and speakers.

*Co-curricular Connection:* Skills USA

### Cybersecurity II

[STEP Only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grade 11, and 12

*Credit:* One trimester/Two Periods = 1.0 credit

*Major Outcomes:* Security Fundamentals

- Identifying Security Threats and Vulnerabilities
- Managing Data, Application, and Host Security
- Implementing Network Security
- Implementing Access Control, Authentication, and Account

*Instructional Focus:* Hands-on activities, current events, and technology exploration

*Co-curricular Connection:* SkillsUSA/BPA

## LAW, PUBLIC SAFETY, CORRECTION, AND SECURITY CAREERS

### Firefighting I

*Intended Audience:* Grades 10, 11, and 12

Students who are interested in a career in firefighting or as a part time vocation with a desire to serve and help their community.

*Credit:* One trimester/two periods = 1.0 credit

*Topics Covered:*

- History, tradition, and development of the American Fire Service.
- Fire Behavior, Firefighter Safety, Personal Protective Equipment, Portable Fire Extinguishers, Rescue Procedures, Fire Suppression, and more.
- Throughout the course math and science will be embedded.

*Text used:* Firefighter's Handbook

### Law Enforcement I and Crime Scene Investigations

[STEP only]

[Students may earn Articulated College Credit]

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Exploration of Law Enforcement
- Crime Scene Investigation
- Community Policing
- Current Law Enforcement Trends/Issues
- Domestic Issues and Police Response
- Career and Employability Skills
- Leadership and Personal Development
- Police Scenarios

*Projects, Activities, etc.:* Radar Use, mock traffic stops, handcuffing techniques, fingerprinting, crime scene sketch

*Co-curricular Connection:* SkillsUSA

### Law Enforcement II: Police Procedures

[STEP only]

[Students may earn Articulated College Credit]  
*Prerequisite/Selection Process:* C or higher in Law Enforcement I and Crime Scene Investigations

*Intended Audience:* Grades 11 and 12

seeking further studies in Law Enforcement

*Credit:* One trimester/two periods = 1.0 Credit

*Major Outcomes:*

- Further exploration of Law Enforcement
- Requirements for Employment
- MN P.O.S.T. Board
- Current Issues and Trends in Law Enforcement Continued
- Ethical Decision Making
- U.S. Supreme Court Decisions /Police Procedures
- Patrol Procedures
- Industry Speakers

*Projects, Activities, etc.:* Simulated scenarios for arrests, traffic violations, field sobriety testing and other police procedures

*Co-curricular Connection:* SkillsUSA

## MANUFACTURING CAREERS

### Coll Machine Technology I

[STEP only, concurrent enrollment with Anoka Technical College]

*Prerequisite/Selection Process:* Grade of C or higher in high school Tech Ed class. Grade 10 needs to be in the top 10th percentile or a GPA of 3.0 or above. Grades 11 & 12 need a GPA of 2.5 or above, or instructor approval.

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Basic Mill & lathe operations
- Principles of machining operations
- Machinist math
- Blueprint reading

*Instructional Focus:* Lab work

NIMS CERTIFICATION.

### Coll Machine Technology II

[STEP only, concurrent enrollment with Anoka Technical College]

*Prerequisite/Selection Process:* GPA of 2.5 or above

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Advanced lathe operations
- Advanced mill operations
- Blueprint reading
- Applied machinist geometry
- SolidWorks and Mastercam – CNC technology

*Instructional Focus:* Lab and technical reading, NIMS CERTIFICATION

**Coll Welding Technology I**

[STEP only, concurrent enrollment with Anoka Technical College]

*Prerequisite/Selection Process:* C in a high school Tech. Ed class and a GPA of 2.5 or higher

*Intended Audience:* Students in grades 11 and 12 seeking introductory college credit

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Take ATC Weld 1004 and Weld 1006 Oxy-Fuel Processes and Applications
- Take ATC Weld 1020 GMAW 1-A
- Introduction to SMAW
- AWS Welder Certification available in GMAW

*Projects, Activities, etc.:* Welding skills and techniques, earn welder certification

*Instructional Focus:* Lab work

*Co-curricular Connection:* SkillsUSA

**Coll Welding Technology II: SMAW/GTAW**

[STEP only, concurrent enrollment with Anoka Technical College]

*Prerequisite/Selection Process:* Coll Welding Technology I with a grade of C or higher and a GPA of 2.5 or higher

*Intended Audience:* Students in grades 11 and 12 seeking introductory college credit

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Take ATC Weld 1002 Math for Welders
- Take ATC Weld 1025 SMAW
- Develop skills in GTAW
- AWS welder certification available in SMAW

*Projects, Activities, etc.:* Welding skills and techniques, flat, horizontal, and vertical

*Instructional Focus:* Lab work

*Co-curricular Connection:* SkillsUSA

**Coll Welding Technology III: Processes and Blueprint**

[STEP only, concurrent enrollment with Anoka Technical College]

*Prerequisite/Selection Process:* Coll Welding Technology II with a grade of C or higher and a GPA of 2.5 or higher

*Intended Audience:* Students in grades 11 and 12 seeking introductory college credit

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Take ATC Weld 1000 Blueprint Reading | Lecture
- Techniques for welding/preparation of mild steel

*Projects, Activities, etc.:* Work on welding skills and techniques taken from written prints

*Instructional Focus:* Lab work

*Co-curricular Connection:* SkillsUSA

**TRANSPORTATION CAREERS****Coll Advanced Automotive I**

[STEP only]

*Prerequisite/Selection Process:* Automotive Technology I and a GPA of 2.5

*Intended Audience:* Students in grades 11 and 12 who desire future Automotive

Service Excellence certification [ASE] and college credit

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- General auto service
- Brakes

*Projects, Activities, etc.:* Advanced brakes diagnostics, maintenance, and repair

*Instructional Focus:* Active participation

*Co-curricular Connection:* SkillsUSA

**Coll Advanced Automotive II**

[STEP only]

*Prerequisite/Selection Process:* Advanced Automotive I and a GPA of 2.5

*Intended Audience:* Students in grades 11 and 12 who desire future Automotive

Service Excellence certification [ASE] and college credit

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- General auto service
- Suspension and steering systems

*Projects, Activities, etc.:* Advanced suspension diagnostics, maintenance, and repair

*Instructional Focus:* Active participation

*Co-curricular Connection:* SkillsUSA

**Coll Advanced Automotive III**

[STEP only]

*Prerequisite/Selection Process:* Advanced Automotive II and a GPA of 2.5

*Intended Audience:* Grades 11 and 12

[seeking introductory college credit]

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Computer diagnostics
- Electronics/electrical systems

*Projects, Activities, etc.:* Advanced diagnostics, maintenance, and electrical repair

*Instructional Focus:* Lab and independent work

*Co-curricular Connection:* SkillsUSA

**Coll Advanced Automotive IV**

[STEP only]

*Prerequisite/Selection Process:* Advanced Automotive III and a GPA of 2.5

*Intended Audience:* Grades 11 and 12 [seeking introductory college credit]

*Credit:* One trimester/two periods = 1.0 credit

*Major Outcomes:*

- Diagnosing engine performance
- Advanced scan tool diagnosis

*Projects, Activities, etc.:* Advanced diagnostics, maintenance, and repair

*Instructional Focus:* Service customer vehicles

*Co-curricular Connection:* SkillsUSA

**Advanced Automotive: Summer Internship**

[STEP only]

*Prerequisite/Selection Process:* Advanced Automotive IV

*Intended Audience:* Students in grade 12 who desire future Automotive Service

Excellence [ASE] certification

*Credit:* No Credit

*Major Outcomes:*

- Summer mentorship at a local automotive dealership
- Work side-by-side with a master mechanic on various jobs
- Apply knowledge and skills learned in Advanced Automotive I, II

*Projects, Activities, etc.:* 10-week summer experience between grades 11 and 12

*Instructional Focus:* Real world experience

*Co-curricular Connection:* SkillsUSA

SOCIAL STUDIES		
REQUIRED COURSES	GRADES	PREREQUISITES
Civics 9 or Honors Civics	9	
Geography 9 or AP Human Geography	9	
US History 10 or AP US History	10	Civics or Honors Civics and Geography or AP Human Geography
World History 11 or AP World History	11	US History or AP US History
Economics 12 or Economics 12 Hybrid or AP Microeconomics or Coll Honors Microeconomics	12	World History or AP World History
US Government and Politics 12 or US Government and Politics Hybrid or AP US Government and Politics	12	World History or AP World History
ELECTIVE COURSES	GRADES	PREREQUISITES
<b>Foundational Knowledge and Skills</b>		
Globe Trekker	10, 11, 12	
America Through Multimedia	10, 11, 12	
Modern Global Issues	10, 11, 12	
Multicultural Perspectives	10, 11, 12	
Honors African American History	10, 11, 12	
US History Seminar	10	AP US History
World History Seminar	11	AP World History
US Government & Politics Seminar	12	AP US Government & Politics
<b>Human Services</b>		
Youth Issues	9, 10, 11, 12	
Sociology	11, 12	
Psychology I	11, 12	
Psychology II	11, 12	
AP Psychology	11, 12	
<b>Law, Public Safety, Corrections, and Security</b>		
Criminal Justice	11, 12	

For additional CPHS options in Social Studies, see International Baccalaureate section.

**Civics 9***Intended Audience:* Grade 9*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Provide students with a practical knowledge and understanding of American government
- Connect with the democratic process as citizens of the United States
- Apply knowledge of early founding documents including the US Constitution
- Demonstrate an understanding of how the American system of government functions
- Demonstrate an understanding that US citizens have both rights and responsibilities in order for government to maintain order in society.
- Understand the election process in the United States
- Differentiate views on the political spectrum

**Honors Civics***Prerequisite/Selection Process:* Middle school social studies grades may be considered*Intended Audience:* Grade 9*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Purpose and principles of government
- Creation of U.S. government institutions and processes
- Rights and responsibilities of citizens
- Principles of the U.S. Constitution

*Instructional Focus:* This honors course requires students to apply higher-order thinking and communication skills, study primary source documents and complete independent and/or group research projects**Geography 9***Intended Audience:* Grade 9*Credit:* One Trimester = 0.5 credits*Major Outcomes:*

- Review locations of physical features, climatic regions and cultural icons
- Practice reading maps and charts.
- Types of maps, when to use and how to analyze
- Effects of migration and population countries and cultures
- Types of boundaries and governments
- Global climate changes
- Human effects on the environment

*Projects, Activities, etc.:* Creating Maps, develop the where the next should be located [e.g. determine where the next supermarket should be located in your city]*Instructional Focus:* Use of maps, charts, Geographic Information Systems, population pyramids**AP Human Geography***[AP exam is in May each year]**Prerequisite/Selection Process:* Previous social studies grades may be considered or recommendation of counselor or teacher*Intended Audience:* Grade 9*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface
- Employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences
- Learn about the methods and tools geographers use in their research and applications
- Interpret maps and analyze geospatial data
- Understand and explain the implications of associations and networks among phenomena in places.
- Recognize and interpret the relationships among patterns and processes at different scales of analysis.
- Define regions and evaluate the regionalization process.
- Characterize and analyze changing interconnections among places.
- Approach the AP exam with confidence.

*Instructional Focus:* College-level concepts through small and large group lecture and activities; college text is used.

College credit may be earned based on AP test score and institution.

**US History 10***[AP exam is in May each year]**Prerequisite/Selection Process:*

Civics or Honors Civics and Geography

*Intended Audience:* Grade 10*Credit:* Two Trimesters = 1.0 credit*Major Outcomes:*

- Study of major events in U.S. history [emphasis on 19th and 20th centuries]
- Awareness of the experiences of ordinary women, men, and children as well as those of our leaders
- Study of diverse peoples who created the American story

**AP US History***Prerequisite/Selection Process:* Civics or Honors Civics and Geography*Intended Audience:* Grades 10, 11, and 12*Credit:* Two trimesters = 1.0 credit*Prerequisite/Selection Process:* Previous social studies grades may be considered or recommendation of counselor or teacher*Major Outcomes:*

- Students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present.

- Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments.
- The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society.

- Approach the AP exam with confidence.

*Instructional Focus:* College-level concepts through small and large group lecture and activities; college text is used.

College credit may be earned based on AP test score and institution.

**US History Seminar***Prerequisite/Selection Process:* AP US History*Intended Audience:* Grades 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- The study of major events in U.S. history
- Knowledge necessary to analyze problems, concepts and primary documents in U.S. History

*Instructional Focus:* Preparation to take National Advanced Placement exam**World History 11***Prerequisite/Selection Process:* US History or AP US History*Intended Audience:* Grade 11*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Study of significant events, people, issues, and perspectives from Africa, Asia, Europe, Latin America, and the Middle East
- A balance of cultural, economic, geographic, political, and social history are presented
- Gain an appreciation and understanding of diverse perspectives

**AP World History***[AP exam is in May each year]**Prerequisites/Selection Process:*

US History or AP US History Previous social studies grades may be considered or recommendation of counselor or teacher

*Intended Audience:* Grades 11 and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Interaction Between Humans and the Environment
- Development and Interaction of Cultures
- State-Building, Expansion, and Conflict
- Creation, Expansion, and Interaction of Economic Systems
- Development and Transformation of Social Structures
- Approach the AP exam with confidence.

**Instructional Focus:**

- Crafting Historical Arguments from Historical Evidence, Chronological Reasoning, Comparison and Contextualization, Historical Interpretation and Synthesis.
- College-level concepts through small and large group lecture and activities; college text is used.
- College credit may be earned based on AP test score and institution.

**World History Seminar**

*Prerequisite/Selection Process:* AP World History

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Interaction Between Humans, the Environment, and the development of Cultures
- Preparation for AP Exam

*Instructional Focus:* Crafting historical arguments from historical evidence

**Economics 12**

*Prerequisite/Selection Process:* World History or AP World History

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Concept of scarcity and its impact on choices of individuals, organizations, businesses, and government
- Market structures
- Supply and demand
- Personal Finance
- Macroeconomics
- Global Economy

*Projects, Activities, etc.:* Investigation of public issues, identification of problems and proposed solutions

**Economics 12 Hybrid**

*Prerequisite/Selection Process:* World History or AP World History

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Concept of scarcity and its impact on choices of individuals, organizations, businesses, and government
- Market structures
- Supply and demand
- Personal Finance
- Macroeconomics
- Global Economy

*Projects, Activities, etc.:*

- Investigation of public issues
- Identification of problems and proposed solutions

**AP Microeconomics**

[AP exam is in May each year]

*Prerequisite/Selection Process:* World History or AP World History. Previous social studies grades may be considered or recommendation of counselor or teacher; College credit may be awarded at the discretion of the post-secondary institution

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Fundamental economic concepts
- Supply and demand
- Market structures
- Role of the government
- Factor markets
- Application of economic principles
- Approach the AP exam with confidence.

**Instructional Focus:**

- College-level concepts through small and large group lecture and activities; college text is used.
- College credit may be earned based on AP test score and institution.

**Coll Honors Microeconomics**

*Prerequisite/Selection Process:* Students must be seniors and meet at least one of the following qualifications, B or better in rigorous high school Advanced Algebra / HS Algebra II, OR Cumulative GPA of 3.25 or higher, OR in the top 20% of their class, OR have teacher and faculty coordinator approval. College credit can be awarded at the discretion of the post-secondary institution.

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Fundamental economic concepts
- Supply and demand
- Market structures
- Role of the government
- Factor markets
- Application of economic principles

**US Government and Politics 12**

*Prerequisite/Selection Process:*

World History or AP World History

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Examines the political system of the American government
- Focuses on the political processes of local, state, and national government, the three branches of government, as well as applying Constitutional principles to the American legal system
- Learn how to be active citizens
- Debate and analyze public policy issues, including foreign policy
- Understand how the Legislative, Executive and Judicial branches work together
- Understand the importance of the American Legal system including criminal, civil and constitutional law
- Analyze public policy issues including foreign policy
- Investigate state and local government and politics
- Analyze primary sources and court cases to understand the role of government during major periods of social and political change

*Instructional Focus:* State/Local Public Issue Project [5 Youth Service Hours], Constitutional Law Project

**US Government and Politics 12 Hybrid**

*Prerequisite/Selection Process:* World History or AP World History

*Intended Audience:* Grade 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Examines the political system of the American government
- Focuses on the political processes of local, state, and national government, the three branches of government, as well as applying Constitutional principles to the American legal system
- Learn how to be active citizens
- Debate and analyze public policy issues, including foreign policy
- Understand how the Legislative, Executive and Judicial branches work together
- Understand the importance of the American Legal system including criminal, civil and constitutional law
- Analyze public policy issues including foreign policy
- Investigate state and local government and politics
- Analyze primary sources and court cases to understand the role of government during major periods of social and political change

*Instructional Focus:* State/Local Public Issue Project [5 Youth Service Hours], Constitutional Law Project

**AP US Government and Politics**

[AP exam is in May each year]

*Prerequisites/Selection Process:* World History or AP World History; previous social studies grades may be considered or recommendation of counselor or teacher

*Intended Audience:* Grades 11 and 12

*Credit:* One trimester required = 0.5 credit Optional Trimester = 0.5 credit Non-Honors Credit

**Major Outcomes:**

- Concepts of political science
  - Analysis of topics such as the U.S. Constitution, political beliefs and behavior, interest groups, mass media, institutions of government, public policy, civil rights and civil liberties
  - Approach the AP exam with confidence.
- Instructional Focus:*
- Examination of Federalist Papers, Research and presentation of public policy topic
  - College-level concepts through small and large group lecture and activities; college text is used.
  - College credit may be earned based on AP test score and institution.

**US Government and Politics Seminar***Prerequisite/Selection Process:*

AP Government and Politics

*Intended Audience:* Grade 12*Credit:* One trimester = 0.5 credit*Major Outcomes:* Analysis of topics such as the U.S. Constitution, political beliefs and behavior, interest groups, mass media, institutions of government, public policy, civil rights and civil liberties*Instructional Focus:* Preparation to take National Advanced Placement exam**FOUNDATIONAL KNOWLEDGE AND SKILLS****Globe Trekker***Intended Audience:* Grades 10, 11, 12*Credit:* One trimester = 0.5 credits*Major Outcomes:*

- Exploring the world around us
- Dispel common misconceptions of other regions of the world
- Create project of experiences with, pictures, letters, postcards, etc.
- Research: History, landmarks, language, traditions, religions, food, etiquette, architecture, art, transportation
- Focus on regions of the world that is different/more in depth from other courses

*Instructional Focus:* Research, discussion, projects, activities, etc**America Through Multimedia***Intended Audience:* Grades 10, 11, 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Learn the origins and evolution of various types of popular media including: radio, film, social media, and video games
- Understand how history has shaped multimedia and how major forms of media have impacted history and culture

*Instructional Focus:* Class discussions, projects, journaling and film analysis.**Modern Global Issues***Intended Audience:* Grades 10, 11, 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Students will understand the world from a variety of perspectives
- Should all people have access to the same basic rights?
- Analyze global human rights such as sex trafficking, child labor, access to clean water, and food security
- Understand the history and modern relevance of global and domestic terrorism and extremism
- Investigate the impact of the changing global environment
- Debate privacy rights in the face of foreign and domestic spying and cyber security
- Global response to outbreaks of disease and natural disasters

*Instructional Focus:* Instruction is presented in a variety of ways: class discussion, individual research, student driven presentations, small and large group activities, simulations, and the use of technology and geographical tools.**Multicultural Perspectives***Intended Audience:* Grades 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Students will analyze how the concepts of Power and Privilege impact how we each experience the world differently and will be evaluated through a multicultural lens in the following areas of study: Race, Gender, Ethnicity, LGBTQ, Disability
- Students will gain exposure to the cultural richness of the Greater Twin Cities Area
- Research how groups have maintained their culture while becoming part of the Minnesota tradition. Examples of groups include: Southeast Asian [Hmong, Vietnamese, etc.], Scandinavian [Norwegian, Swedish, etc.], African [Liberian, Somali, etc.], Latino, Soviet Bloc, and others.

*Instructional Focus:* Discussion - Socratic Seminar, Sociological Observation, Research Papers, Group Presentations**Honors African-American History***Intended Audience:* Grades 10, 11, 12*Credit:* One trimester = 0.5 credit

The African American History course is designed to develop an understanding of the causes, character, and consequences of the African-American experience and its influence on the world, the United States, and the African-American community. Beginning with a historical, geographical, social, political, economic, and cultural understanding from the African continent, the course will provide a descriptive and corrective overview, introducing the student to the study of both the African and African-American experiences.

*Major Outcomes:*

- Study of major events in U.S. History from the perspective of African Americans
- Study of diverse peoples who created the American story

*Instructional Focus:* Journaling, class discussions, projects, lecture, book/article reading, and various other forms of media.**HUMAN SERVICES****Youth Issues***Intended Audience:* Grades 9, 10, 11, and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Effective communication skills in personal, family, and social situations
- Analysis of issues which affect youth

*Instructional Focus:* Discussion**Sociology***Intended Audience:* Grades 11 and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Sociological Perspectives-Introduction to Sociology [contributors, key concepts], research
- Culture/Social Structure-culture, socialization, groups/status, and deviance
- Social Inequality-racial/ethnic, and gender discrimination
- Social Institutions-family: marriage, divorce, domestic violence, sports, religion, or education.

*Instructional Focus:* Discussion, lecture, group activities, simulations, and research**Psychology I***Intended Audience:* Grades 11 and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- History of psychology
- Scientific method
- Brain structure and function
- Impact of genetics and environment or personality
- Mental disorders and treatment

*Instructional Focus:* Discussion, lecture, group activities, experiments, observations, fields and methods of psychology**Psychology II***Intended Audience:* Grades 11 and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Sensation and perception
- Motivation and emotion
- State of consciousness
- Development — child through adulthood
- Gender
- Intelligence
- Social psychology

*Instructional Focus:* Discussion, lecture, group activities, experiments, observations and fields and methods of psychology**AP Psychology***Intended Audience:* Grades 11 and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Research methods
- Exploration of self and relationships
- Impact of genetics and environment on personality
- Theories of learning and memory

*Instructional Focus:* This course is equivalent to an introductory college [psychology] course.**LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY****Criminal Justice***Intended Audience:* Grades 11 and 12*Credit:* One trimester = 0.5 credit*Major Outcomes:*

- Knowledge of crime, criminals and victims, role of police, and court systems and corrections
- Instructional Focus:* Class activities and guest speakers

TECHNOLOGY EDUCATION		
ELECTIVE COURSES	GRADES	PREREQUISITES
<b>Arts, Audio/Video Technology, and Communications</b>		
Digital Photography I	9, 10, 11, 12	
Digital Photography II	9, 10, 11, 12	Digital Photography I
Digital Videography I	9, 10, 11, 12	
Graphic Design I	9, 10, 11, 12	
Graphic Design II	9, 10, 11, 12	Graphic Design I
Graphic Design III	9, 10, 11, 12	Graphic Design II
Photography [AP Studio Art: 2-D Design]	11, 12	Digital Photography I and Digital Photography II, or teacher recommendation
<b>Transportation, Distribution, and Logistics</b>		
Outdoor Power Equipment	9, 10, 11, 12	
Power Sports Engines	9, 10, 11, 12	Outdoor Power Equipment
Automotive Technology I	10, 11, 12	Outdoor Power Equipment
Automotive Technology II	10, 11, 12	Automotive Technology I
Automotive Technology III	10, 11, 12	Automotive Technology II
<b>Architecture and Construction</b>		
Architectural Drafting and Design	9, 10, 11, 12	
Cabinetry I	9, 10, 11, 12	
Cabinetry II	9, 10, 11, 12	Cabinetry I
Cabinetry III	9, 10, 11, 12	Cabinetry II
Honors Design & Fabrication I	9, 10, 11, 12	
Honors Design & Fabrication II	9, 10, 11	Design and Fabrication I
Exploring Construction	9, 10, 11, 12	
Architectural Design [AP Studio Art: 3-D Design]	11, 12	CAD III or Application and/or interview
<b>Manufacturing</b>		
Design & Fabrication	9, 10, 11, 12	
Introduction to Welding and Manufacturing [Not available at AndHS]	9, 10, 11, 12	
Welding and Manufacturing [Not available at AndHS]	9, 10, 11, 12	Metal Technology I or Introduction to Welding and Manufacturing[AHS, BHS, CPHS, CRHS only]
Honors Trade and Industrial Internship Program	12	Related technology subjects are recommended; application during grade 11

## ARTS, AUDIO/VIDEO TECHNOLOGY, AND COMMUNICATIONS

### Digital Photography I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Course work will focus on the basics of photographic composition, lighting, camera positioning, workflow digital photography, and digital manipulation.
- Introduction to Adobe Photoshop CC and Adobe Bridge. Software will be integrated with apps available for mobile, devices including, but not limited to: Instagram, Adobe PS Express, etc.
- Images will be taken with, and technical training will be provided for; DSLR, Digital Cameras, Smartphones, and tablets.

*Instructional Focus:* Taking photographs in various settings on campus, in and out of the lab, and off campus either as a work assignment or field trip.

### Digital Photography II

*Prerequisite/Selection Process:* Digital Photography I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Course work will focus on advanced site selection, lighting, camera positioning, and all aspects of a creative photo shoot.
- Mastery in linking workflow photography to final shot manipulation/enhancement using both computer and mobile software utilizing the most current versions of Adobe Creative Cloud (Photoshop, Lightroom, and Bridge).
- Emphasis will be placed on creativity, using advanced DSLR Cameras and Smartphones, and printing on various types of media, plus matting of photographs.

*Instructional Focus:* Lab work, photo-shoots, both on and off campus, field-trips.

### Digital Videography I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Course work will focus on the basics of Digital Videography, Pre-Production, Production, and Post Production Editing as it applies to the Videography field in both freelance and industry settings.
- Introduction to Adobe™ Premiere Pro CC and Adobe™ After Effects (industry standard software).
- Images will be taken with, and technical training will be provided for; DSLR and Video Cameras, GoPros, and smartphones (Apple and Android).

*Instructional Focus:* Shooting videos in various settings on campus, in and out of the lab, and off campus either as a work assignment or field trip.

### Graphic Design I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Course work will focus on the basics of design composition, use of software to create digital copies of design and application of designs to items (substrate).
- Introduction to Adobe Illustrator, Adobe Photoshop, and presentation style software such as google slides for presenting creative ideas to an audience.
- Students will study designs that exist in industry and use ideas gained from this study to create their own unique and independent designs.

*Projects, Activities, etc.:* Using equipment that relates to design application to a substrate such as; Screen Printing, Vinyl printing and Cutting, Laser Engraving, Dye Sublimating, Hydro Printing, and Direct to image printing.

*Instructional Focus:* Introduction to the graphics industry with an emphasis on computers, lab work and mathematics and technical reading as it relates to the graphics industry

### Graphic Design II

*Prerequisite/Selection Process:* Graphic Design I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:* More independent use of

- Course work will emphasize advanced printing techniques, an elevated understanding of design composition, concentration on finished career-based design projects, more independent use of the Adobe Creative Suite CC software, and all aspects of Graphic Design.
- Mastery in linking workflow printing and graphic design to career/industry-based Graphic Design.
- An understanding of previous and current printing techniques including: wide-body large format printing, Direct to image transfer printing, screen printing, dedicated photo printing, UV-LED inkjet print & cut printing, Dye Sublimation, laser engraving, hydro-dipping, & packaging design.

*Projects, Activities, etc.:* Lab work, computer-based software technologies, both on and off campus, field-trips

*Instructional Focus:* Introduction to the Graphics industry with an emphasis on computer technologies, Lab work, and understanding of the printing and design industry.

### Graphic Design III

*Prerequisite/Selection Process:* Graphic Design II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:* More independent use of

- Adobe Creative Suites software
- Students will create printing company and produce orders.
- Screen and offset printing processes in
- Multiple color designs

*Projects, Activities, etc.:* Creation of a manufacturing company with their own logo, screen-printing activities [shirts, hoodies, mirrors], and offset printing activities [memo pads]

*Instructional Focus:* Introduction to the manufacturing of printing processes, with an emphasis on computers, lab work, and mathematics as it relates to the graphics industry.

### Photography [AP Studio Art: 2-D Design]

*Prerequisite/Selection Process:* Digital Photography I and Digital Photography II, or teacher recommendation.

*Intended Audience:* Grades 11 and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Photography Composition: Focus of the creative side of an image. Work with unique canvas sizes, i.e., square, panoramic, circular, etc.
- Camera Technology: In-depth on the use of RAW photography. Best practice with mass storage devices.
- Site Selection: Preparing for a photo-shoot [both indoor and outdoor]
- Lighting: Setup studio for photo shoot. Use of light meter to determine correct exposure for an outdoor photo shoot.
- Manipulative software: In-depth. Master the creative techniques photographers use to take an image from just o.k. to really amazing.

*Projects, Activities, etc.:* Create a Photographic Portfolio of 15-20 unique photographs utilizing various camera, lighting techniques, and software manipulation.

Portfolio [due early May] will be eligible for submission to the College Board for credit.

*Instructional Focus:* Closely aligned to the requirements of a post-secondary Introductory Digital Photography Course. Project based Portfolio. Work will receive a separate grade from the teacher in addition to a rating from the College Board.

## TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

### Outdoor Power Equipment

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Maintenance and repair of four-stroke small gas engines like those on lawn mowers and snow blowers
- Principles of engine operation with related mathematical principals

*Projects, Activities, etc.:* Disassemble, overhaul, and reassemble a small engine [engine will be provided for students]

*Instructional Focus:* Lab work and classroom study

**Power Sports Engines**

*Prerequisite/Selection Process:* Small Gas Engines II or Outdoor Power Equipment

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Maintenance and repair of internal combustion engines like those on scooters, motorcycles, snowmobiles and boats
- Principles of engine operation with related mathematical principles

*Projects, Activities, etc.:* Disassemble, overhaul, and reassemble larger two- and four-stroke engines.

*Instructional Focus:* Lab work

**Automotive Technology I**

*Prerequisite/Selection Process:* Outdoor Power Equipment

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Theory of operation
- Servicing of automotive engines and related systems
- Prerequisite to Technical Systems in Automotive Technology II

*Instructional Focus:* Theory of operation and related mathematics through hands-on activities

**Automotive Technology II**

*Prerequisite/Selection Process:* Automotive Technology I

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Theory of operation
- Brake service
- Driveline service
- Suspension service

*Projects, Activities, etc.:* Work on personal vehicle as time and space allow

*Instructional Focus:* Theory of operation and related mathematics through hands-on activities

**Automotive Technology III**

*Prerequisite/Selection Process:* Automotive Technology II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Electrical systems
- Automotive computers
- Brakes – A.B.S.

*Projects, Activities, etc.:* Work on personal vehicle as time and space allow

*Instructional Focus:* Theory of operation and related mathematics through hands-on activities

**ARCHITECTURE AND CONSTRUCTION****Architectural Drafting and Design**

*Intended Audience:* Grades 9, 10, 11 and 12

*Credit:* One Trimester = 0.5 credit

**Major Outcomes:**

- Construction/cabinetry terminology
- CAD software applications
- Codes and design constraints
- Introduction to blueprint reading
- Construction/cabinetry measurement systems
- House design
  - 3D Residential design
  - 2D Floor plans
- Basic cabinetry design
- Exploration of architectural careers

*Projects, Activities, etc.:* This course will focus on using computer-aided drafting (CAD) software to design various aspects of residential structures and cabinets.

*Instructional focus:* Computer lab-based; students will use industrial level software to produce construction and cabinetry designs.

**Cabinetry I**

*Intended Audience:* Grades 9, 10, 11 and 12

*Credit:* One Trimester = 0.5 credit

**Major Outcomes:**

- Knowledge and safe use of tools and equipment
- Basic processes in construction of cabinets
- Cabinet materials and applications
- Finishing materials and procedures
- Exploration of construction/manufacturing careers

*Projects, Activities, etc.:* Construction of basic cabinet details.

*Instructional focus:* Laboratory-based; focused on safety, integration of math, science and workplace skills.

**Cabinetry II**

*Prerequisite/Selection Process:* Cabinetry I

*Intended Audience:* Grades 9, 10, 11 and 12

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Frame and panel construction
- Drawer construction
- Joinery
- Abrasives and hardware
- Exploration of construction/manufacturing careers

*Projects, Activities, etc.:* Students will follow a plan/blueprint and construct a cabinet.

*Instructional focus:* Laboratory-based; instructor-designed product. Focused on safety, integration of math, science and workplace skills.

**Cabinetry III**

*Prerequisite/Selection Process:* Cabinetry II

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 Credit

**Major Outcomes:**

- Integration of all cabinetry aspects
- Exploration of construction/manufacturing careers

*Projects, Activities, Etc.:* This is the culmination or capstone of the cabinetry course series. Students will personally design and construct a product that integrates all of the aspects from the first two courses.

*Instructional Focus:* Laboratory-based; Individualized design and product. Focused on safety, integration of math, science and workplace skills.

**Honors Design & Fabrication I**

*Intended Audience:* The Design and Fabrication course will be the first course all Tech Ed CTE students will participate in. As such, it has no prerequisite.

*Credit:* One trimester = 0.5 credit

**Major Outcomes:**

- Students will be able to demonstrate basic engineering design skills using CAD software.
- Students will demonstrate understanding of the four career pathways and explore one pathway in depth by designing and fabricating a product in that pathway.
- Students will demonstrate understanding of the materials (properties and selection) and processes used in product fabrication.
- Students will demonstrate the ability to correctly program/code CNC and 3D printing equipment.
- Students will demonstrate the safety attitudes and procedures required in the use of fabrication materials and equipment.
- Students will experience and be able to articulate the critical attributes of manufacturing careers needed to be successful in MN businesses and industries.

**Instructional Focus:**

- This course will focus instruction on students developing and then applying their knowledge and skills in the design and fabrication of a product. Students will be allowed to choose the career pathway of focus.
- Students will also be expected to integrate STEM and other content knowledge into their product design and fabrication.

- This is an “application-based course” with students demonstrating real-world application of knowledge and skills in the use of high-tech cutting-edge equipment, software and materials.

*Co-curricular Connection:* Skills USA

### Honors Design & Fabrication II

*Intended Audience:* All interested students in Grades 9, 10 and 11 (or any first time Tech Ed upper class student since this course hasn't previously been available).

*Prerequisite/Selection Process:* Design and Fabrication I

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Students will be able to demonstrate engineering design skills using CAD software.
- Students will demonstrate understanding of the four career pathways and explore one pathway in depth by designing and fabricating a product in that pathway. As the second course in the sequence, the products in this course will allow for greater complexity and personalization in focus.
- Students will demonstrate understanding of the materials (properties and selection) and processes used in product fabrication.
- Students will demonstrate the ability to correctly program/code CNC and 3D printing equipment.
- Students will demonstrate the safety attitudes and procedures required in the use of fabrication materials and equipment.
- Students will experience and be able to articulate the critical attributes of manufacturing careers needed to be successful in MN businesses and industries.

*Instructional Focus:*

- This course will focus instruction on advancing students' knowledge and skills in the design and fabrication of products. Students will be allowed to choose the career pathway of focus.
- Students will also be expected to integrate STEM and other content knowledge into their product design and fabrication.
- This is an “application-based course” with students demonstrating real-world application of knowledge and skills in the use of high-tech cutting-edge equipment, software and materials.

*Co-curricular Connection:* Skills USA

### Exploring Construction

*Intended Audience:* Grades 9, 10, 11 and 12

*Credit:* One Trimester = 0.5 credit

*Major Outcomes:*

- Jobsite Safety

- Foundation/masonry
- Residential Framing
- Roofing
- Basic Electrical
- Basic Plumbing
- Insulating
- Introduction to drywall installation
- Introduction to interior finishing/trim work.
- Introduction to exterior finishing
- Exploration of construction careers

*Projects, Activities, etc.:* This course is offered at the high school and teams of students will build storage sheds. Following completion of this course, additional in-depth construction courses may be taken at STEP, where a house is built.

*Instructional focus:* Laboratory-based; focused on safety, integration of math, science and workplace skills.

### Architectural Design [AP Studio Art: 3-D Design]

*Prerequisite/Selection Process:* CAD III or application and/or interview

*Intended Audience:* Grades 11 and 12

*Credit:* Two trimesters [CAD III and AP Architectural Design: 3-D Design] = 1.0 credit

*Major Outcomes:*

- Exploration of Architecture at the college-level
- Completion of a comprehensive portfolio made up of Breadth, Concentration, and Quality sections that involve various media and subject matter created as 3-Dimensional works of Architectural Design.
- Portfolio [exam] submitted to College Board for review in May: desirable.

*Projects, Activities, etc.:* Architectural-based portfolio of 10-12 pieces of Architectural Focused 3-D design Principles. Comparable to a College course in Architectural Design and Modeling.

*Instructional Focus:* Individualized Projects. Students are expected to be able to work independently as an adult member of the class. Course work will receive a separate grade from the teacher in addition to a rating from the College Board.

## MANUFACTURING

### Introduction to Welding & Manufacturing

[AHS, BHS, CPHS, CRHS only]

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Oxy-Acetylene Welding [OAW]
- Sheet Metal / Bench Metal
- GMAW / SMAW Welding

- Foundry
- Plasma Cutting

*Projects, Activities, etc.:* Welding skills, welding techniques, project based sheet metal and foundry, design and complete project using metal forming tools and welding.

*Instructional Focus:* Introduction to the metal fabrication industry with emphasis on metal forming, precision, mathematics, and joining techniques through lab work.

### Welding & Manufacturing

[AHS, BHS, CPHS, CRHS only]

*Prerequisite/Selection Process:*

Metal Technology I or Intro to Welding & Manufacturing

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Advanced Welding Techniques in OAW, GMAW, and SMAW
- TIG welding Mild Steel
- Flame Cutting
- Lathe Operation

*Projects, Activities, etc.:* Design and make projects

*Instructional Focus:* In depth look at the metal fabrication industry with emphasis on precision, metal forming, mathematics, and joining techniques through lab work.

### Honors Trade and Industrial Internship Program

*Prerequisite/Selection Process:* Related technology subjects are recommended; application during grade 11

*Intended Audience:* Grade 12

*Credit:* Up to three credits available [0.5 credit per trimester for seminar, 0.5 credit per trimester for work]; students may enroll for up to three trimesters which is preferred by employers/internship sites

*Major Outcomes:*

- General employment skills
- On-the-job success could include, but is not limited to, employment in careers such as auto mechanics, graphics, electrical, drafting, cabinetry, machine operations, metal fabrication, construction, or welding

*Projects, Activities, etc.:* Community service, leadership opportunities and skills competition

*Instructional Focus:* The seminar portion focuses on work-related topics and school sponsored work sites provide for early release and graduation credit

*Co-curricular Connection:* SkillsUSA

# WORLD LANGUAGES

REQUIRED COURSES	GRADES	PREREQUISITES
American Sign Language I	9, 10, 11, 12	
American Sign Language II	9, 10, 11, 12	American Sign Language I
Honors American Sign Language III	10, 11, 12	American Sign Language II
Honors American Sign Language IV [AndHS and BHS only]	11, 12	American Sign Language III
French I	9, 10, 11, 12	
French II	9, 10, 11, 12	French I
Honors French III	10, 11, 12	French II
Honors French IV	11, 12	Honors French III
Coll Honors College French IV [BHS, CRHS only]	11, 12	Honors French III
AP French V [AndHS, AHS, BHS, CRHS only]	11, 12	Honors French IV
German I	9, 10, 11, 12	
German II	9, 10, 11, 12	German I
Honors German III	10, 11, 12	German II
Honors German IV	11, 12	Honors German III
AP German V [AndHS, AHS, BHS, CRHS only]	11, 12	Honors German IV
Spanish I	9, 10, 11, 12	
Spanish II	9, 10, 11, 12	Spanish I
Honors Spanish III	10, 11, 12	Spanish II
Honors Hispanic Studies I		Honors Spanish III
Honors Hispanic Studies II		Honors Spanish III
Honors Spanish IV	11, 12	Honors Spanish III
AP Spanish V [AndHS, AHS, BHS, CRHS only]	11, 12	Honors Spanish IV
Medical Spanish	10, 11, 12	Spanish II

Do you have high functional ability in both English and another language? Read about how you could qualify to earn the Minnesota Bilingual/Multilingual Seal and possibly college credit. See page 17 in the "Earn College Credit in High School" section. For additional CPHS options in World Language, see International Baccalaureate section.

## American Sign Language I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Common communicative events and interactions are utilized to acquire a basic working vocabulary and grammar.
- Includes development of appropriate linguistic/cultural behaviors and awareness of respect for deaf culture.

*Projects, Activities, etc.:* Individual, small and large group communication activities

*Instructional Focus:* Skill building in receptive and expressive sign related to everyday situations that might occur when conversing using ASL

## American Sign Language II

*Prerequisite/Selection Process:* American Sign Language I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Common communicative events and interactions are utilized to acquire more abstract vocabulary and grammar.
- Greater understanding of deaf culture and deaf history

*Projects, Activities, etc.:* Role-playing and presentations to enhance communication skills

*Instructional Focus:* Greater expectation of communication skills through implementation of learned skills into novel language expressions, increased receptive language skills

## Honors American Sign Language III

*Prerequisite/Selection Process:* American Sign Language II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Develops vocabulary, conversational competence, and grammatical knowledge with a total immersion approach
- Introduces increasingly complex grammatical aspects including those unique to ASL
- Discusses Deaf culture, literature, sociolinguistics aspects, and history
- Respond with confidence to routine social situations
- Narration, description, and elaboration of topics related to background, family, and interests/hobbies

*Projects, Activities, etc.:* Role-playing and presentations to enhance communication skills

*Instructional Focus:* Greater expectation of communication skills through implementation of learned skills into novel language expressions, enhanced receptive, and expressive language skills

**Honors American Sign Language IV**

[AndHS and BHS only]

*Prerequisite/Selection Process:* Honors American Sign Language II*Intended Audience:* Grades 11 and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Accurately sign acquired vocabulary using the five parameters of American Sign Language
- Explain continuity in a conversation both expressively and receptively
- Comprehend and respond with complex grammatical accuracy to expressive American Sign Language and demonstrate cultural awareness locally and globally
- Examine simple patterns of behavior, gestures, and social courtesies in a variety of informal and formal social situations
- Interpret and explain the cultural relevance or historical context of traditions and celebrations
- Use American Sign Language for fun, to express humor, and for personal enjoyment
- This course, with a higher level of learning, will help to better prepare students who wish to test for the Bilingual/Multilingual Seal.

*Projects, Activities, etc.:* Debate and exchange information and opinions on topics of students' choosing. Demonstrate mastery expressing prepared presentations (at least 5 to 15 minutes) (e.g., holidays, nationalities, things, and events using appropriate sign selection and syntactically correct phrases).

*Instructional Focus:* Greater expectation of communication skills through implementation of learned skills into novel language expressions, enhanced receptive, and expressive language skills.

**French I***Intended Audience:* Grades 9, 10, 11, and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Communicate about everyday topics
- Learn basic sentence structure
- Gain cultural awareness of French-speaking countries

*Projects, Activities, etc.:* Individual, small and large group interactive learning activities that will get students communicating in French about their everyday lives at home and in the community.

*Instructional Focus:* Students will learn to communicate about self, friends, family and daily life in French. Skill building in speaking, listening, reading and writing.

**French II***Prerequisite/Selection Process:* French I*Intended Audience:* Grades 9, 10, 11, and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Increasing ability to communicate and comprehend spoken and written French
- Addition of past tense
- Cultural awareness of French-speaking countries

*Projects, Activities, etc.:* Individual, small and large group communicative activities which may include: posters, dialogues, skits, food, city, house, and travel

*Instructional Focus:* Skill building in speaking, listening, reading and writing with emphasis on verb tense control

**Honors French III***Prerequisite/Selection Process:* French II*Intended Audience:* Grades 10, 11, and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Immersive language experience
- Ability to communicate in various time frames and contexts
- Production of compound and complex ideas
- Expansion of Cultural Competence

*Projects, Activities, etc.:* Oral presentations, role playing, composition, and readings on topics which may include: body parts, daily routines, clothing, and animals

*Instructional Focus:* Greater expectation of language use, implementing skills in class activities, building on prior knowledge

**Honors French IV***Prerequisite/Selection Process:* Honors French III*Intended Audience:* Grades 11 and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Commitment to language use and interest in culture
- Language study with an increased use of authentic materials
- Oral and written emphasis

*Projects, Activities, etc.:* Research, presentation, student led communicative activities on topics which may include: travel, restaurants, hotels, news media, art, history, literature, and music

*Instructional Focus:* Proficiency-based study of vocabulary, grammar and culture using a variety of media

**Coll Honors College French IV**

[BHS, CRHS only, concurrent enrollment with St. Cloud State University]

*Prerequisite/Selection Process:* Grade 11 students [GPA in the top 33% of class] and Grade 12 students [GPA in the top 50% of class]; Honors French III.

*Intended Audience:* Grades 11 and 12*Credit:* Two trimesters = 1.0 credit [successful completion can earn 4 college credits]*Major Outcomes:*

- Immersive language experience
- Ability to communicate in various time frames and contexts
- Production of compound and complex ideas
- Expansion of Cultural Competence

*Projects, Activities, etc.:* Research, presentation, student led communicative activities on topics which may include: travel, restaurants, hotels, news media, art, history, literature and music

*Instructional Focus:* Proficiency based study of vocabulary, grammar and culture using a variety of media

**AP French V**

[AndHS, AHS, BHS, CRHS only]

[IB French V SL available at CPHS. See IB section.]

[AP exam is in May each year]

*Prerequisite/Selection Process:* Honors French IV or placement exam*Intended Audience:* Grades 11 and 12*Credit:* Two trimesters = 1.0 credit*Major Outcomes:*

- Exclusive use of the French language
- Preparation for placement into intermediate-level college courses
- Exploration of the French-speaking world via Advanced Placement Themes: global challenges, science and technology, contemporary life, personal and public identities, families and communities, beauty and aesthetics
- AP test at completion of the course offered, not required
- Cultural awareness
- Approach the AP exam with confidence

*Projects, Activities, etc.:* Instructional content will reflect interests shared by the students and the teacher [the arts, current events, literature, sports, and so forth]. In addition to standard textbooks and anthologies, materials might include audio and visual materials, newspapers, magazines, and contemporary literature.

*Instructional Focus:* The course seeks to develop language skills that are useful in themselves and that can be applied to various activities and disciplines. Extensive practice in the organization and writing of compositions is emphasized.

**German I**

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Communicate about everyday topics
- Learn basic sentence structure
- Gain cultural awareness of German-speaking countries

*Projects, Activities, etc.:* Individual, small and large group interactive learning activities that will get students communicating in German about their everyday lives at home and in the community.

*Instructional Focus:* Students will learn to communicate about self, friends, family and daily life in German. Skill building in speaking, listening, reading, and writing.

**German II**

*Prerequisite/Selection Process:* German I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Increasing ability to communicate and comprehend spoken and written German
- Addition of past tense
- Cultural awareness of German-speaking countries

*Projects, Activities, etc.:* Individual, small and large group communicative activities which may include: posters, dialogues, skits, food, city, house, and travel

*Instructional Focus:* Skill building in speaking, listening, reading, and writing with emphasis on verb tense control

**Honors German III**

*Prerequisite/Selection Process:* German II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Immersive language experience
- Ability to communicate in various time frames and contexts
- Production of compound and complex ideas
- Expansion of Cultural Competence

*Projects, Activities, etc.:* Oral presentations, role playing, composition and readings on topics which may include: body parts, daily routines, clothing, and animals

*Instructional Focus:* Greater expectation of language use, implementing skills in class activities, building on prior knowledge

**Honors German IV**

*Prerequisite/Selection Process:* Honors German III

*Intended Audience:* Grades 11 and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Commitment to language use and interest in culture
- Language study with an increased use of authentic materials
- Oral and written emphasis

*Projects, Activities, etc.:* Research, presentation, student led communicative activities on topics which may include: travel, restaurants, hotels, news media, art, history, literature, and music

*Instructional Focus:* Proficiency-based study of vocabulary, grammar and culture using a variety of media

**AP German V**

[AndHS, AHS, BHS, CRHS only]

[IB German V SL available at CPHS.

See IB section.]

[AP exam in is May each year]

*Prerequisite/Selection Process:* Honors German IV or placement exam.

*Intended Audience:* Grades 11 and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Exclusive use of the German language
- Preparation for placement into intermediate-level college courses
- Exploration of the German-speaking world via Advanced Placement Themes: global challenges, science and technology, contemporary life, personal and public identities, families and communities, beauty and aesthetics
- AP test at completion of the course offered, not required
- Cultural awareness
- Approach the AP exam with confidence

*Projects, Activities, etc.:* Instructional content will reflect interests shared by the students and the teacher [the arts, current events, literature, sports, and so forth]. In addition to standard textbooks and anthologies, materials might include audio and visual materials, newspapers, magazines, and contemporary literature.

*Instructional Focus:* The course seeks to develop language skills that are useful in themselves and that can be applied to various activities and disciplines. Extensive practice in the organization and writing of compositions is emphasized.

**Spanish I**

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Communicate about everyday topics
- Learn basic sentence structure
- Gain cultural awareness of Spanish-speaking countries

*Projects, Activities, etc.:* Individual, small and large group interactive learning activities that will get students communicating in Spanish about their everyday lives at home and in the community.

*Instructional Focus:* Students will learn to communicate about self, friends, family and daily life in Spanish. Skill building in speaking, listening, reading and writing.

**Spanish II**

*Prerequisite/Selection Process:* Spanish I

*Intended Audience:* Grades 9, 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Increasing ability to communicate and comprehend spoken and written Spanish
- Addition of past tense
- Cultural awareness of Spanish-speaking countries

*Projects, Activities, etc.:* Individual, small and large group communicative activities which may include: posters, dialogues, skits, food, city, house, and travel

*Instructional Focus:* Skill building in speaking, listening, reading, and writing with emphasis on verb tense control

**Honors Spanish III**

*Prerequisite/Selection Process:* Spanish II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Immersive language experience
- Ability to communicate in various time frames and contexts
- Production of compound and complex ideas
- Expansion of Cultural Competence

*Projects, Activities, etc.:* Oral presentations, role playing, composition and readings on topics which may include: body parts, daily routines, clothing, and animals

*Instructional Focus:* Greater expectation of language use, implementing skills in class activities and building on prior knowledge

### Honors Hispanic Studies I

Honors Hispanic I and II are noncontingent and nonsequential.

*Prerequisite/Selection Process:* Honors Spanish III A and III B with a final grade of “meeting course expectations” or higher or placement exam results.

*Intended Audience:* Students entering Spanish IV and or Spanish V who wish to take their Spanish abilities to the next level, be it for college and or career aims, by studying Spanish for a full academic year. Also for students who desire to maintain the abilities they acquired through level III, but don’t have room in their schedule for more than one trimester.

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Ability to participate in an immersive Spanish language experience while examining the Spanish-Speaking world. Students will learn by exploring unit essential questions through thematically organized unit topics.
- Ability to demonstrate Spanish at an intermediate-mid level as defined by ACTFL’s Performance Descriptors for Language Learners via real-world unit performance evaluations.
- Ability to demonstrate emerging understanding of cultures of the Hispanic world by completing real-world unit performance evaluations with emphasis on verb tense control

### Honors Hispanic Studies II

[This course is an alternating curriculum taught every other year. Honors Hispanic I and II are noncontingent and nonsequential.]

*Prerequisite:* Honors Spanish III A and III B with a final grade of “meeting course expectations” or higher or placement exam results.

*Intended Audience:* Students entering Spanish IV and or Spanish V who wish to take their Spanish abilities to the next level, be it for college and/or career aims, by studying Spanish for a full academic year. Also for students who desire to maintain the abilities they acquired through level III, but don’t have room in their schedule for more than one trimester.

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

- Ability to participate in an immersive Spanish language experience while examining the Spanish-Speaking world. Students will learn by exploring unit essential questions through thematically organized unit topics.
- Ability to demonstrate Spanish at an intermediate-mid level as defined by ACTFL’s Performance Descriptors for Language Learners via real-world unit performance evaluations.
- Ability to demonstrate emerging understanding of cultures of the Hispanic world by completing real-world unit performance evaluations with emphasis on verb tense control.

### Honors Spanish IV

*Prerequisite/Selection Process:* Honors Spanish III

*Intended Audience:* Grades 11 and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Commitment to language use and interest in culture
- Language study with an increased use of authentic materials
- Oral and written emphasis

*Projects, Activities, etc.:* Research, presentation, student led communicative activities on topics which may include: travel, restaurants, hotels, news media, art, history, literature, and music

*Instructional Focus:* Proficiency based study of vocabulary, grammar, and culture using a variety of media

### AP Spanish V

[AndHS, AHS, BHS, CRHS only]

[IB Spanish V SL available at CPHS.

See IB section.]

[AP exam is in May each year]

*Prerequisite/Selection Process:* Honors Spanish IV or placement exam.

*Intended Audience:* Grades 11 and 12

*Credit:* Two trimesters = 1.0 credit

*Major Outcomes:*

- Exclusive use of the Spanish language
- Preparation for placement into intermediate-level college courses

- Exploration of the Spanish-speaking world via Advanced Placement Themes: global challenges, science and technology, contemporary life, personal and public identities, families and communities, beauty and aesthetics

- AP test at completion of the course offered, not required

- Cultural awareness

- Approach the AP exam with confidence

*Projects, Activities, etc.:* Instructional content will reflect interests shared by the students and the teacher [the arts, current events, literature, sports, and so forth]. In addition to standard textbooks and anthologies, materials might include audio and visual materials, newspapers, magazines, and contemporary literature.

*Instructional Focus:* The course seeks to develop language skills that are useful in themselves and that can be applied to various activities and disciplines. Extensive practice in the organization and writing of compositions is emphasized.

### Medical Spanish

[CRHS only]

*Prerequisite/Selection Process:* Spanish II

*Intended Audience:* Grades 10, 11, and 12

*Credit:* One trimester = 0.5 credit

*Major Outcomes:*

This course is designed for Healthcare Professionals to assist them in communicating with those who speak a language other than English in the healthcare setting. Students will learn the vocabulary of Spanish medical terms, learn skills in medical reporting and medical communications, and apply cultural variations to medical practices.

*Projects, Activities, etc.:* Use conversational Spanish in medical scenarios

*Instructional Focus:* Medical applications in the World Languages area

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