# HELENA HIGH SCHOOL





An MBI Gold Award School

We are Bengal Strong
Registration & Guidance Material
2020 - 2021

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# Registration and Guidance Material 2020-21 School Year

This bulletin is designed to help you and your parents select proper courses for the coming year. Please read it carefully. Talk your concerns over with your parents, your counselor, and your teachers. It is important that you select courses in the fields of your aptitudes, your interests, and your capabilities. The courses that you select now, in large measure, will determine what you will do later. Students who plan to attend college should take courses tending to meet the general requirements for the specific college or university of their choice.

The enrollment of Helena High School for the year 2020-2021 will be around 1300 students in grades 9, 10, 11, and 12. It is necessary to have a firm registration in order to secure the necessary teachers, order supplies, create a class schedule, equalize class sections and utilize time and building space to the maximum degree of efficiency. Changes in scheduling at the beginning of the academic year are not a guarantee and will be granted only as seats allow. Please carefully plan your course requests in the spring.

This booklet explains Helena High's graduation requirements, required courses, and course content. After the course outline is carefully studied, the student, with his or her parents, should fill out the preliminary registration form. Students will be scheduled for the entire year according to the choices they select. Students selecting full-year courses are expected to remain in that course the entire year. All students will register for at least 6 credit bearing classes per school board policy. By the end of senior year, all credits must be fulfilled in order to participate in the graduation ceremony.

#### **Helena Public Schools Graduation Requirements**

Courses: Credits Rec	eived:
1. Four (4) years of English	4
One (1) year of Social Studies  World Cultures	1
3. One (1) year of American Government	1
4. One (1) year of American History	
5. Two (2) years of Science	
6. Three (3) years of Mathematics	3
7. One & one-half (1.5) years of Human Performance	
8. One-half year (.5) of Health	
9. One (1) year of Fine Arts	
Art, Music, Drama, and Photography	
10. One (1) year of Career and Technical Education/Practical Arts	1
Industrial Arts, Family and Consumer Science, Health Careers, Aut	
Mechanics, Carpentry, Welding, Drafting, Marketing and Business	
11. Electives	7

**Total: 23 Credits** 

### **MUS Admissions Standards**

# 2.5 GPA or Rank in top $\frac{1}{2}$ of class or Test scores

● MSUN ACT: 20 SAT: 1050

● MSUB, MSU, UM, Tech, and UMW ACT: 22 SAT: 1120

### And

# College Prep curriculum (http://www.mus.edu/asa/hscp/index.asp)

### <u>And</u>

### **Math proficiency standards:**

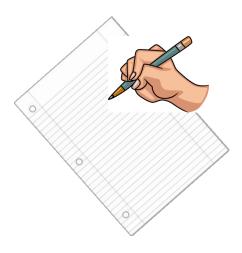
- ACT 22 or
- SAT 27.5 or
- Complete the Rigorous Core

# <u>And</u>

### **Writing proficiency standards:**

- ACT optional writing test 7 or
- ACT ELA 18 or
- SAT writing essay 25







#### **Core Courses**

**NCAA Division I and II require 16 core courses**. Ten of the 16 courses must be completed before the 7<sup>th</sup> semester (before senior year begins.) See the chart below for the breakdown of this 16 core-course requirement. Please access the NCAA website for more information: <a href="https://www.eligibilitycenter.org">www.eligibilitycenter.org</a>.

#### **Test Scores**

**Division I** has a sliding scale for test score and grade-point average. The sliding scale may be found online at the NCAA Eligibility Clearinghouse website. www.eligibilitycenter.org.

**Division II** requires a minimum of 820 on the SAT (critical reading and math only) or a sum of 68 on the ACT.

The SAT score used for NCAA purposes includes **only** the critical reading and math sections. The writing section of the SAT is not used.

The ACT score used for NCAA purposes is a **sum** of the four sections on the ACT: English, mathematics, reading and science.

All SAT and ACT scores must be reported directly to the NCAA Eligibility Center by the testing agency. Test scores that appear on transcripts will not be used. When registering for the SAT or ACT, use the Eligibility Center code of 9999 to make sure the score is reported to the Eligibility Center.

#### **Grade-Point Average**

Only core courses are used in the calculation of the grade-point average.

**Be sure** to look at your high school's list of NCAA-approved core courses on the Eligibility Center's Web site to make certain that courses being taken have been approved as core courses.

**Division I** grade-point-average requirements are listed on the above website. Currently, student-athletes must average a 2.3 in the core area.

The Division II grade-point-average requirement is a minimum of 2.000.

**Registration:** Student-athletes must register with the NCAA Clearinghouse. This is a recommended step following the completion of the student's junior year. Register online at <a href="https://www.eligibilitycenter.org">www.eligibilitycenter.org</a>.

#### **DIVISION I ~ 16 Core-Course Rule**

#### 16 Core Courses:

- 4 years of English.
- 3 years of mathematics (Algebra I or higher).
- 2 years of natural/physical science (1 year of lab if offered by high school).
- 1 year of additional English, mathematics or natural/physical science.
- 2 years of social science.
- 4 years of additional courses (from any area above, foreign language or nondoctrinal religion/philosophy).

#### **DIVISION II ~ 16 Core-Course Rule**

- 3 years of English.
- 2 year of mathematics (Algebra I or higher).
- 2 years of natural/physical science (1 year of lab if offered by high school).
- 3 years of additional English, mathematics or natural/physical science.
- 2 years of social science.
- 4 years of additional courses (from any area above, foreign language or nondoctrinal religion/philosophy).

### **NCAA Approved Core Courses**

English 1 (Honors)

English 2 (Honors)

English 3 (Honors)

AP English 3

English 4

AP English 4

AP English 4

Creative Writing

Algebra 1

Honors Math 1

Algebra 2

Algebra 2

AP English 4

Creative Writing

College Algebra

Debate Statistics
Speech AP Calculus
English Comp 121 College Calculus

Science Fiction Biology I and II (Honors)

Word Clues AP Biology

American Government Earth Science (Honors)
AP Government Chemistry I and II
American History CSI Forensics Science
AP History AP Environmental Science

Current Issues Physics

Montana History Science Seminar

Psychology Principles of Biomedical Science

AP Psychology
Social Problems
World Cultures (Honors)
World History
Human Body Systems
Medical Interventions
Biomedical Innovations
Spanish 1, 2, 3, 4 and 5

AP European History Latin 1 and 2

AP Statistics French 1, 2, 3, 4 and 5 German 1, 2, 3 and 4



### **NAIA Eligibility Standards**

#### What is the NAIA Eligibility Center?

The NAIA Eligibility Center is responsible for determining the NAIA eligibility of first-time student-athletes. Any student playing NAIA sports for the first time must meet the eligibility requirements. Students must have their eligibility determined by the NAIA Eligibility Center, and all NAIA schools are bound by the center's decisions.

Access the NAIA website for more information: www.PlayNAIA.org.

#### Who needs to register?

Every student interested in playing sports at NAIA colleges for the first time in 2011-12 or any year after that needs to register and have their eligibility to play determined. This applies to:

- High school seniors
- Current NAIA students who will play sports for the first time at an NAIA school
- Transfers from two-year colleges
- Transfers from four-year colleges

#### What information will I need to provide?

You'll need your current contact information, previous residences and addresses, high schools attended and history of your sports participation during and after high school graduation.

When you register for the ACT or SAT, include the NAIA Eligibility Center (9876) 9876 on the list of places test scores should be sent. Ask your high school counselors or college registrar to send your transcript to the NAIA Eligibility Center. For high school students, the official transcript must verify high school graduation, class rank and cumulative grade point average.

#### Can I receive an early eligibility decision?

Yes. High school students who complete their junior year with an overall 3.00 GPA on a 4.00 scale and have scored at least 18 on the ACT or 860 on the SAT may receive an early eligibility decision. To receive an early decision, register with the NAIA Eligibility Center, have your high school send official transcripts to the Eligibility Center and contact ACT or SAT to have your test scores sent to the NAIA (Address Code 9876).

#### Do I need to register if I'm registering with the NCAA Eligibility Center?

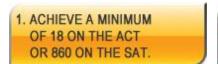
Yes. Determining if you meet eligibility requirements for NAIA eligibility is separate from NCAA eligibility certification. The NAIA and NCAA are two separate associations, with two different sets of rules and certification processes.

#### What are the costs?

Registration for students from the U.S. is \$80. Registration for international students is US\$85. This is a one-time nonrefundable <u>registration fee</u>, and all services of the NAIA Eligibility Center are included. The NAIA Eligibility Center will determine your eligibility based on your academic record and additional information you provide. Here's how it works:

#### **High School Students**

If you will graduate from high school this spring and enroll in college this coming fall, the requirements are simple. High school graduation, plus two out of three of these requirements:



2. ACHIEVE A MINIMUM OVERALL HIGH SCHOOL GPA OF 2.0 ON A 4.0 SCALE.

3. GRADUATE IN THE TOP HALF OF YOUR HIGH SCHOOL CLASS.



### MHSA Eligibility for Activities

#### **Academic Eligibility for Activities MHSA**

The Board of Trustees recognizes the value and contributions of high school activities. The Trustees further recognize that academic growth is the primary mission of the school program. Policies pertaining to scholastic standing, transfer, award and other regulations can be found at: <a href="https://www.mhsa.org">www.mhsa.org</a>.

Helena High Schools is a member of the governing body of the Montana High School Association. To be eligible to participate in an Association Contest, a student shall meet all of the following criteria:

- be regularly enrolled in twenty hours per week at the school where the student participates.
- be in regular attendance.
- have received a passing grade and received credit in at least twenty periods of prepared class work
  or its equivalent in the last previous semester, at the school where the student participates.
- If a student is assigned an "incomplete" in a subject, he/she has not received a passing grade in this subject.

### **HEF Distinguished Scholar Award**



Distinguished Scholars are selected on the basis of criteria developed by students, teachers and administrators, including GPA, number of high level courses, total credit hours, and activities. For up to date information and eligibility rules visit <a href="https://www.hefmt.org/celebration-of-excellence/">www.hefmt.org/celebration-of-excellence/</a>

# **National Honor Society**



National Honor Society is a prestigious national organization only for the best and brightest students. The eligibility process begins with a minimum 3.5 cumulative GPA at the end of a student's fifth semester of high school. Members are selected based on the four criteria of scholarship, service, leadership and character. NHS is a valuable addition a student's high school transcript.

#### **Special Help**

It is necessary to have firm registration figures in order to secure the necessary teachers, order supplies, and arrange class schedules. You will be able to make schedule changes only under unusual circumstances, so plan carefully with teachers, counselors, and parents. There are three special areas at Helena High where students can receive guidance and assistance:

#### 1. Counseling and Career Center

Four counselors attend to students alphabetically throughout the duration of their high school time. Counselors help with course placement for graduation, career direction, and social/emotional development through individual and group activities. Available in the Counseling/Career Center are many sources of information, both hard cover and computer based, related to career and college search, scholarships/financial aid, and college placement testing. A career counselor is available daily to help students and parents become familiar with the many career-training options.

#### 2. Special Services

Special Services offers programs for students with special needs. Students must qualify for special education under one of the following handicapping conditions: learning disability; cognitive delay; deaf blindness; deafness; emotional disturbance; hearing impairment; other health impairment; orthopedic impairment; speech-language impairment; traumatic brain injury; visual impairment, injury. Specialists include a speech therapist, psychologist, physical therapist, occupational therapist, nurse, adaptive PE teacher and resource teachers. Students will receive their education in the least restrictive environment determined by the IEP team.

#### 3. Title I

The Title 1 program at Helena High School is designed to offer classes and services to eligible students in Reading and Math. Eligibility is determined based on test score criteria and teacher referral or student need. Title 1 support provides a wealth of individualized attention. See a guidance counselor or administrator to inquire about enrollment.

#### Assistant Principals: School Counselors:

Stephanie Thennis (A-G)

Jaime Pandis (A-E)

Brian Kessler (H-N) Ashten Broadhead (F-L)

Willie Schlepp (O-Z)

Jason Murgel (M-R)

Chrissy Murgel (S-Z)

All students (9-12) are assigned an assistant principal and counselor based on last name.

### **Dual Credit Opportunities:**

All dual credit courses count as both high school and college credit. The courses are taught on the campus of Helena High. Students are responsible for college registration, cost of tuition, and fees. Students must be at least 16 and/or a junior to qualify. *Due to potential changes in staffing and instructor credentials, the availability for dual credit may not be guaranteed.* 

#### Helena College Courses:

College Writing - (3) credits (WRIT 101 College Writing)

Introduction to Literature - (3) credits (LIT 110 Intro to Lit)

Technical Writing - (3) credits (WRIT 121T)

Pre-Calculus - (4) credits awarded in spring semester; tuition and fees due in fall (M151 Pre-Calculus)

Elements of Calculus - (4) credits for the year; awarded in the spring (M171 Calculus 1)

College Algebra - (3) credits; first semester only (M121 College Algebra)

Statistics - (3) credits; second semester only (STAT 216 Introduction to Statistics)

Tech Math - (3) credits for the year; credits awarded in the spring (M111T Technical Math)

Contemporary Math- (3) credits; first semester only (M105 Contemporary Math)

Business Math- (3) credits; second semester only (M108 Business Math)

Drafting CAD - (3) credits per semester (DFT150 CAD 2-D)

Theater 1 - (3) credits (THTR 101 Introduction to Theater)

Theater 2 - (3) credits (THTR 120 Introduction to Acting)

Accounting - (3) credits for year (ACTG 101 Accounting Procedures)

Welding II, III or IV - (3) credits for year (Welding 112 Cutting and Processing)

Microsoft Word – (3) credits for Semester (CAPP154 MS Word)

Microsoft Excel – (3) credits for Semester (CAPP156 MS Excel)

Computer Science 1 - (3) credits for semester (CSCI 100 Intro to Programming)

Computer Science 2 - (4) credits for semester (CSCI 111 Programming with Java 1)

#### Missoula College Courses:

Culinary III - (2) credits (CULA 105 Food Service Sanitation)

Welding II, III and IV - (4 credits for year WLDG 180 Shielded Metal Arc)

#### AP Courses:

These rigorous courses are offered on the Helena High campus. Students pay approximately \$100 to take a test in April and/or May. The registration process is facilitated by the AP Coordinator and the HHS bookkeeper. The test is scaled from 0-5, and students must achieve at least a 3 in order to have the AP course count as college credit.

The university determines the type of credit (required or elective). The following courses are the AP options:

AP Art History AP ChemistryAP Language AP Spanish 5

AP Literature
 AP Environmental Science

AP US HistoryAP GovernmentAP Seminar\*AP Se Research\*

AP Psychology

AP European History

AP Calculus

AP Statistics

AP Biology

• AP Studio Art

AP Human Geography

<u>AP Capstone</u> is an exciting new program from the College Board. Over the course of the program, students will develop research questions about topics that interest them and develop critical research, writing, and speaking skills for college.

It's based on two yearlong AP courses: AP Seminar and AP Research.

Rather than teaching subject-specific content, these courses develop students' skills in research, analysis, evidence-based arguments, collaboration, writing, and presenting. Students who complete the two-year program can earn one of two different AP Capstone awards, which are valued by colleges across the United States and around the world.

For more information, visit <a href="www.ap.collegeboard.org">www.ap.collegeboard.org</a>.

\*Required courses for AP Capstone diploma
There is additional information for AP Seminar and AP Research on page 34.

To find out more about credit policy, visit <a href="https://apstudents.collegeboard.org/getting-credit-placement/search-policies">https://apstudents.collegeboard.org/getting-credit-placement/search-policies</a>.



### **ACCUPLACER / ACT / SAT – Placement Chart**

MATH - Placement				
	ACT	SAT	ACCUPLACER Quantitative, Algebra, Statistics	ACCUPLACER Advanced Algebra Function
M080 Pre-Algebra & Algebra I M105 W/005 M108T Business Math M111T w/060 (200-219) M111T Technical Math (220-239) M120T Math w/Health Care App	16 & below		200-239	
<b>M092</b> Algebra I M105 W/005	17 - 19	Needs ACCUPLACER	240-300	200-219
M093 Algebra II (STEM Prep) M105 Math for the Liberal Arts M115 Probability & Linear Math M132 Numbers & Ops K-8 Teachers M133 Geometry & Geometric K-8	20	490	QRAS does not determine M093 placement. With a score higher than 263, tester will take AAF for placement.	220-249
M121 College Algebra M234 Advanced Topics K-8 *STAT216 Introduction to Statistics	22	530		250-262
M151 Pre-Calculus	24	570		263-270
M171 Calculus I	27	610		271-300

**Bold** = Placement code in Banner (SOATEST)
\*Students that successfully pass M105, with a C- or better, are eligible to take STAT216

Writing (English) Placement				
	ACT	ACT	SAT	ACCUPLACER
	(2015 and prior)	(2016 and on)		
Refer to Adult Basic Education (ABE)	0-6 Writing sub score OR 13-15 English/Writing	13-15 ELA	0-6 Essay 200-439 Writing	200-220
WRIT 101 W/96 College Writing W/Lab	16-17 (E/W)	16-17 (ELA)		221-249
WRIT 101 College Writing	7 Writing sub score OR 18 English/Writing	18 ELA	7 Essay 440 Writing	250-300

**Bold** = Placement code in Banner (SOATEST)

### Arts and Communication

This plan of study should serve as a guide, along with other career plan materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade
	English I	English II	English III	English IV
	Algebra I or Geometry	Geometry or Algebra II	Algebra II, Pre-calc, or Calc	Pre-calc, Calc, or College Algebra
	Earth Science	Biology I	Biology II or Chemistry	Physics or Chemistry II
	World Cultures		U S History	Government
lood	Required Courses/Electives PE	quired Required Additional F		Technology Electives Desktop Publishing I Graphic Web Design Photography I, II, III
High School	Career Electives Theater Tech Theater Band/Choir/Orchestra Art I Marketing	Career Electives Theater II Tech Theater Band/Choir/Orchestra Art II Money Management Career Planning Marketing Sports & Entertainment Management Aerobics and Physical Conditioning	Theater III Band/Choir/Orchestra Journalism Visual Design Studio I Ceramics I, II, III Speech, Debate Environmental Science Latin Textiles I, II Welding I, II, III	Marketing Sports & Entertainment Management Aerobics Physical Conditioning Athletic Training
	Graduation Requiremen	nts: 1 Fine Art credit, 1 Car		ives
		23 credits total to grad	uate	

у	Technology Center	Community College	College/University
Postsecondary	☐ Commercial Art	☐ Commercial Art	☐ Art History
5	☐ Graphic Communication	☐ Graphic Communication	☐ Electronic Engineering
96	☐ Electronic Desktop	□ Printing Technology	☐ Fashion Design
sts	Publishing	□ Telecommunications	☐ Journalism
<u>م</u>	☐ Telecommunications		☐ Music
			☐ Stage Management

	Work-base	d Learning Options	Clubs, Activities	
	Job Shadov	ving	Community Theater	Art Classes
a t	Internship/N	1entoring	Private voice or instrument lessons	Art Club
ž Š	6 On-the-Job	Training	Dance classes	Nugget
Sar	Volunteer s	ervice	Community music groups	Writings on the Wall
두	0		Thespians	Speech, Debate
ū			DECĂ	Yearbook
			BPA	Vigilante Parade
			Mock Trial Team	-

#### **Arts & Communication**

The Arts & Communication cluster involves creating or transferring ideas and information.

#### **High School/GED**

- Athletics & Sports Competitors
- Audio-Visual Collections Specialist
- Camera Operators, Television, Video, and Motion Picture
- Computer System Analysts
- Copy Writers
- Entertainers and Performers, Sports & Related Worker, All Other
- Etchers and Engravers
- Film Laboratory Technicians
- Floral Designs
- Job Printers
- Models
- Motion Picture Projectionists
- Musicians, Instrumental
- Photoengravers
- Professional Photographers
- Radio & Television Announcers
- Radio Operators
- Sewing Machine Operators, Garment
- Singers
- Stock Clerks, Sales Floor
- Switchboard Operators, Including Answering Service
- Telecommunications
   Equipment Installers and
   Repairers, Except Line
   Installers
- Telemarketers

#### 1-2 Years Training/Education

- Actors
- Art, Drama, and Music Teachers, Postsecondary
- Broadcast News Analysts
- Broadcast Technicians
- Cartoonists
- Commercial and Industrial Designers
- Computer Systems Analysts
- Dancers
- Desktop Publishers
- Fashion Designers
- Film and Video Editors
- Graphic Designers
- Interior Designers
- Interpreters and Translators
- Jewelers
- Makeup Artists, Theatrical and Performance
- Managers, All Other
- Musical Instrument Repairers and Tuners
- Painters and Illustrators
- Paste-up Workers
- Producers
- Professional Photographers
- Proofreaders & Copy Makers
- Public Relations Specialist
- Radio and Television Announcers
- Telecommunications Line Installers & Repairers

- Architectural Drafters
- Art Directors
- Choreographers
- Composers
- Copy Writers
- Creative Writers
- Desktop Publishers
- Editors
- Fashion Designers
- Graphic Designers
- Interpreters and Translators
- Landscape Architects
- Managers, All Others
- Music Directors
- Painters and Illustrators
- Producers
- Public Relations Specialists
- Reporters and Correspondents
- Sculptors
- Set Designers
- Sound Engineering Technicians
- Telecommunications Line Installers and Repairers
- Writers and Authors

## **Business and Marketing**

This plan of study should serve as a guide, along with other career plan materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade	
	English I	English II	English III	English IV	
	Algebra I or Geometry	Geometry or Algebra	Algebra II, Pre-calc, or Calc	Pre-calc, Calc, or College Algebra	
	Earth Science	Biology I	Biology II or Chemistry	Physics or Chemistry II	
	World Cultures		U S History	Government	
High School	Required Courses/Electives PE	Required Courses/Electives PE, Health	Additional High School Electives Law, Justice I Accounting	Technology Electives Desktop Publishing I Graphic Web Design MSO Word	
High S	Career Electives Computer Apps Basic Comp. Skills Tech Skills for Life Marketing	Career Electives Computer Science Marketing Sm Business Mgmt Sports/Entertainment Management	Sm Bus Mgt 1/Catty Shack Sm Bus Mgt 2/Catty Shack Sports/Entertainment Management Job Coop Money Management Office Management Consumer Math Career Planning	MSO Excel CISCO I, II. III, IV Oracle Journalism	
Gradu	Graduation Requirements: 1 Fine Art credit, 1 Career/Tech Ed credit, 7 electives				
	23 credits total to graduate				

23 credits total to graduate

	Technology Center	Community College	College/University
~	☐ Business and Computer	☐ Accounting	☐ Accounting
ם	Technology	☐ Business Communications	☐ Marketing
Postsecondary	☐ Help Desk Analysis	☐ Human Resources	☐ Market Management and
96	☐ Business and Administration	Management	Research
\$5	Services	☐ Administrative Assistant	☐ Operations, Management
2	☐ Accounting Services	☐ Customer Service	and Supervision
	☐ Marketing Management		☐ Management Information
	☐ Small Business Management		Systems

	Work-based Learning Options	Clubs, Activities		
Career Enhancement Options	Job Shadowing Internship/Mentoring On-the-Job Training Volunteer service Career Training Institute	DECA Catty Shack Business Professionals (BPA) Speech, Debate Youth in Government Model United Nations Mock Trial Team	Concessions Nugget Yearbook Spanish Club Student Council Journalism	

#### **Business & Marketing**

The Business/Marketing cluster involves organizing and operating businesses, industries and governments; marketing and selling products or services.

#### **High School/GED**

- Assessors
- Bill and Account Collectors
- Bookkeeping, Accounting, and Auditing Clerk
- Brokerage Clerks
- Computer Operators
- Customer Service Representatives, Utilities
- Data Entry Keyers
- Dispatchers, Except Police, Fire and Ambulance
- Entrepreneur
- Insurance Claims Clerk
- Interviewers, Except Eligibility and Loan
- · Library Assistants, Clerical
- Loan Interviewers and Clerks
- Meter Readers, Utilities
- Office and Administrative Support Workers, All Other
- Office Clerks, General
- Payroll and Timekeeping Clerks
- Postal Service Mail Carriers
- Postal Service Mail Sorters, Processors, and Processing Machine Operators
- Purchasing Agents, Except Wholesale, Retail, and Farm Products
- Receptionists and Information Clerks
- Retail Salespersons
- Secretaries, Except Legal, Medical, and Executive
- Shipping, Receiving, and Traffic Clerks
- Tax Examiners, Collectors, and Revenue Agents
- Telemarketers

#### 1-2 Years Training/Education

- Administrative Services Managers
- Bookkeeping, Accounting, and Auditing Clerks
- Budget Analysts
- Business Teachers, Postsecondary
- Communication Equipment Mechanics, Installers, and Repairers
- Compensation, Benefits, and Job Analysis Specialists
- Computer Programmers
- Computer, Automated Teller, and Office Machine Repairers
- Court Reporters
- Entrepreneur
- First-Line Supervisors/Managers of Retail Sales Workers
- Food Service Managers
- General and Operations Manager
- Human Resources Manager
- Insurance Adjusters, Examiners, and Investigators
- Insurance Sales Agents
- Mechanical Drafters
- Medical Transcriptionists
- Paralegals and Legal Assistants
- Real Estate Brokers
- Sales Representatives, Services, All Other
- Technical Writers
- Title Examiners and Abstractors
- Wholesale & Retail Buyers, Except Farm Products

- Accountants
- Actuaries
- Advertising and Promotions Managers
- Business Teachers, Postsecondary
- Claims Examiners, Property and Casualty Insurance
- Computer and Information Systems Managers
- Computer Hardware Engineers
- Computer Systems Analysts
- Credit Analysts
- Entrepreneur
- Financial Managers, Branch or Department
- Human Resources, Training, and Labor Relations Specialists, All Other
- Insurance Underwriters
- Loan Officers
- Management Analysts
- Marketing Managers
- Medical and Health Services Managers
- Purchasing Agents, Except Wholesale, Retail, and Farm Products
- Sales Agents, Securities and Commodities
- Sales Managers
- Statisticians
- Treasurers, Controllers, and Chief Financial Officers

### Health Care

This plan of study should serve as a guide, along with other career plan materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade	
	English I	English II	English III	English IV	
	Algebra I or Geometry	Geometry or Algebra II	Algebra II, Pre-calc, or Calc	Pre-calc, Calc, or College Algebra	
	Earth Science	Biology I	Biology II Chemistry	Physics or Chemistry II	
_	World Cultures		US History	Government	
School	Required Courses PE	Required Courses/Electives PE, Health	Additional High School Science Seminar Biomed II	ol Electives Biomed III Biomed IV	
High	Career Electives Biomed I	Career Electives Psychology Adv. Psychology Athletic Training Biomed I Biomed II Aerobics Physical Conditioning	CSI Forensic Science Health Career Explorati Money Management Career Planning Small Business Manage Aerobics Physical Conditioning Athletic Training Lifetime Sports	on Basic Computer Skills Tech Skills for Life	
Gradu	ation Requirements: 1 Fine A	art credit, 1 Career/Tech E	d, 7 electives		
	23 credits total to graduate				

	Technology Center	Community College	College/University
	☐ Practical Nursing	☐ Dental Hygienist	☐ Dentist
~	☐ Dental Assisting	☐ Occupational Therapy	☐ Nursing
Postsecondary	☐ Emergency Medical	Assisting	☐ Medical Technologist
5	Technician	☐ Orthotic Prosthetics	☐ Doctor of Osteopathic
8	☐ Occupational Therapist	Technician	Medicine
St	Assistant	☐ Physical Therapy Assistant	☐ Pharmacist
2	☐ Physical Therapist Assistant	☐ Radiology Technician	☐ Physical Therapist
	☐ Surgical Technology	☐ Respiratory Care	☐ Physician
	☐ Advanced Unlicensed	☐ Biotechnology	☐ Veterinarian Science
	Assistant		

	Work-based Learning Options	Clubs, Activities
Career Enhancement Options	Job Shadowing Internship/Mentoring On-the-Job Training Volunteer service CPR/ First Aid Certified Nurse Aid	HOSA Science Olympiad Team Spanish Club Business Professionals (BPA)

#### Health

The Health Care cluster involves providing services/products relating to the health of people or animals.

#### **High School/GED**

- Ambulance Driver and Attendants, Except Emergency Medical Technicians
- Dental Assistants
- Dietetic Technicians
- Home Health Aides
- Interviewers, Except Eligibility and Loan
- Licensed Practical and Licensed Vocational Nurses
- Medical and Clinical Laboratory Technologists
- Medical and Public Health Social Workers
- Medical Assistants
- Non-farm Animal Caretakers
- Nursing Aides, Orderlies, and Attendants
- Office Clerks, General
- Psychiatric Aides
- Radiologic Technologists

#### 1-2 Years Training/Education

- Cardiovascular Technologists and Technicians
- Dental Hygienists
- Dental Laboratory Technicians
- Diagnostic Medical Sonographers
- Emergency Medical Technicians and Paramedics
- Licensed Practical and Licensed Vocational Nurses
- Medical and Clinical Laboratory Technicians
- Medical Assistants
- Medical Equipment Repairers
- Medical Records and Health Information Technicians
- Nuclear Medicine Technologists
- Occupational Therapist Assistants
- Pharmacy Aides
- Physical Therapist Assistants
- Physician Assistants
- Psychiatric Technicians
- Respiratory Therapists
- Surgical Technologists
- Veterinary Technologists and Technicians

- Anesthesiologists
- Biochemists
- Biomedical Engineers
- Counselors, All Other
- Dentists, General
- Dietitians and Nutritionists
- Educational, Vocational, and School Counselors
- Family and General Practitioners
- Fitness Trainers and Aerobics Instructors
- Funeral Directors
- Health Diagnosing and Treating Practitioners, All Other
- Health Educators
- Medical and Health Services Manager
- Mental Health and Substance Abuse Social Worker
- Obstetricians and gynecologists
- Occupational Therapists
- Optometrists
- Oral and Maxillofacial Surgeons
- Painters and Illustrators
- Physical Therapists
- Physicians and Surgeons, All Other
- Registered Nurses
- Surgeons
- Veterinarians

## Hospitality and Tourism

This plan of study should serve as a guide, along with other career plan materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade		
	English I	English II	English III	English IV		
	Algebra I or Geometry	Geometry or Algebra II	Algebra II, Pre-calc, or Calc	Pre-calc, Calc, or College Algebra		
	Earth Science	Biology I	Biology II or Chemistry	Physics or Chemistry II		
	World Cultures		U S History	Government		
High School	Required Courses/Electives PE	Required Courses/Electives PE, Health	Additional High School Marketing Office Management Money Management	Electives Computer Apps Basic Computer Skills Tech Skills for Life		
High	Career Electives Marketing Ed Intro Culinary Arts	Career Electives Marketing Ed Sports/Entertainment Management Intro Culinary Arts Culinary Arts I Culinary Arts II Aerobics Physical Conditioning	Career Planning Culinary I, II, III Psychology AP Psychology JMG Aerobics Lifetime Sports Physical Conditioning Sports and Entertainment Management			
Gradu		ne Art credit, 1 Career/Tecl	h Ed credit, 7 electives			
	23 credits total to graduate					

	Technology Center	Community College	College/University
Postsecondary	☐ Food Services I and II☐ Hospitality Careers I and II	<ul> <li>□ Travel and Tourism         Management</li> <li>□ Hotel, Motel, Restaurant         Management</li> <li>□ Culinary Arts/Chef Training</li> <li>□ Parks, Recreation and         Leisure Studies</li> </ul>	<ul> <li>☐ Hospitality/Administration</li> <li>Management</li> <li>☐ Restaurant and Food</li> <li>Service Management</li> </ul>

¥	Work-based Learning Options	Clubs, Activities
~ <u>E</u> 8	Job Shadowing	Spanish Club
areer ncem ptions	Internship/Mentoring	YMCA
유투증	On-the-Job Training	Cooking classes
Ē	Volunteer service	DECA
		Business Professionals (BPA)

#### **Hospitality & Tourism**

The Hospitality & Tourism cluster involves providing business meeting and leisure activities including entertainment, recreation, lodging, food service, convention, travel and some types of personal services.

#### **High School/GED**

- Amusement and Recreation Attendants
- Athletes and Sports Competitors
- Baggage Porters and Bellhops
- Bakers
- Butchers and Meat Cutters
- Cashiers
- Counter and Rental Clerks
- Fitness Trainers and Aerobics Instructors
- Food Preparation Workers
- Hotel, Motel and Resort Desk Clerks
- Railroad Conductors and Yardmasters
- Recreation Workers
- Reservation and Transportation Ticket Agents
- Taxi Drivers and Chauffeurs
- Travel Clerks
- Ushers, Lobby Attendants, and Ticket Takers

#### 1-2 Years Training/Education

- Animal Trainers
- Chefs and Head Cooks
- Cooks, Institution and Cafeteria
- Dietetic Technicians
- Fitness Trainers and Aerobics Instructors
- Flight Attendants
- Food Service Managers
- Lodging Managers
- Massage Therapists
- Police Patrol Officers
- Travel Agents

- Agents and Business Managers of Artists, Performers, and Athletes
- Athletic Trainers
- Aviation Inspectors
- Chefs and Head Cooks
- Coaches and Scouts
- Dietitians and Nutritionists
- First-Line Supervisors/Managers of Retail Sales Workers
- Food Service Managers
- Gaming Supervisors
- Managers, All Other
- Meeting and Convention Planners

### **Human Services**

This plan of study should serve as a guide, along with other career plan materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade	
	English I	English II	English III	English IV	
	Algebra I or Geometry	Geometry or Algebra II	Algebra II, Pre-calc, or Calc	Pre-Calc, Calc, or College Algebra	
	Earth Science	Biology I	Biology II or Chemistry	Physics or Chemistry II	
_	World Cultures		U S History	Government	
High School	Required Courses/Electives PE	Required Courses/Electives PE, Health	AP Psychology Jour	Environmental Science Journalism	
	Career Electives Marketing Ed	Career Electives Culinary Arts Marketing Ed Aerobics Physical Conditioning Athletic Training	Current Issues Aerobics Peer Mentoring Physical Condition Money Management Lifetime Sports Career Planning Athletic Training Marketing Basic Computer Law and Justice Tech Skills for Li Computer Apps Desktop Pub JMG		
Gradu	Graduation Requirements: 1 Fine Art credit, 1 Career/Tech Ed credit, 7 electives 23 credits total to graduate				

у	Technology Center	Community College	College/University
Postsecondary	☐ Child Care	☐ Family Services & Child	☐ Early Childhood Education
ë	☐ Cosmetology	Development	☐ Psychology
99	☐ Health Certifications	☐ Mortuary Science	☐ Marriage & Family
sts	☐ Insurance Services	☐ Psychology	Counseling
Po		☐ Sociology	☐ Social Work
		☐ Sales & Customer Service	☐ Sociology

	Work-based Learning Options	Clubs, Activities		
e a	Job Shadowing	Spanish Club	International Club	
Career Enhanceme Options	Internship/Mentoring	Peers	3-7-77	
a co	On-the-Job Training	Yearbook	Key Club	
존	Volunteer service	Newspaper	DECA	
ш		Student Council	Green Group	
		Business Professionals (BPA)	Mock Trial Team	

#### **Human Services**

The Human Services cluster involves delivering a variety of social, personal or religious services.

#### High School/GED

- Bus Drivers, Transit and Intercity
- Child Care Workers
- Clergy
- Court Clerks
- Customer Service Representatives
- Fabric and Apparel Patternmakers
- Fire Inspectors
- Funeral Attendants
- Home Health Aides
- Maids and Housekeeping Cleaners
- Massage Therapists
- Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members, All Other
- Personal and Home Care Aides
- Professional Photographers
- Receptionists and Information Clerks
- Retail Salespersons
- Security Guards
- Social and Human Service Assistants
- Spotters, Dry Cleaning
- Teacher Assistants

#### 1-2 Years Training/Education

- Assessors
- Child Care Workers
- Correctional Officers and Jailers
- Directors, Religious Activities Education
- Embalmers
- Fashion Designers
- First-Line Supervisors/Managers of Retail Sales Workers
- Hairdressers, Hairstylists, and Cosmetologists
- Interior Designers
- Loan Counselors
- Meeting and Convention Planners
- Merchandise Displayers and Window Trimmers
- Municipal Fire Fighters
- Paralegals and Legal Assistants
- Police Detectives
- Police Patrol Officers
- Private Detectives and Investigators
- Real Estate Sales Agents
- Social and Human Service Assistants

- Anthropologists
- Child, Family, and School Social Workers
- Curators
- Economists
- Education Administrators, Elementary and Secondary School
- Educational, Vocational, and School Counselors
- Fashion Designers
- First-Line Supervisors/Managers of Retail Sales Workers
- Geographers
- Interior Designers
- Judges, Magistrate Judges, and Magistrates
- Market Research Analysts
- Military Officer Special and Tactical Operations Leaders/Managers, All Other
- Postsecondary Teachers, All Others
- Private Sector Executives
- Psychologists, All Other
- Secondary School Teachers, Excepts Special and Vocational Education
- Social Workers, All Other
- Training and Development Specialists
- Urban and Regional Planners
- Wholesale and Retail Buyers, Except Farm Products

## Manufacturing, Construction, and Transportation

This plan of study should serve as a guide, along with other career plan materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements.

	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade		
	English I	English II	English III	English IV		
	Algebra I or Geometry	Geometry or Algebra II	Algebra II, Pre-calc, or Calc	Pre-calc, Calc, or College Algebra		
	Earth Science	Biology I	Biology II or Chemistry	Physics or Chemistry II		
	World Cultures		U S History	Government		
High School	Required Courses/Electives PE Career Electives Industrial Arts Welding I	Required Courses/Electives PE, Health Career Electives Auto Tech I Industrial Arts Carpentry I Welding I, II Marketing Ed	Additional High School Electives Industrial Arts Carpentry I Auto Tech II, III Welding I, II, or III Environmental Science Money Management Career Planning Sm Bus Mgt Consumer Math	Technology Electives CAD Fundamental Draft. Mechanical Draft. Architectural Draft. Industrial Arts Carpentry I Welding I, II, III or IV Welding/Manufacturing Work Co-op Computer Apps Basic Computer Skills		
Gradua	Tech Skills for Life  Graduation Requirements: 1 Fine Art credit, 1 Career/Tech Ed credit, 7 electives					
	23 credits total to graduate					

	Technology Center	Community College	College/University
Postsecondary	□ Automated Manufacturing         Technology     □ Drafting and CAD     □ Electronics     □ Construction Trades     □ Carpentry/Masonry/Plumbing     □ Aviation Maintenance         Technology     □ Diesel Service Technology     □ Truck Driver Training     □ Welder	☐ Engineering Technology ☐ Agriculture Engineering ☐ Construction Technology ☐ Manufacturing Technology ☐ Pre-Engineering ☐ Industrial Drafting ☐ Warehouse Management ☐ Automotive Technology ☐ Welding Technology	<ul> <li>☐ Mechanical Engineering</li> <li>☐ Engineering Technology</li> <li>☐ Industrial Technology</li> <li>☐ Construction Management</li> <li>☐ Electrical Engineering</li> <li>☐ Aerospace Engineering</li> <li>☐ Civil Engineering</li> <li>☐ Urban Planning</li> <li>☐ Welding Engineer</li> </ul>

¥	Work-based Learning Options	Clubs, Activities
~ <u>E</u> 8	Job Shadowing	Skills USA
Career Enhanceme Options	Internship/Mentoring	American Welding Society Club
유투증	On-the-Job Training	Commercial Driver's License
Ē	Volunteer service	Business Professionals (BPA)
	Apprenticeships	` '

### **Manufacturing/Construction/Transportation**

The Manufacturing/Construction/Transportation cluster involves changing raw materials into goods and services; building and maintaining various types of structures; moving people and/or goods

#### **High School/GED**

- Able Seamen
- Aircraft Structure Assemblers, Precision
- Automotive Body & Related Repairers
- Automotive Master Mechanics
- Bicycle Repairers
- Bindery Machine Setters and Setup Operators
- Construction & Building Inspectors
- Construction Laborers
- Conveyor Operators & Tenders
- Dispatchers, Except Police, Fire, and Ambulance
- Earth Drillers, Except Oil & Gas
- Electrical Power-Line Installers and Repairers
- Elevator Installers & Repairers
- Elevator Installers & Repairers
- Excavating and Loading Machine Operators
- Graders, Bulldozers, and Scraper Operators
- Heating and Air Conditioning Mechanics
- Highway Maintenance Workers
- Industrial Machinery Mechanics
- Library Technicians
- Locksmiths & Safe Repairers
- Motorboat Mechanics
- Photoengraving & Lithography Machine Operators & Tenders
- Production Inspectors, Testers, Graders, Sorters, Samplers, Weighers
- Railroad Yard Workers
- Roofers
- Shoe & Leather Workers and Repairers
- Stationary Engineers
- Structural Iron & Steel Worker

#### **High School/GED (cont.)**

- Textile Cutting Machine Setters, Operators and Tenders
- Tile and Marble Setters
- Tool and Die Makers
- · Welders and Cutters

#### **1-2 Years Training/Education**

- Airline Pilots, Copilots, and Flight Engineers
- Architectural Drafters
- Automotive Master Mechanics
- Bus and Truck Mechanics and Diesel Engine Specialists
- Camera and Photographic Equipment Repairers
- Construction and Building Inspectors
- Cost Estimators
- Data Processing Equipment Repairers
- Drywall and Ceiling Tile Installers
- Electrical and Electronics Repairers, Commercial and Industrial Equipment
- Plumbers
- Power Generating Plant Operators, Except Auxiliary Equipment Operators
- Production Inspectors, Testers, Graders, Sorters, Samplers, Weighers
- Production, Planning, and Expediting Clerks
- Sales Managers
- Stock Clerks-Stockroom Warehouse, or Storage Yard
- Tool and Die Makers
- Transportation Managers
- Watch Repairers

- Aerospace Engineers
- Air Traffic Controllers
- Architectural Drafters
- Aviation Inspectors
- Civil Engineers
- Construction Managers
- Electronics Engineers, Except Computer
- Industrial Engineers
- Industrial Safety and Health Engineers
- Licensing Examiners and Inspectors
- Mechanical Engineers
- Occupational health and Safety Specialists
- Surveyors
- Urban and Regional Planners

#### **BIG SKY PATHWAY PROPOSAL** HIGH SCHOOL: Helena High School **COLLEGE: Helena College** nufacturing **COLLEGE DEGREE PROGRAM: Welding Technology** Cluster Overview: **Pathway Options:** Occupation Examples: Assembler, MIG Welder, TIG Welder, Machine Jobs in the manufacturing career cluster Production Operator, Sheet Metal Worker, Mechanical involve planning, managing, and performing Manufacturing & Production Process the processing of materials into intermediate Development Engineer, Industrial Engineer, Quality Control or final products and related professional Technician, Safety Technician, Safety Engineer, Maintenance, Installation and Repair and technical support activities, such as Dispatcher, Production Manager, Purchasing Quality Assurance production planning and control, Agent, Logistician Logistics and Inventory Control maintenance, and manufacturing/process Health, Safety and Environmental engineering. For a complete listing, go to: Assurance http://online.onetcenter.org/find/career?c=13&g=Go SUGGESTED HIGH SCHOOL COURSES English I, Pre-Algebra, Math I, Earth Science, World **Graduation Requirements** Recommended CTE 9th Workforce/2-Year College Prep Cultures/Elective, Phys Ed1, Art, Welding I **Cluster Foundation** 4-Year MT College/Univ Prep Course(s): (Rigorous Core) Welding I, Industrial Arts CTE and/or Electives Welding I, Industrial Arts, Drafting I **Recommended CTE** 10th **Graduation Requirements** English 2, Math II, Biology, World Cultures/Elective, Health, **Pathway Courses:** Workforce/2-Year College Prep Elective, Welding I/Welding II Welding I, Welding II, 4-Year MT College/Univ Prep Welding III, Welding IV and Welding Manufacturing (Rigorous Core) CTE and/or Electives Other Recommended CTE Welding I or II, Drafting I, Carpentry, Automotive, 11th **Graduation Requirements** English 3, Math III, Technical Math (DC), Pre-Calculus, Chemistry, Courses: Workforce/2-Year College Prep US History, Elective, Elective, Elective, Welding II or III Computer Tech Skills 4-Year MT College/Univ Prep Drafting I. Drafting II -(Rigorous Core) Mechanical, CAD, Industrial CTE and/or Electives Welding II or Welding III, Drafting I, II, CAD, Carpentry, Arts, Carpentry, Automotive, Accounting I (Start) Automotive, Accounting I (Start) Ceramics, Photography English 4, English College Writing (DC), Technical Math (DC), Career & Technical 12th **Graduation Requirements** Workforce/2-Year College Prep Carroll Calculus (DC), Physics, US Government, Elective, Student Organization(s): Elective, Elective, Welding III or Welding and Machining Co-op IV Skills USA, Helena High 4-Year MT College/Univ Prep School American Welding (Rigorous Core) Society Club. Welding III, Welding IV, Welding and Machining Co-op, CAD, CTE and/or Electives Carpentry, Automotive, Accounting I (Start) ADVANCED LEARNING OPPORTUNITIES High School to College/Career Linkages **CTE START courses:** Advanced Placement or IB courses: Dual Enrollment courses: M 111T Technical Math, WRIT 121 Intro to Technical Writing and Welding 112 Online courses:

Other:

	POSTSECONDARY PROGRAM OF STUDY					
	Math	English	Major	Other		
13—Semester 1	M111T Technical Math		WLDG 105 Shop Safety, WLDG 117 Blueprint Reading and Weld Symbols, WLDG 132 Estimating of Job Materials, WLDG 133 GMAW, FCAW, and GMAW-P, WLDG 180 Shielded Metal Arc Welding			
13—Semester 2			WLDG 131 Intro to Layout and Pattern Making, WLDG 140 Intro Gas Tungsten ARC Welding (GTAW) - Integrated Lab , WLDG 151 Shop Practices , WLDG155 Design and Fabrication, WLDG 160 Rigging for Welders	CAPP 131 Basic MS Office		
14—Semester 1		WRIT 121T Introduction to Technical Writing	WLDG 217 Advanced Blueprint, WLDG 225 Structural Fabrication, WLDG 230 Field Welding and Processes, WLDG 243 Advanced Metal Fabrication I, WLDG 255 CNC Burn Table Programming and Operation			
14—Semester 2			WLDG 213 Pipe Welding Lab I, WLDG 244 Advanced Metal Fabrication II, WLDG 245 Metal Fabrication Design and Construction, WLDG 265 MSHA Safety Training	HR 110T Career Development and Human Relations		

### Sciences and Technology

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	9 <sup>th</sup> Grade	10 <sup>th</sup> Grade	11 <sup>th</sup> Grade	12 <sup>th</sup> Grade	
	English I	English II	English III	English IV	
	Algebra I or Geometry	Geometry or Algebra II	Algebra II, Pre-Calc, or Calc	Pre-calc, Calc, or College Algebra	
_	Earth Science or Honors Earth Science	Biology I, Honors Biology or Chemistry	Biology II Chemistry II	Physics Science Seminar	
8	World Cultures		U S History	Government	
High School	Required Courses/Electives PE	Required Courses/Electives PE, Health	Additional High School Electives Biomed II Biomed III	Technology Electives Desktop Publishing Graphic Web Design Computer Science	
	Career Electives Computer Apps Basic Computer Skills Tech Skills for Life Biomed I	Biomed I Biomed II	Biomed IV CSI Forensic Science Environmental Science Welding I, II, III Money Management Career Planning	CISCO I, II, III, IV Oracle Athletic Training Physical Conditioning	
Gradua	Graduation Requirements: 1 Fine Art credit, 1 Career/Tech Ed credit, 7 electives 23 credits total to graduate				

	Technology Center	Community College	College/University
Postsecondary	□ Business and Computer     Technology □ Drafting and CAD □ Electronics □ Network Services □ Manufacturing Engineering     Technology □ Information Services	□ Design Engineering     Technology     □ Pre-Engineering     □ Industrial Drafting     □ Biology/Chemistry/Physics     □ Computer Information     Systems     □ Computer Program and     Computer Science	□ Mechanical Engineering □ Civil Engineering □ Mathematics □ Biology/Chemistry/Physics □ Computer Science □ Information Science □ Management Science and Systems Analysis
		☐ Mathematics	

Career Enhancement Options	Work-based Learning Options	Clubs, Activities
	Job Shadowing	Science Olympiad Team
	Internship/Mentoring	Science Circus
	On-the-Job Training	Green Group
	Volunteer service	Envirothon
	Career Training Institute	Science Bowl
	-	Business Professionals (BPA)

### Science and Technology

The Sciences/Technology cluster involves providing scientific or technical services, developing innovations, solving problems, improving skills for technology related work

#### **High School/GED**

- Biological Technicians
- Chemical Technicians
- Geological Data Technicians
- Landscaping and Grounds keeping Workers
- Power generating Plant Operators, Except Auxiliary Equipment Operators
- Production Inspectors, Testers, Graders, Sorters, Samplers, Weighers
- Refuse and Recyclable Material Collectors
- Telecommunications Line Installers and Repairers
- Tree Trimmers and Pruners
- Water and Liquid Waste Treatment Plant and System Operators

#### **1-2 Years Training/Education**

- Aerospace Engineering and Operations Technicians
- Computer Programmers
- Computer Software Engineers, Applications
- Computer Support Specialists
- Computer System Analysts
- Electro-Mechanical Technicians
- Electronic Drafters
- Engineering Technicians, Except Drafters, All Other
- Farmers and Ranchers
- Fish and Game Wardens
- Foresters
- Mechanical Drafters
- Medical Equipment Repairers
- Network and Computer Systems Administrators
- Nuclear Monitoring Technicians
- Surveyors
- Telecommunications
   Equipment Installers and
   Repairers, Except Line
   Installers

- Aerospace Engineers
- Atmospheric and Space Scientists
- Biologists
- Chemical Engineers
- Chemists
- Civil Engineers
- Computer Software Engineers, Applications
- Computer Software Engineers, System Software
- Electronics Engineers, Except Computer
- Engineers, All Other
- Environmental Engineers
- First-Line Supervisors and Manager/Supervisors-Landscaping Workers
- Forensic Science Technicians
- Hydrologists
- Landscape Architects
- Materials Engineers
- Mathematicians
- Physicists
- Plant Scientists
- Soil Scientists
- Veterinarians
- Zoologists and Wildlife Biologists

### **Montana College and Career Readiness**

The goal of the Office of Public Instruction is to ensure that every student graduates from high school prepared to succeed in college, the military or the workforce. A college and career ready student has the following:

#### Academic and Technical Knowledge and Skills

#### A college and career ready student is prepared to complete a freshman level postsecondary course of study without remediation as demonstrated by:

- Completion of a rigorous high school curriculum;
- Participation in college preparation and college level courses;
- Participation in career preparation programs; and
- An understanding of college and career planning and the admissions and financial aid process

#### **Employability Knowledge and Skills**

A college and career ready student is prepared to connect their education to employment opportunities, as demonstrated by:

- Goal setting and planning;
- · Clear and effective communication skills:
- Critical thinking and problem solving skills:
- Working independently and in teams;
- Effective knowledge and use of technology; and
- · Ability to work with diverse groups

#### **Work Ethic and Professionalism**

#### A college and career ready student understands the expectations of the workplace as demonstrated by:

- Attendance and punctuality expected by the workplace
- Workplace appearance appropriate for position and duties
- Motivation and taking initiative, taking projects from initiation to completion
- Understanding workplace culture, policy and safety, and respecting confidentiality and workplace ethics

#### **Measures for Career Readiness**

A student is career ready if they have identified a career pathway and have completed three or more of the following benchmarks while in high school:

- 90 percent attendance
- 25 hours of community service
- Industry credential or certificate
- Career pathway course with college credit
- Work-based learning experience
- Two or more organized co-curricular activities such as a Career and Technical Student Organization (CTSO)
- An understanding of career choices based on employment and labor market statistics
- An ability to analyze the cost of college as it relates to a variety of careers and occupations



#### **ENGLISH**

The English Department of Helena High School presents balanced instruction in reading, writing, speaking, and listening to enable students to be proficient readers, writers, and thinkers in today's world. Through study of contemporary and classic literature, students gain reading comprehension as they study fiction, nonfiction, drama, poetry, and film. The English Department uses the Bengal Writing Program, ensuring a writing-intensive learning experience. Students use the writing process--planning, drafting, revising, editing, and publishing--with a minimum of eight process pieces per year. In addition, students develop poise as speakers, communicate effectively in an organized manner, and become discriminate listeners.

Freshman, sophomore, junior and senior English are required. An honors program is offered at each level and provides an opportunity for students with superior skills and interest to study on a more creative and in-depth basis.

Senior English offers students a variety of courses on various levels: Advanced Placement (AP) English Literature and Composition, College Literature and College Writing, or core class selection.

AP Seminar and Research, Speech, Debate, Yearbook, Reading the Movies, Creative Writing, Science Fiction, and Journalism round out the program and provide opportunities for students to sharpen their skills in vocabulary, debate, speaking, and writing.

#### 1100 English 1

Required: 9
Full Year – 1 Credit

This class emphasizes expository and creative writing, vocabulary development, and communications skills. A variety of literature is examined, including short stories, mythology, drama, and poetry. Classroom methods include lectures, audiovisual materials, textbook reading, and discussions. In making the transition from middle school to high school, students learn the importance of the course's evaluative criteria: timely homework completion, class participation, papers, and tests.

#### 1101 English 1 – Honors

Elective\*: 9
Full Year – 1 Credit

As in the regular English course, the Freshman Honors class stresses writing, reading, discussion, and communication skills. Honors-level instruction focuses on in-depth involvement in diction, syntax, and organization of descriptive and expository paragraph and essay writing. Challenging reading materials are used as the basis for in-depth skill work in expression – both verbal and written.

Prerequisite: Signed commitment form attached to registration materials and completion of summer reading and related assignments.

### 1200 English 2

Required: 10 Full Year – 1 Credit

In sophomore English, students read both fiction and non-fiction works with increasing complexity including novels, short stories, drama, poetry, memoirs and essays. Students will compose two significant writing pieces per quarter in addition to other extended responses. Students learn grammar and punctuation skills in order to improve the clarity of their writing. Vocabulary instruction focuses on Latin roots and on terms used in analyzing writing. Students are encouraged to create ideas, develop those ideas, and communicate them logically. They have many opportunities to gather and assess information, think critically, solve problems, and express their thoughts during discussions and in writing.

#### 1201 English 2 - Honors

Elective\*: 10
Full Year – 1 Credit

In a more challenging and enriched version of the required course, Honors English II students build on skills developed the preceding year to achieve competence in writing persuasive and expository essays. A variety of pre-writing methods prepare students to respond to literature creatively, analytically, and critically, both in oral and written form.

Students read literature from many genres in the tragic, romantic, comic, and ironic modes. The success of the class rests on mutually inspirational student presentations and projects, a commitment to discussion, and a desire to write.

Prerequisite: Signed commitment form attached to registration materials and completion of summer reading and related assignments.

1300 English 3 Required: 11 Full Year – 1 Credit

Students write a variety of longer expository compositions this year, using skills learned in their earlier English classes, including a range of book reviews, responses to the literature studies, essay tests, and personal essays. The year also features a chronological and/or thematic study of American literature from colonial times into the 20<sup>th</sup> century. Classroom techniques include individual projects, lectures, and discussions. Students are evaluated on daily work, written work, and tests.

#### 1306 English 3 AP Language

Elective\*: 11 – 12 Full Year – 1 Credit

English III Advanced Placement English Language and Composition is a rigorous and challenging course requiring students to read and write at the college level. Close reading of fiction and nonfiction of American literature enables students to recognize the elements of rhetoric and apply these to their own writing. Students are expected to take the College Board Advanced Placement exam in English Language and Composition in May. A satisfactory grade ensures a quarter or semester course waiver by most colleges. A passing score on the AP test will transfer to the Montana University System as Writ 101.

Prerequisite: Signed commitment form attached to registration materials and completion of summer reading and related assignments.

#### **English 4 Core Options**

Required: 12 Full Year – 1 Credit

These courses serve to benefit students bound for any post-secondary pursuit: college/university study, the job market, the military, etc. By design, students choose a pair of semester-long courses based on theme and interest. The main objective of all of the course pairings is to help students.

Students will register for ONE of the following pairings:

#### 1413 Pair Two – Sports Literature/Satire and Humor

#### **Sports Literature**

"Game on!"—William Shakespeare

Even Shakespeare knew a good game when he saw one, and the power of competition resonate through literature. Using some of the best contemporary American fiction and non-fiction writing about sports (authors like Maclean, Epstein, Gary Smith and films like 42), this course will focus on the impact of sports and the outdoors on individuals and societies.

#### **Satire**

To laugh out loud even as you're terrified and alarmed. To love what you criticize or despair of it. Such is the nature of Satire. In this course, we'll attempt to discover how literature and film can be so funny and disturbing at the same time. Using works by Aristophanes, Swift, Salinger, Orwell, and Heller as well as contemporary film and television, we'll attempt to understand and define the satiric experience.

### 1414 Pair Three – Mythology/British Literature

#### Mythology

Myths, fables and legends are the origins of world literature and provide insight into the foundations of our contemporary society. An examination of unique cultural points of view and the similarities that bind us all will be a focus of the class as we read works such as creation myths, *The Odyssey, Beowulf,* and legends of King Arthur. We will cover a variety of myths from cultures around the world, including Greek/Roman, Norse, Blackfeet and other American tribes, Incan, Persian, Japanese, African, and more. These stories will allow us to explore the field of comparative mythology and the themes that have influenced human civilization for millennia.

#### **British Literature**

"British Literature spans about 1500 years—from Old English poems to modern bestsellers." The goal of this course will be to connect the old with the new by examining the cultural and historical contexts of plays, poems, stories, and novels from the UK and Ireland, as well as from regions colonized by the British. We will begin by reading older British texts by canonical authors, such as Chaucer and Shakespeare, and then move forward in history with works by Oscar Wilde, the Romantic poets, and Arthur Conan Doyle.

#### 1415 Pair Four - Mystery and Adventure/Outdoor Literature

#### **Mystery and Adventure Literature**

In this course, students will acquire strategies to understand the fascination of fear, terror, and horror by reading a variety of both classic and contemporary MASH literature. Fiction and non-fiction authors may include: Mary Shelley, Stephen King, Shirley Jackson, Agatha Christie, Jack London, Franz Kafka and Edgar Allen Poe.

#### **Outdoor Literature**

This class takes students deep into the outdoors through novels, poetry, and short stories written by some of the greatest authors and outdoor enthusiasts. Imagine climbing mountains, floating rivers, hunting, fighting fires, and desperately fighting for survival simply through reading a book! Outdoor literature focuses on writings in outdoor adventure, nature, the environment, and adventure travel writing.

#### 1416 Pair Five - Holocaust/Crime Literature

#### **Holocaust Literature**

This class will focus on the memoirs, novels, essays, poetry and other literature written not only about the Holocaust during World War II, but other racial and tribal conflicts throughout history. Our focus will be on the personal impact of oppression and the vitality of the human response.

#### **Crime Literature**

Some of the most engaging literature ever written focuses on the criminal mind. Crime Literature will examine the investigation and trials of some of America's most infamous criminals. Students will also explore the roles of the victims and the complex issues surrounding the surviving family members of victims. The causes of crime and the effect of crime on the individual and on society will be studied. Authors may be chosen from the following: Capote, Bugliosi, Grisham, Shakespeare, Doyle, Christie and more.

#### 9999 Gothic and Suspense Literature

Elective\*: 12
Full Year – 1 Credit

This course will explore the evolution of the Suspense and Horror genre in American Literature. As we study this genre, we will unpack the key elements and applications of literary texts and their connections to societal values of character and ethical paradigms between right and wrong. This genre is unique in its primary goal to evoke emotion and elicit reader responses of shock and fear as it pushes the limits of what is considered culturally acceptable and at the same time uses style, characters, setting and plot to reach the human psyche and engage readers. Study authors from Edgar Allen Poe to Stephen King. You will be immersed in the world of literature and writing all while participating in rotating literature pods for continuous analysis and discussion.

#### 1406 English 4 – Advanced Placement

Elective\*: 12
Full Year – 1 Credit

Advanced Placement English is a high-level learning experience focusing on first-year college material. The classics are read in all genres: short stories, novel, poetry, drama, and essay. Students are expected to take the College Board Advanced Placement exam in May. A satisfactory score ensures a quarter or semester course waiver by most colleges and will count as Lit 110 in the Montana University System. Prerequisite: Signed commitment form attached to registration materials and completion of summer reading and related assignments.

# 1457 Writing 101 Dual Credit- Helena College (3 credits)

Elective\*: 12 Semester – .5 Credit

Students are able to fulfill a semester of required senior English while earning 3 credits in college composition through Helena College. This semester course is designed to give students experience with the written expression of ideas in expository form. The course emphasizes the development of ideas; the use of research; and the awareness of audience, structure, and clarity. All students planning to take this class must have passed <u>one</u> of these three options: 1) the ACT Writing Exam (given in the spring of the junior year) with a 7 or higher OR 2) an 18 on the ELA section of the ACT OR 3) the Accuplacer Exam given at Helena College.

<sup>\*</sup>This elective can be used to fulfill the graduation requirement.

# 1458 English Literature 110 Dual Credit- Helena College (3 credits)

This is a rigorous college level literature course; students will read college level literature and respond in college level critical analysis. Emphasis is on articulating strong responses to varied texts including poetry, drama and fiction as well as literary criticism and theory. Students successfully completing this dual credit class will earn both .5 English credit for Helena High School and three college credits for Literature 110 that transferable to any Montana public college or university (4-year program).

# 1459 Tech Writing Dual Credit- Helena College (3 credits)

Writing for the real world and writing for work is different than writing for school, though lesson and styles overlap. In Technical Writing, students will learn to create and edit effective pieces of writing for diverse audiences, including professional and technical fields. Students will work on the mechanics of writing and editing, audience analysis, style, and tone – all for specific purposes and audiences. We will also spend time learning how to write for the electronic media. Products of Technical Writing will include but are not limited to: manuals, how to (instructions), process, analysis, presentations, business models, leaflets/brochures, and business plans.

#### **English Electives**

#### 1410 Studies in Science Fiction

If you enjoy reading amazing literature and discussing it with peers, this junior and senior level semester 1 class is perfect for you. From H.G. Wells to *The Matrix*, Studies in Science Fiction is a fast-paced, in-depth look at "life, the universe, and everything." Students who sign up for this one semester course will discuss books, films and stories centering on such time-honored SF themes as time travel, AI and robots, and possible human futures. In addition to the lively exchange of ideas, study will include writing original SF stories, creative in-class responses and at least one analytical piece relating to a film. Prerequisite: Willingness to read and discuss

#### 1411 More Studies in Science Fiction

Elective: 11 – 12 Semester – .5 Credit

Elective\*: 12

Elective\*: 12

Full Year - 1 Credit

Elective: 11 – 12 Semester – .5 Credit

Semester - .5 Credit

If you enjoy reading <u>more</u> amazing literature and discussing it with peers, this junior and senior level semester 2 class is perfect for you. From *Alien* to *Blade Runner*, *More Studies in Science Fiction* is a fast-paced, in-depth look at more of "life, the universe, and everything." Students who sign up for this second semester course will discuss books, films, and stories centering on such time-honored SF themes as alien encounters, genetic engineering, and cyberpunk. In addition to the lively exchange of ideas, study will include writing original SF stories, creative in-class responses, and at least one analytical piece relating to a film. *Studies in Science Fiction* (from semester 1) is not a prerequisite for this class. Prerequisite: Willingness to read and discuss.

1420 Speech Elective: 9 – 12 Semester – .5 Credit

The purpose of this course is to introduce the student to the various speaking situations an individual may encounter in his/her lifetime. From simple explanations of why we should study communication to a formal persuasive talk; this course will be a valuable aid in personal communications and will prepare you for college interviews, job interviews, and work communication.

1425 Debate Elective: 9 – 12 Semester – .5 Credit

This course will focus on debate, in both academic and everyday contexts. Students will learn research skills, effective argumentation, and the ability to evaluate the arguments of others. Students will develop effective advocacy and public speaking skills. We will also focus on current events in controversy, and the rhetorical approaches that advocates use to convey their point of view. Competitive elements of high school policy debate and Lincoln-Douglas debate will be highlighted. The class is open to all grade levels. Even though Debate is listed as a semester class, the option is available to take the class only during 1<sup>st</sup> semester, only 2<sup>nd</sup> semester or during both semesters.

#### 1435 Reading the Movies

Elective: 12

**Semester – .5 Credit** 

The course will examine film chronology, genre and directorial style along with some film terminology. Students will view approximately twenty films and will be required to write film critiques, compare and contrast essays, character analysis, persuasive essays and demonstrate in class "live" critiques. This course involves some home viewing and independent research.

#### 1445 Creative Writing

Elective: 11 – 12 Semester – .5 Credit

This course is designed for the aspiring writer. Students will develop their writing skills through the genres of short stories, personal narrative, poetry, screenplay, and short fiction. Concepts in action during the course include sharing and individual editing and evaluating, multiple drafting of pieces, conferencing with the instructor, and sharing of finished works. Evaluation is based on day-to-day work and culminates with a collected works portfolio and a public reading final exam. Prerequisite: A serious attitude towards one's writing.

#### 1450 Newspaper

Elective: 10 – 12 Full Year – 1 Credit

Be part of Helena High's student newspaper, the Nugget. Writing and interviewing skills are essential in this year-long course, but students may explore other creative positions such as graphic artist, cartoonist, and photographer. Members of the staff are required to regularly attend events outside of school (sports, theater productions, club meetings, dances, etc.), to take pictures, and to conduct interviews for the paper. Please check out our work at <a href="https://thenugget.net">https://thenugget.net</a> to see if you're interested in joining the team.

An understanding of journalistic principles is required; therefore, students must complete journalism prior to taking newspaper OR have instructor approval.

1460 Yearbook

Elective: 10 – 12 Full Year – 1 Credit

Yearbook offers an opportunity for students to incorporate photography, writing, and computer technology to create the school yearbook. Members of the staff are required to regularly attend events outside of school (sports, theater, club meetings, dances, etc.), take pictures and get quotes! If you're interested in publication design, this class gives students access to and training in professional software programs like Adobe Photoshop and Adobe InDesign. Members of the VIGILANTE staff must be approved by the advisor and must begin this class at the start of the fall semester. If you are creative, enjoy attending school events, and can work on a deadline, this is the place for you!

1470 Journalism

Elective: 9 – 12 Semester – .5 Credit

Journalism is a prerequisite to joining the Nugget newspaper. It is a semester-long course designed to explore many facets of our modern media. Students will learn how to write news stories, opinion pieces, reviews, and profiles. Students will learn interviewing skills, caption-writing, and photojournalism skills. Students will follow current events and analyze bias in the news they encounter. We will discuss the ethics of journalism and current issues journalists face today. If you are a curious person who enjoys writing and stepping out of your comfort zone, journalism is the class for you! In order to take newspaper, you must pass journalism class and receive instructor approval.

8205 AP Seminar

Elective: 10 – 12 Full Year – 1 Credit

Interested in conspiracy theories? How Hollywood creates and perpetuates gender roles? Subjects ranging from Science to Art? In **AP Seminar**, you'll have the chance to have interesting discussions about topics like these and more as you learn how to write and present findings in an inquiry-based course focused on your academic interests and passions. Seminar is a pre-requisite for **AP Research**, the AP Capstone program, and a great fit for students who want to be prepared for college.

#### 8206 AP Research

Elective: 11-12 Full Year – 1 Credit

AP Research is the final class of the AP Capstone Course and students can register for this class if they have completed AP Seminar. AP Research is for students that want to deeply explore an academic topic, problem, or issue of individual interest. During the school year, students will define a research question and design, plan, and conduct a year-long, research-based investigation. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Throughout this exploration students will create a portfolio of their work that shows their skill development, data collection in the research process, and their final product. The course culminates in an academic paper of 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. Successful completion of AP Research leads to the **AP Capstone** diploma.

Prerequisite: AP Seminar

#### **SOCIAL STUDIES**

The social studies department at HHS provides a variety of courses to broaden the base of students cultural and civic awareness. Some of the courses described are required for graduation while others provide elective opportunities. The required courses afford students several options; for acquiring credit – Applied (requires instructor approval); Regular (provides a general well-rounded approach to content); Make-up (selected enrollment and instructor approval). The elective courses offer students the opportunity to explore more fully specific content areas of the social sciences or gain an awareness of issues and concerns of a more current nature.

#### 2100 World Cultures

Required: 9
Full Year – 1 Credit

World Cultures is an introductory course that examines the geographical, cultural, political/historical, as well as social development of major regions of the world. Various regions of the world will be discussed and examined in relationship to the cultural experience of the United States. The current status, problems and interrelationships of the world's regions will be analyzed. This dynamic course will be presented through varied approaches including group projects, audiovisuals and independent research. Assessment of students will be through a variety of methodologies including individual work, group activities, as well as tests. Woven throughout the course will be the reinforcement and integration of appropriate study skills.

#### 2103 AP Human Geography

Elective\*: 9

Full Year – 1 Credit rese is equivalent to an introductor

Learn about the world and get college credit! The AP Human Geography course is equivalent to an introductory college-level course in human geography. Content is presented thematically through the subfields of economic geography, cultural geography, political geography and urban geography. Case studies are drawn from all world regions, with an emphasis on understanding the world in which we live today. Students enrolling for this course will be assigned college-level texts to read, along with rigorous writing assignments. Only those who are able to perform at a higher academic level should enroll.

#### 2300 American History

Required: 11 Full Year – 1 Credit

This required Junior level course is designed to provide an overview of America's history, heritage and evolving role in the world. Students will have the opportunity to prepare for their role as participatory members of a democracy. Course content is presented in a variety of thematic and/or chronological sequences. Students will have the opportunity to participate in a variety of activities including individual work, collaborative efforts, lecture, written and oral presentations as well as research. Assessment and evaluation will occur through a variety of techniques including written and oral tests, presentations and demonstrations.

#### 2306 American History – Advanced Placement

Elective\*: 11

Full Year - 1 Credit

The Advanced Placement United States History course is designed to challenge and stimulate the student's historical awareness. The course will provide the equivalent of a freshman level college course in United States History. Students will have the opportunity to: develop and hone critical thinking and writing skills through interpretation of primary source documents; critical and analytical reading of historical materials; interpretation and analysis of graphs, charts, political cartoons, etc. The course is also designed to prepare students to take the AP History exam in the spring. Requirements for acceptance to the program include: 1) Acceptable score on the CTBS and/or DAT 2) Grades of B or better previous social science and English courses 3) Recommendation of previous English teacher 4) Consent of the A.P. History instructor

Prerequisite: Instructor approval

#### 2400 American Government

Required: 12

Full Year - 1 Credit

American Government acquaints senior level students with the American political system and includes such units of study as the Constitution, the structure of government, political parties, interest groups, civil right, and comparative

political and economic systems. Through experiences ranging from individual activities and group projects to lectures, discussions, reading, multimedia presentations as well as research opportunities, students learn the why and how of active citizenship. Assessment will be achieved through a variety of written and/or oral techniques.

# 2406 American Government – Advanced Placement Elective\*: 12 Full Year – 1 Credit

The Advanced Placement U.S. Government & Politics course is equivalent to a freshman-level college course in political science. It is designed to give students both an informed and critical perspective on government and politics in the United States through analysis of American political structure and the process of political decision —making. Students are required to become familiar with the various institutions, groups, beliefs, and ideas that make up American political culture. The course is also designed to prepare students for the AP U.S. Government & Politics exam at the end of the year. Depending on the criteria of the individual university or college, students with scores of 3 or above on the exam may receive college credit for required political science courses. Admission to the course is based on acceptable PSAT verbal and written scores, grades of "B" or above in previous social studies and English courses, and the recommendation of the student's U.S. History and/or English instructor.

Prerequisite: A.P. Instructor approval.

#### Social Studies Elective

#### 2426 AP European History

AP European History is a course designed to be the equivalent of a freshman college course in a high school setting. It is a year-long survey of European history from the Renaissance to the present. Solid reading and writing skills, along with a willingness to devote considerable time to homework and study, are necessary to succeed. Emphasis is placed on critical thinking skills, essay writing, interpretation of original documents and historiography.

Students will be required to apply the effort necessary to act as an historian and develop the ability to analyze historical evidence to determine its validity and relevance, identify point of view and the nature of bias, and recognize the necessity of objectivity and substantiation. The methodology of an historian involves skills that are highly transferable—the ability to formulate generalizations, interpret and use data and to analyze and weigh evidence from conflicting sources of information are applicable to many other academic and practical disciplines.

#### 2430 Current Issues

Elective: 10 – 12 Semester – .5 Credit

**Elective: 10 – 12** 

Full Year - 1 Credit

Current Issues offers students an opportunity to examine major current events from around the world. Emphasis will be given to an historical background providing the student with the information necessary to understand contributing factors to significant events. Research and discussion of these topics as well as multimedia, news periodicals, newspapers and selected reading will be used.

#### 2440 World History

Elective: 10 – 12 Full Year – 1 Credit

World History is a course designed to complement the required Social Study courses – by developing a wider understanding of the world and its history. This course is highly recommended for those students who plan to attend college, but may be taken by serious students of all levels. The first semester will allow students to explore and analyze the major political, economic, social and cultural themes and patterns we see from Prehistoric times through 1500 CE, while the second semester will focus on 1450 CE through contemporary times. Such themes and patterns include, but are not limited to, the spread of humans, the rise of complex civilizations, human exchanges, key human innovations, the rise of universal religions, key revolutions, and globalization. Students will be expected to participate in and complete class discussions, hands-on activities and projects, written assignments, and reading assignments that are meant to help students develop and refine their historical thinking skills.

#### 2450 Psychology

Elective: 10 – 12 Semester – .5 Credit

This course will focus on scientific studies of human behavior and the applications of psychological research to everyday life. Topics will include learning principles, biological aspects of behavior, personality theory, mental health,

therapy and interpersonal communication. Applied activities, lecture, experiments, films and speakers will make up the primary activities.

# 2456 AP Psychology

Elective: 11 – 12 Full Year – 1 Credit

The Advanced Placement Psychology course is a one-year course designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and theories associated with each of the major subfields within psychology. Students also learn about the ethics and methods psychologists use in their science and practice. **The AP Psychology course is equivalent to a freshman-level college course in psychology**. The course is designed to prepare students for the AP Psychology Exam which will be taken at the end of the year. Depending on the criteria of the individual university or college, students with scores of 3 or above on the exam may receive college credit or exemption from the course.

Prerequisite: None, however students should be committed to the rigors of an AP course.

### 2460 Montana History

Elective: 9 – 12 Semester – .5 Credit

Montana History offers a diverse look at how Montana became the state it is today. Montana's history includes Native American study, the homesteading era, fur trading and gold mining, railroading, the boom and bust era, as well as many more. Hands on projects, speakers, topic research, films and possible tours bring an interesting perspective to this fun class.

#### 2506 AP Economics (CHS)

Elective: 11 – 12 Full Year – 1 Credit

Advanced Placement Economics is designed for juniors or seniors who are interested in a strenuous in-depth economics course. The course provides students with the analytical skills and factual knowledge to deal critically with modern macro and micro economic theory. Activities include reading economic journals, mathematical graphing and statistics, discussions, debates, and individual as well as group projects. This course requires a solid math background. Students must be able to read graphs, solve and graph equations and evaluate data. Students taking this course are eligible to take the Advanced Placement (AP) Economics Exam (Exam Fee: approx. \$90), which is accepted for credit at many colleges and universities. The exam is accepted in most colleges and universities for college credits, depending on student's AP exam score.

### 9999 Glacier College

Elective: 10 – 12 Full Year – 1 Credit

Glacier College is a year-long elective centered around one of America's most iconic natural spaces – Glacier National Park. Throughout the year, the Park will be our textbook, with every quarter featuring a two-day trip to Glacier to live the coursework firsthand. So, prepare to map the wilderness. To understand how nature affects the way we think and feel. Expect to experience the Park's history, connect with its Native heritage, and see its preservation at work. Be ready to discover what the future holds for Glacier – and how we can be a part of it.

#### **MATHEMATICS**

The State Board of Education requires that all students successfully complete three years of mathematics to graduate from high school. Students attending a Montana University need four years of math. All students should take three years of math, college bound students should plan on four years. At Helena High School placement in all mathematics courses is largely determined by successful completion of the prerequisite course(s) and the recommendation of the current math teacher.

One mathematics course must be taken during each of the first two years (9<sup>th</sup> and 10<sup>th</sup> grades). As you review the mathematics program, keep in mind that each course requires some degree of homework, and that mastery of every level of math skills is enhanced by the additional time spent on assignments. For those students who have difficulty in mastering math skills, the staff makes itself available for extra help and counseling on a regular basis. (Flow chart below.)

# MATH COURSE PATHWAY

9TH

#### **PRE-ALGEBRA**

- TEACHER RECOMMENDATION

#### ALGEBRA I

- LAB: C/D IN MATH 8 OR TEACHER RECOMMENDATION

#### GEOMETRY

- TRANSCRIBE 8TH GRADE ALGEBRA I GRADE - RECOMMENDED C OR BETTER IN ALGEBRA I

# HONORS MATH I

- A/B IN ALGEBRA I - A IN MATH 8 WITH TEACHER RECOMMENDATION

#### HONORS MATH II

- A/B IN HONORS MATH I

**10TH** 

#### ALGEBRA I

- D IN PRE-ALGEBRA - LAB: C/D IN PRE OR TEACHER RECOMMENDATION

#### **GEOMETRY**

- D IN ALGEBRA I - LAB: C/D IN ALG I OR TEACHER RECOMMENDATION

#### ALGEBRA II

- LAB: D IN ALG I AND/OR GEO

#### **HONORS MATH II**

- A/B IN HONORS MATH I - C IN HONORS MATH I WITH TEACHER RECOMMENDATION

#### HONORS PRE-CALCULUS

- C OR BETTER IN HONORS MATH II

11**TH** 

#### **GEOMETRY**

- D IN ALGEBRA I - LAB: C/D IN ALG I OR TEACHER RECOMMENDATION

#### ALGEBRA II

- LAB: D IN ALG I AND/OR GEO - COLLEGE BOUND STUDENTS

# HONORS PRE-CALCULUS

- C OR BETTER IN ALGEBRA II - COLLEGE BOUND STUDENTS

**CALCULUS AB** 

- A/B OR IN HONORS PRE-

#### HONORS PRE-CALCULUS

- C OR BETTER IN ALGEBRA II - COLLEGE BOUND STUDENTS

#### **CALCULUS AB**

- A/B OR IN HONORS PRE-CALC
- C IN PRE-CALC W/TEACHER
RECOMMENDATION

CALCULUS BC

- A/B IN CALCULUS AB

# . . . . . .

#### ALGEBRA II

- C OR BETTER IN GEOMETRY AND ALGEBRA I - COLLEGE BOUND STUDENTS - LAB: D IN ALG I AND/OR GEO

M105

# HONORS PRE-CALCULUS

- DUAL CREDIT - C OR BETTER IN ALGEBRA II

# COLLEGE AP STATS

ALGEBRA/STATS
- DUAL CREDIT
- D OR BETTER IN ALGEBRA II

#### TECH MATH

- DUAL CREDIT
- D/F IN GEOMETRY
- F IN ALGEBRA II

- RECOMMENDED FOR STUDENTS
IN TRADE AND ENROLLED IN
TRADE COURSE

# CALC C IN PRE-CALC W/TEACHER RECOMMENDATION

- D OR BETTER IN HONORS PRE-CALCULUS

#### COLLEGE ALGEBRA/STATS

- DUAL CREDIT - D OR BETTER IN ALGEBRA

#### **CALCULUS AB**

A/B OR IN HONORS PRE-CALC
- C IN PRE-CALC W/TEACHER
RECOMMENDATION

#### AP STATS

- D OR BETTER IN HONORS PRE-CALCULUS

#### COLLEGE ALGEBRA/STATS

- DUAL CREDIT - D OR BETTER IN ALGEBRA II

# **12TH**

#### 38

Algebra I is the traditional first year high school mathematics course. Algebra II is the minimum college entrance requirement for units of the Montana University System. Students entering science, technical and engineering fields in college should have four-years of high school mathematics.

# **Course Prerequisites for Mathematics**

Math Course	Prerequisites	
Pre-Algebra	Approval of Instructor	
Algebra I	Freshman standing or successful completion of previous course	
Honors Math I	Freshman standing with an A or B Algebra I or A in Math 8 <sup>th</sup> with teacher recommendation	
Geometry	Successful completion of Algebra I Incoming Freshman must transcribe Algebra I grade and recommended as a C or better	
Honors Math II	A or B in Honors Math I or C in Honors Math I with teacher approval	
Algebra II	Successful completion of Geometry	
Pre-Calculus	C or better in Algebra II	
College Algebra Prep and Statistics	Passed Algebra II (Can take concurrently with Pre- Calculus	
AP Calculus AB	C or better in Honors Pre-Calculus	
AP Statistics	D or better in Honors Pre-Calculus	
AP Calculus BC (REPLACING CARROLL CALC)	A or B in Calculus AB	
Contemporary Math (M105)	Seniors Only who have passed Algebra I or by teacher recommendation	
Technical Math	Seniors Only who passed Algebra I or by teacher recommendation	

Note: Students who receive an F in any math course should repeat the course.

Students who fail second semester of a course should repeat both the first and second semesters.



#### 3103 Pre-Algebra

Elective\*: 9

Full Year - 1 Credit

This is a remedial course for students who have not experienced success with middle school mathematics. The course prepares students for Algebra 1 and refines arithmetic skills. This course does not meet high school state standards. Students will be required to take Algebra 1 the following year.

# 3100 Algebra 1

Elective\*: 9 – 10 Full Year – 1 Credit

This is the introductory high school course for students and emphasizes a strong development of the ideas of Algebra. This course prepares students for algebraic thinking and refines geometric, statistical and problem-solving skills. Students who successfully complete this course will go on to take Geometry.

#### 3101 Mathematics 1 - Honors

Elective\*: 9

Full Year - 1 Credit

This is an accelerated course and emphasizes a strong development of the ideas of Algebra and Geometry. This course prepares students for algebraic thinking and refines statistical and problem-solving skills. Students who successfully complete this course will go on to take Honors Mathematics 2.

# 3200 Geometry

Elective\*: 9 – 11 Full Year – 1 Credit

This is the second of a three-year sequence for all students and emphasizes a strong development of the ideas of Geometry. The course prepares students for geometric thinking and refines geometric, statistical, and problem-solving skills. Students who successfully complete this course should take Algebra 2.

#### 3201 Mathematics 2 - Honors

Elective\*: 9 – 10 Full Year – 1 Credit

This is the second of a four-year sequence for honor students and emphasizes a strong development of the ideas of Geometry and Algebra 2. The course prepares students for geometric thinking and refines geometric, statistical, and problem-solving skills. Students who successfully complete this course should take Pre-Calculus.

3300 Algebra 2

Elective\*: 10 – 12 Full Year – 1 Credit

This is the third of a three-year sequence for all students and emphasizes a strong development of the ideas of Algebra 2. This course prepares students for algebraic thinking and refines geometric, statistical and problem-solving skills. This course is required of students that will be attending college. Students entering college should take this course their junior year and take a fourth year of mathematics their senior year.

#### 3301 Pre-Calculus (Honors)

Elective\*: 10 – 12 Full Year – 1 Credit

This is the third class in the sequence for honors students and emphasizes a strong development of the ideas of Advanced Algebra, Trigonometry and Pre-Calculus. This course advances students algebraic, geometric, and trigonometric thinking. Students from Honors Mathematics 2 or Algebra 2 may take this class. Students who are successful with this class should take Calculus next.

#### **Dual Credit – Helena College**

College – 4 Credits

This is the fourth class in the sequence and emphasizes a strong development of the ideas of Advanced Algebra, Trigonometry and Pre-Calculus. This course advances students algebraic, geometric, and statistical thinking. Students from Honors Mathematics 2 or Algebra 2 may take this course. Students who successfully complete this class should take Calculus next. Students must score a 24 on the math portion of the ACT or pass the Accuplacer for the dual credit option.

# 3401 AP Calculus AB Dual Credit – Helena College (4 credits per Year)

Elective\*: 11 – 12 Full Year – 1 Credit

Elective\*: 12

This is the fourth class in the honors sequence and is intended for college bound students seeking math intensive majors. Any student planning on taking engineering, physics, or strong science programs in college should take this course. Calculus students who are planning on majoring in a statistical based field may take Math for Liberal Arts Majors or Statistics at the same time they take this course. Students may enroll and earn credit from Helena College or have the opportunity to take the AP exam as another alternative for dual credit. Students must score a 27 on the math portion of the ACT or pass the Accuplacer.

#### 3406 AP Calculus BC

Dual Credit -- Carroll College (4 Credit per Semester) Full Year - 1 Credit

This fast-paced class is designed for college bound students who have successfully completed AP Calculus AB, and are seeking math intensive majors such as engineering, physics, or strong science programs. Students further their study of differential and integral Calculus by engaging in real world applications analyzing graphically, numerically and verbally. As students explore change, limits and analyze functions they will use definitions and theorems to build arguments and justify conclusions. Students may enroll and earn credit from Helena College for AB Calculus as long as they did not earn the credit while taking AB Calculus. All students also have the opportunity to take the AP BC Calculus exam to earn college credit. Students must score a 27 on the math section of the ACT, a 610 on the math section of the SAT, or pass the Accuplacer at Helena College to enroll for dual credit.

# 3440 College Algebra (1<sup>st</sup> Semester) Elective\*: 11 – 12 Dual Credit- Helena College (3 credits per Semester) Semester – .5 Credit

This course is designed for juniors and seniors who would like to improve their college algebra skills and who are interested in following a liberal arts major in college. The course will focus on applications of mathematics reviewing algebraic skills and extending those skills to an Algebra 3 level. Students seeking an advanced preparation in mathematics may take this course at the same time as Calculus. Students must score a 22 on the math portion of the ACT or pass the Accuplacer for the dual credit option.

Prerequisite: Algebra 2 or higher

# 3441 Statistics (2<sup>nd</sup> Semester) Elective\*: 11 – 12 Dual Credit – Helena College (3 Credits per Semester) Semester – .5 Credit

This course is designed for juniors and seniors who would like a strong introduction to statistics in preparation for college. The course will focus on applications of mathematic and statistical modeling. Students are expected to have a TI-83 calculator for this course, which is technology based. Students seeking an advanced preparation in mathematics may take this course at the same time as Pre-Calculus and Calculus. Students must score a 22 on the ACT or pass the Accuplacer.

Prerequisite: Algebra 2 or above

#### 3442 AP Statistics

Elective\*: 11 – 12 Full Year – 1 Credit

AP Statistics introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will observe patterns and departures from patterns, decide what and how to measure, produce models using probability and simulation, and confirm models. Appropriate technology, from manipulatives to calculators and application software, will be used regularly for instruction and assessment. Optional AP exam is offered in the spring.

Prerequisites: Pre-Calculus or above

# 3356 Technical Math Dual Credit – Helena College (3 Credits per Year)

Elective\*: 12
Full Year – 1 Credit

This course is designed for those interested in pursuing a technical or vocational career or degree after high school. Topics include fractions, decimals, ratios, proportions, formulas and word problems. Areas studies are metric and American measurement systems, linear equations, developing applied skills in practical geometry, solid figures, and basic trigonometry. Students may enroll and earn credit from UM-Helena College of Technology.

Prerequisite: "C" or higher in Algebra 1 or above Juniors and Seniors only

# 3302 M105 – Contemporary Math Dual Credit – Helena College (3 Credit per Semester)

Elective\*: 12

Fall Semester – 1 Credit

This course is designed to meet the general education mathematics requirement for the liberal arts major. It surveys some of the important ideas and practical applications in mathematics and uses algebra skills to solve real problems. Topics include problem solving, financial math, mathematical modeling (linear and quadratic), and elementary statistics.

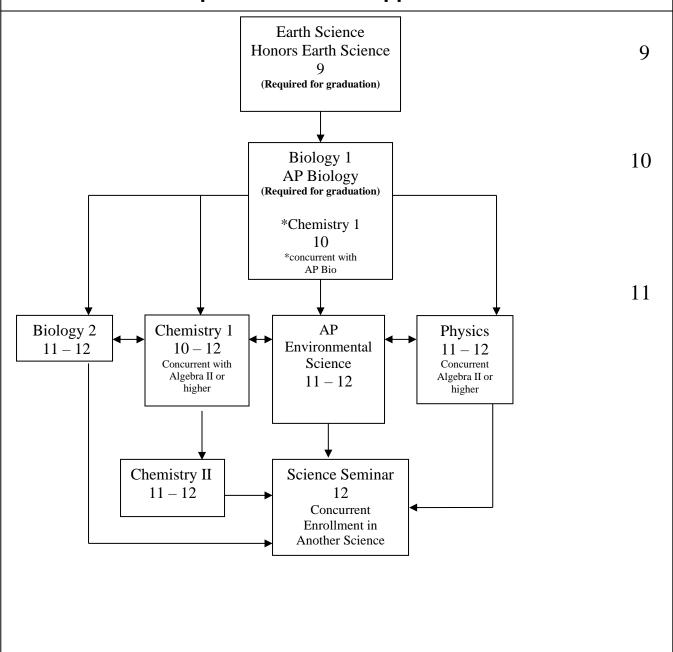
Pre-Requisite: Open to Juniors and Seniors who are successfully completed Algebra 1.

### **SCIENCE**

Science is a method of understanding how nature works in earth, space, life and physical systems through the utilization of tools of inquiry and by employing the process skill of questioning, hypothesizing, predicting, testing and drawing conclusions. **Two years of science are required for graduation from Helena High School.** All students are encouraged to take more courses than the minimum requirement. The science flow chart, illustrated below, shows the wide range of available courses. Students are encouraged to seek the assistance of their parents, counselors, science teachers, and math teachers in planning the most effective science program to meet their needs. (Flow chart below.)

# **Helena High Science Department**

# **Sequential Science Opportunities**



#### **Earth Science**

It is required that 9<sup>th</sup> grade students select one of the two options in the Earth Sciences. Earth Science, the study of the abiotic environment, is an essential part of a complete science education. The most challenging option is Honors Earth Science. Freshman wishing to enroll in Honors Earth Science should have a high interest in science and a minimum 3.00 GPA with B's or better in previous science and math courses. A higher level of commitment and effort is required of the honor student. Students not qualifying for Honors Earth Science should enroll in Earth Science. Both Earth Science and Honors Earth Science are designed as college preparatory courses.

#### 4100 Earth Science

Required: 9
Full Year – 1 Credit

Earth Science is a study of Earth and Space and students will engage in five branches including meteorology, hydrology, geology, oceanography and astronomy. In these areas of study, students will be posing questions; developing models; experimenting, analyzing and interpreting data; applying mathematics; solving problems; engaging in argument from evidence; and obtaining, evaluating and communicating information. Presentations, demonstrations, labs, Earth Science related films and projects form the basis for instruction.

#### 4101 Earth Science - Honors

Elective\*: 9
Full Year – 1 Credit

Honors Earth Science is designed to challenge the advanced science student. The course will cover the four areas of Earth Science with lectures, demonstrations, and general lab work. Students will also be exposed to more challenging assignments involving more rigorous math, additional reading, independent lab work, research projects, and technology. A higher level of commitment and effort is required of the honors student. Honors Earth Science is recommended for freshman skilled in science, math, reading, and writing.

Prerequisite: Due to limited enrollment, selection is based on recommendation of current middle school science teacher, grades of "B" or better in Math, Science and English, completion of the application process and the consent of the honors instructor.

# **Biology**

Biology is the study of living things and is an essential part of a complete science education. It is required that 10<sup>th</sup> grade students select one of two options for first year in Biology. The majority of the students will enroll in the standard Biology I. The most challenging class is AP Biology. This course has limited enrollment and students interested in enrolling should check the prerequisites in that course's description. Students with good attendance, behavior, and strong work habits will be considered first. Biology II is offered to those students who have successfully completed Biology I or AP Biology and have interest in pursuing a career in a science related field. All Biology courses meet the laboratory science requirement for graduation.

#### 4200 Biology 1

Required: 10 Full Year – 1 Credit

Biology I is a survey course in the Life Sciences which will help the student to develop an understanding of living things and their relationship to one another. Areas of study include cells, heredity, microbes, plants, invertebrate animals, chordate animals, ecology, and biotechnology. Extensive laboratory work, dissections, demonstrations, lectures, tests, and projects are some of the approaches used to teach the major concepts and evaluate student performance.

# 4306 AP Biology

Elective\*: 10-12 Full Year – 1 Credit

AP Biology is a course offered to 10-12 grade students and covers the requirement of 10<sup>th</sup> grade science. The AP Biology course covers topics typically found in a first-year college biology course and advances the student's understanding of concepts normally covered in high school biology. This is an intensive course with 150 objectives and 12 labs to be completed before the AP test date at the end of May. Students that take AP Biology will retain and apply content learned to develop advanced inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. This course is also created to aid in preparation for the AP Biology exam.

Prerequisites- Completion of Algebra I and Honors Earth Science; Concurrent enrollment in Chemistry.

# 4300 Biology 2

Elective\*: 11 – 12 Full Year – 1 Credit

This is an intense lab-oriented class providing in depth experiences of a variety of biological fields. Units of study include advanced genetics; biotechnology theory and laboratory techniques; populations genetics; comparative anatomy to include animal dissections; animal and plant physiology; and ecological problems. Students interested in careers in the health allied fields; veterinary medicine, biology, genetics and science in general are encouraged to enroll in this college preparatory class. Student assessment in this class includes written tests and assignments; laboratory assignments, dissections, laboratory practical tests, formal laboratory write-ups; computer simulations; and projects. Because of the extensive lab work, this class requires excellent attendance and disciplined classroom behavior. Students will provide non-latex gloves for dissection and a \$5 lab fee.

Prerequisite: A grade of "C" or better in Biology 1 or AP Biology and approval of the student's Biology I or AP Biology instructor.

# **Chemistry**

# 4310 Chemistry 1

Chemistry is a survey course dealing with the composition, structure, properties, and energy changes of substances through laws that unite these phenomena into a comprehensive system. The concepts are developed in an exciting and intellectually challenging manner through extensive laboratory investigation. Emphasis will be placed on the importance of chemistry in everyday life and the interdisciplinary impact chemistry has on our scientific heritage. Student performance in this college preparatory course is evaluated on the basis of objective testing, laboratory performance, and project completion. A lab fee will be assessed to cover the purchase of individual safety goggles.

Prerequisite: Due to the importance of the development of analytical skills, concurrent enrollment in or completion of Algebra 2 or Pre-Calculus is required.

# 4420 AP Chemistry

Elective\*: 11 – 12 Full Year – 1 Credit

Elective\*: 10 - 12

Full Year - 1 Credit

AP Chemistry is an elective science course that will be offered to 11-12 grade students. It is designed to be taken after the completion of Chemistry 1 and upon successful completion of Algebra 2. The course follows the AP curriculum and is designed to investigate and develop a deeper understanding of the concepts normally covered in a first-year college chemistry course as well as to prepare students to take the AP Chemistry Exam. Students who take this course are expected to take the AP Chemistry Exam in May. Students who take AP Chemistry should expect an accelerated pace and may require additional work or lab time outside of the regular class period. Students will build deeper understanding of chemistry concepts by engaging in inquiry-based laboratory experiences that require detailed quantitative analysis and written laboratory reports.

Prerequisites: Chemistry 1 and completion of Algebra 2.

#### 4501 AP Environmental Science

Elective: 11 – 12 Full Year – 1 Credit

AP Environmental Science is designed for students seeking a challenging college level science course at the high school level. Perquisites include obtaining a grade of C or better in Earth Science, Biology and Algebra I. The goal of this course is for students to understand, though investigations, the interrelationships in the natural world. Topics covered include Earth systems and resources, the living world, populations, land and water use, energy resources and consumption, pollution and global change.

This course is recommended for students pursuing careers in natural resources and those who have interest in the relationships between humans and the natural world.

#### **Physics**

4400 Physics Elective\*: 11 – 12 Full Year – 1 Credit

Physics is the study of the relationships of matter and energy. Laboratory experiences are used to teach such topics as motion, heat, sound, wave mechanics, light, magnetism, and electricity. In addition to lab work, discussions, demonstrations and creative projects will be part of the course. Recommended for college bound students who plan to major in science or a science related field.

Prerequisite: Successful completion or concurrent enrollment in Algebra 2 or Pre-Calculus.

# **Science Seminar**

#### 4421 Science Seminar

Full Year - 1 Credit

Elective: 12

This enrichment course is an opportunity for integral study of the various disciplines of science and provides an opportunity for discussion of investigations into the social implications of science. It draws upon major concepts learned in previous courses to form an integrated understanding of the world and nature. No specific text is used but extensive reading is required. The seminar approach is utilized, and emphasis is placed on current trends and developments in science and technology as they relate to 1) major concepts and principals; 2) social implications; and 3) careers in science. Guest speakers, outside reading, lectures, fieldwork and on-site visitations supplement classroom instruction. Science Seminar is recommended for college bound seniors who plan to major in science or science related fields.

Prerequisites: Students enrolling in Science Seminar must be a senior. It is required that students take three years of science prior to successful enrollment in seminar. Acceptable courses include Earth Science, Honors Earth Science, Biology 1, Honors Biology 2, Chemistry 1, Chemistry 2, CSI Forensic Science, and/or Physics. In addition to enrollment in Science Seminar, students <u>must</u> have concurrent enrollment in at least one additional science course. Exceptions will be made for students who have successfully completed all other science courses at Helena High.

# **Project Lead The Way® Biomedical Sciences**

Project Lead The Way® Biomedical Sciences program is a high school program designed for students interested in Health Science careers. The program is divided into four sections, each section building upon the previous. This dynamic program uses hands-on, real-world problems to engage and challenge students.

Students interested in math, science, and the human body will find the PLTW Biomedical Sciences program a great introduction to the numerous medical fields. It will also teach them how the skills they learn are used in the biomedical sciences.

The Biomedical Sciences program is integrated into the high school curriculum. It is designed to augment the high school science and math college preparatory programs to establish a solid background in biomedical science. <u>Courses</u> count for either Career and Technical Education or elective credit.

# 7610 Principles of Biomedical Science (BioMed 1) Elective: 9 – 10 Full Year – 1 Credit

Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person, and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, research processes and bioinformatics. This course is designed to provide an overview of all the courses in the Biomedical Sciences program and lay the scientific foundation for subsequent courses.

# 7620 Human Body Systems (BioMed 2)

Elective: 10 – 11 Full Year – 1 Credit

Students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body,

and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real-world cases and often play the role of biomedical professionals to solve medical mysteries.

Suggested prerequisite: 7610 Principles of Biomedical Sciences or Biomed teacher approval.

### 7630 Medical Interventions (BioMed 3)

Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. The course is a "How-To" manual for maintaining overall health and homeostasis in the body as students explore: how to prevent and fight infection; how to screen and evaluate the code in human DNA; how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Through these scenarios, students are exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important roles scientific thinking and engineering design play in the development of interventions of the future.

Suggested prerequisite: 7620 Human Body Systems or Biomed teacher approval.

# 7640 Biomedical Innovations (BioMed 4)

Elective: 12 Full Year – 1 Credit

**Elective: 11 – 12** 

Full Year - 1 Credit

Students design innovative solutions for the health challenges of the 21st century. They work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. Students will job shadow in a field of interest or work on an independent project with a mentor from a university, hospital, or research institution. At the end of the course, students are expected to present their work to the public at a symposium at the Lewis and Clark Public Library. This course is designed for 12th grade students. Prerequisite: Either 7630-Medical Interventions or three science classes (or concurrently enrolled in the 3rd science class).

Suggested prerequisite: 7630 Medical Interventions or teacher approval.

#### **FOREIGN LANGUAGES**

Even in Montana, it is becoming more and more common to meet someone who speaks a language other than English. As the world seems to grow smaller because modern technology makes it easier to travel and communicate, commerce and information exchange require knowledge of a second language or even a third or fourth! The Department of Modern and Classical Languages offers classes in French, Spanish, German and Latin. Along with integrated classroom materials, students also have access to the latest in supplementary software material and video programs. All modern language classes prepare students to understand the spoken and written language, as well as to communicate in both oral and written forms; to appreciate the customs, manners and philosophies of other cultures and to develop a tolerant attitude of other cultures and lifestyles. The modern language classes stress language as communication and, in the first year, using the foreign language for everyday communication. Latin, the classical language, stresses English vocabulary building and grammar as they apply to English, translation and the study of the Roman culture. Students may choose any of the four languages to study. Deciding which language to study is a matter of personal affinity. Future plans for using the second language should also be considered. Second language study has been shown to improve understanding of English and to increase native language vocabulary. Latin is the "mother" of English, French and Spanish and a good background for any language study. Spanish and French are used for communication in various parts of the United States. Students interested in science, math and technology fields may want to take German. All languages have a rich cultural heritage of history, literature, art and music to discover.

Unique career opportunities await the student versed in a second language. People who know English and a second language are in demand for jobs in the United States, as well as in other countries.

Highlights for Foreign Language students include Mardi Gras-Carnival-Lupercalia-Fasching festivities in February or March when all language classes get together for a day of songs and other Mardi Gras traditions. Also, upper level language students are afforded the opportunity to attend Foreign Language Day in Missoula at the University in March. The International Club also offers a fun and useful extension to the language classes.

5110 Latin 1 Elective: 9 – 12 Full Year – 1 Credit

Latin I is the first year of a two or three-year curriculum, depending on enrollment, in which students will learn to read and write the Latin language as they follow a typical Roman family living in Italy about a hundred years after the death of Julius Caesar. Students will not only learn how to read and write Latin, but they will also begin to learn Latin as a foreign language, as the basis of everyday communication that it was for more than 2,000 years. Students will learn to describe their classroom, the weather, food and drink, and even modern sports and games in the ancient tongue. Grammar and translation will be a major part of first year Latin and students will learn about parts of speech, practice proper pronunciation, and read in context.

Latin I students will also study the mythology of the Ancient World, both Greek and Roman. They will learn about the Trojan War, Hannibal and his elephants, Caesar and Cleopatra, and the city of Pompeii, destroyed by Vesuvius and lost for 1,500 years. Students will learn to recognize ancient art and artifacts as well, Greek and Roman, and how they became the foundation of European culture to this very day.

Prerequisite: None. As a language class, Latin builds upon itself. Students should be prepared to attend class on a regular basis and should be diligent about making up missed assignments. No foreign language experience is required but there will be a substantial amount of reading and writing involved. Please feel free to contact the Latin teacher should you have any questions.

5120 Latin 2 Elective: 10 – 12 Full Year – 1 Credit

Latin 2 continues to build on the strong foundation acquired in Latin 1, including the study of vocabulary, grammar, translation, reading comprehension, and classical history and culture. Latin 2 students will spend more time learning to read and discuss texts in Latin and continue to practice Latin as a spoken language and a vehicle of communication. Students will learn about the Roman Empire at its height including gladiatorial games, chariot racing, monumental architecture and inscriptions, the Emperors and their legions. *Ecce Romani* is still the main textbook, but students will have more supplementary material, both traditional texts and online assignments, than they did in Latin 1.

Prerequisite: Passing grade of 'C' or better in Latin 1, or prior approval by the instructor is required. While it is not required that students take two years in a row, it is very helpful to do so, and is strongly recommended. Please feel free to contact the Latin teacher should you have any questions.

5130 Latin 3 Elective: 11 – 12 Full Year – 1 Credit

Latin 3 will continue to build upon the strong foundations established in previous years, including vocabulary, grammar, culture, reading comprehension and expressive communication. Students in Latin 3 will move beyond the textbook and into a series of graduated readings about the ancient Roman empire and about the Middle Ages as well, both books and online. The final goal for students at the end of Latin 3 is to be able to read original Latin texts, such as Caesar, Horace, and Vergil, with some degree of comprehension, and express their understanding to one another, in both English and in Latin. Completion of Latin 3 should prepare students to enter a second-year college Latin course, should they choose to do so, and will give students considerable advantage in the study of an additional other foreign language.

Prerequisite: Passing grade of 'C' or better in Latin 2, or prior approval by the Latin instructor. Students should be prepared for extensive reading and writing in a foreign language, and the daily discipline it involves. While it is not required that students take Latin in consecutive years, it is very helpful to do so, and is strongly recommended, however, course availability is dependent upon enrollment. Please feel free to contact the Latin teacher should you have any questions.

5210 French 1 Elective: 9 – 12 Full Year – 1 Credit

The first-year French student becomes acquainted with the French world, its cultures and ways of life. Students build a basic vocabulary and grammar that provides the framework for all class activities. These activities develop the skills of reading and listening comprehension and spoken and written communication. Students are evaluated through oral and written tests, daily assignments, and class participation. This course is a year-long course.

Prerequisite: None. If any questions, please contact the French teacher or your counselor for assistance. This is an academic class. Students must be prepared to complete daily homework assignments and be able to pass comprehensive tests.

5220 French 2 Elective: 10 – 12 Full Year – 1 Credit

French 2 refines the skills acquired at Level 1 and further develops the student's vocabulary and knowledge of French language structure. The class enhances student awareness of French as a means of communication, as it relates to future jobs, and as a leisure activity. Students are expected to try to communicate in French much of the time. The emphasis is on developing communication skills, both oral and written. Listening and reading comprehension skills are sharpened in the process. The course includes study of geography, history, French customs, and lifestyles.

Prerequisite: Passing grade of "D" or better in French I or approval of instructor.

5230 French 3 Elective: 11 – 12 Full Year – 1 Credit

French 3 increases the student's language proficiency, particularly in the areas of listening comprehension and written communication. Students are expected to demonstrate their ability to communicate in French. Through the study of French literature, students gain another rich perspective on French culture.

Students are evaluated through oral and written tests, daily assignments, and class participation. This course is a yearlong course.

Prerequisite: Passing grade of "D" or better in French 2 or approval of instructor.

5240 French 4 Elective: 12

Full Year - 1 Credit

French 4 advances the student's language proficiency. Conversational fluency and listening comprehension are emphasized as students use French in a more varied and complex situations. Students communicate in French most of the time. French literature, and contemporary culture are the core areas of curriculum emphasis. Students are evaluated through oral and written tests, daily assignments, and class participation. This course is a year-long course.

Prerequisite: Passing grade of "D" or better in French 3 or approval of instructor.

5250 French 5 Elective: 12

Full Year - 1 Credit

Students will review and extend their knowledge of conversation and grammar through their study of literature and history. This course is a yearlong course.

Prerequisite: Approval of instructor and strong desire for fluency.

5310 Spanish 1

Elective: 9 – 12 Full Year – 1 Credit

The beginning Spanish course introduces and familiarizes the student with the world of the Spanish language via listening, speaking, reading, and writing. Spanish 1 emphasizes vocabulary, basic grammar, idiomatic expressions in the language, and proper intonation and accentuation. Students are taught to note and appreciate cultural differences between the Hispanic world and the U.S. Students are evaluated on tests, daily assignments, dictation, and oral and written quizzes. This course is a yearlong course.

Prerequisite: None. If any questions, contact the Spanish teacher or your counselor for assistance. This is an academic class. Students must be prepared to complete daily homework assignments and be able to pass comprehension tests.

5320 Spanish 2

Elective: 9 – 12 Full Year – 1 Credit

Spanish 2 concentrates on the skills acquired at Level 1 with more emphasis on listening comprehension and speaking. Students are expected to speak Spanish as much of the time as possible when in class. Students concentrate on Spanish customs and lifestyles and also study the geography of Spanish-speaking countries. Students are evaluated by the use of oral and written tests and quizzes, daily assignments and class participation. This course is a yearlong course.

Prerequisite: Passing grade of "D" or better in Spanish 1 or approval of instructor.

**5330** Spanish 3

Elective: 10 – 12 Full Year – 1 Credit

This course concentrates on the expansion of Spanish 2 and the student's growing ability to communicate in both oral and a written manner. Students are expected to speak Spanish during the class period. This level progresses into the study of the remaining verb tenses and modes, the expansion of vocabulary, the development of improved communication skills and the introduction of several different types of Spanish literature. Evaluation is based on daily assignments, oral and written tests and quizzes, essays and oral presentations. This course is a yearlong course.

Prerequisite: Passing grade of "D" or better in Spanish 2 or approval of instructor.

**5340** Spanish 4

Elective: 11 – 12 Full Year – 1 Credit

This course provides the opportunity for each student to gain higher competence and confidence in listening, speaking, reading, and writing in Spanish. Continual review of vocabulary, verb tenses, and other structures is made through the various readings and discussions of short stories, poems and plays. All activities at this level help the student to practice

active usage of the language. Evaluation is based on oral and written quizzes, essays, and daily assignments. Students are expected to speak Spanish exclusively during the class period. This course is a year-long course.

Prerequisite: Passing grade of "D" or better in Spanish 3 or approval of instructor.

# **5350** Spanish **5**

Elective: 12 Full Year – 1 Credit

In addition to general review of much of the Spanish you have already studied, you also need to learn the necessary vocabulary and grammar in order to discuss a variety of topics. Spanish 5 is designed to build upon the language skills acquired in introductory language courses and to give students a cultural overview of the Spanish-speaking world. The emphasis in this class will be on improving your communicative oral competency. The goal is to make you speak as much Spanish as possible in order to gain confidence in your ability to speak the language. This class is conducted primarily in Spanish.

Prerequisite: Approval of instructor and strong desire for fluency.

#### 5356 AP Spanish 5

Elective: 12 Full Year – 1 Credit

In Spanish 5 AP Language students continue to refine and enhance communication skills--reading, writing, speaking and listening-- as well as broaden their understanding of Spanish language and Hispanic culture. The 6 units of the course coincide with the 6 themes from the AP test. Students are preparing for college level courses and students take the Advanced Placement Spanish Language Examination in May and, depending on their scores, may receive college credit. In the class we converse only in Spanish as they would in a university level class.

5410 German 1

Elective: 9 – 12 Full Year – 1 Credit

In German 1, basic vocabulary and grammar are built through a communicative approach. Lessons are presented with video, cassette, reading and communicative activities to include all styles of learners. The German culture is explored through film, literature and short reading in German. Students learn about life in Germany, with particular emphasis on the lives of young people. Topics include family, school, clothing, daily activities and chores. Students are evaluated on daily assignments, quizzes, tests and projects. This course is a year-long course.

Prerequisite: None. If any questions, contact the German teacher for assistance. This is an academic class. Students must be prepared to complete daily homework assignments and be able to pass comprehensive tests.

5420 German 2

Elective: 10 – 12 Full Year – 1 Credit

In German 2, we continue to build vocabulary and grammar. Lessons are presented with video, cassette, reading and communicative activities, but grammar is emphasized a little more than in the first year. We continue to explore the German culture through film, literature and reading in German. Students are evaluated on daily assignments, quizzes, tests and projects. After two years of German, students are eligible to go on an exchange tour in our partner city, Trossingen, Germany. Students learn about life in Germany through topics such as parties and celebrations, travel, health, lifestyles and food. This course is a year-long course.

Prerequisite: Passing grade of D or better in German 1 or approval of instructor.

#### 5430 German 3 & 4

Elective: 11 – 12 Full Year – 1 Credit

Generally German 3 and 4 are taught as a combined class. The course concentrates on speaking, listening, reading and writing. We follow our new text Deutsch Aktuell as well as read short stories, poetry, and plays. Other topics include 20<sup>th</sup> century German writers, current events, and the environment. Sometimes a class will be interested in reading a particular novel or a classical work. Although the 3<sup>rd</sup> and 4<sup>th</sup> level use the same material, assessment of each student's work is done individually. All students are prepared and encouraged to take the National German Examination for high school students.

Prerequisite: Passing grade of "D" or better in German 3 or approval of instructor.

### **FINE ARTS**

One fine arts credit is required for graduation in the Helena School district. However, students may take multiple art classes every year and apply the credits toward the seven elective credits required for graduation. Upon completion of the foundations course, Art I, serious students can explore advanced art courses with the opportunity to receive college credit in AP classes.

The atmosphere of a class in the Art Department is different from any other class in school. There is a relaxed feeling as students quietly and enthusiastically work at their own projects: ceramics, stained glass, printmaking, batik, photography, drawing, painting, and sculpting. The studio atmosphere offers a break from the traditional classroom. Students are encouraged to connect to the larger world through the creation of original works that express their unique experiences. Lectures and demonstrations bring the class together on some days, and guest artists, art exhibitions, fieldtrips, audiovisual shows, and collaborative projects offer students extended learning experiences.

With so many different kinds and levels of classes offered, the Art Department invites all students to take at least one course and try their hand at a creative experience!

#### 6110 Art 1 - Foundation of Art

Elective: 9 – 12 Full Year – 1 Credit

This course is designed to provide an opportunity for students to increase their skills in both the understanding and creating of art. Emphasis is placed on individual imagination, development of artistic skills, production of artistic works, and the ability to make and justify judgments about the aesthetic merit and quality of art. Students will be introduced to such art areas as drawing, color, design, painting, printmaking and sculpture. Students will be evaluated on their ability to generate, develop, present and critique ideas through work produced in and out of class.

#### 6120 Art 2 – Explorations in Art

Elective 10 – 12 Full Year – 1 Credit

This course is an in-depth continuation of the basic art course with a wider choice of subject matter in the areas of drawing, design, painting, sculpture, and printmaking. Through demonstrations, lectures, and examples, students expand their abilities and understanding of art. Evaluations are based upon the artwork produced, maintenance of a sketchbook, and occasional tests on artists and styles of art.

Prerequisite: Foundations of Art 1 or instructor approval.

#### 6130 Art 3 - Studio in Context

Elective: 11 – 12 Full Year – 1 Credit

Projects created in Art 3 encourage students' individuality and inventiveness as they utilize media, styles and content from an array of periods and culture throughout time in their own work. Emphasis is placed on creativity, skill development, exploration of media and techniques, expression and professional presentation. Evaluation will be based on sketchbooks, projects, participation and critiques.

Prerequisite: Successful completion of two art courses and instructor approval.

#### 6140 Art 4 – Independent Studio

Elective: 12

Full Year – 1 Credit

This advanced course is designed for students who have an extensive art background. The focus of the class is college preparatory with special emphasis on portfolio development, career exploration and art production in a studio atmosphere. Students have an AP option within the class. Evaluations are based on individual creativity, skill demonstration, critique participation and professional presentation.

Prerequisite: Successful completion of three (3) art courses and instructor approval.

# 6150 Design Apps/Visual Design Studio 1

Elective: 10 – 12 Full Year – 1 Credit

Elements and principles of visual design are applied to 2 and 3-dimensional media such as stained glass, batik, paper and printmaking. Evaluations are based on projects, sketchbooks, participation and critiques. Students are required to purchase some materials.

Prerequisite: Successful completion of Art 1 and instructor approval.

#### 6160 Design Apps/Visual Design Studio 2

Elective: 10 – 12 Full Year – 1 Credit

This design course is an in-depth continuation of Visual Design Studio 1. Students are required to complete extensive and elaborate designs and gain a deeper knowledge of skills, media and techniques. Students work in a studio atmosphere with individual instruction. Evaluation is based on participation, projects, sketchbooks, and critiques. Students are required to purchase some materials.

Prerequisite: Successful completion of Art I, Visual Design Studio 1 and instructor approval.

#### 6141 AP Studio Art

Elective: 10 – 12 Full Year – 1 Credit

AP Studio Art is a college level course for students who are seriously interested in the practical experience of art. Students work with diverse media, styles and subjects throughout art history to compile portfolios based on the exploration of a range of ideas and approaches to art making. Additionally, portfolios must demonstrate sustained multiperspective investigations of content, as well as conceptual and technical development over time. Students who choose to submit a portfolio to the College Board and earn a qualifying score are typically eligible to receive college credit and/or placement into advanced courses in college. Evaluation will be based on sketch journals, projects, portfolios, participation and critiques.

Prerequisite: successful completion of Art I and instructor approval.

### 6191 AP Art History

Elective: 10 – 12 Full Year – 1 Credit

The study of art history invites students to discover the diversity in and connections among forms of artistic expression throughout history and from around the globe. Students learn about how people have responded to and communicated their experiences through art making by exploring art in its historic and cultural contexts. The AP® Art History course welcomes students into the global art world as active participants, engaging with its forms and content as they research, discuss, read, and write about art, artists, art making, and responses to and interpretations of art. This academically rigorous course is the equivalent of two semesters of college art history. Taking the National AP Art History exam in the spring is optional. Students who take and pass it, may earn college credit for this course.

#### 6210 Ceramics 1

Elective: 10 – 12 Full Year – 1 Credit

Students develop basic skills on the potter's wheel and learn hand-building techniques. Making clay, clay construction, decorating, making glaze, kiln stacking, and firing are class learning experiences. Design and originality are emphasized. Lecture and demonstrations are provided with time for individual work and instructor assistance. Students are evaluated on individual projects and skills. Design, craftsmanship, and knowledge of the craft are emphasized. Art 1 is helpful, but not required.

#### 6220 Ceramics 2

Elective: 11 – 12 Full Year – 1 Credit

Intermediate and advanced wheel throwing techniques are developed, along with compositions of multiple techniques. Projects of a more difficult nature are emphasized. Lectures and demonstrations are given periodically along with individual instruction as needed. Creativity and individuality are emphasized. Evaluation is based upon completed projects and students' understanding of glazes and kiln operations.

Prerequisite: Ceramics 1 and instructor approval.

#### 6230 Ceramics 3

Elective: 11 – 12 Full Year – 1 Credit

Ceramics 3 is a pottery class geared to the advanced potter. High production of functional pottery is the emphasis. Glaze techniques, application and glaze formulas will be studied. Firing styles of electric and gas-fired kilns using stoneware clay is the basis for the final product. Grade evaluation will be based on production and creativity. Prerequisite: Successful completion of Ceramics 2 and instructor approval.

### 6250 Photography 1

Elective: 10 – 12 Semester – .5 Credit

This course is an introduction to photography. Students learn the fundamentals of camera technique, lighting, color, and composition using digital cameras and Photoshop. Students explore a variety of subjects to develop expressive content and learn to communicate more eloquently through visual language. Evaluations are based on class participation, projects, critiques, written work and tests. Instructor approval, a digital camera, and successful completion of Art 1 are needed for enrollment in this class.

Prerequisite: Instructor approval, a digital camera, and successful completion of Art I are needed for enrollment in this class.

# 6260 Photography 2

Elective: 10 – 12 Semester – .5 Credit

This class is an exploration of intermediate photography using both digital and film cameras. Students work with film and light-sensitive materials and learn to print in the darkroom. Students develop greater skills using digital development techniques as well as learning to make refined prints in the darkroom. Students continue to practice design principles and visual communication while considering photographic history, including a variety of photographic styles. Evaluations are based on class participation, projects, critiques, written work and tests. Instructor approval, a digital camera, and successful completion of both Photo 1 and Art 1 are needed for enrollment in this class.

Prerequisite: Successful completion of both Art 1 and Photography 1, a digital camera, and permission of instructor.

# 6270 Photography 3

Elective: 10 – 12 Full Year – 1 Credit

Photography 3 introduces students to digital art media and the creative and conceptual foundations of still photography and moving images. Students develop skills for creating composite photographs, motion graphics, stop motion, sound design, and video production using Lightroom, Photoshop, iMovie, and other programs. Students build digital portfolios and design their own web sites, while learning about careers in media arts. Evaluations are based on class participation, projects, critiques, and written work. Instructor approval, a digital camera, and successful completion of both Photo 1 and 2 and Art 1 are needed for enrollment in this class.

Prerequisite: Photo 1 and Photo 2 and instructor approval.

#### **Music and Theater**

If singing, acting, or playing an instrument is your thing, the music and theater program is for you! A variety of programs are offered in all three areas: singing, acting, and playing.

For those women who enjoy singing, Women's Choir is the place to start. Men begin in Philharmonic Choir. From there, women and men can audition for Philharmonic Choir, Starlighters, or Ambiance. Performances both in-and-outside the school are the focus of all choirs.

For those who enjoy acting, several levels of theater classes are offered from beginning to advanced.

For the instrumentalist, there are also a number of exciting, varied opportunities at Helena High. Symphonic Band, Jazz Band, Concert Orchestra and Chamber Orchestra offer a broad range of musical choices, experiences, and performing styles. Auditions are required for most performance groups.

Music and theater classes are all elective, but students are encouraged to get involved in some aspect of the arts by taking some course in the program, which prides itself on building confidence and performance skills and success.

### 6300 Freshman Band

Elective: 9 – 12 Full Year – 1 Credit

**Elective: 10 - 12** 

Full Year - 1 Credit

This course is a training program for Concert Band. Students participate in several concerts and perform in solo and ensemble presentations at the District Music Festival. Musical skills are developed including scales, intonation, and technique. A playing knowledge of all types of music is emphasized in group, ensemble, and solo rehearsals. Students are evaluated on playing ability, performance in group rehearsals, and required performances.

Prerequisite: 8th grade band.

#### 6320 Concert Band

The course is more advanced than Freshman Band and is considered a training course for Wind Symphony. Students participate in several concerts and perform in solo and ensemble presentations at the District Music Festival. More advanced musical skills are developed including scales, intonation, and technique. Standard and contemporary band literature is emphasized. Students are evaluated on playing ability, performance in group rehearsals, and required performances. Freshmen are not eligible for this class unless they have written approval from the Helena High School band instructor.

Prerequisite: Freshman Band.

#### 6370 Jazz Band

Elective: 10 – 12 Full Year – 1 Credit

The course focuses on the study of standard and contemporary jazz techniques and improvisation. In group rehearsals, students refine their musical skills such as intonation, jazz scales, and jazz interpretation. Jazz Band performs in several jazz and music festivals throughout the year. Evaluations are made of playing ability and attendance at rehearsals and at performances. Prerequisite: Must be in Freshmen Band, Concert Band or Wind Symphony and audition (no exceptions); instructor approval.

# 6380 Wind Symphony

Elective: 10 – 12 Full Year – 1 Credit

The course includes participation in Marching Band first quarter with concert literature the rest of the year. Students refine their musical skills, such as scales, intonation, technique, and interpretation and participate in several concerts and at District and State Music Festivals. Standard and contemporary band literature is emphasized. Students are evaluated on playing ability, performance in group rehearsals, and required performances. Instrumentation will be limited to the following: 8-flute/piccolo, 2-oboes, 2-bassoons, 12-clarinets, 4-bass clarinets, 4-alto sax, 2-tenor sax, 1-bari sax, 9-trumpets, 6-F horns, 9-trombones, 2-euphonium/baritone, 6-tuba, 6-percussion. Students can become members of this band ONLY by audition or invitation of the director.

Prerequisite: Bengal Band and instructor approval.

# 6410 Beginning/Intermediate String Orchestra

Elective: 10 – 12 Full Year – 1 Credit

The Beginning/Intermediate String Orchestra is open to all Freshman through Seniors with or without previous orchestral experience. The Capital High Intermediate String Orchestra is a class where orchestral skills (including technique, posture, leadership, theory, and history) will be emphasized. Students are expected to practice weekly, and to come to class prepared to play every day. Other opportunities for students to further their knowledge and basic skills will be achieved through at least four major concerts and performances at District Music Festival. All students must have their own instrument for this class. If a student does not or is not able to own/rent an instrument, they must contact Mr. Harris to make arrangements for a school instrument. Selection of school instruments is very limited and will be based on need. Cello's and Bass' will be provided an instrument and bow for school use, as available.

Prerequisite: Freshman: Must audition and be approved by the director prior to acceptance in Intermediate String Orchestra. Sophomore – Senior: Previous orchestra experience, and/or a meeting with the director.

# 6420 Advanced (Auditioned) String Orchestra

Elective: 10 – 12 Full Year – 1 Credit

Advanced (Auditioned) String Orchestra is open to Sophomore's through Seniors' with at least 1 years' previous high school orchestra experience. Students meeting these qualifications must audition with Director in May of previous school year. Freshman will only be eligible for the class if they meet the following requirements:

- qualify for All-State Music Festival
- Participation in both Intermediate and Advanced Orchestra (extra elective)
- Director's approval.

Advanced (Auditioned) String Orchestra will perform at least a minimum of 4 concerts and District Music Festival in the spring. Advanced Orchestra will be playing very high levels of music; therefore, members will be expected to practice daily. Also, it is highly recommended that members take private lessons. All students must have their own instrument for this class. If a student does not or is not able to own/rent an instrument, they must contact Mr. Harris to make arrangements for a school instrument. Selection of school instruments is very limited and will be based on need. Cello's and Bass' will be provided an instrument and bow for school use, as available. Every student in Advanced (Auditioned) String Orchestra will be required to re-audition annually.

Prerequisite: One previous year high school orchestra and an audition with Director. Freshman must qualify for All-State, be enrolled in both Intermediate and Advanced Orchestra, and have Director's permission. Audition materials will be available at the end of February. Auditions will be held in the Capital High Auditorium in the end of May.

6450 Wire Choir

Elective: 10 – 12 Full Year – 1 Credit

Wire Choir is designed for any and all players of string instruments (i.e. Violin/fiddle, viola, cello, bass, mandolin, guitar, banjo, etc.) Students will learn repertory selected from a multitude of "Alternative Styles" and sources. Students will be taught by 'rote' (note reading will be necessary). The goal of the class is to develop each student's repertory, culminating in public performance. Students are assessed aurally as in traditional music performance classes.

Students must already be proficient at their instrument and will need permission from the instructor. Course is designed as an elective credit.

#### 6510 Treble Choir

Elective: 9 – 12 Full Year – 1 Credit

Treble Choir is available for students of any grade or experience level. This class focuses on vocal production/technique, music literacy, and performance. Students will study and perform music from a variety of genres, styles, and languages. Treble Choir performs four concerts a year. In addition, this choir participates in the District Music Festival. All 9th grade treble singers who are interested in choir must begin in Treble Choir unless they have been admitted to Philharmonic Choir or Ambiance through an audition.

#### 6511 Tenor-Bass Choir

Elective: 9 – 12 Full Year – 1 Credit

Tenor-Bass Choir is available for students of any grade or experience level. This class focuses on vocal production/technique, music literacy, and performance. Students will study and perform music from a variety of genres, styles, and languages. Tenor-Bass Choir performs four concerts a year. In addition, this choir participates in the District Music Festival. All 9th grade tenor and bass singers who are interested in choir must begin in Tenor-Bass Choir unless they have been admitted to Philharmonic Choir or Starlighters through an audition.

#### 6540 Philharmonic Choir

Elective: 9 – 12 Full Year – 1 Credit

Philharmonic Choir is available to students of all grade levels and requires an audition in order to be accepted and enrolled in the class. This class focuses on vocal production/technique, music literacy, and performance. Students will study and perform music from a variety of genres, styles, and languages. Philharmonic performs four concerts a year. In addition, this choir participates in the District Music Festival. An audition is required for all students who wish to enroll in Philharmonic.

# 6550 Starlighters

Elective: 11 – 12 Full Year – 1 Credit

Starlighters is a mixed choir for students in grades 10-12 and requires an audition in order to be accepted and enrolled in this class. This class focuses on advanced vocal production/technique, music literacy, and performance. Students must have strong sight-singing skills, advanced vocal technique, and a positive attitude. Students will study and perform music from a variety of genres, styles, and languages. Starlighters performs six concerts a year and participates in several community, regional, and national events when the opportunity arises. In addition, this choir participates in the District Music Festival. An audition is required for all students who wish to enroll in Starlighters.

6580 Ambiance Elective: 9 – 12 Full Year – 1 Credit

Ambiance is a treble choir for students of all grade levels and requires an audition in order to be accepted and enrolled in this class. This class focuses on advanced vocal production/technique, music literacy, and performance. Students must have strong sight-singing skills, advanced vocal technique, and a positive attitude. Students will study and perform music from a variety of genres, styles, and languages. Ambiance performs six concerts a year and participates in several community, regional, and national events when the opportunity arises. In addition, this choir participates in the District Music Festival. An audition is required for all students who wish to enroll in Ambiance.

# 6700 Theater 1 Elective: 9 – 12 Dual Credit – Helena College (3 Credits per Year) Full Year – 1 Credit

Beginning Theater course offers a student an introduction to all areas found in the legitimate theater. Students will study theatrical basics, mime, acting, make up, theater history, and technical theater. The emphasis is on hands-on learning, with an emphasis on performance and real-world theater production. Theater 1 students will be required to see Helena High Theater Productions throughout the year. The class has no prerequisite. Students are evaluated on class work, tests, scene work, and participation.

Theater 1 can be taken as a dual credit course for those students who are at least 16 years old. Students are responsible for the enrollment paperwork, tuition and fees. Helena College THTR 101.

# 6710 Theater 2 Elective: 10 – 12 Dual Credit – Helena College (3 Credits per Year) Full Year – 1 Credit

Theater 2 expands on performing skills that were introduced in Theater 1. Students will work with acting technique, beginning directing technique, and if time permits, some script writing. In this class students will develop and maintain a resume, and a current repertoire of audition scenes. The emphasis of the class is on further developing self-awareness and projecting a character in all of the dimensions available to an actress/actor started in Theater 1. Students will be required to see all Helena High School theater performances. Students will inventory skills and work on basics of script writing and directing, laying a foundation for Theater 3 projects. The Theater 2 class will work with Theater 3 and 4 classes to produce showcase productions and plays outside of the class assigned by the instructor, dates will be set at the beginning of the school year. Students are graded on written work, scene work production, and participation. Theater 2 can be taken as dual credit for those students who are at least 16 years old. Students are responsible for the enrollment paperwork, tuition and fees. Helena College THTR 120.

Prerequisite: Theater 2, signature of instructor. Students must purchase their own makeup kit for use in Theater 2.

6720 Theater 3 Elective: 11 – 12 Full Year – 1 Credit

Theater 3 is geared to students who show a high interest in the performing side of theater. Students in Theater 3 are those who have successfully completed Theater 2. Many of the Theater 3 students are contemplating theater as a possible career, or path of study at the University level. Class work includes scene work, improvisation, refining performing skills, advanced script writing, academic and practical study of theatrical genres and styles. Students will exit the class with two contrasting audition scenes, and a resume for college level auditions. Students will be helping to produce workshops and productions outside of class. Students are graded on written projects, scene work, directing work, and participation in class.

Prerequisite: Theater 2 and instructor signature. Students must purchase their own makeup kit for use in Theater 3.

# 6730 Technical Theater- Stagecraft

Elective: 9 – 12 Full Year – 1 Credit

Technical theater offers students interested in the "Back stage men and women in Black" area of theater production. Students will learn production techniques common to stage, film, television and related performance areas. The class offers instruction in the fundamentals of stage carpentry, production, lighting, sound and sets. The technical theater class constructs, lights and produces all aspects of Helen High productions, and offers technical support to theatrical events in other schools and the community. Students will be required to have hearing protection, a nail apron and vision protection. Students will be graded on projects, class participation and tests and quizzes over area content. This class can be offered for Vo Ed Credit.

#### 6731 Technical Theater- Production

Elective 10 – 12 Full Year – 1 Credit

Technical Theater – Technical Production is the advanced technical theater course and meets at this time in *conjunction with Technical theater - stagecraft. It requires the successful completion of Technical Theater* – Stagecraft, <u>and the signature of the instructor</u>. All students in Technical Production will be assigned technical duties for productions at Helena high and will be required to work hours outside of the normal class time applying and expanding knowledge from stagecraft. Portfolio, resume, and job completion are required for the student to get a grade in the class. Each assignment per semester can and most likely will change and will require the student to act as a member of the production team as assigned. Students will be required to be at performances and rehearsals out of class time and during weekends near the production. The course can be repeated for credit and will require the student to expand their knowledge in the areas chosen or assigned.

Prerequisite: Technical Theater 6730 and instructor signature.

### **CAREER AND TECHNICAL EDUCATION**

Not all students plan to go to a four-year college, but all students need training after high school. Big Sky Pathways is an articulated agreement with Montana Colleges of Technology that develops the skills and knowledge required for a specific career. Careers like Architecture, Construction, Welding, Automotive, and Drafting have been targeted through the initiative. At the high school level, students will be introduced to and reinforced with the basic skills and knowledge related to a career choice. Career choices will be defined through Career Cruising during the eighth grade. Counselors are ready to help students develop a four-year plan of study and placement after high school. Some classes will be offered for Dual credit (high school, college). Any student interested in a career in the trades will benefit greatly by following a Big Sky Pathway.

#### 7100 Introduction to Woodworking

Elective: 9 – 12 Full Year – 1 Credit

Through use of demonstrations and lectures and actual shop experience with wood-working tools and materials, students become familiar with basic aspects of shop safety, use of tools, plans, drafting and other related materials. Grades are based on craftsmanship, work habits, assignments, tests and attitude. Student project required; students furnish their own project materials. This class is first in the Big Sky Pathway for Construction.

#### 7141 Fundamental Drafting

Elective: 9 – 12 Full Year – 1 Credit

This course studies basic drafting skills. Students will complete drafting projects developing skills in Geometric Construction, Lettering, Three-View Projection and Dimensioning. Those desiring to develop basic drafting skills and who have <u>any interest</u> in engineering or architecture are encouraged to participate. This course is a prerequisite to all course offerings in the Drafting area. The class is lab oriented, individualized instruction, and self-paced. Personal initiative is required for success in this class. Course material may be reviewed on the school website, the drafting page.

#### 7141 Mechanical Drafting

Elective: 10 – 12 Full Year – 1 Credit

This course will enhance advanced drafting skills including Sections, Auxiliary View, Thread and Fasteners, and Working Drawing. Those considering a career in Engineering will develop advanced drafting skills that will enhance their college experience.

Prerequisite: Fundamental Drafting

#### 7141 Architectural Drafting

Elective: 10 – 12 Full Year – 1 Credit

This course studies design techniques used in residential construction. Students will develop a complete set of house plans using standards of planning and construction. Consideration will be given to floor plans, elevation, plot plans, wall sections, and cost of construction. Those desiring to develop additional skills in AutoCAD may develop their plans using the computer. Students considering a career in Architecture will benefit from this class.

Prerequisite: Fundamental Drafting

7141 CAD – Architectural, Mechanical and Special Elective: 10 – 12 Dual Credit – Helena College (3 Credits per Semester) Full Year – 1 Credit

Students may select from three CAD programs offered. Even students who do not have any background in Drafting are encouraged to apply. These classes are now offered for dual credit with Helena College of Technology.

<u>Architectural</u> – Students develop a house plan using Soft-Plan, an intuitive architectural software that helps almost all students visualize and draw a complete set of house plans.

<u>Mechanical</u> – This course is designed for advanced students in Drafting. They will develop advanced skills working with AutoCAD including Three-View Projection, Auxiliary View, Threads and Fasteners and Dimensioning.

<u>Special</u> – This course is designed for <u>advanced students</u> who have completed all of the other CAD courses offered. The class instructor and the students will agree on a project(s) that will reflect upon the students desire to enhance his/her interest area. Credit will be awarded upon completion of assigned projects.

#### 7170 Carpentry 1

Elective: 10 – 12 Full Year – 2 Credits

Carpentry 1 is a two-period class that prepares students for a career in construction and develops lifelong skills. Students will learn safety, terminology, construction math, hand and power tools used by carpenters, and an overall orientation to the construction trade. Skills will be introduced and reinforced through the design and construction of a model house to scale. Lectures and bookwork will cover all aspects of home construction from footings to finish. Upon completion of the model house, students will design and build cabinetry to include door and drawer construction. Demonstrations and safety tests will be given on each machine used. Students must score 90% proficiency to use the machines (exception: table saw 100%). Students are responsible for material costs.

# **Carpentry Capstone**

Students that exhibit safety awareness, proficiency and a strong work ethic are encouraged to take an Internship or Independent Study for elective credit. Students are also encouraged to pursue Drafting, Business, Technical Math and Technical Writing.

#### 7205 Auto Tech 1

Elective: 10 – 12 Semester – .5 Credit

Automotive Technology I is a one-semester course that will instruct students in automotive shop safety procedures, hand and power tool use, vehicle systems, basic vehicle maintenance and automotive careers. Students will also learn workplace skills to help prepare them for an entry-level position or further training in the automotive industry. *This is a good class for everyone to take; if you are going to drive a vehicle you should know something about it!* The method of instruction is primarily a combination of lecture and demonstration, to be followed by student practice to provide for a competency-based learning environment. This course is the first of a three-year automotive program. Sophomores are strongly encouraged to take this class so they will have the opportunity to complete all three automotive courses.

#### 7206 Auto Tech 2

Elective: 11 – 12 Full Year – 2 Credits

Automotive Technology II is a two period, year-long course that will instruct students in shop safety procedures, small engine engines, electrical systems, brakes, and auto body repair. Students will also learn workplace skills to help prepare them for an entry-level position or further training in the automotive industry. The method of instruction will be a combination of lecture and demonstration, to be followed by student practice to provide for a competency-based learning environment. This course is the second of a three-year automotive program.

Prerequisite: Auto Tech 1 with a minimum "C" grade and written permission from instructor.

#### **7207** Auto Tech 3

Elective: 12
Full Year – 1 Credit

Automotive Technology III is a two-period year-long course that will instruct students in shop safety procedures, steering and suspension, drive trains, engines, engine performance, and HVAC systems as well as review what has been learned in previous classes. Students will learn workplace skills to help prepare them for an entry level position or further training in the automotive industry. The method of instruction will be a combination of lecture and demonstration, to be followed by student practice to provide for a competency-based learning environment. Students be allotted a large amount of time in the shop; they are to use this time efficiently to achieve various repairs and competencies, and a large portion of their grade will be based off flat rate. This course is the final course of a three-year automotive program and is open to seniors only.

Prerequisite: Auto Tech 2 with a minimum "C" grade and instructor approval.

# **7230** Welding 1

**Elective: 9 – 12** Full Year - 1 Credit

**Elective: 10 - 12** 

Full Year - 2 Credits

Are you looking for an exciting and fun class that could possibly lead to employment? This one-hour per day class is designed to give you the fundamental knowledge of SMAW(Arc), OFW(Gas) welding, GMAW (MIG) welding, OFC cutting and Plasma cutting along with related subjects and hands on learning. Students will apply the concepts that they have learned for one project in second semester. Students will be required to pay for the materials for their personal project. Students must supply their own protective clothing (coveralls, gloves, safety glasses, leather boots, tape measure, pliers and 3 ring binder). See your instructor for information about buying approved safety glasses at a reasonable cost.

# **7240 Welding 2 Dual Credit- Full Year (3 Credits per Year)**

Do you like designing and building your own projects using advanced types of welding equipment and technology? Welding II can give you these opportunities, along with the skills to enter the work force and obtain lifelong skills. In this advanced course students will develop skills in out-of-position welding of SMAW, GMAW and GTAW welding. Students will practice on weld coupons until a high enough level of proficiency to consistently produce quality welds. Students will design and draft project plans, develop bill of materials for projects, welding project fabrication, recognize, recall and recite welding symbols for blueprint reading along with related subjects. Students will have a chance to become American Welding Society certified in welding in the spring. The student will have to pay for the certification on their own. Students will be required to pay for the materials for all personal projects while in class. Students must supply their own protective clothing (coveralls, gloves, safety glasses, leather boots, a pliers, tape measure, and MIG pliers). See your instructor for information about buying approved safely glasses at a reasonable

This course can be used to earn dual credit with Helena College OR Missoula College for 3 credit. Students will need to check with the college they would like to attend in Montana to make sure the credit will transfer from Helena College or Missoula College to the college of their choice in Montana. Talk to your instructor for more information.

Prerequisite: Completion of Welding 1 with a minimum of "C" grade and written permission from instructor.

# **7250** Welding 3 **Dual Credit- Full Year (3 Credits per Year)**

conjunction with the Helena College.

Full Year - 2 Credits This is an advanced course that will further your welding knowledge. It is primarily a lab based, project-oriented class that is designed for employment readiness. The class is designed to prepare the student for post-secondary education or employment. The focus of this course will be to strengthen and advance student welding and engineering skills as they apply to personal metal manufacturing projects, careers, and related industrial certifications. All costs of projects will be assumed by the student. Students will focus on the fabrication of advanced welding projects, strengthening plan and print reading skills, small business mass production project and training for AWS and NCCER welding certifications in

**Elective: 11 – 12** 

Students must supply their own protective clothing (coveralls, gloves, safety glasses, leather boots, pliers, tape measure and MIG pliers). See your instructor for information about buying approved safety glasses at a reasonable cost. This course can be used to earn dual credit with Helena College OR Missoula College for 3 credit. Students will need to check with the college they would like to attend in Montana to make sure the credit will transfer from Helena College or Missoula College to the college of their choice in Montana. Talk to your instructor for more information.

Prerequisite: Completion of Welding 2 AND instructor's written consent.

# **7258 Welding 4 Dual Credit-Full Year (3 Credits per Year)**

**Elective 12** Full Year – 2 Credits

This is an advanced course that will further your welding knowledge. It is a lab based, project-oriented class that is designed for employment readiness. The class is designed to prepare the student for post-secondary education or employment. The focus of this course will be to strengthen and advance student welding and engineering skills as they apply to personal metal manufacturing projects, careers, and related industrial certifications. All costs of projects will be assumed by the student. Students will focus on writing skills and building a portfolio for employment or post-secondary education. Students will train for AWS and NCCER welding certifications in conjunction with the Helena College. Students must supply their own protective clothing (coveralls, gloves, safety glasses, leather boots, pliers, tape measure and MIG pliers). See your instructor for information about buying approved safety glasses at a reasonable cost.

This course can be used to earn dual credit with Helena College <u>OR</u> Missoula College for 3 credit. Students will need to check with the college they would like to attend in Montana to make sure the credit will transfer from Helena College or Missoula College to the college of their choice in Montana. Talk to your instructor for more information.

Prerequisite: Completion of Welding III AND instructor's written consent.

#### 7251 Coop. Welding/Manufacturing Education

Elective 11 – 12 Full Year – 1 Credit

Cooperative welding/manufacturing education is a program in which welding students who, through a cooperative arrangement between the school and employers, receives classroom instruction and related on-the-job training in a welding occupation. Students enrolled in Welding II classes are eligible to apply for Welding/Manufacturing Working Co-op Experience. Students accepted for this program will be released from school one class period each day upon availability of employment and will work in a Helena-area business for at least minimum wage. School credit and grade reflect the number of hours worked and the quality of performance on the job. Students must maintain acceptable classroom grades in order to remain eligible for release time and credit. Students furnish transportation and must be 17 years old to participate.

Prerequisite: Completion of Welding 2 or Welding 3 with a minimum of "C" AND instructor's written consent

All of items can be purchased locally. American Welding and Gas and General Distributing give a student discount. Rock Hand, Power Townsend, Murdoch's, Lowe's and Home Depot. If you have any questions or cannot afford an item, please contact Cindy Galbavy 324-2180 or cgalbavy@helenaschools.org

### **Welding Supplies for Welding Students**

Gloves- they need to have welding gloves and look something like following picture.



<u>Safety Glasses</u>- that are Z87 approved. The first pair is for a student that doesn't wear glasses. The second pair is for students that wear glasses.





This pair fits over glasses.

You can also purchase if you want but I provide welding goggles: Shade 5 glasses



<u>Pliers</u> – They need one pair of following pliers. Please buy cheap pliers.



**<u>Boots</u>** – They need a pair of leather boots. You can purchase used ones at any thrift store. Here are examples of the boots.





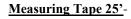
Coveralls 100% cotton or old pair of jeans 100% cotton. Jeans cannot have any frays on them.







These coveralls are about \$45.00 or more at Murdoch's. or an old pair of jeans 100% cotton and this coat is a must and I believe they run around \$30.00 at American Welding & Gas and General Distributing.





<u>Hat</u> – old hat that is cotton or you can buy welding cap.





Welpers or MIG Pliers-



All of items can be purchased locally. American Welding and Gas and General Distributing give a student discount. Rock Hand, Power Townsend, Murdoch's, Lowe's and Home Depot. If you have any questions or cannot afford an item, please contact Cindy Galbavy 324-2180 or cgalbavy@helenaschools.org

#### 9351 Health Careers Explorations

Elective: 11 – 12 Full Year – 2 Credits

The Health Career Exploration Class is a two-hour class (1 credit per semester) designed to provide high school students with the opportunity to develop the skills and knowledge for the health occupations. The class is two semesters and is offered as an elective class or for vocational credit to juniors and seniors. The class emphasizes training in medical terminology, basic health care skills, basic human anatomy, safety practices and ethics. Instruction is delivered through the classroom, laboratory, practicum and job shadowing settings. After successful completion of this class the students will be eligible to obtain a Certified Nursing Assistant certification, and students will find options for employment or further education in health care professions.

Prerequisite: Passing grades in two (2) years of math and (2) years of science as well as successfully completing the application process available from the counseling department.

# **Project Lead The Way® Biomedical Sciences**

Project Lead The Way® Biomedical Sciences program is a high school program designed for students interested in Health Science careers. The program is divided into four sections, each section building upon the previous. This dynamic program uses hands-on, real-world problems to engage and challenge students. Students interested in math, science, and the human body will find the PLTW Biomedical Sciences program a great introduction to the numerous medical fields. It will also teach them how the skills they learn are used in the biomedical sciences.

The Biomedical Sciences program is integrated into the high school curriculum. It is designed to augment the high school science and math college preparatory programs to establish a solid background in biomedical science. <u>Courses</u> count for either Career and Technical Education or elective credit.

# 7610 Principles of Biomedical Science (Biomed 1) Elective: 9 – 10 Full Year – 1 Credit

Students investigate the human body systems and various health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the factors that led to the death of a fictional person and investigate lifestyle choices and medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, medicine, research processes and bioinformatics. This course is designed to provide an overview of all the courses in the Biomedical Sciences program and lay the scientific foundation for subsequent courses.

#### 7620 Human Body Systems (Biomed 2)

Elective: 10 – 11 Full Year – 1 Credit

Students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real-world cases and often play the role of biomedical professionals to solve medical mysteries.

Suggested prerequisite: 7610 Biomed 1 or Biomed teacher approval

#### 7630 Medical Interventions (Biomed 3)

Elective: 11 – 12
Full Year – 1 Credit
gnosis and treatment of disease

Students investigate the variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. The course is a "How-To" manual for maintaining overall health and homeostasis in the body as students explore: how to prevent and fight infection; how to screen and evaluate the code in human DNA; how to prevent, diagnose and treat cancer; and how to prevail when the organs of the body begin to fail. Through these scenarios, students are exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important roles scientific thinking and engineering design play in the development of interventions of the future.

Suggested prerequisite: 7620 Biomed 2 or Biomed teacher approval

#### 7640 Biomedical Innovations (BioMed 4)

Elective: 12 Full Year – 1 Credit

Students in Biomedical Innovations (Biomed 4) will be challenged with project-based learning by conducting independent research, designing an innovation, exploring environmental health, applying real-world experience for improving emergency medicine and completing an independent project in an area of interest. This course is designed to provide students time to immerse themselves in solving real-world problems. Students will present their work to the community at the end of the year. This course is designed for 12th grade students that want to further their knowledge in biomedicine and improve their research skills.

Suggested prerequisite: Either 7630-Medical Interventions or three science classes (or concurrently enrolled in the 3rd science class).

# Business Information Technology Education Helena High School

The ability to use computers to perform everyday tasks is one of the most important skills for the  $21^{st}$  Century. Business-related skills permeate every aspect of our lives, regardless of our chosen career field. These skills will also carry over into all other high school curriculum.

In today's technological world, business skills give the extra edge when competing for jobs whether in Montana, the United States, or the world. The Business Information Technology program at Helena High helps to prepare students

by placing emphasis on the development of each student's ability and potential. Work ethics are learned through everyday class procedures. A cooperative work experience is available to upper-level students; membership in Business Professionals of America, a co-curricular student organization, is an option.

Business courses provide actual experiences that mirror the real-life business world; become a Bengal Business employee! Up-to-date hardware and software and equally up-to-date instructors provide a quality-learning environment that is one of the most current in Montana!

Marketing Education is a process composed of activities designed to create exchanges that satisfy individual and organizational objectives. The Marketing Ed, Sports and Entertainment Management, Small Business Management and SBM II courses are designed around national standards for Marketing Management, Entrepreneurship, and Business Administration. All of these courses are designed to help deliver a good or service to users/consumers, change behaviors, or influence ideas. Career opportunities in marketing can be found in all types and sizes of business. In the 21<sup>st</sup> century, economic survival in nearly any business setting or profession will depend on the ability to understand and execute business skills such as marketing. Marketing Education provides those skills.

# **Business and Marketing Education Course Offerings**

Freshmen Year	Sophomore Year	Junior Year	Senior Year
7301 Basic Computer Skills	7301 Basic Computer Skills	7301 Basic Computer Skills	7301 Basic Computer Skills
7304 Tech Skills for Life	7304 Tech Skills for Life	7304 Tech Skills for Life	7304 Tech Skills for Life
7310 Money Management #	7310 Money Management	7310 Money Management	7310 Money Management
	7330 Career Planning	7330 Career Planning	7330 Career Planning
	7340 Law and Justice I	7340 Law and Justice I	7340 Law and Justice I
	7350 Consumer Math	7350 Consumer Math	7350 Consumer Math
	7370 Accounting 1**	7370 Accounting 1*	7370 Accounting 1*
		7307 Office Management	7307 Office Management
7320 Desktop Publishing *	7320 Desktop Publishing	7320 Desktop Publishing	7320 Desktop Publishing
	7322 Graphic/Web Design	7322 Graphic/Web Design	7322 Graphic/Web Design
7360 MSO Word	7360 MSO Word	7360 MSO Word	7360 MSO Word
7361 MSO Excel	7361 MSO Excel	7361 MSO Excel	7361 MSO Excel
7400 Marketing	7400 Marketing 7410 Sm Bus 1/Catty Shack***	7400 Marketing 7410 Sm Bus 1/Catty Shack***	7400 Marketing 7410 Sm Bus 1/Catty Shack***
		7410 Sm Bus 1/Catty Shack***	7410 Sm Bus 1/Catty Shack***
		7411 Sm Bus 2/Catty Shack****	7411 Sm Bus 2/Catty Shack****
	7412 Sports/Entertain Mgmt***	7412 Sports/Entertain Mgmt***	7412 Sports/Entertain Mgmt***
7480 Marketing Co-Op	7480 Marketing Co-Op	7480 Marketing Co-Op	7480 Marketing Co-Op

<sup>#</sup> Must have successfully completed Math 8 with B or higher

<sup>\*</sup>Must have taken 7304 1st Semester of Freshman Year

<sup>\*\*7370</sup> can be taken for college credit

<sup>\*\*\*</sup>Must have taken 7400

<sup>\*\*\*\*</sup>Must have taken 7410

# 7301 Basic Computer Skills

Elective: 9 – 12 Semester – .5 Credit

This course lays the foundation for students to successfully use computers and the Internet throughout their high school careers. The students will use Microsoft Word to create, write, and format personal documents such as letters, reports, and tables. The remainder of the semester will be spent utilizing the Cloud, including online safety, email and search skills.

# 7304 Technology Skills for Life

Elective: 9 – 12 Semester – .5 Credit

Students will enhance their skills in business applications through the use of digital technology. This course will expose students to Microsoft Excel & Access. Computer Skills 2 will incorporate projects such as programming using Python, beginning Robotics using Arduinos and networking. This course is designed for students who have basic computer skills.

Recommendation: Students should be able to key 25 words per minute. Otherwise they may need to take course #7301 above.

# 7310 Money Management

Elective: 9\* – 12 Full Year – 1 Credit

Money Management teaches personal finance skills for life that includes investing, credit, college funding, renting and home ownership, automobile financing, insurance and more.

# 7330 Career Planning

Elective: 10 – 12 Semester – .5 Credit

Career Planning is semester classes that will help students determine career possibilities and identify educational requirements for those careers, as well as guiding students through the job search, interview process and career development process.

#### 7340 Law and Justice

**Elective: 9 – 12** 

Semester – .5 Credit

This class provides a wide exposure to the legal rights and responsibilities of people in many circumstances, Law and Justice I covers a broad base of everyday legal activities in which an individual is likely to become involved. Topics include criminal and civil law, contracts, consumer protection, and personal property. Guest speakers from Helena's legal community enhance the content of the class. Students will participate in a mock trial experience, putting court procedures into practice.

#### 7350 Consumer Math

Elective: 10 – 12 Full Year – 1 Credit

**Elective: 10 - 12** 

Consumer Math will help students improve proficiency with basic math skills and apply basic math concepts to personal and business situations. Units will include Managing Your Money (checking accounts, comparing job offers, figuring pay checks and job benefits), Spending Wisely (budgeting, comparison shopping, unit pricing, and credit), Making Money Grow (savings, borrowing, and investing), Income Taxes (finding and filing your income taxes), World Travel (planning a trip, investigating travel costs) and Living On Your Own (renting, buying and owning a home).

In successfully completing this course, students will demonstrate knowledge of math concepts and critical thinking skills that will help them be a smart shopper, an informed citizen, and a valued employee.

Prerequisites: Successful completion of high school mathematics course as a freshman Vocational Credit

# 7370 Accounting 1 Dual Credit Helena College (3 Credits)

Dual Credit Helena College (3 Credits)

Full Year – 1 Credit

Accounting is the language of the business world. Accounting will help students understand the financial activities of a business and will better prepare them to prepare business financial records. Students will learn the basic principles of the accounting cycle from analyzing and recording everyday transactions to preparing and interpreting financial

statements and supporting data. Activities from both a service and merchandising business will be emphasized. Payroll deductions and related payroll taxes are also covered. Students will utilize the manual accounting method.

This class may be taken for UM-Helena college credit and Helena High credit.

Students wishing to pursue Accounting 2 can do so as an Independent Study, based on instructor approval.

### 7380 Business Co-Op Work Experience

Elective: 10 – 12 Full Year – 1 Credit

Cooperative business education is a program in which business students who, through a cooperative arrangement between the school and employers, receives classroom instruction and related on-the-job training in a business occupation. Students accepted for this program will be released from school one class period each day upon availability of employment and will work in a Helena-area business for at least minimum wage. School credit and grade reflect the number of hours worked and the quality of performance on the job. Students must maintain acceptable classroom grades in order to remain eligible for release time and credit. Students furnish transportation and must be 16 years old to participate. Students in all business classes qualify.

Prerequisite: Instructor approval and signature

### **Bengal Business - Computer Applications**

Helena High's "Bengal Business" is a simulated corporate environment in which several different courses will be taught in one classroom setting during any given period. Office employees (students) can take a course any period "Bengal Business" is offered, allowing greater flexibility in scheduling. This setting provides realistic, hands-on experiences that directly relate to certain job fields. Students will work at their own pace through required class modules; they will not have to "wait to learn."

"Bengal Business" requires appropriate office etiquette, self-motivation, teamwork, and job responsibility. The teacher serves as a facilitator of learning and resembles the corporate CEO.

The greatest advantage to "Bengal Business" is in requiring students to behave as would be required in a real-world situation. Students clock-in at the beginning of each period, call in for sick days, and their success is determined by completion of class modules and management points that are earned in various ways that relate to a working environment.

#### 7399 Office Management

Elective: 11 – 12 Semester – .5 Credit

Students who have interviewed and been accepted into this class will perform as the office managers for Bengal Business. Today's technologically advanced office doesn't resemble that of even five years ago! Students will learn technology skills for applications necessary to manage a modern office today. Based on school and independent projects, students will gain skills, which include communication, desktop publishing skills, file management, presentation, scheduling, and personal data assistant.

Grading reflects business standards and includes work habits, human-relation skills, self-motivation, and personal responsibility.

Prerequisite: Successful completion of a Bengal Business course.

# 7399 Desktop Publishing

Elective: 10\* – 12 Semester – .5 Credit \*9 with completion of 7304

Desktop Publishing combines text and graphics to produce professional-quality publications such as advertisements, newsletters, magazine covers, letterheads, awards, brochures, and business cards. Students will produce documents that communicate effectively through good design and the application of basic concepts of desktop publishing (using Adobe Creative Suites). In addition, Students will use a scanner and digital camera to complete specific projects.

#### 7399 Adobe Photoshop

Elective: 10\* – 12 Semester – .5 Credit

Students will use Adobe Dreamweaver, Fireworks and Flash to create high-quality web sites complete with graphics, animation, buttons and more. Students will learn to design and create attention-getting, interactive sites. This course encourages creativity, independence, and design technique that was introduced in Desktop Publishing.

# 7399 Microsoft Office Word

#### Elective: 10 - 12 **Dual Credit-Helena College (3 credits per Semester)** Semester - .5 Credit

Students will learn basic principles of word processing. Emphasis is placed on creating, saving, editing, and formatting documents along with some of the special features of word processing software. This course uses Microsoft Word.

#### 7399 Microsoft Office Excel **Elective: 10 – 12 Dual Credit-Helena College (3 credits per Semester)** Semester - .5 Credit

Using MS Excel, students will learn how to effectively use spreadsheets for personal and business tasks. Students will learn basic principles such as formatting a workbook, working with formulas and functions, and creating charts and tables. Students will also learn important spreadsheet concepts such as order of precedence in formulas, function syntax, absolute and relative cell references, what-if analysis, and data validation.

Prerequisite: Math grades must be C's or higher or instructor approval.

#### 8170 JMG – Jobs for MT Graduates

Full Year - 1 Credit JMG focuses on four programs of study: career exploration, civic duty, social skills and leadership development. Projects include: Service to Others, Breast Cancer Awareness (Think Pink/Race for the Cure), Festival of Trees, Toys for Tots, Pennies for Patients, as well as other civic project identified by students. Students have the opportunity to become members of the Montana Career Association, serve as chapter officers, attend the fall JMG leadership conference and participate in the competitive events conference in the spring. Career exploration, job shadowing, selfawareness, teamwork, healthy lifestyles, money management and career search and development are also topics addressed during the year.

#### Marketing Education

Marketing Education prepares students in the area of marketing, business and communications. Strategies of these classes will strengthen students' knowledge in entrepreneurship, management, product planning and development, advertising, and promotion.

The program primarily uses the "hands-on" approach to learning including actual product development and operation of the Helena High School store, the Catty Shack. Job Co-Op is another actual work experience option available to students enrolled in Marketing Ed I or, Small Business Management. In addition, students are eligible to take advantage of DECA membership allowing for participation in community service projects, event planning, competition, and travel!

# 7400 Marketing Education 1

Marketing I is intended for those who want to learn business operations and develop basic employment skills. If you want to continue your education in business administration, management, marketing, advertising, public relations or simply choose to enter the business world, give this course serious thought. You will receive experience in business communications, sports and entertainment marketing, product development, advertising-including television & radio production and newspaper layout and design, sales, customer service and shoplifting and security issues as well as taking your shot at becoming famous through playing "The Apprentice". This class also allows for opportunities in DECA which plans and implements Powder Puff Football, Night To Shine and options to compete at state and national levels in marketing and business entrepreneurship.

Vocational or elective credit can be applied to this class.

#### 7412 Sports & Entertainment Management

**Elective: 10 - 12** Full Year - 1 Credit

**Elective: 9 – 12** 

Full Year - 1 Credit

**Elective: 11 – 12** 

Sports & Entertainment Management is a new course designed to assist students to expand their understanding of marketing concepts and theories and apply to sports and entertainment management of events. The areas this course will include are basic marketing, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals, and implementation of sports and entertainment marketing plans. This course will also delve into developing and implementing promotion plans and event evaluation and management techniques of scheduled athletic, theatre and music events held at Helena High School. Students will be putting into action marketing and management skills at a variety of sports and entertainment events of Helena High School.

Students enrolled in Sports and Entertainment Management will have the opportunity to participate in DECA (student marketing and leadership organization). Each student must successfully complete Marketing I prior to enrollment in this course.

Vocational or Elective Credit can be applied to this class.

Prerequisite: Marketing Ed (7400)

# 7411 Small Business Management 1/Catty Shack Elective: 10 – 12 Small Business Management 2/Catty Shack Full Year – 1 Credit Dual Credit – University of Iowa

Small Business Management 1 & 2 (SBM) is an advanced course in business ownership, management and marketing. You will study entrepreneurship topics covering merchandising and display, financing, advertising layout and design, and additional aspects of creating a business plan. This class primarily revolves around operating the Helena High School store, the Catty Shack. The Catty Shack is a retail-training laboratory which provides opportunity for development of skills and knowledge through "hands-on" experience in purchasing, selling, pricing, promotion, product and service planning, customer service, individual and group critical thinking and decision-making skills.

Vocational or elective credit can be applied to this class.

Prerequisite: Marketing 1 (7400) Small Business 1 for Small Business 2

#### **Computer Sciences**

# 3460 Computer Science with Optional Helena College or Carroll College Dual Credit

Elective: 9 – 12 Semester – .5 Credit College Credits – (3–7)

Computer Science is for students with a desire to develop programming fundamentals. Java and Python will be used to create console and window applications, and a student can take up to eight semesters of computer science. Python will

be taught the first semester. The next four will use Java and build upon the previous semester(s). The final three semesters are used for advance study through independent programming projects.

College Credit at Helena College 3 Semester Credits after 1st Semester

3 Semester Credits after 2nd Semester

4 Semester Credits after 3rd Semester

College Credit at Carroll College 4 Semester Credits after 3rd Semester

# 8244 Oracle Database Design and Programming Elective: 9 – 12 Full Year – 1 Credit

Oracle Database Design and Programming is a yearlong course, which provides secondary students with the knowledge and skills to design and develop relational databases. Students will learn data modeling and will use Structured Query Language (SQL) to retrieve and manipulate data in an Oracle database. Students will also refine their professional skills by learning about project management, visual presentations, and job interviewing. At the end of the course the students may take the Introduction to Oracle 10g – SQL Certification exam. There are no prerequisites for this class.

# **Cisco CCNA Routing and Switching Program**

The Cisco CCNA Routing and Switching curriculum is designed for students who are seeking entry-level jobs in the ICT industry or hope to fulfill prerequisites to pursue more specialized ICT skills. More information regarding the Cisco program can be found at cisco.netacad.net.

# 8241 Introduction to Networks (CISCO 1)

CCNA Routing and Switching: Introduction to Networks introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes.

**Elective: 9 – 12** 

Elective: 10 – 12 Full Year – 1 Credit

**Elective: 10 – 12** 

**Elective: 10 – 12** 

Semester - .5 Credit

Semester - .5 Credit

Full Year - 1 Credit

# 8242 Routing Protocols (CISCO 2)

CCNA Routing and Switching: Routing Protocols describes the architecture, components, and operations of routers, and explains the principles of routing and routing protocols. Students learn how to configure a router for basic and advanced functionality.

By the end of this course, students will be able to configure and troubleshoot routers and resolve common issues with RIPv1, RIPv2, EIGRP, and OSPF in both IPv4 and IPv6 networks.

Prerequisite: Introduction to Networks

# 8243 Switched Networks (CISCO 3)

CCNA Routing and Switching: Switched Networks describes the architecture, components, and operations of a converged switched network. Students learn about the hierarchical network design model and how to configure a switch for basic and advanced functionality. By the end of this course, students will be able to troubleshoot and resolve common issues with Virtual LANs, VTP, and inter-VLAN routing in a converged network. Students will also develop the knowledge and skills needed to implement a WLAN in a small-to-medium network.

Prerequisites: Routing Protocols

# 8243 Connecting Networks (CISCO 4)

CCNA Routing and Switching: Connecting Networks discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement IPSec and virtual private network (VPN) operations in a complex network. Prerequisites: Switched Networks

# Family and Consumer Science – Culinary Arts

CTE Industries / Pathway: Hospitality & Tourism

**Dual Credit Option:** Missoula College, Course 105 Safety and Sanitation **Certification Option:** *ProStart* – National Restaurant Association

The Culinary Pathway includes a sequence of four courses leading to a career in the Hospitality and Tourism industry. Intro to Culinary Arts is open to 9-12 as a semester class for developing personal cooking and nutrition skills. Students in **Culinary I, II and III** utilize the National Restaurant Association curriculum *ProStart*. Culinary I and II develop the student's skills in culinary arts and expose the students to the world of professional cooking. Students have opportunities to work with industry partners in outside caterings and events. Culinary III is the capstone experience for the culinary student, offering the opportunity for dual credit from Missoula College in Safety and Sanitation, externships with local chefs and state and national competitions.

Culinary I, II and III are 2-hour block classes for Sophomore, Juniors and Seniors who have successfully passed Intro to Culinary or can pass the class final exam with work experience knowledge. Application details available from the counseling center.

# 7520 Intro to Culinary Arts and Nutrition

Elective: 9 – 12 Semester – .5 Credit

The first course of the series is **Intro to Culinary Arts** is open to all students, one semester. The course is designed to introduce basic nutrition and cooking skills for individual and family cooking. The course is based on a whole foods approach with an emphasis on sustainability, local, and fresh foods, safety and sanitation, nutrition basics, the relationship between disease and diet and food culture in American life.

7531 Culinary I

Elective: 10 – 12 Semester – 1 Credit

Culinary I is an exciting and innovative hospitality/culinary arts education designed specifically for students interested in a career in the food and hospitality industry. The course is based on the National Restaurant Association program, *ProStart*, which provides classroom training in all aspects of culinary careers including job seeking skills, management, nutrition and food preparation skills. Two-hour block class, signature of instructor required with application. Application available in Rm 50 or Counseling Office.

Pre-requisite: Intro to Culinary Arts 7520 or signature of instructor with passing semester exam at 75% without class pre-requisite.

7541 Culinary II

Elective: 10 – 12 Semester – 1 Credit

Culinary II continues the study of a professional career in hospitality /culinary arts. Catering for the school events will be part of the culinary arts curriculum. Two-hour block class, signature of instructor required with application. Application available in Rm 50 or Counseling Office.

Pre-Requisite: Culinary I (7531)

# 7540 Culinary III

Elective: 11 – 12 Semester – 1 Credit

Culinary III is the capstone experience for students who have successfully completed Intro, Culinary I and II. **Safety and Sanitation 105** – **is integrated into the class for those who would like dual credit / manager certificate from ServSafe.** Students may be involved in a competition team, training with a chef mentor and work independently in externships/internships in the community. Application available in Rm 50 or Counseling Office.

Pre-Requisite: Culinary II (7541)

# **Other Course Offerings**

# 8110 HHS Internship

Elective: 11 – 12 Semester – .5 Credit

This is a .5 elective credit opportunity where students spend 4 hours per week in a work setting at a job site that interests them. Students must apply for this unpaid internship, and enrollment is limited. An internship requires maturity and professional behavior and is limited to juniors and seniors. A resume, cover letter, and letter of recommendation are required; some job sites may also require an interview. In addition to those requirements, an applicant's counselor and administrator must approve the application. Not all placements are possible. Due to HIPAA regulations, many internships in medical and other health care settings are not possible. While not under HIPAA guidelines, internships in accounting and law are typically not available because of privacy/confidentiality rules. See Mrs. Strietzel for more information and an application.

### 1700 Student Leadership

Elective: 9 – 12 Full Year – 1 Credit

The Helena High School Student Leadership course is designed to develop quality student leaders and foster a positive school atmosphere. The students enrolled in the course assemble our Student Council. Students actively learn leadership and life skills through service learning, group work, exercises, Socratic discussion, and planning and facilitating various school and community activities. Student Council plans, organizes, advertises, prepares, executes and evaluates a variety of school activities that improve the school climate and environment. These events include Homecoming,

Winter Formal, Teacher Appreciation and Student Leadership week as well as all school assemblies. In addition, Student Council acts as liaisons between the students, faculty and administration developing effective and various modes of communication.

# 8140 Library/Media/Technology

EARN CREDIT WHILE YOU WORK AND LEARN! This class will provide students with a working knowledge of libraries and library technology services. Students will learn what is required to keep the library and computer labs operational and organized. Students will be responsible for maintaining a section of print materials. They will also be expected to assist patrons and complete other tasks as assigned. Job skills such as punctuality, attendance, enthusiasm, and attention to detail are emphasized as well as professionalism and courtesy. This class is performance-based as is any job and can provide students with employment references.

Prerequisites: 1) Application 2) Limited Enrollment

### 8205 AP Seminar

Elective: 10 – 12 Full Year – 1 Credit

Elective: 11-12 Full Year – 1 Credit

Elective: 10 – 12 Semester – .5 Credit

Interested in conspiracy theories? How Hollywood creates and perpetuates gender roles? Subjects ranging from Science to Art? In **AP Seminar**, you'll have the chance to have interesting discussions about topics like these and more as you learn how to write and present findings in an inquiry-based course focused on your academic interests and passions. Seminar is a pre-requisite for **AP Research**, the AP Capstone program, and a great fit for students who want to be prepared for college.

#### 8206 AP Research

AP Research is the final class of the AP Capstone Course and students can register for this class if they have completed AP Seminar. AP Research is for students that want to deeply explore an academic topic, problem, or issue of individual interest. During the school year, students will define a research question and design, plan, and conduct a year-long, research-based investigation. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Throughout this exploration students will create a portfolio of their work that shows their skill development, data collection in the research process, and their final product. The course culminates in an academic paper of 4000–5000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense. Successful completion of AP Research

Prerequisite: AP Seminar

#### 8260 Peer Mentor Program

leads to the AP Capstone diploma.

Elective: 10 – 12 Full Year – 1 Credit

The Peer Mentor Program is designed as a school-based mentor course. The mentors will be scheduled into a period of their choice and will mentor and tutor in high school, middle school or grade school classes four days a week. One day a week, mentors will stay in the period scheduled for training, journal writings, and debriefings about their mentor experiences that week. Mentors will also be placed in the community in various settings during 2<sup>nd</sup> semester i.e. Helena Industries, Assisted Living for Senior Citizens, etc. Students may enroll in this class more than one year with instructor approval.

Students will develop basic counseling and mediation skills that can be effective in the school setting in the community and for their own personal growth. In addition, it gives mentors access to education programming on a variety of health topics and current teen issues.

Prerequisite: Students must complete an application and be screened to qualify for the class. Please see Mrs. Sheila Williams for the application.

#### 8261 Native American Youth Connection

Elective: 10 – 12 Full Year – 1 Credit

This class is offered for Native American Freshmen. Students will attend this class daily to learn study skills and receive tutoring to increase their academic success. They will also learn about the history and heritage of Montana Indian tribes and explore contemporary Native American issues. Please contact your student's school counselor or the IEFA Coordinator at the high schools for more information.

This class is offered for Native American Sophomores, Juniors and Seniors. Students will develop study skills and effective behaviors that support academic success. They will learn about cultures of Montana Indian Tribes and explore contemporary Native American issues. They will also learn basic counseling and academic mediation skills that will benefit them in the school setting, in the community and in their own personal growth. Students may qualify to mentor or tutor at the middle schools or elementary schools through the high school-based Native American to Native American mentoring program by maintaining a 2.0 or higher GPA and securing IEFA Coordinator approval. Students may enroll in this class more than one year with instructor approval. Please contact your student's school counselor or the IEFA Coordinator at the high schools for more information. Native American students not enrolled in these classes, but who demonstrate a need or desire for tutoring or connecting with IEFA personnel to increase their academic success, should schedule a study hall as one of their class periods so that IEFA staff can work with them during the regular school day.

#### 9999 Glacier College

Elective: 10 – 12 Full Year – 1 Credit

Glacier College is a year-long elective centered around one of America's most iconic natural spaces – Glacier National Park. Throughout the year, the Park will be our textbook, with every quarter featuring a two-day trip to Glacier to live the coursework firsthand. So, prepare to map the wilderness. To understand how nature affects the way we think and feel. Expect to experience the Park's history, connect with its Native heritage, and see its preservation at work. Be ready to discover what the future holds for Glacier – and how we can be a part of it.

#### **HUMAN PERFORMANCE AND HEALTH ENHANCEMENT**

A student must have 1.5 credits of Human Performance and 0.5 credits of Health Enhancement to graduate: Two (2) semesters of Freshmen Human Performance, one (1) semester of Sophomore Human Performance and one (1) semester of Health Enhancement. Junior and Senior students entering the Helena School District without the required Human Performance credits required to graduate, may select an elective to meet the graduation requirements. A student must have successfully passed both Freshmen and Sophomore courses in order to enroll in the Lifetime Sports class or upper level Weight Training. A student may only be enrolled in two Human Performance classes in the same semester. In Freshman and Sophomore classes, a pre and post physical assessment, the Fitnessgram, is required by the Helena School District.

#### **Dress for Human Performance Class**

In order to succeed in Human Performance, appropriate attire is important. Students need to have tennis shoes (that tie), shorts/sweats and t-shirt. It is recommended that they wear the school colors of red, grey or white.

Freshman H.P. Required: 9
Full Year – 1 Credit

FRESHMAN HP CORE OPTIONS: Students must choose from the following year-long classes.

Freshmen will have four class options to satisfy their Freshmen Human Performance credit. All class options are based on Helena School District #1 Health Enhancement Standards. The classes are co-ed and are designed to help students achieve and maintain a healthy level of physical fitness through fitness workouts and game play situations. All four class options will use the Fitnessgram twice a year for fitness testing and will do some type of conditioning activities at least twice a week, using heart rate monitors for at least one of those days. All students will be responsible for knowing the thirteen major muscle groups and an exercise that goes with each muscle, the FITT Principle and 5 Components of Fitness. All classes will participate in a dance unit twice during the year. Specific activities will be incorporated in each option to allow individual student success. All Freshmen will be expected to dress out daily.

9100 Freshman HP Recreational Sports and Activities (Non-Competitive Team) Freshman Recreational Sports emphasizes physical fitness improvement through a variety of non-competitive physical activities. Students will learn how to achieve and maintain a healthy level of physical fitness through participation in fitness activities, individual, dual and team sports. Students will spend a minimum of two days per week participating in fitness/conditioning type workouts. Other game/sport activities are designed for enjoyment and recreation.

9101 Freshman HP Competitive Team Sports and Activities (Competitive Team) Freshman Competitive sports emphasizes physical fitness improvement in a highly competitive physical activity setting. This class appeals to students who like to play to win. Students will learn how to achieve and maintain a healthy level of physical fitness through a variety of fitness activities, individual, dual and team sports. Students will spend a minimum of two days per week participating in fitness/conditioning type workouts. Other game/sport activities are designed to be competitive.

#### 9102 Freshman HP Personal Wellness (Individual)

Freshman Personal Wellness emphasizes individual improvement in personal wellness. This class appeals to students who do not enjoy a traditional team sports environment. Students will learn how to achieve and maintain a healthy level of physical fitness by participating three days per week in a variety of individual and group fitness activities with a minimal amount of individual, dual and team activities. The primary focus of this class is improving personal wellness.

#### 9343 Freshman Weight Training

Freshman Weight Training is the most physically demanding and intense Freshman PE Class. The emphasis of this class is to improve muscular strength/endurance, speed and agility through an athletic based workout

**program**. Students will learn how to improve their health and skill related physical fitness. Students will spend a minimum of two days per week in the free weight room and two days per week conditioning. Individual improvement is measured with the Fitnessgram, weight maxes, dot testing, and a variety of other assessment techniques.

#### 9200 Sophomore H.P.

Required: 10 Semester – .5 Credit

The emphasis of this class is to expose students to lifetime activities along with a variety of individual and team activities. All students will complete five major units including archery, fishing, knots and rappelling, air rifles, and dance. Fitness is developed and assessed throughout the semester through a wide variety of planned activities (i.e. heart rate monitors, Fitness testing, and a variety of planned activities and workouts). Students will also participate in a number of individual, group and team games. Examples of games include; Ultimate Frisbee, speedball, softball, volleyball, cricket, basketball, badminton and pickleball. This course follows the same common expectations that are standard for all Helena High School HP courses.

Prerequisite: Freshman HP

#### 9210 Health Enhancement

Required: 10 Semester – .5 Credit

Health Enhancement focuses on the mental/emotional, physical, and social well-being of students throughout the entirety of their lives. Emphasis is placed on the various aspects of healthy living in today's society. Written work, tests, and projects are used to evaluate students' understanding of current health issues and information.

#### 9321 Aerobic Conditioning/Bengal Fitness

Elective: 10 – 12 Semester – .5 Credit

The emphasis of this class is to promote enjoyment and individual improvement in all aspects of fitness with a hands-on approach. Activities in this class will be geared around group fitness activities, self-defense, circuits, interval training, and resistance training. Work will also be done to help establish and create personalized workouts to promote lifelong fitness. This is a semester class with the option of enrolling for a full year.

Prerequisite: students successfully passing Freshmen Human Performance.

#### 9330 Athletic Training/CPR/First Aid

Elective: 10 – 12 Semester – .5 Credit

Students will learn the basic principles of athletic training. These experiences will include anatomy, the basics of injury assessment and taping for injury prevention, as well as exploration of professional careers related to physical education and athletic training. The class will also teach the basic procedures for Cardio-Pulmonary Resuscitation (CPR) and first aid. Opportunities for certification in CPR and First Aid will be available in this class. Fee required.

Prerequisite: Students successfully passing Freshman H.P. and instructor signature.

# 9340/9342 Physical Enhancement and Conditioning Elective: 10 – 12

Semester – .5 Credit

Physical Enhancement and Conditioning is a co-educational class open to all 10<sup>th</sup>-12<sup>th</sup> graders who have successfully passed Freshmen Human Performance. The course consists of flexibility work, running, plyometric conditioning, and agility drills, with the most emphasis on individual and group weight training programs.

Prerequisite: Successful completion of Freshman H.P.

#### 9351/9352 Health Careers Explorations

Elective: 11 – 12 Full Year – 2 Credits

The Health Career Exploration Class is a two-hour class (1 credit per semester) designed to provide high school students with the opportunity to develop the skills and knowledge for the health occupations. The class is two semesters and is offered as an elective class or for vocational credit to juniors and seniors. The class emphasizes training in medical terminology, basic health care skills, basic human anatomy, safety practices and ethics. Instruction is delivered through the classroom, laboratory, practicum and job shadowing settings. After successful completion of this class the students will be eligible to obtain a Certified Nursing Assistant certification, and students will find options for employment or further education in health care professions.

Prerequisite: Passing grades in two (2) years of math and (2) years of science as well as successfully completing the application process available from the counseling department.

**Elective: 11 – 12** 

Full Year - 1 Credit

#### 9400 Lifetime Sports

The emphasis of this class is to provide opportunities for students to explore a variety of recreational activities that can be enjoyed throughout their lifespan. Students will participate in different individual and team activities during this class. Examples include: Ultimate Frisbee, Field Games, Badminton, Pickleball, Shuffleboard, Basketball, Volleyball, Winter Survival, Fencing, Fly-tying, and Table Tennis. Students will also use a number of community facilities in order to receive the full recreational experience. Examples of community-based activities include: Disc Golf, Archery, Bowling, Skiing, Skating, Snow Shoeing, Cross Country skiing, Shooting Sports, Kayaking, Golf, Climbing, and Rafting. Students are required to pay an \$100 fee to help cover the cost of using community and commercial facilities. There may be scholarships available to qualifying students.

Prerequisite: Successful completion of Freshman and Sophomore H.P.

#### **SPECIAL SERVICES**

#### 1800 Practical English

IEP: 9 – 12

Full Year - 1 Credit

This course is designed to teach students functional oral and written communication skills. For example, students will learn to write business letters, memos, fill out job applications, and give speeches for various situations. Students will also be instructed in reading and listening skills and learn how to write an introductory research paper. Small class size will allow for individualized instruction.

Prerequisite: Teacher approval and current IEP team recommendation.

#### 2801 Practical World Cultures

IEP: 9 - 12

Full Year - 1 Credit

This course features in the interrelationship of geography, history, and culture in the major regions of the world. This class also focuses special attention on how other regions of the world are similar to the community in which the student lives. The major goal of this course is for the student to appreciate the likeness and differences of all the people in the world. \*This is based on a yearly rotation schedule.

Prerequisite: Teacher approval and current IEP recommendation.

#### 2803 Practical Government/History

IEP: 9 - 12

Full Year - 1 Credit

This course is designed to explore the differences in government, the U.S. Constitution, division of power, how citizens influence government, how decisions are made at local, state, and federal levels. It will increase the students' understanding of geography, local/state history, and economics. \*This is based on a yearly rotation schedule.

Prerequisite: Teacher approval and current IEP recommendation.

#### 3801 Practical Math 1

IEP: 9 - 10

Full Year - 1 Credit

This class focuses on each individual's needs in basic math skills and learning how to manage a checkbook. Ability levels range from telling time to pre-algebra skills.

Prerequisite: Teacher approval and current IEP recommendation.

#### 3810 Practical Math 2

IEP: 11 - 12

Full Year - 1 Credit

This course is designed to teach students life-long mathematics skills, as well as basic math skills, allowing them to address the challenge of being on their own. Furnishing an apartment, buying groceries, bringing home a paycheck, budgeting for education, recreation, and travel are examples of some of the types of living skills to be addressed.

Prerequisite: Teacher approval and current IEP recommendation.

#### 3811 Practical Math 3

IEP: 11 – 12

Full Year - 1 Credit

This course focuses on preparing students for Pre-Algebra. We focus on the skills needed to succeed in Pre-Algebra.

Prerequisite: Teacher approval and current IEP recommendation.

#### 4801 Practical Science

IEP: 9 - 12

Full Year – 1 Credit

This course is a practical approach program designed for students in 9-12 grades. Students will either participate in

Earth Science or Biology depending on the year.

Prerequisite: Teacher approval and current IEP recommendation.

### 8603 Practical Living Skills

IEP: 9 - 12

Full Year - 1 Credit

This course is in the most restrictive setting for learners preparing for transition in a supported life skills setting, group setting or a vocationally supported environment. Skills are taught specific to student's short-term objectives that stem from the individual education plan. Skills may include basic skills, money identification and usage, intensive behavioral management, communication training, pre-vocational skill readiness, school-based jobs, community skills, work with grade level adapted materials.

Some students may be placed with Administrative approval for an individual course of study specific to the needs of the IEP/ER that are not able to be met for the student through other coursework.

Prerequisite: Teacher approval and current IEP team recommendation.

#### 7578 Practical Home Living Skills

IEP: 9 - 12

Full Year - 1 Credit

This course is designed to increase independent cooking and home living skills. Students will plan and prepare meals, including purchasing the supplies and following a budget. Students will also complete a unit on choosing and maintaining an apartment and will explore some aspects of clothing care.

Prerequisite: Teacher approval and current IEP team recommendation.

#### 8420 Practical Social Skills

IEP: 9 - 12

Full Year - 1 Credit

Individual and interpersonal social skills are focused on which include initiating a conversation, introductions, offering emotional support, being assertive, accepting responsibility, and more. The students acquire skills through discussion and role-playing activities.

Prerequisite: Teacher approval and current IEP team recommendation

#### 8410 Employability 1 - 2

Elective: 9 – 10 Full Year – 1 Credit

This course is designed for students who currently receive special services assistance. In beginning Employability, students will learn about the attitude and skills necessary to succeed in the work world. Examples of areas covered are work attitudes, preparing a resume, filling out a job application, the interview process, employers expectations, dealing with people, and positive self-esteem. In-class job experiences include recycling, shredding, mailings, assembly work, filing, and computer work to name a few.

Prerequisite: Freshman, Sophomores, Juniors, and Seniors with approval of instructor. Must successfully complete Employability 1 before taking Employability 2.

#### 8430 Employability 3

Elective: 11

Full Year – 2 Credit

This course is a work-study course designed for students who currently receive special services assistance. Course objectives include: 1) Seek and secure employment; 2) Master the skills on that job; 3) Master appropriate work habits: 4) Continue career exploration and development through competitive employment. Students must be eligible for Special Services. Students receive credit for work.

Prerequisite: Employability 1 and 2. Grade 11 and teacher approval.

#### 8440 Employability 4

Elective: 12

Full Year - 2 Credit

This course is a work-study course designed for students who currently receive special services assistance. Course objectives include: 1) Seek and secure employment; 2) Master the skills on that job; 3) Master appropriate work habits

and behaviors: 4) Continue career exploration and development through competitive employment. Students must be eligible for Special Services and must have permission from resource teacher. Students received credit for working and will receive career guidance and counseling to assist them in the transition from high school to work or post-secondary training.

Prerequisite: Employability 1, 2 3 and teacher approval.

#### 8806 Core Curriculum Lab

Elective: 9 – 12 Full Year – 1 Credit

This course provides students with an opportunity to learn and practice strategies related to study skills, organization, and time management while preparing students for the transition from high school to post-secondary education or employment. The personal strategies component of the course will teach students skills related to work completion, study strategies, and organization. The transitions portion of the course will emphasize application of effective organizational skills and study strategies and will teach students the skills necessary to be successful self-advocates. Students will bring assignments and study materials in order to apply and practice their skills towards work in core academic classes. This is a pass/fail elective course.

Prerequisite: Recommendation from IEP Team

### TITLE I

### 1600 Reading Lab

Elective: 9

Full Year - 1 Credit

Reading Lab is designed for students whose reading skills hinder their progress in core classes. The program is individualized according to student needs. The curriculum may include novel reading and the use of the SRA Corrective Reading Program and/or other reading programs. Teacher approval required.

# **HHS ACTIVITIES AND CLUBS**

3-7-77	Ms. McMahon
American Welding Society	Mrs. Galbavy
Art Club	
Athletic Training Club	Mr. Cullen
Band	Mr. Loveridge
Basketball, Boys	Mr. Day
Basketball, Girls	
Bengal Bar-B-Que Club	Mr. Thomas
Bengalettes	Mrs. Kopp
Bio Club	Ms. Pichette and Ms. Thennis
Business Professionals (BPA)	Mrs. Humphrey
Cheerleaders	Ms. Hall
Choir Club	Ms. Steele
Comic Card Club (C3)	Mr. Day
Computer Science Club	Mrs. Smith
Concessions	Mrs. Gustafson
Craft Club	Mrs. Svingen, Mrs. Brown
Cross Country, Boys	Mr. Gilbert
Cross Country, Girls	Mrs. Paul
DECA	Mrs. Belcourt
Drafting Club	

	Ms. Pichette, Mr. T Hollow
` <b>*</b>	es)Mrs. Preshinger, Mrs. Williams
	Ms. Walsh
French Club	Mrs. Bartels
German Club	Mr. Langreder
Golf, Boys and Girls	Mr. Tipton
Green Group	Mrs. Van Alstyne, Ms. McClure, Mr. Scruggs, Mr. Horvath
GSA Club	
Guitar Club	
•	Mr. Garza
	Mrs. Humphrey
	Mrs. O'Malley
	Mrs. Richmond
	Mr. Hussey
	Mr. Hussey
	Mr. Pogreba
	Ms. Thennis, Mrs. Barmore
	TBD
	Mr. Harris
	. Mr. McKim, Mr. Lynn, Mr. McKissick, Mrs. Berry, Mrs. C. Thennis
	Ms. Pichette, Ms. Thennis, Mr. McKim, Mrs. Gillin, Mrs. O'Malley
	Ms. Pichette
	Mr. Straub
	Mr. Meloy
	Mr. Schulte
Spanish Club	
Speech & Debate	
Student Council	
Student Library Club	
Swimming	
Table Tennis	Mr. Pogreba
Tennis	
Thespians	Mr. Holter
=	Mr. Garza
	Mr. Salisbury
	Mr. Schlepp
=	Mrs. Day
· · ·	Mr. Pogreba
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# GO BENGALS!