

**Medford Area**

**Senior High**

*“Ordinary is a Given. Greatness is Achieved”*



**Scheduling Handbook**

**For**

**2021-2022**

11/20



November 2020

Dear Student(s) and Parents/Guardians:

We will soon begin scheduling for the 2021-2022 school year. Our steps for scheduling next year's 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> graders are as follows:

1. Information in the form of this handbook is being distributed to students in their English classes where we will explain scheduling procedures, the Scheduling Handbook, and any special programs.
2. Students should discuss with parents/guardian what they want to take and prepare a tentative selection of classes, including four (4) alternates.
3. Students will meet with their counselor to discuss their course selections as they relate to their academic and career plan.

We hope that you will become involved in this process and that you will encourage your sons or daughters to make intelligent course selections that will be useful of their future.

We want to emphasize that it is **VERY IMPORTANT** that students select the courses they want now. Student requests will determine what courses are offered for the upcoming school year. Parents are asked to consider their son's/daughter's course selections carefully. Requests for students not to be assigned a specific teacher must be submitted in writing by June 1<sup>st</sup> to either the principal or student services office.

If you have any questions or concerns, please contact your son's/daughter's school counselor at the high school, 748-5951. Thank you.

Sincerely,

Tolea Kamm-Peissig  
School Counselor  
(Last names A-K)  
Ext. 427

Terrance Lybert  
School Counselor  
(Last names L-Z)  
Ext. 428

# Table of Contents

High School Graduation Requirements .....	5
High School Class Loads .....	5
Course Selections	
Agriculture .....	7
Art .....	9
Business .....	12
Driver Education .....	15
English .....	16
Family and Consumer Sciences .....	17
Mathematics .....	20
Music .....	22
Physical Education & Health .....	23
Pre-Engineering .....	24
Science .....	26
Social Studies .....	28
Technology Education .....	30
Work-Based Learning .....	33
World Language .....	34
Special Education Programming .....	35
English Language Development .....	36
Special Programming Options .....	36
Common Grading Scale .....	39
Student Evaluation .....	39
Honor Roll .....	40
Academic Awards .....	40
Preparing for a 4-year College/University .....	41
Preparing for Voc/Tech College .....	42
Class Rank .....	42
Thinking about the Armed Forces .....	42
Non-Discrimination .....	42
My Four Year Plan .....	44

## **GRADUATION REQUIREMENTS**

In order to graduate from Medford Area Senior High students must accumulate 23 ¾ credits, and have passed the civics exam, and earned the required number of community service hours as outlined below. **It is the responsibility of each student to see that he or she has completed all the below requirements by graduation.**

### **Class of 2022, 2023, 2024 and 2025**

1. Four (4) credits in English, including English 9 or Honors English 9, English 10 or Honors English 10, English Language, Honors English Language or AP English Language, and English Literature, Honors English Literature or AP English Literature.
  2. Three (3) credits in Social Studies, including Human Geography or AP Human Geography, US Government or AP US Government, and US History or AP US History.
  3. Three (3) credits of Science, including one credit each of Physical Science, Biology, and Chemistry.
  4. Three (3) credits of Mathematics.
  5. One and one-half (1.5) credits of Physical Education.
  6. One-half (.5) credit for Health.
  7. One-half (.5) credit of Financial Literacy.
  8. One-quarter (.25) credit of Life Management.
  9. One-half (.5) credit of Vocational Education.
  10. One-half (.5) credit of Fine Arts.
  11. Civics Exam.
  12. Community Service Hours
    - Class of 2022 will serve 10 hours
    - Class of 2023 will serve 15 hours
    - Class of 2024 and subsequent classes will serve 20 hours
    - Any student moving into the district will have their hours prorated accordingly.
- Classes meeting the Vocational Education requirements are:
    - a. All Agriculture Department classes.
    - b. All Business Department classes, except Financial Literacy.
    - c. All Family and Consumer Sciences classes.
    - d. All Technology Education classes.
    - e. All Pre-Engineering classes.
    - f. Food Science I & II from the Science Department.
  - Classes meeting the Fine Arts requirements are:
    - a. All Art Department classes.
    - b. All Music Department classes.

### **HIGH SCHOOL CLASS LOADS FOR 2021-2022**

The following are the required courses and the required number of electives a student must take during the 2020-2021 school year. Students must carry 7 hours of class (no more than one study hall) regardless of how many credits they have accumulated. Any student failing a required course must repeat the course. **Any student wishing to take more than 7 credits per year must have honors study hall status or need the credits in order to graduate.**

**FRESHMAN**

	<b><u>CREDIT</u></b>
English 9 or Honors English 9	1.0
Mathematics as assigned: Pre-Algebra, Algebra A, Algebra I, or Geometry	1.0
Physical Science or Honors Physical Science	1.0
Human Geography or AP Human Geography	1.0
Physical Education	.5 or 0
Drivers Education – based on age (optional)	0
Life Management – based on age	.25 or 0
**Fine Arts	.5 or 0
**Vocational Education	.5 or 0
Elective Credits*	<u>1.0 - 3.0</u>
<b>TOTAL</b>	<b>6.75-7.0</b>

**SOPHOMORE**

English 10 or Honors English 10	1.0
Mathematics	1.0
Biology or Honors Biology	1.0
US Government or AP US Government	1.0
Health	.5
Driver Education – if not as a freshman (optional)	0
Life Management – if not as a freshman	.25 or 0
Physical Education	.5 or 0
**Vocational Education	.5 or 0
**Fine Arts	.5 or 0
Elective credits*	<u>0.5 – 2.5</u>
<b>TOTAL</b>	<b>6.75-7.0</b>

**JUNIOR**

	<b><u>CREDIT</u></b>
English Language, Honors English Language or AP English Language	1.0
Mathematics	1.0
Applied Chemistry, Chemistry or Honors Chemistry	1.0
US History or AP US History	1.0
Physical Education	.5 or 0
**Vocational Education	.5 or 0
**Fine Arts	.5 or 0
Elective credits*	<u>1.5 – 3.0</u>
<b>TOTAL</b>	<b>7.0</b>

## **SENIOR**

## **CREDIT**

English Literature, Honors English Literature or AP English Literature	1.0
Financial Literacy	.5
Physical Education	.5 or 0
**Vocational Education	.5 or 0
**Fine Arts	.5 or 0
Elective credits*	<u>4.0 – 5.5</u>
	<b>7.0</b>

\*\*These requirements may be met anytime during the four years of high school.

## **COURSE SELECTIONS**

Course offerings/titles listed in this handbook reflect the most accurate information available at the time of printing. Changes in course availability may occur due to budgeting considerations, teacher utilization, student scheduling choices, or other factors.

On the following pages...

**GRADE** indicates the grade levels at which a course may be taken.

**YEAR OR SEMESTER** indicates the length of the course.

**PREREQUISITE** indicates the course(s) that must be successfully completed before entering the described course.

Unless otherwise indicated, students will be awarded one-half (.5) credit for a semester course and one (1) credit for a year-long course.

# **AGRICULTURE**

Exploratory AgriScience – How does AGRICULTURE affect my life? Learn about the importance of agriculture to everyone! This course is an excellent way to be introduced to the many different aspects of agriculture and the FFA. Topics will include diversity of agriculture, biotechnology, careers, FFA, leadership skills, Supervised Agriculture Experience (SAE), plant science, animal science, and natural resources. Recommended for students who haven't had Agriculture 8.

Gr. 9-12                      Semester                      Prerequisite: none

Horse and Small Animal Science – deals with equine management and services along with pet (dogs, cats, rabbits, etc.) care and management. Nutrition, grooming, pedigrees, and other factors are studied. Some information will be included on veterinary careers.

Gr. 9-12                      Semester                      Prerequisite: none

Fish and Wildlife 1 – In this course we will study game and non-game species of mammals, waterfowl, and fish. The course will study the ecology, habits, habitat, and life cycles of various species of wildlife and fish.

Gr. 9-12                      Semester                      Prerequisite: none

Horticulture-Plants & You – Do you have a green thumb? If not, that’s okay! In this course you will build a strong foundation for soil and plant science concepts by working inside the greenhouse and outdoor on landscaping projects and gardens. Students will learn general care for houseplants, fertilization, build corsages, floral arrangements, as well as learn about soil, terrariums, propagation methods, wreath-making, and helping out school and community gardens/landscape.

Gr. 9-12                      Semester                      Prerequisite: none

Production Animal Science – is the study of livestock (cattle, swine, sheep, poultry, etc.) industry, animal nutrition and feeding, judging and classification, and the meat industry. Students will also be participating in hands-on animal labs.

Gr. 10-12                      Semester                      Prerequisite: none

Fish and Wildlife 2 – In this course we will continue to learn about concepts talked about in Fish and Wildlife 1. Topics covered will include hands-on labs and real life application such as taxidermy, fish bait making, trapping, tanning, processing, and natural resource experiments.

Gr. 11-12                      Semester                      Prerequisite: Fish and Wildlife 1

Dairy Production – includes all phases of the dairy industry, including feeding, breeding, housing, health, records, and dairy careers. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 11-12                      Semester                      Prerequisite: none

Veterinary Science – Explore parts of the veterinary field by learning basic veterinary terminology and identifying veterinary equipment. Learn how to handle and restrain various animals and give a basic physical examination of those animals. Learn about animal diseases and parasites including their diagnosis and treatment. Students will practice basic hands-on procedures with classroom animals. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 11-12                      Semester                      Prerequisite: Horse and Small Animal Science

Forestry – In this course students will learn about tree growth, tree identification, harvesting methods, marketing tactics, pests, forest crop laws, careers, and conservation practices. Do you like to be outdoors in forests-then this is the class for you!

Gr. 11-12                      Semester                      Prerequisite: none

Agricultural Mechanics-Tractor Restoration – While disassembling and rebuilding a 50-60 horsepower tractor, students will learn how to read technical drawings and parts books. This hands-on course takes what is learned in the classroom for engine rebuild, part restoration, painting and detail work and puts it into practice. Students maintain record books each week as they work in every area of a tractor auxiliary, electrical, hydraulics, power train and more. Limited to 12 students.

Gr. 11-12                      Semester                      Prerequisite: Instructor Consent (must complete application form)

Farm Management – Students will help run and maintain the school barn. Daily tasks include handling, grooming, feeding, and cleaning animal pens.

Gr. 12                              Semester                      Prerequisite: Application



Independent Agriculture – Students who are interested in learning about a facet of agriculture that has been previously covered in a class or maybe has not been covered in a class-this course is for you! Students will work independently to set up rigorous, high-paced curriculum that focuses specifically on each student's interests.

Gr. 12

Semester

Prerequisite: Instructor Consent

## ART

*Upperclassman may select a maximum of 4 art classes per year with the exception of Yearbook. Placement in these classes may be limited due to class enrollment.*

Art Exploration – includes the study and application of art elements and principles of design. Beginning Art students will learn the history, vocabulary and techniques related to art and design in both two-dimensional and three-dimensional projects. Units include: drawing, painting design, printmaking, sculpture, metals and ceramics. Lab fee - \$6.00

Gr. 9-12

Semester

Prerequisite: none

Drawing I – is an introduction to the fundamental concepts and techniques of drawing using a variety of media and subject matter. Drawing focuses on black and white or monochromatic rendering from life, pictures, masterworks and imagination. With an emphasis on studio production, this course is designed to develop knowledge and skill in drawing, art criticism, art history, and aesthetics. Lab fee - \$6.00

Gr. 9-12

Semester

Prerequisite: none

Film and Video I – In this class, students learn how to appreciate and view fine films from a variety of historical eras, studying the history of cinema through class discussion and writing movie reviews. Hands-on learning includes how to use a camera, shoot footage, write scripts, do production design, and learn how to edit film in post-production with the iMovie program. Lab fee - \$6.00

Gr. 9-12

Semester

Prerequisite: none

Hands on Art – Art for the Non-Artist – Want to take an art class, but feel like you don't have the skills or creativity to be in an art class? Walk through the history of our world via art! One-week projects involve learning about a specific time in art history and then using tools and materials to create a small piece of artwork graded on effort and technique. Projects include: carving, sculpting, painting, photography, and drawing.

Gr. 9-12

Semester

Prerequisite: none

Photography I – This course centers around using Canon DSLR cameras and multiple lenses to learn classic photography techniques as well as how to create a great photo. Projects include shutter speed, taking studio portraits with professional lights, photojournalism, and food photography all while critiquing their work in a group setting. Field trips and taking the camera home are optional. Lab fee: \$6.00 or purchase an SD card.

Gr. 9-12

Semester

Prerequisite: none

Film and Video II – Advanced film students follow Film & Video I curriculum, but choose their own films to watch and critique as well as work independently on their own film-making and designing. This course focuses more heavily on the filming and cinematography of making movies as well as editing and the final processing of student-created films. Lab fee - \$6.00

Gr. 10-12

Semester

Prerequisite: Film & Video

Photography II – Advanced photo students work more independently with a variety of projects that push creativity and productivity. Darkroom photos and chemical processing, studying famous photographers and their work, creating a series of photos that represent the human senses, and working in black and white are among a few of the projects included in this course. Lab fee: \$6.00 or purchase an SD card.

Gr. 10-12                      Semester                      Prerequisite: Photography I

Drawing II – is a study of visual art and intermediate drawing skills. Students will explore different avenues of visual communication, self-expression, and creative problem solving through the creation of representative observational drawing as well as abstraction. Students will continue to develop technical drawing skill with an emphasis on composition and content. More time will be devoted to thematic development and the exploration of personal sources of meaning during the second half of the semester. Lab fee: \$6.00

Gr. 10-12                      Semester                      Prerequisite: Drawing I

Metals & Glass I – Intermediate art students will be introduced to the tools, techniques, and methods used to create works of art in both metal and glass. Students will study historical and cultural uses of jewelry and glass. Units include: stained glass, glass etching, mosaic, copper enameling, wax casting, and metal fabrication. Lab fee - \$6.00

Gr. 10-12                      Semester                      Prerequisite: Art Exploration

Pottery & Sculpture I – Advanced art students will create three-dimensional art forms through the study of art and design, various cultures and artifacts related to ceramics and sculpture. Units include: hand built pottery, wheel thrown pottery, glazing techniques, additive and subtractive sculpture, metal tooling, and found object sculptures. Lab fee - \$6.00

Gr. 10-12                      Semester                      Prerequisite: Art Exploration

Yearbook – Develop skills in journalism and publishing. Students are responsible for producing the Raider, our full color school yearbook. They gain hands-on experience in planning and designing publications, digital photography, image editing, writing and editing copy, and on-line layout of our book. Students who take yearbook more than once assume leadership roles on the staff. (10<sup>th</sup> grade with Instructor Consent)

Gr. 11-12                      All Year                      Prerequisite: Photography I

Metals and Glass II – is a continuation of what the students learned in Metals and Glass I using more advanced tools, techniques, and methods used to create works of art in both metal and glass. Students will study historical and cultural uses of jewelry and glass. Units of study will include: stained glass, glass etching, mosaic, wax casting, and metal fabrication. Lab fee - \$6.00

Gr. 11-12                      Semester                      Prerequisite: Metals & Glass I

Painting I – An introduction to basic painting techniques and color principles applied to the exploration of watercolor, acrylic and oil painting. Intermediate art students will choose a master artist and study the painter from the viewpoint of an artist, art critic, and art historian. Lab fee: \$6.00

Gr. 11-12                      Semester                      Prerequisite: Art Exploration or Drawing

Painting II – This course continues building aesthetic and technical skill in watercolor, acrylic, and oil with an introduction to air brush painting. Painters will use advanced design techniques to develop their own personal style in painting. Students will study an art movement from the viewpoint as an artist, art critic and art historian. Lab fee: \$6.00

Gr. 11-12                      Semester                      Prerequisite: Painting I

Pottery & Sculpture II – is a continued exploration of hand building, wheel throwing techniques and advanced sculptural processes. Students will apply advanced techniques and skills to produce high quality three-dimensional forms to communicate ideas. Units include: mold making, hand built and wheel thrown pottery, and sculptural forms created by plaster, wire, metal and found objects. Lab fee - \$6.00

Gr. 11-12                      Semester                      Prerequisite: Pottery & Sculpture I

Advanced Placement Studio Art – is designed for highly motivated students who are seriously interested in the study of art. This course is formatted following the Advanced Placement guidelines allowing students to have the option of submitting their portfolio for AP college credit at the end of school year in either 2-D, 3-D or Drawing. Students who take this year long course will develop many skills necessary for future art endeavors. Lab fee - \$10.00. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 33 for more information.)

Gr. 11-12                      All Year                      Prerequisite: Successful completion of 2 or more art courses **and** instructor consent

Independent Study Art – is open to seniors with a strong interest in a specific area of art. Lab fee -\$6.00.

Gr. 12                      Semester                      Prerequisite: Successful completion of 2 or more art courses **and** instructor consent

Independent Study–Mural Design – is open to seniors interested in designing and painting a mural for MASH. Lab fee - \$10.00

Gr. 12                      Semester                      Prerequisite: Painting I **and** instructor consent

Teacher Assistant Art – is open to seniors who will work as a teacher’s assistant with students in an art class and aid with the general maintenance of the art classroom.

Gr. 12                      Semester                      Prerequisite: Successful completion of 2 or more art courses **and** instructor consent

# BUSINESS & INFORMATION TECHNOLOGY

## REQUIRED COURSES:

### GRADE 12

Financial Literacy **OR**  
Honors Financial Literacy

Financial Literacy – starts students on the path of becoming a competent consumer. This course provides an excellent foundation for buying cars, homes, insurance, clothes, food, etc. and teaches how to manage a checking account, credit cards, a budget, and investing. You will learn about scarcity, impacts of decisions, consumer rights, laws, and responsibilities. Students will accumulate resources and information for future reference. Websites, current periodicals, textbook, and other resources are used.

Gr. 12                                  Semester                                  Prerequisite: none

Honors Financial Literacy – is a practical study of consumer problems and consumer choice. Selected topics include: budgeting and family resource management, sources of consumer information, help in solving consumer problems, government taxing and spending, and consumer decision making in such areas as transportation, insurance, financial institutions, consumer goods and services, housing, and credit. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 12                                  Semester                                  Prerequisite: none

## **BUSINESS/MARKETING ELECTIVE COURSES:**

Business Exploration – provides a foundation for understanding business. This course studies forms of business, economics (supply/demand curves; inelastic demand; shifts in demand/supply; Law of Diminishing Returns; circular flow of money; money supply and other concepts), international trade, business careers, current events and more. Students will create a partial business plan for a business of their choice. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 9-12                                  Semester                                  Prerequisite: none

Entrepreneurship – Do you wonder what it would be like to own your own business? Explore business ownership and management through this class as well as learning hands-on through our school store, The Red Zone. You will learn about famous entrepreneurs throughout history, how they started their business and what made them so successful. You will also learn to solve business problems and determine the needs and wants of your customer while tailoring your business to them. This is a great course for everyone to take!

Gr. 9-12                                  Semester                                  Prerequisite: none

Intro to Marketing – Through this course you will learn the fundamentals of marketing through creative group projects and hands-on learning experiences through our school store, The Red Zone. Explore marketing strategies including (but not limited to) new product development, marketing research, selling, promotional strategies, advertising and branding. This course is beneficial for all and concepts can be applied to everyone and every career.

Gr. 9-12                                  Semester                                  Prerequisite: none

Sports and Entertainment Marketing – Explore marketing concepts through the sports and entertainment industry. Create your own sports team and stadium by learning marketing concepts and applying them to your own sports franchise. You will also explore topics including sports careers, promotions, branding, licensing, market research, product development and pricing. Students will gain hands-on experience throughout school store, The Red Zone.

Gr. 9-12                      Semester                      Prerequisite: none

Social Media Marketing –Explore Social Media Marketing and Digital Marketing to create a deeper level of understanding of the world of Marketing. Topics included will be social media tools, such as Instagram, Facebook, Twitter, and SnapChat (along with many more), and how they’re being used effectively to market products and brands. Marketing students will gain hands-on learning experiences through our school store, The Red Zone. This course may offer transcribed/dual credit through Northcentral Technical College for Grades 11-12. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 10-12                      Semester                      Prerequisite: Intro to Marketing, Sports and Entertainment Marketing **OR** Instructor Consent

Accounting I – Learn to record business transactions using the double-entry accounting system. Students will be following the 9 step accounting cycle to record business transactions using the double-entry accounting system along with GAAP (Generally Accepted Accounting Principles). Students will cover recording entries in the General Journal, posting to the General Ledger, creating financial statements, using computer accounting software and more for a service business.

Gr. 10-12                      Semester                      Prerequisite: none

Accounting II – Continue to learn more accounting principles which include using special journals, adjusting entries, selling stock, inventory control, and more with merchandising business. Students will also experience these skills using accounting software.

Gr. 10-12                      Semester                      Prerequisite: Accounting I

Accounting III – Explore the world of Corporation Accounting which includes topics such as: Notes Receivable, Notes Payable, Short-term investments, Long-term Liabilities, and more. This class will meet part of the NTC Dual Credit requirement for NTC’s Accounting I class.

Gr. 11-12                      Semester                      Prerequisite: Accounting II

**NEW!! Quickbooks** – Introduces basic accounting concepts, set up and management of Quickbooks company files. The learner will navigate through the software by setting up users, entering beginning balances, and creating non-inventory items. Introduces customers and vendors by entering and paying bills, writing checks, creating invoices and sales receipts. Demonstrates achievement by producing reports and graphs.

Gr. 10-12                      Semester                      Prerequisite: Accounting II

Accounting IV – Continue to explore the world of Corporate Accounting by looking at topics such as: Cash Flows, Bonds, Managerial Accounting, and more. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 11-12                      Semester                      Prerequisite: Accounting III

Street Law – covers constitutional, criminal, civil and contract law as it affects everyday life. Explore criteria for different types of crimes. Explore how laws are interpreted, as well as the effects of the Amendments 1-6 of the U.S. Constitution.

Gr. 11-12 Semester Prerequisite: none

Independent Study Store Manager – Students will work with daily operations of The Red Zone and the concession stand. Duties may include creating promotions, managing social media, creating layouts, managerial duties, stocking, inventory, ordering new inventory, and other store/concessions related activities.

Gr. 11-12 Semester or year Prerequisite: Instructor Consent

### **INFORMATION TECHNOLOGY ELECTIVE COURSES:**

App Development and Design – Create a new app, website, or product to solve a problem of your choice. Students will experience topics like app development and 3-D printing, and how to create a product that maximize the user experience. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 9-12 Semester Prerequisite: Digital Web Tools or Exp Web Design/Programming

Digital Web Tools – Create and edit photos and videos using online tools, learn about social media tools, edit interactive presentations, and be introduced to animation and web pages. The knowledge and skills acquired in this class will enable students to successfully perform and interact in today's technology-driven society.

Gr. 9-12 Semester Prerequisite: none

Exploring Computers – Dive into the World of Computing and Technology. Explore evolution of computers as well as computer and IT related careers. Topics include, the history and evolution of computers, computer hardware and software, internet and networking, security, programming and gaming.

Gr. 9-12 Semester Prerequisite: none

Intro to Gaming – Jump into the world of gaming with this course. This course is an introduction to gaming and animation including study of design, navigation, and graphics. Students will work with Alice, GameStar Mechanic, Scratch and other various programs to develop object-oriented programming skills. Students will also learn about gaming careers, what makes an effective game, and the responsibilities of becoming part of a game design team. This course is great for students with a personal interest in gaming and computer programming.

Gr. 9-12 Semester Prerequisite: none

Exploring Web Design & Programming – Introduces HTML, Cascading Style Sheet (CSS) and JavaScript coding techniques. Students will create/modify web pages using HTML tags and style the web pages with CSS. Students gain proficiency in program design, coding, editing, flow charting, testing, and debugging programs. This course will provide a good background for students wishing to take other computer science courses and/or pursue a career in programming of web design. This course will also provide a good background for students wishing to take the Dual Credit class, Web Design and/or Computer Programming.

Gr. 9-12 Semester Prerequisite: none

Web Design and Programming – In this course students will learn how to add format to a webpage by writing CSS code. Continue to write computer programs using JavaScript. Students will also create flowcharts to outline the programs.

Gr. 11-12                      Semester                      Prerequisite: Exploring Web Design & Prog or Inst. Consent

IT Essentials – provides an in-depth exposure to PC hardware and operating systems. Students study the functionality of hardware and software components as well as suggested best practice in maintenance and safety issues. Through hands-on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. In addition, an introduction to networking is included. This course helps students prepare for the CompTIA's A+ certification. It will also provide a good background for students wishing to take the CISCO networking courses. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 10-12                      Semester                      Prerequisite: none

CISCO Network Academy I – IV – is available as an **independent study** by request and instructor consent.

Gr. 10-12                      Semester                      Prerequisite: Algebra II

Flash Animation – is an online course offered through Aventa Learning for anyone who wants to create animations and interactive movies like the ones on the coolest websites. Participants learn how to use Flash CS3, the world's most popular animation software, to create engaging, interactive movies for the web. Beginning with classic animation techniques, participants learn how to move objects around the screen and change their appearance. From there, it's on to creating movies, complete with original artwork. By the end of the course, students have learned how to build interactivity into their movies and publish them to the web. This course is a great introduction to the world of web animation.

Gr. 10-12                      Semester                      Prerequisite: none

Computer Programming – If you are interested in further developing your JavaScript skills this class may be taken as an Independent Study.

Gr. 11-12                      Semester                      Prerequisite: Exploring Web Design & Programming **OR**  
Instructor Consent

## DRIVERS EDUCATION

Driver Education Classroom and Behind-the-Wheel are optional programs for all students. The classroom portion is a nine week course and runs opposite of Life Management. As a convenience to both students and parents/guardians, both the Classroom and Behind-the-Wheel instructions will be offered to students during the school day for no credit. The Medford School District no longer pays for classroom or behind-the wheel instruction. Therefore, the entire cost of both programs is the responsibility of the student and his/her parents/guardians. Students that choose not to enroll in driver's education will be given a study hall for this nine-week period.

# ENGLISH

- ◆ While the content of each level is similar, the level of skill students practice during each course is different. These skills, such as reading and writing skills, increase in rigor.
- ◆ Placement is based on Standardized Test Scores and teacher recommendation.

## REQUIRED COURSES:

### GRADE 9

English 9  
Honors English 9

This course is an accelerated and enhanced approach to effective written and oral communication. Students will focus on style, structure, and language appropriate for various purposes and audiences and will be actively involved in research methodology, writing, and speaking at advanced levels. As part of the course work, the student will review basic grammar usage, study vocabulary, read selected fiction and nonfiction texts, and utilize technology to develop multimedia products and presentations.

Gr. 9                                      All Year                                      Prerequisite: none

### GRADE 10

English 10  
Honors English 10

Focuses on extending students' literary analysis skills by reading and reviewing a variety of world literature including novels, drama, nonfiction, poetry, and short stories. The composition work centers around reviewing conventions and grammar, studying vocabulary, and developing writing skills through essay writing and extended composition work.

Gr. 10                                      All Year                                      Prerequisite: none

### GRADE 11

Language and Composition 11  
Honors Language and Composition 11  
Advanced Placement Language and Composition 11

Engages students in becoming skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way genre conventions and the resources of language contribute to effectiveness in writing. Taking the AP exam is optional. (Refer to Special Programming Options on Page 32 for more information.)

Gr. 11                                      All Year                                      Prerequisite: none



## GRADE 12

Literature and Composition 12

Honors Literature and Composition 12

Advanced Placement Literature and Composition 12

Engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, style and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism and tone. Taking the AP exam is optional. (Refer to Special Programming Options on Page 33 for more information.)

Gr. 12

All Year

Prerequisite: none

### **ELECTIVE COURSES:**

Oral/Interpersonal Communication – focuses on developing speaking, verbal and nonverbal communication, and listening skills through individual presentations, group activities, and other projects. Juniors and seniors pursuing any post-secondary degree are encouraged to enroll and learn to conquer the fear of public speaking. This semester long course is an elective and will not replace a required course. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to special programming options on Page 34 for more information.)

Gr. 11-12

Semester

Prerequisite: none

Written Communication – develops writing skills which include prewriting, drafting, revising and editing. A variety of writing assignments are designed to help the student analyze audience and purpose, research and organize ideas and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of a variety of written documents. This semester long course is an elective and will not replace a required course. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming options on Page 34 for more information.)

Gr. 11-12

Semester

Prerequisite: none

## **FAMILY AND CONSUMER SCIENCES (FACS)**

### **REQUIRED COURSE:**

Life Management – is a required, quarter-long class that will help students acquire the life skills they will need to make informed decisions about the issues and personal choices they will face in an increasingly complex society. Topics include: making informal decisions; developing consumer skills; identifying personal goals, resources, and values; forming critical thinking skills; and investigating careers and job skills.

Gr. 9-10

One Quarter

Prerequisite: none

### **ELECTIVE COURSES:**

Cake 'n Bake – Pastries, bread and pies, oh my! This class will explore all things pastry related. Students will get the skills needed to make artisan breads, pastries, candies, cookies, cakes, decorating, and more. Students will explore careers in the area of culinary and pastries. Please note, that this class will work with many allergen foods and it will be impossible to accommodate for gluten, egg, and milk allergies.

Gr. 9-12

Semester

Prerequisite: none

Food Exploration – This introductory course provides a foundation in basic cooking skills. There is a strong emphasis on nutrition and nutritious foods. Each food group will also be explored and students will learn the techniques for cooking fruits, vegetables, milk products, eggs, meats, and bread.

Gr. 9-12 Semester Prerequisite: none

Fashion Engineering and Clothing Design – Interested in the field of design and clothing construction? Explore the evolution of the fashion scene and popular designers. Learn the techniques necessary while working on a sewing machine and serger. Students of all levels will apply creativity and basic sewing to match their individual skill level. Students both male and female will make a variety of projects which may include: seasonal decorations, home accessories, boxer, pajama pants, comforters, hats, bags, etc. and an item to repair, redesign and recycle. **Students are required to bring in fabric for some projects.**

Gr. 9-12 Semester Prerequisite: none

Hobbies for Life – Looking for something hands-on and fun? Students learn to use creativity and basic sewing and needle arts to make wearable art, home accessories and seasonal decorative items. Students will use the sewing machine, hand sewing techniques, and special materials to create a variety of projects, such as knitting, crocheting, stitchery, rug making, basketry, scrap booking, weaving, quilting, applique, and craft design. **Students are required to supply their own materials for the projects.**

Gr. 9-12 Semester Prerequisite: none

Sports Nutrition for High School Athletes – this class will provide lessons developed by professors at Oregon State University and other contemporary and relevant sources. Students will look at their dietary needs based on the sport/s in which they compete. It will have labs that focus on hydration, pre-exercise nutrition, fueling during a game, recovery foods, and how to choose well while eating out. It will tackle topics like the powders and potions that some students use to supplement their diet, and careers in the sports nutrition field. Could applying these topics help give you the competitive edge?

Gr. 9-12 Semester Prerequisite: none

Culinary Arts – Interested in a food related career? This course will offer advanced food preparation skills, such as: knife skills, garnishing, sauce making, egg preparation, etc. Students will be exposed to many different food related career units: food photography and advertising, catering, food science, pastry chef, candy making, product development, etc. Topics of focus include sanitation, hygiene, state codes and food safety. Students will take the National Restaurant Associations ServSafe Managers test. Passing this test will provide certification for student to work in any restaurant in the country for a 5-year period. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 10-12 Semester Prerequisite: Food Exploration **OR** Instructor's Consent

Interior Design – Whether you are interested in the field of interior design and/or architecture/construction as a career, or you are looking for practical knowledge to apply to future housing, this is the course for you. Emphasis is on housing styles and trends, construction, space planning, floor plans, furniture arrangement, background materials, painting techniques, landscaping, etc. Students male and female will enjoy hands-on creative opportunities using real industry samples, interactive computer design tools, industry specialist speakers, mini-field trips and career awareness.

Gr. 10-12 Semester Prerequisite: none

Food Science I & II – See Science Department for course descriptions.

Gr. 10-12 Semester Prerequisite: none

Global Kitchen – What is that good smell? A large portion of this class will take you on a culinary tour of the world. Students will learn about the people, cultures, celebrations, climate and food from Italy, Mexico, the Caribbean, Greece, Africa, China, India, etc. We will also learn about the food from across the US, whether it is Chicago style deep dish pizza or foods served at Mardi Gras or the taste of Hawaii; the US offers a wide variety of specialties.

Gr. 10-12                      Semester                      Prerequisite: Food Exploration **OR** Instructor Consent

Relationships – is an interactive course designed to give both males and females realistic views of the responsibilities of the adult choices awaiting them. This course examines personal development and the relationships most important to young people in their future. Students will gain a broadened understanding of such topics as character, personality, friendship, dating, dating violence, engagement, wedding planning, marriage, parenthood, and family crisis issues. Popular media, current resources, hands-on projects, guest speakers and mini-field trips contribute to the value of the course.

Gr. 10-12                      Semester                      Prerequisite: none

Creative Cooking – focuses on the six major nutrients (carbohydrates, proteins, fats, minerals, vitamins and water) and how each is used by the body. The planning of well-balanced diets and nutritional analysis of diets is emphasized. The class will be a combination of content and hands-on lab experiences. This class may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 11-12                      Semester                      Prerequisite: none

Infant & Toddler Development – is designed for students who love children and are concerned about their future and/or are interested in related careers. Study is on the development of the whole child from the prenatal stage through toddlerhood. Units include pregnancy, childbirth, brain development, the newborn, infant and toddler development, nutritious meals, toys and play activities, promoting health and safety, SIDS, shaken baby, and guidance techniques. Regular interaction with elementary students, many hands-on projects, current media, and observation at daycare centers, guest speakers and mini-field trips contribute to the value of the course. Completion of this course and *Foundations of Early Childhood Development* will enable a student to be employed as an Assistant Child Care Teacher in a day care center. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 11-12                      Semester                      Prerequisite: none

Foundations of Early Childhood Development – is designed for students who want further experience in the care of children. This course reviews infant and toddlers with an in-depth look at preschoolers. Study will also focus on child care settings and child-related careers. Students will be present with opportunities to teach young children by developing age appropriate learning activities. Other topics include: sensory experiences, art and music enrichment, storytelling, toys and play, nutritious food and snacks, guidance techniques, child theorists, multi-cultural/anti-bias and creative curriculum programs, and child safety regulations. Regular interaction with elementary students, many hands-on projects, current media, observation at daycare centers, guest speakers and mini-field trips contribute to the value of the course. Completion of this course and Infant and Toddler Development will enable a student to earn state certification and become eligible for employment as an Assistant Child Care Teacher (ACCT) in a daycare center. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 11-12                      Semester                      Prerequisite: none

Single Survival – is a class designed for the seniors who are getting ready to move out on their own. Students will learn to prepare nutritious meals, shop wisely for groceries, select and furnish an apartment, maintain and purchase clothing, manage finances, and cope with the responsibilities of adulthood.

Gr. 12

Semester

Prerequisite: none

## MATHEMATICS

*All University of Wisconsin Colleges currently require 3 years of math with a minimum of Algebra II to fulfill university entrance requirements. Since requirements vary for technical colleges, public and private colleges, students are encouraged to check for specific information in Student Services early in their high school careers.*

### Miscellaneous:

The use of calculators varies with each course in the math department. Even within each course, calculators may be used for some units and not for others. Classroom calculators are available, but students are encouraged to purchase their own basic, scientific calculator. Graphing calculators are only recommended for students in Algebra II and beyond. TI 84's is available to purchase through the math department. Use of calculators is allowed on the ACT, SAT, PLAN, PSAT/NMSQT.

### Courses offered:

Pre-Algebra – This course emphasizes the ordering and comparing of whole numbers, integers, fractions, and decimals, along with their use in the four basic operations. The concept of the variable and solving one-step equations is introduced. Students will also calculate various measurements and determine the basic properties of geometric figures.

Gr. 9-12

All Year

Prerequisite: Placement determined by grades and test scores

Algebra A – will begin with a review of the topics covered in Pre-Algebra. Students will continue in their study of expressions, equations, inequalities, and radicals. Geometry applications will be found in basic angle properties, special sums of angle measures, and properties of parallel lines and area and perimeter of geometric figures.

Gr. 9-12

All Year

Prerequisite: Placement determined by grades and test scores

Algebra I – This course includes the writing and graphing of linear equations, the study of the properties of the real number system (and the introductions of the imaginary number), and the development of skills in solving equations, inequalities, and systems. Students explore polynomials, rational expressions, radicals, and quadratic functions. Multi-step area, perimeter, and volume problems are the geometric focus.

Gr. 9-12

All Year

Prerequisite: Placement determined by grades and test scores

Geometry – is the building of a mathematical system from basic undefined terms to a complete set of postulates and theorems pertaining to plane and solid figures.

Gr. 9-12

All Year

Prerequisite: Algebra 1 or Algebra A and B

Algebra B – will begin with a review of the topics covered in Algebra A. Students will study linear systems of equations and inequalities, exponential relationships, quadratic equations, polynomials and factoring, rational equations, and radicals.

Gr. 10-12                      All Year                      Prerequisite: Algebra A

Statistics – is a semester math course that deals with the collection, analysis, interpretation, and presentation of masses of numerical data. The course will emphasize group interaction along with computer and media integration. This course will satisfy a portion of the 3 credits of math required for graduation.

Gr. 10-12                      Semester                      Prerequisite: Algebra 1 or Algebra A and B

Algebra II w/Trig. – this course is a more advanced study of algebra including quadratic systems and functions and introduction to trigonometry. This course develops a systematic approach to solving problems and will prepare the student for more advanced mathematics. It should be taken if you are planning to continue into Pre-Calculus and/or College Algebra. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 10-12                      All Year                      Prerequisite: Geometry

Math for the Trades – is a review and application of basic arithmetic skills involving whole numbers, fractions and decimals. Introduction and application of percents, area, volume, ratios and proportions will also be covered. The measurement system, angle, perimeter, square and board feet and formulas for geometric shapes as well as algebra will be taught. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 35 for more information.)

Gr. 11-12                      All Year                      Prerequisite: none

College Algebra with Applications – will cover those skills needed for success in many areas of post-secondary education. Topics include the real and complex number systems, polynomials, exponents, radicals, solving equations and inequalities (linear and nonlinear), relations and functions, systems of equations and inequalities (linear and nonlinear), matrices, graphing, conic sections, sequences and series, combinations, and the binomial theorem. This class is for the college or technical school bound senior who is not pursuing a math intensive field or the junior who was accelerated in math but has now discovered you do not need or want AP Calculus. It will prepare you for Pre-Calculus and/or your college placement exams. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 11-12                      All Year                      Prerequisite: Algebra II

Math for Health Professionals – Following an arithmetic review, this course emphasizes those mathematical skills necessary for success in the nursing field and related health occupations. Emphasis will be placed on computational skills and applications of rational numbers; problem solving skills with ratios, proportions, and percents; basic principles and application of algebra, graphing, and statistics; measurement skills in U.S. Customary and metric systems as well as apothecary and household systems; and the use of calculators as a tool. **This class is offered via distance learning and is taught by Wisconsin Indianhead Technical College and** offers transcribed credit through Wisconsin Indianhead Technical College. (Refer to Special Programming Options on Page 35 for more information.)

Gr. 11-12                      Sem. 2                      Prerequisite: Algebra 1 or Algebra A and B

Pre-Calculus – is a study of the functions of trigonometry and analytic geometry. Students who complete this course will be prepared to take a calculus course or any other fifth year advanced mathematics course. Calculator based graphing technology is incorporated.

Gr. 11-12                      All Year                      Prerequisite: Algebra II

Advanced Placement Calculus AB – is a college level calculus course based on the recommendations of the Advanced Placement Program Mathematics Committee. Taking the AP exam is optional. (Refer to Special Programming Options on Page 32 for more information.) This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.)

Gr. 11-12                      All Year                      Prerequisite: 3.0 GPA in Pre-Calculus **and** Math Dept. Recommendation

Algebra II – this course is a more advanced study of algebra. Topics will include: Order of Operations, linear equations and inequalities, systems of equations, polynomials and rational expression, rational exponents and radicals, logarithmic and exponential functions. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 34 for more information.) Recommended for students who have taken Algebra A and B.

Gr. 12                              All Year                              Prerequisite: Geometry

Advanced Placement Calculus BC – is a college level calculus course that follows Calculus AB, based on the recommendations of the Advanced Placement Program Mathematics Committee. Taking the AP exam is optional.

Gr. 12                              All Year                              Prerequisite: AP Calculus AB **and** Math Dept. Recommendation

## MUSIC

Band – is comprised of two concert ensembles: **Concert Band** and **Symphonic Band**. (These bands combined make up the marching band.) Members are required to attend all performances and all scheduled lessons. Placement in any band is determined through an audition held in the spring.

Gr. 9-12                      All Year                      Prerequisite: Minimum of 2 years band experience on either a woodwind, brass or percussion instrument

Auditioned Choirs – are comprised of the following concert groups: **Momentum Show Choir (grades 9-12)** and **Concert Choir (grades 9-12)**. Placement in these choirs is determined through an audition held in the spring of each year. However, placement into the auditioned choirs is not guaranteed. Members are required to attend all performances and all scheduled lessons.

Gr. 9-12                      All Year                      Prerequisite: Audition

Cambiata Choir – is open to all students in grades 9-12. This choir will fulfill the fine arts requirement as well as prepare students for the auditioned choirs. Members are required to attend all performances and all scheduled lessons.

Gr. 9-12                      All Year                      Prerequisite: none

Class Piano – In a group setting, this course teaches students to read music and play music on the staff. Class Piano is paced for the motivated student beginning with no keyboard skills. More advanced students will supplement the pace with additional repertoire and technique. Grading will be based on student attendance and significant progress displayed on a daily basis. Additional materials will be chosen to meet the specific needs of the individual student. Personal piano recommended for home practice but, not required. (Priority will be given to Choir and Band performance students.)

Gr. 9-12                      Semester                      Prerequisite: none

Music History & Literature – This course is designed for, but not limited to, students who plan on music as a major field of study at the college level. This course deals with the styles of performance and literature from medieval through the present. Must be enrolled in either band or choir concurrently.

Gr. 11-12                      Semester                      Prerequisite: Instructor Consent

Music Theory – This course is designed for, but not limited to, students who are interested in a career in a music profession. Students will study: note identification, rhythm identification, major scales, minor scales, chords, chord progressions, composition, and chorale analysis. Must be enrolled in band or choir concurrently.

Gr. 11-12                      Semester                      Prerequisite: Instructor Consent

## PHYSICAL EDUCATION & HEALTH

### REQUIRED COURSES:

Health – This course includes topics such as the human body structure and function, CPR, mental/emotional health and disorders, suicide prevention, chemical use/abuse, tobacco use, diseases, and human growth and development.

Gr. 10                      Semester                      Prerequisite: none

Phy Ed 9/10 – This is a required class that develops a basic understanding of the rules, skills, and strategies used in a wide range of physical activities. A variety of fitness concepts will be taught, including, but not limited to 5 components of fitness, target heart rate, FITT principle, SMART goals, etc. Through this course, students will learn the WHY and HOW a particular physical activity affects their bodies and their personal health. This course is also designed to promote a positive attitude towards physical activity and good sportsmanship by working with others. **Possible units may include** fitness testing, cardio and strength fitness (2 times per week), swimming (stroke refinement), biking, archery, and indoor/outdoor individual and team sports.

Gr. 9-10                      Semester                      Prerequisite: none

### ELECTIVE COURSES:

Strength and Conditioning – is geared towards ANY self-motivated individual who would like to improve their personal strength and conditioning and/or performance in a sport by focusing on the following areas of sports training and competition: cardio and strength training, speed, agility, flexibility, and plyometrics, and general conditioning activities. Student-athletes are highly encouraged to take this class. **Students are expected to and WILL participate in weight training 2-4 times per week for the entire semester. The number of strength workouts per week will be based on their personal goals or if they are in or out of a current sports season.**

Gr. 10-12                      Semester                      Prerequisite: Phy. Ed 9/10

Recreational Sports – this is a competitive class which may include, but not limited to the following activities: cardio and strength fitness, yard games (bocce ball, bean bags), gym games (versions of volleyball, basketball, badminton, pickleball, floor hockey, omnikin, tchoukball, sabbaki ball), snowshoeing, biking, water games, golf, disc golf, spike ball, soccer, softball, gatorball, tennis and bowling (approximate fee of \$35).

Gr. 10-12

Semester

Prerequisite: Phy. Ed 9/10

Unified/Adaptive Phy Ed – this course combines students of all abilities to participate in developmentally appropriate activities including lifetime activities, physical fitness, and sports. Students will work together to increase competence and confidence in a variety of physical activities. Through ongoing leadership opportunities, members of this course will be empowered to help create a more inclusive and accepting school environment for all students. Expected learning outcomes include increasing physical fitness, improving activity-specific skills, cooperating and working together with classmates, learning how to make better health & lifestyle choices, and understanding each other's differences.

Gr. 10-12

Semester

Prerequisite: Phy. Ed 9/10/APE/IEP

Leisure Sports – this is a NON-competitive physical education class developed to explore a variety of lifetime activities and sports. This is for the student who wants to learn how to stay healthy and active but does not do well in high-intensity situations.

Gr. 10-12

Semester

Prerequisite: Phy. Ed 9/10

Just Boys – is designed for any junior or senior boy and may include, but not limited to the following activities: cardio and strength fitness, flag football, Outdoor Invasion Games (flag football, soccer, ultimate frisbee, broomball, lacrosse, and gatorball), spike ball, Indoor Sports (basketball, volleyball, badminton, pickleball, team handball, floor hockey, and sabaki ball).

Gr. 11-12

Semester

Prerequisite: Phy. Ed 9/10

Just Girls – is designed for any junior or senior girl and may include the following activities: cardio and strength fitness, tennis, lacrosse, sabaki ball, scooter soccer, gatorball, disc golf, volleyball, badminton, eclipse ball, kettlebells and personalized physical activities (power walking, Zumba, Pound, self-defense, aerobics/pilates/bosu), water fitness/aerobics, broomball, ice skating and snowshoeing.

Gr. 11-12

Semester

Prerequisite: Phy. Ed 9/10

## PRE-ENGINEERING

### What Is Project Lead the Way (PLTW)?

The PLTW Pathway to Engineering (PTE) program is a sequences of courses, which follows a proven hands-on, real-world problem-solving approach to learning. Throughout PTE, students learn and apply the design process, acquire strong teamwork and communication proficiency and develop organizational, critical-thinking, and problem-solving skills. They discover the answers to questions like how things are made and what processes go into creating products? Students use the same industry-leading 3D design software used by companies like Intel, Lockheed Martin and Pixar. Students apply biological and engineering concepts related to biomechanics – think robotics. They design, test and construct devices while working collaboratively on a culminating capstone project. It's STEM education and it's at the heart of today's high-tech, high-skilled global economy.



## Pathway to Engineering – MASH Engineering Program

- IED – Introduction to Engineering Design
- CEA – Civil Engineering and Architecture
- ES – Bioengineering
- POE – Principles of Engineering
- EDD – Engineering Design and Development

### *How Does a Student Become Eligible for Credit?*

Any student from a PLTW-certified school who has met the requirements set by the universities is eligible for college-level credit. See Mr. Swedlund or Mr. Gasser for more information.

### **Courses offered:**

IED (Introduction to Engineering Design) – Students will use Autodesk Inventor 3d modeling software and 3d printers to design and build solutions to problems. This course is valuable for someone looking into the fields of construction, woodworking, mechanics, machining, and welding. This class is a must for anyone looking into a career in all fields of engineering or packaging.

Gr. 9-12                      All Year                      Prerequisite: none

CEA (Civil Engineering and Architecture) - Students will use Autodesk Revit architecture software to design floor plans and 3d models of houses, buildings, and building lots. They will also be introduced to surveying, building codes, site development, plumbing, electrical, rainwater calculations, building structures, and materials of construction. This course is valuable for someone looking into the fields of building construction, road construction, architecture, civil engineering, or interested in learning about houses and designing them.

Gr. 10-12                      All Year                      Prerequisite: Geometry (can be taking it while in the class)

ES (Bioengineering) - Students investigate and design solutions for real world challenges related to (1) genetic engineering and food security, (2) renewable energy, and (3) safe drinkable water. The environmental sustainability bioengineering course develops students' thinking skills and prepares them for emerging careers such as Genetic Engineering, Biomedical Engineering, Bioengineering, Chemical Engineering and Environmental Engineering. Applying their knowledge through hands-on activities and simulations, students research and design potential global solutions to real world challenges.

Gr. 10-12                      All Year                      Prerequisite: Biology (may be taken concurrently)

POE (Principle of Engineering) - This is a hands on lab style course where students will be building and programming robots to perform specific tasks. They will also be learning about and performing labs on heat transfer, simple machine calculations, electricity, beam load transfers along with exploring all the different fields in engineering. This class is a must for anyone looking into a career in engineering. It is also valuable for fields of electromechanical technology, machining, and automation fields.

Gr. 10-12                      All Year                      Prerequisite: Geometry (can be taking it while in the class)

EDD (Engineering Design and Development) - This is the capstone course for PLTW where students work in teams to solve problems of their own choosing. Under the guidance of a community mentor, teams employ all the skills and knowledge gained through previous coursework to brainstorm, research, construct and test a model in real-life situations (or simulations); document their designs; and present and defend the designs to a panel of experts.

Gr. 12                              All Year                              Prerequisite: IED, CEA, ES or POE

# SCIENCE

All University of Wisconsin colleges currently require 3 years of science to fulfill university entrance requirements. Since requirements vary for technical colleges, public or private colleges, students are encouraged to check for specific information in Student Services early in their high school careers.

- While the content of each level is similar, the level of skill students practice during each course is different. These skills, such as reading and writing skills, increase in rigor.
- Placement is based on standardized test scores and teacher recommendation.

## REQUIRED COURSES:

### GRADE 9

Physical Science

Honors Physical Science

First semester consists of basic physics, including energy, electricity, magnetism, machines, and Newton's 3 Laws. Second semester will include basic chemistry, including the atomic model, matter, periodic table, and chemical equations along with units on earth and space science. Throughout the course, problem solving and scientific investigation skills will be stressed.

Gr. 9

All Year

Prerequisite: none

### GRADE 10

Biology

Honors Biology

Investigates the living world and how it affects our lives. The course content includes: ecology, cells, cell energies, heredity, genetics, classification, evolution, diversity of organisms and structure, and function of plants and animals. The student discovers and learns to appreciate the interrelationships of the various forms of life. Lab activities form the nucleus of this course.

Gr. 10

All Year

Prerequisite: Physical Science

### GRADE 11

Applied Chemistry

Chemistry

Honors Chemistry

The Applied Chemistry curriculum was designed to make chemistry applicable to everyday life. Students will gain a better understanding of common substances and their behavior. Content covered will include: measurements, matter and its interactions, basic atomic structure and theory, and chemical reactions. This course will focus on real world applications. This course is for students who are not planning to pursue a four-year college degree.

Chemistry is the study of matter, its properties, and its interactions. Students in this course will work in the chemistry laboratory, solve problems mathematically, and learn concepts that will prepare them for an introductory college chemistry course. There will also be an emphasis on skills such as interpretation of data, understanding scientific investigations, and evaluating scientific models.

Gr. 11

All Year

Prerequisite: Physical Science

## **ELECTIVE COURSES:**

Earth and Space Science – This course deals with selected topics in earth and space science. Earth science topics to be covered may include: minerals and rocks, plate tectonics, earth’s geologic history, weather and climate, and mapping. Space science topics may include: origin of the universe, the electromagnetic spectrum, star evolution, planets, gravitation, and the history of astronomy.

Gr. 9-12                      Semester                      Prerequisite: “C” or better in Algebra I

Food Science I – Why if you are blind folded does food taste different? How do they get those swirls of fudge in ice cream? Is there really bacteria in yogurt? Food science will answer those questions and more. Food science is the study of food, how it is made and packaged. In this science equivalent course, you use everyday food practices to more easily explain the basic fundamental science concepts. We will also learn how businesses and career professionals use food science in the real world. Ready to think like a scientist? This class is for you.

Gr. 10-12                      Semester                      Prerequisite: none

Food Science II – Why are some cookies chewy and some crunchy? How do they make bacon bits without using bacon? Why is the world a phytochemical and why would you want to eat one? Love jerky? Discover the science behind dehydration. Wisconsin is the dairy state; do you know how cheese is made? Food Science II, a science equivalent course, will use chemistry and biology to explore the components of food like water, sugar, complex carbohydrates, lipids, proteins, enzymes, micronutrients, and photo chemicals. Students will use principles of science to create and package a new food product. The planning of well-balanced diets and nutritional analysis will be emphasized.

Gr. 10-12                      Semester                      Prerequisite: none

Advanced Placement Biology – is a course that covers in greater scope the concepts, knowledge, and skills introduced in Biology at MASH. This course is designed to offer students topics that are covered in a freshman biology course at the university level. Greater amounts of time and effort are expected on the part of the student. Reading requirements for the course are rigorous and require a daily commitment in order to stay engaged in the class. Laboratory activities suggested by the College Board are conducted to give the student a fair representation of a university-level biology course. In addition to the College Board laboratories, additional activities/labs will supplement the different units effectively. Taking the AP exam is optional. (Refer to Special Programming Options on Page 32 for more information.)

Gr. 11-12                      All Year                      Prerequisite: minimum GPA of 3.0 in Biology; and Chemistry (may be taken concurrently)

Human Anatomy & Physiology – is the basic study of the anatomy and physiology of the human body systems. Laboratory activities form the nucleus of this course. (A fetal pig will be used as a dissection specimen.) Geared to college/technical college bound students.

Gr. 11-12                      Semester                      Prerequisite: “C” or better in Biology is recommended

Honors Physics – physics is the study of motion, forces, and energy. Students in this course will examine these topics through an investigation of simple motion, collisions, waves, and electricity. The course will include significant amounts of mathematical problem solving, along with technology-based laboratory investigations.

Gr 11-12                      All Year                      Prerequisite: “C” or better in Algebra II

Medical Terminology – is designed for students interested in the medical field. Using the word-building system, this course teaches students to pronounce, define, build, spell and analyze medical terms. This course is based on the anatomy and physiology of the human body's system. Medical Terminology will be taught as a Hybrid class using the online assessment site called Canvas Sites through Northcentral Technical College. All assessments will be taken online. Assignments and activities will also be completed online. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 35 for more information.)

Gr. 11-12                      Semester                      Prerequisite: "C" or better in Biology is recommended

Advanced Placement Chemistry – is a course that covers in greater scope the concepts, knowledge, and skills introduced in Chemistry at MASH. This course is designed to offer topics that are covered in a freshman chemistry course at the university level. Greater amounts of time and effort are expected on the part of the student. Reading requirements for the course are rigorous and require a daily commitment in order to stay engaged in the class. Laboratory activities suggested by the College Board are conducted to give the student a fair representation of a university-level chemistry course, along with additional activities/labs. Taking the AP exam is optional. (Refer to Special Programming Options on Page 33 for more information.)

Gr. 12                      All Year                      Prerequisite: minimum GPA of 3.0 in Chemistry; and Algebra II (may be taken concurrently) or Teacher Recommendation

## SOCIAL STUDIES

- While the content of each level is similar, the level of skill students practice during each course is different. These skills, such as reading and writing skills, increase in rigor.
- Placement is based on Standardized Test Scores and teacher recommendation.

### REQUIRED COURSES:

#### GRADE 9

Human Geography

Advanced Placement Human Geography

Introduces students to how we organize space and society and how we make sense of others and ourselves in our localities, regions, and the world. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographer use in their science and practice. In addition, students will think about and interpret maps. They will understand the association among phenomena in different places. Students will also interpret the relationships among patterns and processes as it relates to different areas. Finally, they will define regions and characterize and analyze the changing relationships between place. Taking the AP exam is optional. (Refer to Special Programming Options on Page 33 for more information.)

Gr. 9                      All Year                      Prerequisite: none

## GRADE 10

US Government and Politics

Advanced Placement US Government and Politics

Will give students a logical viewpoint on government and politics in the United States. This course includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples to highlight those concepts. It also requires familiarity with the various documents, institutions, groups, beliefs and ideas that comprise U.S. government and politics. Students will become familiar with the variety of viewpoints and explanations for various behaviors and outcomes amongst citizens and the government that represents them. Taking the AP exam is optional. (Refer to Special Programming Options on Page 33 for more information.)

Gr. 10                      All Year                      Prerequisite: none

## GRADE 11

United States History

Advanced Placement United States History

Chronologically examines the history of the United States, beginning with Pre-Columbian Societies and early inhabitants of the Americans and culminating with present-day American issues. Themes within the course curriculum include American Diversity, American Identity, American Culture, Demographic Changes, Economic Transformations, Environment, Globalization, Politics and Citizenship, Reform, Religion, Slavery and its Legacies, and War and Diplomacy. Students will be introduced to a wide range of primary and secondary source materials as a means of investigation, analysis, understanding of the United States History. Taking the AP exam is optional. (Refer to Special Programming Options on Page 33 for more information.)

Gr. 11                      All Year                      Prerequisite: none

### **ELECTIVE COURSES:**

U.S. Military History – focuses on the international affairs of the United States during the 18<sup>th</sup>, 19<sup>th</sup>, and 20<sup>th</sup> Centuries. Through the study of American's Wars, including the American Revolution, the American Civil War, World War I, World War II, Korea and Vietnam, this course will analyze the social political, and international impact of these wars on the United States.

Gr. 11-12                      Semester                      Prerequisite: none

Intro to Sociology – is devoted to the study of the structure of social life; the way groups are put together, and the way they function. It will also explore the three major philosophical views pertaining to the study of society, the Conservative, Social Democrat and Libertarian points of view.

Gr. 11-12                      Semester                      Prerequisite: none

Intro to Psychology – is 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 phenomena associated with each of the major subfields within psychology. Students will also learn about the ethics and methods psychologists use in their science and practice.

Gr. 11-12                      Semester                      Prerequisite: none

Abnormal Psychology – is designed to explore historical views and current perspectives of abnormal behavior. Abnormal Psychology will emphasize major diagnostic categories and criteria, individual and social factors of maladaptive behavior, and types of therapy. The course will also include methods of clinical assessment and research strategies.

Gr. 11-12                      Semester                      Prerequisite: Intro to Psychology OR Advanced Placement Psychology

Advanced Placement Psychology – is 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 phenomena associated with each of the major subfields within psychology. Students will also learn about the ethics and methods psychologists use in their science and practice. Taking the AP exam is optional. (Refer to Special Programming Options on Page 33 for more information.)

Gr. 11-12                      All Year                      Prerequisite: none

## **TECHNOLOGY EDUCATION**

Introduction to Technology A – introduces students to manufacturing processes involving woods. Students are also introduced to transportation technologies, including internal and external combustion engines, aerodynamics, and map reading. Problem solving, planning, drawing and design, measurement, quality control and safety are all stressed as students’ design and build products in wood.

Gr. 9-10                      Semester                      Prerequisite: none

Introduction to Technology B – introduces students to manufacturing process involving welding, plastics, problem solving, communication technologies, electronics and design with Auto CAD.

Gr. 9-10                      Semester                      Prerequisite: none

Metal Manufacturing I – covers the basic metal machinery fundamentals with practice in using the drill press, plasma cutter, cutting saws, lathes, and milling machine. This course will also present the basic fundamentals of welding with practice in arc, gas and wire-feed welding.

Gr. 10-12                      Semester                      Prerequisite: none

Small Engines – covers both 2-stroke and 4-stroke cycle engines. Includes disassembly, inspection, reassembly, maintenance, and troubleshooting of small engines. Students will also learn how to measure with a caliper and micrometer.

Gr. 10-12                      Semester                      Prerequisite: none

Wood Manufacturing – students work as a team to design, draw, and produce a piece of furniture. Teams elect leaders who are in charge of determining the specifics of the project. All pieces/parts of the product are produced by each team member. Team members then pick their favorite pieces of the project to assemble, stain, and finish individually. The class focuses on the quality and consistency of each manufactured piece.

Gr. 10-12                      Semester                      Prerequisite: Intro to Tech A or B

Just for Girls Tech – Students will begin or advance their development in woodworking, craftsmanship, and measurement by designing and building their own piece of furniture. In this all girls class, you will be working on mastering skills in problem solving, machine/tool operation, time management, and orthographic drawing designs. This class is perfect for small to medium sized furniture pieces.

Gr. 10-12 Semester Prerequisite: none, but Intro to Tech A preferred

Operating Engineer Pre-Apprenticeship Program – is a series of courses offered through Destinations Career Academy of Wisconsin. This program prepares students to enter an apprenticeship training program to become a journeyman operating engineer in the construction industry. Operating engineers work as heavy equipment operators, mechanics, or surveyors. **The classes meet before school from 7:00 a.m. to 8:00 a.m. Daily attendance is mandatory.** These courses may offer transcribed/dual credit through Fox Valley Technical College. (Refer to Special Programming Options on Page 35 for more information.) Courses include:

Basic Grade Construction

Gr. 11-12 Semester Prerequisite: none

**Up to 2 of the following 3 options can be taken concurrently**

Intro Basic Equipment

Gr. 11-12 Semester Prerequisite: Basic Grade Construction

Intro to CDL

Gr. 11-12 Semester Prerequisite: Basic Grade Construction

Basic Maintenance

Gr. 12 Semester Prerequisite: Basic Grade Construction & Intro Basic Equipment

ABC's of the Automobile – provides a simple, basic approach to understanding the modern automobile. The class will provide lifetime benefits and skills to students. Simple repair and maintenance procedures will be demonstrated. Students will experience hands-on related activities in the lab. Students enrolled in this course **DO NOT** need to have their own vehicle to work on.

Gr. 11-12 Semester Prerequisite: none

Auto Mechanics – studies the operating principles and repair procedures of the major components of the auto. Emphasis is on auto diagnostics and test procedures. This class is intended for students who want to learn more in depth repair procedures. Students should choose between this class and ABC's of the Auto. **Students cannot take ABC's of the Auto after taking this class.** This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 35 for more information.)

Gr. 11-12 Semester Prerequisite: none

Cabinet Making – students continue developing their woodworking skills and craftsmanship by designing and building their own piece of furniture while learning and utilizing more advanced machine operations. Quality craftsmanship, problem solving, time management, and measurement skills are stressed.

Gr. 11-12 Semester Prerequisite: Wood Manufacturing

High Mileage Vehicle – students research, design and develop a single person, fuel efficient vehicle, powered by a single cylinder, 4-stroke engine. The students attend and test their vehicle in a competition at Road America Elkhart Lake in the spring.

Gr. 11-12 All Year Prerequisite: Small Engines and Metal Manufacturing is highly recommended

Metal Manufacturing II – includes advanced welding and machining procedures. Units covered will include: reading weld symbol and prints; overhead, vertical and horizontal arc welding positions; and TIG welding. Students will choose their own project. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 35 for more information.)

Gr. 11-12                      Semester                      Prerequisite: Metal Mfg. I

Electromechanical 1 – this course will cover the basics of OSHA safety programs and machine safety. It will also cover the use of digital volt meters, basics of Direct Current (DC) and Alternating Current (AC) electrical circuits and components along with building and testing construction, engineering, and electromechanical maintenance. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 35 for more information.)

Gr. 11-12                      Semester                      Prerequisite: none

Electromechanical 2 – this course continues on from EM1. In this course students will work on AutoCad drawing program doing two dimensional layouts for industrial applications. They will also work with microcontrollers designing and building circuits that include LED displays, buzzers, motors, relays, switches and sensors. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 35 for more information.)

Gr. 11-12                      Semester                      Prerequisite: Electromechanical 1

Electromechanical 3 – this course will build on concepts learned in Industrial Electronics 1 and 2 to build AC and DC circuits along with silicon controlled devices. Students will build electronic circuits to perform different work tasks in the lab. It also includes an introduction to fluid power (hydraulic and pneumatic) systems and concepts. Students will design fluid power systems and build them in the lab. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 35 for more information.) This course will run during Electromechanical 1 or 2. Students will work independently with instructor available for help.

Gr. 12                              Semester                      Prerequisite: Electromechanical 2

Electromechanical 4 – this course will build on concepts learned in Fluid Power systems 1. Students will explore pneumatic system components such as compressors, actuators (linear and rotary) along with pneumatic tubing. They will build various projects in the lab using pneumatic components. Students will also begin using Solidworks 3D modeling software to create various drawings and components for labs. This course may offer transcribed/dual credit through Northcentral Technical College. (Refer to Special Programming Options on Page 35 for more information.) This course will run during Electromechanical 1 or 2. Students will work independently with instructor available for help.

Gr. 12                              Semester                      Prerequisite: Electromechanical 3

Building Construction – students learn entry level carpenter employment skills such as building layout, framing, siding, shingling, and finish trim of a building. Students also learn about cost estimation of building projects, reading and interpreting blueprints, basic cabinetry while working on community service projects. Problem solving, time management, and measurement skills are stressed. **(2 credits – 2 hours/day)**

Gr. 12                              All Year                      Prerequisite: Wood Manufacturing and Cabinet Making



## WORK BASED LEARNING

MASH Employment Partnership – is a year-long program open to seniors interested in obtaining work skills or who are interested in going directly to work after graduation. Students will learn work skills while gaining high school credit and earning a wage. This option requires students to attend regular classes throughout the morning and spend the remainder of the school day at a work site. Acceptance into the program is determined by previous school records. Students must apply for this program during the spring of their junior year. Placement in this program is dependent on work site availability.  
Gr. 12                      All Year                      Prerequisite: none

Mentorship – provides students with the opportunity to explore career options in a real world setting. Students **must** complete an application. Acceptance into the program is determined by previous school records, attendance history, and job site availability. Any student who was absent more than 10 days during the previous school year must have special approval by the program coordinator.  
**(1 credit – 2 hour/day)**

Gr. 12                      Semester                      Prerequisite: none

Youth Apprenticeship – is a one or two-year program where students:

- ▶ Follow a career pathway from high school to post-secondary institutions or the workforce
- ▶ Earn a paycheck and school credit while learning from skilled professionals
- ▶ Increase career awareness and improve future employability
- ▶ Receive a state-issued skills certificate which is recognized by employers

Programs are available in the following categories:

- Agriculture, Food and Natural Resources
- Architecture and Construction
- Finance
- Graphic Design/Printing
- Health
- Hospitality and Tourism
- Information Technology
- Manufacturing
- Science Technology, Engineering and Math
- Transportation Distribution and Logistics

Interested students should pick up an application in Student Services.

Gr. 11-12                      All Year                      Prerequisite: Varies

Teacher Assistant – provides students with the opportunity to work closely with a teacher in a subject area of special interest or ability. Each student will be matched with an individual high school teacher and will work as an in-class assistant.

Gr. 12                      Semester                      Prerequisite: Instructor Consent

## WORLD LANGUAGE

*A minimum overall GPA of 2.0 during 8<sup>th</sup> grade is required for enrollment in French I or Spanish I. **If it is necessary to limit enrollment in French I and Spanish I, freshmen students will be selected based on their grades earned during 8<sup>th</sup> grade.***

French I – This is an introductory course for students who want to learn to communicate in French and to become familiar with francophone cultures. The primary linguistic goal at this level is to achieve some degree of comfort with spoken French. The program of study will also include an initial familiarization with written materials. Students will explore the role of culture in the U.S. and francophone countries.

Gr. 9-12                      All Year                      Prerequisite: none

French II – In this course, students will improve their level of communication in French and increase their familiarity with francophone cultures. Students will become more comfortable with both spoken and written French. Students who successfully complete French II are eligible to participate in the biennial trip to France.

Gr. 10-12                      All Year                      Prerequisite: French I

French III – In this course, students will go beyond the basics and work towards fluency in French. Students will be encouraged to communicate as much as possible in French in both spoken and written forms. Cross-cultural comparisons of more significant issues will provide further insight into the lives of both the home and francophone cultures.

Gr. 11-12                      All Year                      Prerequisite: French II

French IV – This course allows students to continue to work toward fluency in French and further extend their understanding of and competence with cross-cultural issues. Classroom communication will be in French and more emphasis will be placed on written forms of communication. Students will explore French literature and poetry. This course prepares students for the UW placement exams in French.

Gr. 12                              All Year                      Prerequisite: French III

Simple Spanish – Do you want to learn a little Spanish but are not sure you are ready to commit to a year-long class? Take Simple Spanish! This one semester class will focus on Spanish essentials, learning about Spanish speaking countries and their cultures, and study skills for language students. This course **does not** meet the prerequisite requirements for Spanish II.

Gr. 9-12                      Semester                      Prerequisite: none

Spanish I – emphasizes learning to understand and speak Spanish but also includes basic reading and writing exercises. There is an introduction to Hispanic culture and customs. Students will be graded on daily assignments, oral practice, tests, and projects. All Spanish students may join the International Club, which allows them the opportunity to attend many cultural events and participate in Hispanic activities. **\*If you are a native or heritage speaker of Spanish (you speak Spanish at home), you will need to sign up for Spanish 3 for your first high school Spanish class.\***

Gr. 9-12                      All Year                      Prerequisite: none

Spanish II – is a continuation of Spanish I, with a little more reading and writing. There is a more in-depth study of life in Spanish speaking countries. Those who have completed 2 years of Spanish may participate in an annual trip to a Spanish speaking country which includes: Mexico, Spain, Costa Rica, Puerto Rico, or Peru. **\*If you are a native or heritage speaker of Spanish (you speak Spanish at home), you will need to sign up for Spanish 3 for your first high school Spanish class.\***

Gr. 10-12                      All Year                      Prerequisite: Spanish I

Spanish III – will provide the student with continued development in listening, speaking, reading comprehension, and writing skills. The simple past tenses and more complex grammar skills will be introduced, and students will begin to give sustained presentations and dialogs about pertinent topics. Students will learn more about the diversity of Spanish speaking countries.

Gr. 11-12                      All Year                      Prerequisite: Spanish II

**NEW!!** Spanish for the Medical Field – Are you heading into a medical field? Do you want to learn Spanish vocabulary and language skills to help you prepare for serving Spanish speakers within that medical field? We will explore medical terminology, anatomy, language fundamentals, as well as improve your cultural competency to better serve the Spanish-speaking community. This course **does not** meet the prerequisite requirements for Spanish III or IV.

Gr. 11-12                      Semester                      Prerequisite: Spanish II

Spanish IV – Students will continue to broaden their skills in conversation, reading, and writing. Students will be introduced to new verb forms, and more advanced grammatical structures. Using magazines, internet sources, and other readings in Spanish, students will broaden their understanding of Spanish culture, civilization, and literature. Much emphasis will be placed on fine tuning advanced grammar skills in preparation for college placement tests.

Gr. 12                              All Year                      Prerequisite: Spanish III

Spanish V – Students will continue to broaden their skills in speaking, listening, reading, and writing. They will use all verb form and advanced grammatical structures together by using all forms of Spanish media, students will broaden their understanding of the culture, civilization, and literature. Much emphasis will be placed on fine tuning advanced grammar skills in preparation for college placement tests.

Gr. 12                              All Year                      Prerequisite: Spanish IV

## SPECIAL EDUCATION PROGRAMMING

Medford Area Senior High provides academic courses for students in special education. Placement in any special education program is contingent upon a full and comprehensive evaluation and the IEP team's conclusions with regard to the student's need for special education due to a handicap condition(s). Scheduling for individual courses is accomplished with the assistance of the special education teachers responsible for that program. Courses are dependent upon the student's individualized education plan. Services may be provided within the regular classroom setting with no special education support, with special education support, or in a class taught by a special education teacher. As a part of their transition from school-to-work, students may be placed at a worksite during their junior and/or senior years.

## ENGLISH LANGUAGE DEVELOPMENT

Medford Area Senior High provides English Language Development courses and support for English Language Learners. Classification as an English Language Learner is contingent upon limited English Language Proficiency due to an exposure to a language other than English. English Language Proficiency is evaluated through a SIDA Screener language assessment if a language other than English is indicated on the Home Language Survey. Scheduling for individual courses and English Language Development support is accomplished with the assistance of the ELL teachers responsible for the program. Courses and/or supports are dependent upon the student's Language Development Plan. Services may be provided within the regular classroom setting (as suggested by the ELL teacher) without the presence of the ELL teacher, with the presence of the ELL teacher, or in a class taught by the ELL teacher.

## SPECIAL PROGRAMMING OPTIONS

Advanced Placement (AP) classes are currently offered in the following subject areas: Studio Art, English Language/Composition, English Literature/Composition, Calculus AB, Biology, Chemistry, Human Geography, US Government, US History, and Psychology. [See individual department listings for class descriptions.] These courses are a component of the district's Gifted and Talented Program. Medford's A.P. classes are part of a national program sponsored by the College Board. While local teachers design the courses offered at Medford, students may opt to complete a nationally offered test in May, except for AP Studio Art where students would submit a portfolio. Successful completion of this examination may earn a student three to six college credits, depending upon the individual college.

Since the A.P. classes are taught with college-level content in the high school, students should know that these courses require more intensive study and increased amounts of homework than a typical high school class. A.P. students and their parents need to consider the time obligations of these classes balanced against other high school classes, jobs, and co-curricular activities. Only students interested in challenging themselves should enroll in an A.P. class.

Transcribed Credit (Dual Credit) courses are taught by high school instructors and are of college level integrity and rigor. In addition to high school credit, juniors and seniors have the option of receiving technical college credit upon completion of the course. Exceptions may be made for sophomores on an individual basis. An official transcript with the grade(s) and credit(s) will be on record at the technical college.

The following courses may offer transcribed credit:

MASH Course	College	College Course	Course Number	College Credit
Dairy Production	NTC	Intro to Animal Science	10-091-104	3.0
Veterinary Science	NTC	Medical Terminology – Vet 1	10-091-172	3.0
Accounting IV	NTC	Accounting 1	10-101-111	4.0

Business Exploration	NTC	Intro to Business	10-102-124	3.0
App Development and Design	NTC	User Experience Design	10-152-223	3.0
IT Essentials	NTC	Computer Fundamentals I	10-154-100	3.0
Honors Financial Literacy	NTC	Cents & Sensibility	10-809-101	1.0
Marketing II/Social Media Marketing	NTC	Marketing Principles	10-104-172	3.0
Web Design	NTC	Web Design 1	10-152-211	3.0
Oral Interpersonal Comm.	NTC	Oral Interpersonal Comm.	10-801-196	3.0
Written Communication	NTC	Written Communication	10-801-195	3.0
Creative Cooking	NTC	Nutrition	10-316-107	2.0
Culinary Arts	NTC	Sanitation for Food Service Operations	10-316-100	2.0
Found of Early Childhood Dev	NTC	ECE: Foundations	10-307-148	3.0
Infant & Toddler Development	NTC	ECE: Infant & Toddler	10-307-151	3.0
Algebra II/Algebra II w/Trig	NTC	Intermediate Algebra w/Appl	10-804-118	4.0
AP Calculus AB	NTC	Calculus 1	10-804-198	4.0
College Algebra with Appl	NTC	College Algebra with Appl	10-804-195	3.0
Math for Health Professionals	WITC	Math for Health Professionals	10-804-138	2.0
Math for the Trades	NTC	Applied Mathematics	31-804-305	2.0
Medical Terminology	NTC	Medical Terminology	10-501-101	3.0
Auto Mechanics	NTC	Auto Service Fundamentals	10-602-107	2.0
Metal Manufacturing II	NTC	Intro to Welding	10-422-101	2.0
Basic Grade Construction	FVTC	Basic Grade Construction	50-447-518	1.0
Intro Basic Equipment	FVTC	Intro Basic Equipment	50-447-543	1.0
Basic Maintenance	FVTC	Basic Maintenance	50-447-519	1.0
Electromechanical 1	NTC	Industry Workplace Safety	10-620-172	1.0
Electromechanical 1	NTC	Industrial Electronics Tech 1	10-660-123	1.0
Electromechanical 1	NTC	Industrial Electronics Tech 2	10-660-124	1.0
Electromechanical 2	NTC	Autocad for Technicians	10-620-171	1.0
Electromechanical 2	NTC	Intro to Microcontrollers	10-660-121	1.0
Electromechanical 3	NTC	Industrial Electronics Tech 3	10-660-125	1.0

Electromechanical 3	NTC	Fluid Power Systems 1: Fundamentals	10-612-120	1.0
Electromechanical 4	NTC	Fluid Power Systems 2: Fundamentals of Pneumatics	10-612-121	1.0
Electromechanical 4	NTC	Solidworks 1	10-606-165	1.0

Distance Learning classes are offered in various subjects. (See individual department listing for class descriptions.) For more information regarding distance learning classes, please contact your counselor. If the student receives a failing grade in a course or fails to complete a course, the student's parent/guardian, or the student, must reimburse the school district the amount paid by the school district on the students' behalf.

Independent Study provides individual students with the option of exploring topics of special interest in any department or when necessary to resolve scheduling conflicts. Requires approval of instructor, principal, school counselor, parent/guardian and student.

Gr. 12 Semester Prerequisite: Department Specific

On-Line Courses are a component of the district's Gifted and Talented Program. These courses are available to juniors and seniors that have exhausted course offerings at MASH. Enrollment in an on-line course requires approval of the principal and counselor. A student can enroll in a maximum of two (2) A.P. on-line courses per semester. If the student receives a failing grade in a course or fails to complete a course, the student's parent/guardian, or the student, must reimburse the school district the amount paid by the school district on the students' behalf.

Peer Tutor – Students must be willing to assist other students with academic subjects. They are scheduled one hour per day to the Workshop along with a supervising teacher. Attendance, academic strength, and approachability are keys to succeeding in this class. There is a limited number of spots available for this opportunity.

Gr. 11-12 Semester Prerequisite: An application/interview may be required

The Global Education Achievement Certificate (GEAC) is a nationally-recognized program that awards distinction to students who demonstrate readiness for a 21st Century global society. Student Global Scholars who complete the program receive an official certificate from the Wisconsin Department of Public Instruction. See your school counselor, world language, or ELL teacher for additional requirements and information.

Criteria:

- 8 Credits Coursework:
  - 4 credits of a single world language (including English courses for English Language Learners)
  - 4 credits from multidisciplinary courses\* with a global focus or perspective in curriculum
- Cultural Literacy: independent review & reflection on 8 works of media, including 4 books
- Participation and leadership in 4 Co-Curricular and other School-sponsored Activities
- Community Service: 20 hours of volunteer service to a project on an intercultural or global issue

\*The following courses may be selected to apply towards GEAC credits:

<b>COURSES</b>	<b>CREDITS</b>
Forestry	0.50
Art Exploration	0.50
Hands-On Art History	0.50
Entrepreneurship	0.50
Global Kitchen	0.50
PLTW: Bioengineering	1.00
AP US History	1.00
Human Geography	1.00
Literature & Composition 12	1.00

## COMMON GRADING SCALE

Letter grades will be earned using the following common grading scale.

A	93 – 100%	B-	80 – 82.99%	D+	67 – 69.99%
A-	90 – 92.99%	C+	77 – 79.99%	D	63 – 66.99%
B+	87 – 89.99%	C	73 – 76.99%	D-	60 – 62.99%
B	83 – 86.99%	C-	70 – 72.99%	F	0 – 59.99%

## STUDENT EVALUATION

Medford Area Senior High School uses letters for grades. The point values (except for weighted) are as follows:

A	=	4.00 points	C-	=	1.67 points
A-	=	3.67 points	D+	=	1.33 points
B+	=	3.33 points	D	=	1.00 point
B	=	3.00 points	D-	=	.67 points
B-	=	2.67 points	F	=	0 points – indicates failure
C+	=	2.33 points	I	=	0 points – indicates incomplete work
C	=	2.00 points	E	=	.33 points – indicates passing on effort

An “I” is changed to a failure if the work is not completed within two weeks, or for exceptional cases, within an amount of time agreed upon by the teacher.

For the 2020-2021 school year, all AP classes as well as Honors Physics have been designated as weighted. Students will receive one additional grade point for these courses (A=5.0, A-=4.67, B+=4.33, B=4.0, B-=3.67, C+=3.33, C=3.0, C-=2.67, D+=2.33, D=2.0, D-=1.67, F=0, E=.33). If a student's need dictates the offering of a fifth year course in either French or Spanish, that class will be weighted.

Courses will not be weighted if taken by correspondence, independent study, on-line or as summer enrichment unless prior approval is granted by the department involved and the principal.

## HONOR ROLL

In determining the honor roll, the grades of all subjects are included. The grade point average, as shown on the report card, is used in listing the honor rolls as follows:

**Academic Distinction:** 3.800 GPA and higher based on current semester grades

**High Honors:** 3.500-3.799 GPA based on current semester grades

**Honors:** 3.000-3.499 GPA based on current semester grades

Students who earn placement on "Academic Distinction or High Honors" for two semesters, accumulated anytime during their Medford Area High School career, will receive an academic letter award. A letter "M" will be awarded for the first two semesters of achievement; subsequent two semester blocks of achievement will be recognized by stars to be pinned on the letter.

## ACADEMIC AWARDS

Cum laude is a Latin term that means with honor. It is used to refer to students who have met high academic standards and take challenging and rigorous course work. There are three honors that are bestowed on graduates: Cum Laude which means with honor, Magna Cum Laude which means with great honor, and Summa Cum Laude which means with greatest honor.

In order to receive the Cum Laude award, a student must achieve the following:

1. Cum Laude: 3.500-3.799 grade point average  
Magna Cum Laude: 3.800-3.999 grade point average  
Summa Cum Laude: 4.000 and higher grade point average
2. Take 10 semesters of honors or AP courses

Graduating seniors who have earned a Cum Laude award will be given a corresponding medal to wear at graduation.

Per the Wisconsin Department of Public Instruction, weighted grades, as provided for in the district policy, will be used to determine grade point average for the Wisconsin Academic Excellence High Education Scholarship. Annually, at the end of first semester and before February 15, the Board of Education shall select two seniors with the highest grade point averages in all subject areas completed during grades 9-12. All courses completed will be included in the grade point average.

The Cum Laude award is officially given at graduation ceremonies where students who have earned it are given a corresponding medal to wear during graduation. At each spring academic assembly students who are "on track" to earn the award are recognized. The following is a reference to determine students who are on track to be recognized at the assembly:



Number of semesters a student must have completed to be on track for a Cum Laude award:

Freshman Year:	2 semesters of honors or AP courses
Sophomore Year:	4 semesters of honors or AP courses
Junior Year:	7 semesters of honors or AP courses
Senior Year:	10 semesters of honors or AP courses

## PREPARING FOR A 4 YEAR COLLEGE/UNIVERSITY

### ***Which courses should I take in high school?***

Students graduating from high school will be required to take a minimum of 17 high school credits, distributed as follows:

English	4 credits
Mathematics	3 credits
Social Science	3 credits
Natural Science	<u>3 credits</u>
	13 credits
Academic Electives	<u>4 credits</u>
Total core college preparatory credits	17 credits

Elective credits must be chosen from the above core college preparatory areas, foreign language, fine arts, computer science, and other academic areas. Some UW System institutions may also accept vocational courses for some of the four (4) elective credits.

Some careers require more courses in special areas. For example: if you would like to major in engineering, you should take four years of mathematics, as well as chemistry, physics and computer science. Other majors such as business, allied health, agriculture and many more, also require additional high school preparation. Your counselor can help you decide which courses beyond the required college prep courses are right for you.

### ***Do I need to take Foreign Language in high school for college?***

UW-Madison and some private colleges require a minimum of two credits of a single foreign language. Students planning to attend a four-year college should be aware of foreign language requirements. Some colleges may offer retro credits for students who score accordingly on placement tests. For more information see your school counselor, consult the [Introduction to the University of Wisconsin System](#) book available in Student Services or the University of Wisconsin Help website at [www.uwhelp.wisconsin.edu](http://www.uwhelp.wisconsin.edu).

### ***What do I have to do to be admitted?***

You need to graduate from high school, complete the course requirements outlined in this brochure, earn good grades, and take the American College Test (ACT). Depending on your chosen college, the SAT may be required.

## PREPARING FOR VOCATIONAL –TECHNICAL COLLEGE

The Wisconsin Technical College System provides a broad range of programs and career opportunities. To prepare for these programs students should generally follow a 4-year college preparatory program in high school. However, students should take the high school technical classes related to their areas of career interest. Technical schools are expecting all entering students to have a solid technical skills background and a solid academic (math, English, science, social studies) foundation. Students should talk with their individual counselor and to the specific vocational/technical teachers about the programs in which they are interested. The entrance requirements and recommended high school courses vary so much from school to school and program to program that we have not listed them here.

Some of the technical college programs fill up very fast. Students who are interested in these programs and who meet the admission requirements are encouraged to apply at the end of their junior year of high school. However, some schools do not accept applications until the fall of your senior year. See specific college catalogs or ask in the Student Services office for more information.

## CLASS RANK

MASH is a non-ranking school. When an organization asks for a class rank on an application, it is advised to write ***“My school does not rank.”***

Due to tremendous differences in curricula and grading standards at different high schools, many admission offices and scholarship selection committees have begun to discount the accuracy and importance of class rank as a factor in evaluating students. Colleges and Scholarships that used to rely on class rank now use ACT scores and GPA. Scholarships will also use these, as well as other criteria such as rigor and relevance of courses, community service, essays, etc. that is reported on the application for consideration.

## THINKING ABOUT THE ARMED FORCES

If you are thinking about the Armed Services as a lifetime career or simply enlisting for one term, you may consider taking the ASVAB (Armed Services Aptitude Battery). The ASVAB is an exam used by the military to help place students into different career areas. This test is available to Juniors and Seniors. Military recruiters schedule regular visits at the high school. If you would like more information regarding any branch of the military, stop in Student Services.

## NON-DISCRIMINATION

The Medford Area Public School District does not discriminate against pupils on the basis of sex, race, national origin, ancestry, creed, religion, pregnancy, marital or parental status, sexual orientation, or physical, mental, emotional, or learning disability or handicap in its education programs or activities. Federal law prohibits discrimination in employment on the basis of age, race, color, national origin, sex, religion, or handicap.

**As of right now I would probably pick a career in:**

**(Circle one or more)**

Agriculture/Food/Natural Resources

Hospitality

Architecture/Construction

Human Services

Arts/AV/Communication

Information Technology

Business/Management/Admin

Law/Public Service/Security

Education/Training

Manufacturing

Finance

Marketing

Government

Science/Technology/Engineering

Health

Transportation/Distribution/Logistics

The career I am specifically interested in is: \_\_\_\_\_

To receive my education & training I'm planning on entering/enrolling in: **(please circle)**

Apprenticeship

Technical College

Military

University

Workforce

Specific courses I need to work into my high school schedule include:

Skills that I need to acquire or strengthen for my chosen field are:

Opportunities or resources I can explore to meet this goal are:

## My Four Year Plan

<b>GRADUATION REQUIREMENTS</b>	
<b>COURSES</b>	<b>CREDITS</b>
English	4.00
Math	3.00
Science	3.00
Social Studies	3.00
Financial Literacy	0.50
Health	0.50
Physical Education	1.50
Life Management	0.25
Fine Arts	0.50
Vocational Education	0.50
Electives	7.00
<b>TOTAL MINIMUM CREDITS</b>	<b>23.75</b>

<b>CAREER INTERESTS</b>	
Agriculture/Food/Natural Resources	Hospitality
Architecture/Construction	Human Services
Arts/AV/Communication	Information Technology
Business/Management/Admin	Law/Public Service/Security
Education/Training	Manufacturing
Finance	Marketing
Government	Science/Technology/Engineering
Health	Transportation/Distribution/Logistics

\*Course number does not correspond with which hour of the day you will have that particular class.

GRADE 9	1 <sup>st</sup> Semester		2 <sup>nd</sup> Semester	
	Schedule Template	My Classes	Schedule Template	My Classes
<i>Course 1</i>	[Honors] English 9		[Honors] English 9	
<i>Course 2</i>	Math Course		Math Course	
<i>Course 3</i>	[Honors] Physical Science		[Honors] Physical Science	
<i>Course 4</i>	[AP] Human Geography		[AP] Human Geography	
<i>Course 5</i>	Phy Ed/Elective		Driver Ed/Life Mtg/ Elective	
<i>Course 6</i>	Elective		Elective	
<i>Course 7</i>	Elective		Elective	
<i>Course 8</i>	Study Hall/Elective		Study Hall/Elective	

GRADE 10	1 <sup>st</sup> Semester		2 <sup>nd</sup> Semester	
	Schedule Template	My Classes	Schedule Template	My Classes
<i>Course 1</i>	[Honors] English 10		[Honors] English 10	
<i>Course 2</i>	Math Course		Math Course	
<i>Course 3</i>	[Honors] Biology		[Honors] Biology	
<i>Course 4</i>	[AP] US Government		[AP] US Government	
<i>Course 5</i>	Health		Phy Ed/Elective	
<i>Course 6</i>	Driver Ed/Life Mgt/ Elective		Elective	
<i>Course 7</i>	Elective		Elective	
<i>Course 8</i>	Study Hall/Elective		Study Hall/Elective	

\*Course number does not correspond with which hour of the day you will have that particular class.

GRADE 11	1 <sup>st</sup> Semester		2 <sup>nd</sup> Semester	
	Schedule Template	My Classes	Schedule Template	My Classes
<i>Course 1</i>	[AP] [Honors] Language 11		[AP] [Honors] Language 11	
<i>Course 2</i>	Math Course		Math Course	
<i>Course 3</i>	[Honors] Chemistry		[Honors] Chemistry	
<i>Course 4</i>	[AP] US History		[AP] US History	
<i>Course 5</i>	Phy Ed/Elective		Elective	
<i>Course 6</i>	Elective		Elective	
<i>Course 7</i>	Elective		Elective	
<i>Course 8</i>	Study Hall/Elective		Study Hall/Elective	

GRADE 12	1 <sup>st</sup> Semester		2 <sup>nd</sup> Semester	
	Schedule Template	My Classes	Schedule Template	My Classes
<i>Course 1</i>	[AP] [Honors] Literature 12		[AP] [Honors] Literature 12	
<i>Course 2</i>	[Honors] Financial Literacy		Phy Ed/Elective	
<i>Course 3</i>	Elective		Elective	
<i>Course 4</i>	Elective		Elective	
<i>Course 5</i>	Elective		Elective	
<i>Course 6</i>	Elective		Elective	
<i>Course 7</i>	Elective		Elective	
<i>Course 8</i>	Study Hall/Elective		Study Hall/Elective	