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Dear Families of WHS

The 2019-2020 Waukee High School Course Guide is designed to assist you as you make course selections that will affect your future. Registration information will be distributed to students in grades 9, 10, and 11 during the first semester.

There are two major steps involved in planning next year's educational program:

1. Student Registration
2. Course Scheduling

It is very important that good course selections be made during registration as the number of seats in any given course is determined by the original count. Thus, after the initial registration process, some classes may be filled, while others, due to lack of registrants, might not be offered. Once we determine our course offerings and staff needs, we are committed; schedule changes will be very difficult, if not impossible to accommodate.

For this course guide to meet your needs, you must use it wisely. Please consider your interests, aptitudes, and educational goals before you select your course of study. You are encouraged to contact your counselor if you have any questions or concerns regarding your plan of study. The selection of courses and the development of your high school academic plan is a very important part of any student's education. The decisions made today can have a definite impact upon educational and career plans.

Counselors:

- Christian Grandgenett, A-C
- Jodi Vogt, D – Hoo
- Megan Curry, Hop - Mek
- Jason Sanders, Mel - Sch
- Beth Streit, Sci - Z

Waukee High School utilizes a 4 X 4 block schedule, a structure that provides students the opportunity to expand their horizons by enrolling in additional courses.

As you prepare for registration, please keep the following in mind:

- Underclassmen must enroll in four classes each term
- Graduation requirements
- Course prerequisites
- Entrance requirements at various post-secondary institutions

If you have questions about registration procedures or your specific educational plan, please contact your counselor.

Good luck with the registration process and best wishes for a great school year!

Thank you.

Cary Justmann

Waukee High School Principal

Graduation Requirements

Waukee High School requires 53 credits for high school graduation, as adopted by the Waukee School Board. A credit is defined as a passing grade in a term (9 weeks) of a given course.

Graduation Requirements		***World Language NOT required to graduate
English	8	Speech Required
Math	7	Statistics Required
Science	6	
Social Studies	6	Must include American History (2) & Government
Health	1	
Physical Education	4	*One credit each year
Electives	21	Includes Additional Core
Total Credits	53	

Registration Procedures

1. Please read this manual. As Waukee High School continues to grow, the courses offered will change and expand.
2. A great deal of planning is done based upon your choices. We ask that you register carefully for your classes.
3. Schedule changes will only be allowed with Student Services team approval. Please see "Schedule Changes" for dropping or adding a course.
4. Questions related to scheduling should be directed to Student Service Center at 987-5163.

Schedule Changes

When requesting a schedule change, please keep in mind that the master schedule is developed by the number of course selections identified by students during the registration process. School administrators make decisions regarding the number of sections per department based on students' course selections. For those reasons, we ask that students please be wise when initially registering and inputting their course requests. The following outlines our policy on schedule changes.

Reminder --- the initial registration and scheduling that takes place during Advisory and SPA Conferences (student, parent, advisor) drives the master schedule. Student schedule changes may be limited to the following:

1. Approved level changes by the parent, teacher and counselor within the first two weeks of the term.
2. Failure in pre-requisite course.

3. Computer and/or clerical error. *Students may check their original registration forms in the office.*
4. Special Programming placement
5. Did not complete prerequisite.
6. Students who must enroll in a course to meet graduation requirements or college entrance requirements, as outlined by college communication.
7. Seniors wanting to add/drop a course **without** disturbing the rest of the schedule – within the first week of the term (if space is available in course).
8. Administrator Approval

In order to request a schedule change, please see the Counseling Blog and fill out the appropriate change request form. The Student Services team will review your request at their next meeting. The blog will be open during certain times of the year, which will be communicated in advance.

<http://blogs.waukeeschools.org/whscounseling/>

NOTE** We are unable to honor specific teacher and/or specific block requests.

Vocational Education Agreement

Waukee High School has developed articulation agreements with Des Moines Area Community College (DMACC). Articulation refers to the process of receiving DMACC or Iowa Community College credit for specific classes taken at Waukee High School. Certain conditions must be met before credit can be awarded. Check with your vocational education instructor for more information. **If a student fails or drops a course, the student could be responsible for paying all expenses incurred.**

Other Academic Matters

Every attempt will be made to teach a class that is listed in this Course Guide. However, the number of students that register for a class can dictate whether the course will be taught or how frequently it will be taught. Decisions relating to specific courses being taught will be made after all students have registered for their classes.

Waukee High School implements a weighted grading scale for only Advanced Placement courses. All weighted courses

receive an additional .5 quality points, provided they take the AP Exam.

Post-Secondary Enrollment

The Post Secondary Enrollment Act permits eligible high school students to take and receive college credit for courses at any public, private or community college during the school year. Students in grades 11-12 are eligible to receive college credits that can also be applied toward graduation requirements at Waukee High School. Cost for tuition and textbooks will be reimbursed up to \$250 for each course successfully completed. **If a student fails or drops a course, the student could be responsible for paying all expenses incurred.**

1. Students must be in grades 11-12 and enrolled at Waukee High School. Some post secondary institutions have grade point and test score requirements.
2. Students will not be permitted to enroll in a post secondary course when a comparable course is offered at Waukee High School. The administration reserves the right to determine the acceptability of courses as provided under this act.
3. Students may enroll in no more than 11 college credit hours per semester.
4. Students will be granted 1 high school credit for every 3 hours of college credit earned. **Grades and credits earned will be recorded on the individual's transcript and will be included in the cumulative grade point average.**
5. The student will be responsible for furnishing transportation to and from the eligible post secondary institution.
6. Please refer to the Iowa Department of Education's current "Post Secondary Enrollment Options Handbook" for all program requirements.

Criteria for Using Central Academy/Campus

Waukee High School students may enroll at Central Academy and Central Campus if the following conditions are met:

1. The course is for the student's senior year
2. The course is not available through the Post Secondary Enrollment Options (e.g. Drake University, DMACC, etc)
3. The course is not offered at Waukee High School

4. The student shows a high aptitude and/or interest in pursuing the line of study

CARDIOPULMONARY RESUSCITATION COURSE COMPLETION REQUIREMENT IOWA CODE 256.7(5), 12.5(20)

Subject to the provisions of sub rule 12.5(6)a, at any time prior to the end of twelfth grade every pupil physically able to do so shall have completed a psychomotor course that leads to certification in cardiopulmonary resuscitation. A school or school district administrator may waive this requirement for any pupil who is not physically able to complete the course. A course that leads to certification in CPR may be taught during the school day by either a school or school district employee or by a volunteer, as long as the person is certified to teach a course that leads to certification in CPR. In addition, a school or school district shall accept certification from any nationally recognized course in cardiopulmonary resuscitation as evidence that a pupil has met this requirement. A school or school district shall not accept auditing of a CPR course, nor a course in infant CPR only. This sub rule is effective for the graduating class of 2011-2012.

SENIOR YEAR PLUS Waukee High School Requirements WHS Administratively Approved: 10/27/11 WCSD Board of Education Adopted: 11/14/11

Enacted by the Iowa legislature, Senior Year Plus was created to provide increased and more equal access to college credit courses. Courses delivered through Senior Year Plus provide students the opportunity to take a rigorous college curriculum and receive, in many cases, both high school and college credit concurrently. At Waukee High School joint-enrolled courses may include:

- Concurrent Enrollment Courses (those receiving college & high school credit)
 - Academy courses
 - On-site college-level courses, including AP courses
- Post-Secondary Enrollment Options Act courses (PSEO)

The state guidelines require all** students enrolling in Senior Year Plus eligible courses to be proficient in reading (Reading Comprehension Test), math

(Mathematics Concepts and Problem Solving Test), and science (Analysis of Science Materials) as assessed through Iowa Assessments. In addition, if a student wishes to drop the DMACC credit portion of the aforementioned classes, the student must also drop the WHS credit. If this date is beyond the WHS official drop date each semester, the student will receive an 'F' for the WHS credit portion.

STATE APPROVED CRITERIA
ENSURING READING, MATH /
SCIENCE PROFICIENCY AS REQUIRED
BY SENIOR YEAR PLUS (SYP):

1. The student is proficient on the reading, math, and science portions of the Iowa Assessments.

If a student at Waukee High School is not proficient as described in #1, a Waukee student may meet the SYP requirement by fulfilling one of the following two alternative proficiency requirements.

NOTE: Students would only need to meet alternative proficiency requirements in the areas (reading, math, science) not met via the Iowa Assessment testing.

2. The student is proficient on the reading, math, and/or science portions of the American College Testing test (ACT). Proficiency is a score of 18 or higher on each individual portion.
3. The student is proficient on the reading, math, and/or science portions of their most recent ACCUPLACER test. See counselor for details.

**Students with an IEP will be subject to an IEP Team Review to determine eligibility under Senior Year Plus.

NOTE TO STUDENTS &
PARENTS

All information contained in this course guide is subject to change. Due to various internal and external factors that may occur after printing this registration guide, please consider the process of student registration a fluid one. Changes in personnel, federal and state requirements, and budgetary constraints are all factors that force the Student Services department and/or principal's office to make changes during the process. This may include altering, adding, or dropping course offerings that are listed in this registration guide. We appreciate your patience and understanding.

To accommodate all persons, the high school office will release addendums, when appropriate, to supplement this guide to registration. Those addendums will be announced to students and published on the high school's website.

DMACC Credit Options

	CAREER ADVANTAGE - ON CAMPUS	CONCURRENT	CAREER ADVANTAGE - ONLINE	CAREER ADVANTAGE - ACADEMY
Who teaches it	DMACC Instructor	Waukee High School Teacher	DMACC Instructor	DMACC Instructor
Location	Online or DMACC campus location	Waukee High School	Online	DMACC campus location
Who pays	School District	School District	School District	School District
Drop date/policy	Determined by DMACC, follow Waukee High School announcements. Must stay within Waukee's course load requirements.	Determined by Waukee High School's Schedule Change Policy	Determined by DMACC, follow Waukee High School announcements. Must stay within Waukee's course load requirements.	Determined by DMACC, follow Waukee High School announcements. Must stay within Waukee's course load requirements.
Who is eligible	11 th and 12 th graders	10 th , 11 th , 12 th graders who have met pre-requisites.	11 th and 12 th graders who have met pre-requisites or Teacher Recommendation	11 th , 12 th graders who have met pre-requisites/On pace to graduate

**2018-19 Waukee Community School District – Waukee High School
DMACC CONCURRENT (DUAL) CREDIT COURSES @ WAUKEE HIGH SCHOOL**

<u>WHS Course Title</u>	<u>DMACC Course Name</u>	<u>DMACC Credit</u>
Advanced Computer Applications ^^	BCA212: Intro to Computer Business Applications	3
AP 2D Design	ART195 Design: Exploring Art Media	3
AP American History	HIS150: U.S. History to 1877 HIS153: U.S. History since 1877	4 4
AP Biology	BIO112: General Biology I BIO113: General Biology II	4 4
AP Calculus (AB)	MAT211: Calculus I	5
AP Calculus (BC)	MAT217: Calculus II	5
AP European History	HIS112: Western Civilization – Beginning to 1715 HIS113: Western Civilization – Early Modern to Present	4 4
AP Government	POL111: American National Government	3
AP Literature & Composition	LIT101: Introduction to Literature	3
AP Spanish V	FLS241: Intermediate Spanish I FLS242: Intermediate Spanish II	4 4
AP Statistics	MAT157: Statistics	4
Civil Engineering & Architecture ^^	EGT460: PLTW Civil Engineering & Architecture	3
Digital Electronics ^^	EGT420: PLTW Digital Electronics	3
Entrepreneurship ^^	BUS148: Small Business Management	3
Finite Math	MAT141: Finite Mathematics	4
German IV	FLG141: Elementary German I FLG142: Elementary German II	4 4
German V	FLG241: Intermediate German I FLG242: Intermediate German II	4 4
Introduction to Construction ^^	CON336: Care/Use of Hand/Power Tools CON337: Construction Blueprint Reading	1 1
Introduction to Education (Seniors only)	EDU210: Foundations of Education EDU218: Initial Field Experience	3 2
Introduction to Engineering Design ^^	EGT400: PLTW Introduction to Engineering Design	3
Painting II/III	Art143: Painting	3
Principles of Engineering ^^	EGT410: PLTW Principles of Engineering	3
Pre-Calculus	MAT129: Pre-Calculus	5
School to Work ^^ (Seniors only)	ADM936: Occupational Experience ADM221: Career Development Skills	3 2
APEX - Finance, Banking and Investments	MAT162: Principles of Business Statistics	4
APEX - Foundations of Insurance and Actuarial Science	MAT900: Field Studies in Actuarial Science	4
APEX - Designing Communication Solutions	GRD403 Communication Design	3
APEX – Developing Web Based Technologies	CIS204: Intro to Website Development	3
APEX - Architecture & Engineering	EGT900: Field Studies in Architecture and Engineering	5
APEX - Engineering Technology & Robotics	ELT870 Robotics	3

APEX - Exploration of Health Sciences & Medicine	BIO900: Field Studies in Medical Sciences	3
APEX - Exploration of Exercise & Sport Science	PEH110 Personal Wellness	2
APEX - Global Food Systems	AGC420: Agricultural Issues	3
APEX - Animal & Veterinary Science	AGS114 Survey of Animal Industry	3
APEX – Construction Leadership	CON205 – Intro to Construction Technology	5
APEX – Medical & Bioscience Research	BIO191 Intro to Biotechnology	3

^^ Exempt from Senior Year Plus (SYP) requirements

Any student taking concurrent credit math course may need to meet ALEKS testing requirements.

Advanced Placement ONLY: AP Chemistry, AP Physics I & II, AP Language & Composition, AP United States Government & Politics, AP Computer Science, and AP 2D Design – ***Students may be able to gain college credit with a 3+ on the national AP exam and pending acceptance from the attending college.***

ART DEPARTMENT

Course Title	10	11	12	One Term	Pre-requisite Required	Career Cluster
Basic Art I	X	X	X	X		Arts/ Communication
Basic Art II	X	X	X	X	Yes	Arts/ Communication
Graphic Design	X	X	X	X		Arts/ Communication
Ceramics	X	X	X	X	Yes	Arts/ Communication
Jewelry/Metal-smithing	X	X	X	X	Yes	Outdoor/ Mechanical
Painting	X	X	X	X	Yes	Arts/ Communication
Drawing	X	X	X	X	Yes	Arts/ Communication
Digital Photography	X	X	X	X	Yes	Arts/ Communication
2-D Mixed Media	X	X	X	X	Yes	Arts/ Communication
Textiles	X	X	X	X	Yes	Arts/ Communication
Sculpture	X	X	X	X	Yes	Arts/ Communication
AP 2D Design		X	X		Yes	Arts/ Communication

Art I

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

Art I is a survey of art designed to give the beginning art student a basic working knowledge of different medias and techniques. Drawing, shading, perspective drawing, ink drawing, watercolor painting, sculpture and hand-built ceramics are areas taught. Originality and independent thinking is stressed. Students learn the care, safety, and proper use of the tools and materials used. They become familiar with the terms and procedures used to create artwork.

The student will:

- ☞ Demonstrate an understanding of art as a language for expression, meaning, communication and creativity
- ☞ Complete work and develop skills in a wide range of media areas
- ☞ Practice a responsible attitude toward the care and safe use of art media, tools and materials
- ☞ Develop ability to evaluate art work
- ☞ Develop individual thinking and problem solving skills

Art II

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Art I

Basic Art II delves deeper into various art areas. It is for the art student who wishes to extend his/her knowledge and talents in various art areas. As a continuation of Art I, the student will be encouraged to continue to develop broader technical skills, creativity and original thinking skills, through the use of a variety of mediums.

The student will:

- ☞ Demonstrate an understanding of art as a language for expression, meaning, communication and creativity
- ☞ Complete work and develop skills in a wide range of media areas
- ☞ Practice a responsible attitude toward the care and safe use of art media, tools and materials
- ☞ Develop ability to evaluate art work

- ☞ Develop individual thinking and problem solving skills
- ☞ The student will develop knowledge and appreciation of historical and cultural developments in art

Ceramics

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Art I & Art II

This class explores the various areas of creating with clay, specifically hand-built, wheel thrown pottery and sculptures of clay. The student will have the opportunity to learn glazing and decorating techniques.

The student will:

- ☞ Demonstrate an understanding of clay and glazes as a language for expression, meaning, communication and creativity in 3-D form
- ☞ Complete work and develop skills in a sculptural form
- ☞ Practice a responsible attitude toward the care and safe use of media, tools and materials
- ☞ Develop the ability to evaluate art work
- ☞ Develop individual thinking and problem solving skills

Ceramics II

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisite: Ceramics I

Students that sign up for this course must be able to successfully throw on a potter's wheel.

The students in Ceramics II must be able to successfully throw on the potter's wheels. Students will have the opportunity to go more in depth with the throwing process on the potter's wheel, develop and create more glazing and decorating techniques.

The student will:

- ☞ Demonstrate an understanding of clay and glazes as a language for expression, meaning, communication and creativity in 3-D form
- ☞ Complete work and develop skills in a sculptural form

- ☞ Practice a responsible attitude toward the care and safe use of media, tools and materials
- ☞ Develop the ability to evaluate art work
- ☞ Develop individual thinking and problem solving skills

Ceramics III

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisite: Ceramics II

Students that sign up for this course must be able to successfully throw on a potter's wheel.

This class is for the serious art student who has successfully taken Ceramics II and wants to pursue more in depth throwing techniques.

Jewelry and Metalsmithing

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Art I & Art II

The student in jewelry and metalsmithing will learn to construct jewelry objects by using the sawing, wire wrapping, riveting and soldering techniques.

The student will:

- ☞ Demonstrate an understanding of art as a language for expression, meaning, communications and creativity in a 3-D form
- ☞ Complete work and develop skills in sculptural 3-D forms
- ☞ Practice a responsible attitude toward the care and safe use of art media, tools and materials
- ☞ Develop ability to evaluate art work
- ☞ Develop individual thinking and problem solving skills

Jewelry and Metalsmithing II

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Jewelry and Metalsmithing I

Student will use sawing, wire wrapping, riveting, soldering, and casting using the centrifuse casting technique. Other techniques

using glass and cuttlebone will also be explored.

The student will:

- ☞ Demonstrate an understanding of art as a language for expression, meaning, communications and creativity in a 3-D form
- ☞ Practice a responsible attitude toward the care and safe use of art media, tools and materials
- ☞ Develop ability to evaluate art work
- ☞ Develop individual thinking and problem solving skills

Jewelry and Metalsmithing III

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Jewelry and Metalsmithing II

This class is only for those serious about jewelry making and want to challenge themselves in creating professional pieces.

Painting

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Art I & Art II

This course will introduce students to painting with acrylic and watercolor. The history of the Impressionist movement and its impact on painting will be studied. Students are exposed to a variety of painting techniques to help them explore and start to develop their own style.

The student will:

- ☞ Demonstrate an understanding of art as a language for expression, meaning, communication and creativity in a 2-D form
- ☞ Complete paintings and develop skills with various paints
- ☞ Practice a responsible attitude toward the care and safe use of tools and mediums
- ☞ Develop the ability to evaluate paintings
- ☞ Develop individual thinking and problem solving skills
- ☞ Develop a plan and carry it to completion using various painting techniques

Painting II and III

Grade 11, 12
ELECTIVE COURSE

1-TERM

Prerequisite: ART I, ART II, Painting I
Dual Credit, 3 credits (DMACC) Course: ART 143, Painting

This course will provide students a more in-depth study of painting techniques through the use of acrylic paint. Assignments will be given with an emphasis on landscape and still life, as well as developing a personal style. Subject matter and concepts for creating a painting will be developed through the use of essential questioning and developing the artist voice from within.

The student will:

- Demonstrate an understanding of painting as a language for expression, meaning, communication and creativity
- Become secure in the ongoing process of creating art, involving informed and critical decision making
- Continue to develop technical painting skills
- Continue to develop sequential painting steps to aide in the completion of a painting
- Create landscape and still life paintings, after researching their significance in the History of art
- Develop proper critique techniques individually and in a large group

Drawing

Grade 10, 11, 12
Elective Course

1-TERM

Prerequisites: Art I & Art II

This course will provide students with the opportunity to use and perfect their drawing skills. The student will learn about different mediums by experimenting with them. Still life, character, life drawing, movement, and abstract form drawing will be covered. Mediums used will be graphite, cont'e crayon,

charcoal, oil pastel, colored pencil, ink and pastel.

The student will:

- ☑ Demonstrate an understanding of art as a language for expression, meaning communication and creativity in a 2-D form
- ☑ Complete assignments and develop skills with different mediums
- ☑ Practice a responsible attitude toward the care and safe use of tools and mediums
- ☑ Develop the ability to evaluate drawings
- ☑ Develop individual thinking and problem solving skills

Drawing II

Grade 10, 11, 12
Elective Course

1-TERM

Prerequisites: Drawing I

This course will provide students with additional opportunities to demonstrate their drawing skills. The students will work independently alongside Drawing I students with teacher assistance. Students will create 5 original compositions using pen and ink, charcoal, color pencil, and oil pastel. Students can also focus on establishing work for their portfolio in preparation for college art programs.

Digital Photography

Grade 10, 11, 12
Elective Course

1-TERM

Prerequisites: Art I & Art II

Digital SLR cameras are used in this class. Students will learn the fundamentals of photography including: How to use an SLR camera, shooting the picture and composition, manipulation using photo shop, and the history of photography.

The student will:

- ☑ Demonstrate an understanding of photography as a language for expression, meaning, communication and creativity

- ☞ Complete work and develop skills in black and white and color digital photography
- ☞ Practice a responsible attitude toward the care and safe use of cameras.
- ☞ Develop ability to evaluate photographs
- ☞ Develop individual thinking and problem solving
- ☞ Create personal work that is authentic
- ☞ Experience the creative possibilities of digital cameras and computers

AP 2D Design

Grade 11, 12

ELECTIVE COURSE

2-TERM

Prerequisite: ART I, ART II, Drawing
Dual Credit, 3 credits (DMACC) Course: ART 195, Design: Exploring Art Media

AP 2-D Design is for students who are seriously interested in the practical experience of art. Students will be creating a portfolio of 2-D works that demonstrate understanding of design in concept, composition, execution and art history. Originality and student voice are a critical part of the portfolio. This class uses all mediums that are considered two dimensional.

This class is not based on a written exam for AP credit; instead, students will submit a portfolio for evaluation at the end of the school year.

The student will:

- Creatively and systematically investigate the formal and conceptual issues in art.
- Become secure in the ongoing process of creating art, involving informed and critical decision making
- Develop technical skills
- Demonstrate the knowledge of the visual elements of design and principles of Organization.
- Create a collection of art that has a central, conceptual theme
- Demonstrate knowledge of art history in artworks personally created

- Develop proper critique techniques individually and in a large group
- Display their portfolio to the public

2-D Mixed Media

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Art I & Art II

Students will learn reduction, collagraph and dry point etching and mono-print printing techniques. They will make collages and create personal images. Media used will include just about anything you can find.

The student will:

- ☞ Demonstrate an understanding of mixed media as a form of expression and creativity
- ☞ Complete work and develop skills in a wide variety of mediums
- ☞ Practice responsible attitude toward the care and safe use of mediums, tools and materials
- ☞ Develop the ability to critique/evaluate art work
- ☞ Develop individual thinking and problem solving skills
- ☞ Develop an appreciation for historical and cultural development in art works
- ☞ Use a printing press

Textiles

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Art I & Art II

This is an exploratory studio class where students learn different textile processes including: loom weaving, batik, tie dye, macramé weaving, beading, textile printing, yarn painting and needle work. Knitting and crochet may be incorporated into the class if the student chooses. This is a class that encourages students to be creative using these techniques alone or combined to create unique pieces.

The student will:

- ☞ Demonstrate an understanding of textiles as a form of expression and creativity
- ☞ Complete work and develop skills in a wide range of fiber media areas

- ☞ Practice responsible attitude toward the care and safe use of media, tools and materials
- ☞ Learn to evaluate fiber art work
- ☞ Develop individual thinking and problem solving skills
- ☞ Develop an appreciation of historical and cultural development in textiles

Textiles II

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Textiles I

This course provides students a more in depth experience working with the fiber arts that were introduced in Textiles I. In addition, requirements to successfully complete the class includes the use of the sewing machine on projects and a series of works in one medium to convey a personal concept.

Sculpture

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Art I & Art II

Students will learn to create 3D works of art in both relief and freestanding styles. Students will explore a variety of mediums: clay, plaster, wire, paper and other found objects. Students will also take a field trip to downtown Des Moines to view public sculptures and the Papa John Sculpture Park. Student will end the term with creating their own sculpture proposal for a public sculpture at the high school.

The student will:

- ☞ Demonstrate an understanding of sculpture as a form of expression and creativity
- ☞ Complete work and develop skills in a wide variety of media
- ☞ Practice responsible attitude toward the care and safe use of art media, tools and materials
- ☞ Develop the ability to evaluate sculpture

- ☞ Develop individual thinking and problem solving
- ☞ Develop an appreciation for historical and cultural development in sculpture and develop an awareness of career opportunities

Graphic Design

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites:

This course will introduce students to computer generated art and graphic design. Students will explore Adobe Photoshop, and Adobe Illustrator. Students will create logos, posters, letterheads, business cards, and other computer generated art. The focus of this course will be on design skills, layouts, and typography. This course is for beginners and advanced graphic designers.

The student will:

- ☞ Demonstrate an understanding of computer generated art as a language for expression, meaning, communication, and creativity
- ☞ Complete work and develop skills in a wide arrange of computer application
- ☞ Practice a responsible attitude toward the care and safe use of computer hardware
- ☞ Develop the ability to evaluate, assess, and critique art
- ☞ Develop individual thinking and problem solving skills
- ☞ Create personal work that is unique
- ☞ Experience the creative possibilities of digital technology and computer

Graphic Design II

Grade 11, 12
Elective Course
1-TERM

Prerequisites:
Graphic Design I

The students will work independently alongside Graphic Design I students with teacher assistance on “real world” graphic design projects for the school district and various companies. Students will also design a web portfolio for their work.

BUSINESS EDUCATION DEPARTMENT

Course Title	10	11	12	One Term	Two Term	Pre-requisite Required	Career Cluster
Computer Applications (Intro to Technology)	X	X	X	X			General Business/Marketing
Introduction to Business	X	X	X	X			General Business/Marketing
Introduction to Accounting	X	X	X	X			General Business
Advanced Accounting		X	X		X	Yes	General Business
Marketing	X	X	X	X			Marketing
Sports and Entertainment Marketing		X	X	X			Marketing
Entrepreneurship (Hybrid – online)	X	X	X	X			Marketing
Business Law		X	X	X			General Business

Introduction to Business

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

A major purpose of this course is to contribute to improved economic citizenship through a study of the business and economic environment in which we live.

The student will:

- ☞ Know the characteristics of the American enterprise system
- ☞ Understand how businesses are organized within our economic system
- ☞ Learn consumer rights and responsibilities
- ☞ Identify the functions of the financial services industry
- ☞ Demonstrate how students can manage money efficiently

Introduction to Accounting

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

The purpose of this course is to teach 1) beginning preparation for careers in accounting; 2) accounting knowledge and skill needed in careers in related business fields; 3) a foundation on which to continue studying business and accounting in the Advanced Accounting class here at Waukee High School.

The student will:

- ☞ Know types of accounting careers and GAAP principles
- ☞ Identify all steps of the accounting cycle for a sole proprietorship (service) business
- ☞ Learn Peachtree and related software

Advanced Accounting

Grade 11, 12
Elective Course
2-TERM

Prerequisites: Intro. To Accounting

The purpose of a course in advanced accounting is to reach students who require knowledge and skills they will need for an accounting position following high school graduation. In addition, the learning activities will serve students who desire advanced preparation for the study of accounting in college.

The student will:

- ☞ Review general accounting procedures for a sole proprietorship (service) business
- ☞ Perform accounting functions for a merchandising business
- ☞ Identify and understand the accounting cycle according to GAAP guidelines
- ☞ Learn advanced Peachtree and related software

Marketing

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

Marketing is the process of determining consumer needs and then directing products and services to meet those needs. Students will learn the function of marketing in our economy. The class will include units on economics, the free enterprise system, channels of distribution, management skills, selling, promotion, business and distribution operations, buying and pricing merchandise, entrepreneurship and career planning.

The student will:

- ☞ Demonstrate an understanding of the economic foundations of marketing, basic terminology and business language
- ☞ Understand the workings of the human resource side of the marketing profession
- ☞ Define the nine marketing functions
- ☞ Know the four stages of the business cycle
- ☞ Know types of business structures such as partnership, corporation, etc.

Sports and Entertainment Marketing

Grades 11, 12
Elective Course
1-TERM

Prerequisites: None

Sports and Entertainment Marketing will cover national marketing standards using an industry that brings relevance and enjoyment to the student. Students will cover topics including sports and entertainment products, price decisions, market research, licensing, endorsements, promotion, careers, and marketing plans. Real world scenarios will be used for this course, as students will have the opportunity to work with local sports and

entertainment venues.

- ☒ Discuss the impact of sports and entertainment history on today's markets.
- ☒ Explain risks and risk management of sports and entertainment events.
- ☒ Analyze intellectual property rights.
- ☒ Understand the economics of sports and entertainment marketing.
- ☒ Examine product licensing and how licensed goods are merchandised.
- ☒ Explore different career and employment opportunities in sports and entertainment marketing.

Business Law

Grade 11, 12

Elective Course

1-TERM

Prerequisites: None

Business law affects each of us on a daily basis as it is that part of our legal code with which we have the greatest amount of contact. This course will familiarize the student with legal rights and responsibilities as they apply to daily life.

The student will:

- ☒ Learn how to avoid legal difficulties through an understanding and appreciation of the legal system
- ☒ Become more conscious of their need to respect the law in return for protection of their lives and property
- ☒ Have a basic understanding of the following areas: contracts, insurance, employment, buying and selling, credit and buying and selling property
- ☒ Learn about the criminal, civil and juvenile court system

Entrepreneurship - HYBRID

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

Dual Credit (DMACC) Course

Hybrid (Blended ONLINE) Course**

Do you know someone who owns his or her own business? Do you want to be your own boss? Do you have the goal of owning a highly successful company? These are only a few of the reasons why thousands of people in the United States become entrepreneurs.

In the Entrepreneurship class, you will select a product or service to sell, determine who your customers are, learn how to market your business, obtain financing, manage your employees, and more. You will also learn how to put together a business plan and will have created a complete plan by the end of the course.

The student will:

- ☒ Identify the characteristics of an entrepreneur
- ☒ Understand the types of ownership
- ☒ Develop a business plan
- ☒ Finance, protect, and insure a business
- ☒ Develop and market a business
- ☒ Hire and manage staff
- ☒ Understand accounting procedures
- ☒ Understand the role of technology

****DESCRIPTION OF HYBRID COURSES:**

“Hybrid” is the name for courses that combine face-to-face classroom instruction with online learning. A portion of a Hybrid course is scheduled on-campus and the rest is completed online. Waukee Hybrid courses offer students the best of both worlds, regularly scheduled interaction with teachers, and flexibility of computer-based learning. All Hybrid students must meet classroom and/or online requirements.

BENEFITS OF A HYBRID COURSE:

- *Combines the best features of face-to-face instruction with the best features of online education.*
- *Regularly scheduled teacher/student interactions.*
- *Flexible course offerings: The hybrid courses meets less frequently on campus than traditional classes, providing flexible course offerings for students who have demanding work schedules and/or family responsibilities.*
- *Flexibility of completing assignments via computer-based learning platform.*
- *Individualized assistance for students who need additional help.*

CAREER EDUCATION DEPARTMENT

Course Title	10	11	12	One Term	Terms	Pre-requisite Required	Career Cluster
School-to Work Class			X	X		No	Social/ Personal
School-to-Work Internship			X		3	Yes	Social/ Personal
Introduction to Education Class		X	X		1	Yes	Social/ Personal
Introduction to Education Internship		X	X		1	Yes	Social/ Personal
APEX – Finance, Banking & Investments		X	X		2	No	
APEX – Foundations of Insurance & Actuarial Science		X	X		2	No	
APEX – Global Food Systems		X	X		2	No	
APEX – Animal & Veterinary Science		X	X		2	No	
APEX – Designing Communication Solutions		X	X		2	No	
APEX – Developing Web Based Technologies		X	X		2	No	
APEX – Business Startup		X	X		2	No	
APEX – Exploration of Health Sciences & Medicine		X	X		2	No	
APEX – Exploration of Exercise & Sport Science		X	X		2	No	
APEX – Medical & Bioscience Research		X	X		2	No	
APEX – Architecture & Engineering		X	X		2	No	
APEX – Next Generation		X	X		2	No	

School-to-Work Class

Grade 12

Elective Course

1-TERM

Prerequisites: Acceptance into STW Internship or administrator approval
Dual Credit (DMACC) Course

This class is designed to prepare the student to become a highly effective member of the workplace. Students investigate careers and workplace expectations as well as other topics including résumé writing and preparing for an interview.

School-to-Work Internship

Grade 12

Elective Course

3-TERMS – 2 blocks each term recommended

2-TERMS - 2 blocks required

Prerequisite: Application is made during the junior year. Successful completion of School-to-Work class or instructor approval
Dual Credit (DMACC) Course

Students receive credit and a grade for each block of work completed in School-to-Work. Eight credits are possible for completion of all parts. Students choosing the internship opportunity must apply during the junior year and complete all paperwork by the determined deadline.

Acceptance is conditional upon:

- ☒ Recommendations from three teachers
- ☒ A record of excellent attendance during the junior year
- ☒ Demonstration of good citizenship – as recorded in the Assistant Principal's office
- ☒ A history of quality academic performance and support relative to the student's career interests. Students interested in architecture should have taken or be enrolled in Architectural Drawing. Students interested in medical careers should have adequate preparation

in science. Certified Nursing Assistant training is recommended.

- ☒ Available space in the student's senior schedule
- ☒ Internship availability

Interns must provide their own transportation and may need to supply workplace appropriate attire. Employers may require drug tests, health screenings, background checks and credit examinations. Failure to pass drug tests, dishonest actions, deceitful behavior, or poor attendance would result in the student being removed from School-to-Work.

Introduction to Education Class

(Foundations of Education – DMACC Course)

Grade: 11, 12

Elective Course:

1-TERM (Requires 2 Blocks)

Prerequisite: Application is made in Junior Year

This class presents a broad view of the field of education including foundations of American education, roles of teachers, history and philosophy and curriculum. As part of this class, student will complete a 40-hour clinical observation at another Waukee school. Students will provide their own transportation. Strong reading and writing skills are needed for this class.

Introduction to Education Internship

(Foundations of Education Internship – DMACC Course)

Grade: 11, 12

Elective Course

1-TERM (Requires 2 Blocks)

Prerequisite: Student must successfully complete the Introduction to Education (Foundation of Education) class

The internship provides opportunities for students to assist in a school as a teacher aide to assess one's potential and interest in teaching as a career. As part of this class, students will complete a 100 hour clinical

classroom observation and attend seminars with the instructor.

Children's Literature

Grade: 12

Elective Course

1 - TERM

Prerequisite: 3.5 GPA or 24 ACT Score, and successful UNI Application. Student must also provide a copy of their immunization records.

Dual Credit (UNI) Course

This class is intended for students entering an elementary education program. Student will study a broad scope of elementary literature. Student will complete projects and write papers. As a part of this class, students will complete practicum hours, applying knowledge of children's literature to the elementary classroom. Students will provide their own transportation. Strong reading and writing skills are needed for this class.

APEX – Finance, Banking & Investments

DMACC Course

Grade: 11 and 12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: ALEKS test score 30

Should you buy or lease a car? How will you finance college? Where do you get a loan? What is a stock? Is Casey's General Store a publicly traded company? What is an IPO and why are the founders of Facebook billionaires? Do you want to manage a hedge fund? What does it take to be a financial analyst or loan officer? Why should I care about the Federal Reserve? Learn the answers to these questions and many others as you survey banking functions, familiarize yourself with investments and learn more about personal and business finance.

APEX – Foundations of Insurance & Actuarial Science

DMACC Course

Grade: 11 and 12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: ALEKS test score 30

Did you know Iowa is a national leader in the insurance industry? Students in this course will learn foundational concepts of life, property/casualty, and health insurance as well as how actuarial science is applied in insurance. As students learn foundational concepts, they will be given opportunities to apply their learning to authentic problems and will have the opportunity to work with executives at some of Iowa's leading insurance companies. This experience, combined with guest instructors, will provide students with a comprehensive look at possible career opportunities available in insurance and actuarial science, which are consistently recognized as a career fields searching for highly skilled young professionals.

APEX – Designing Communication Solutions

DMACC Course

Grade: 11 and 12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: None

Designing Communication Solutions combines creativity with communications, technology and marketing and is a cutting-edge sector of the design world that changes rapidly and connects people worldwide. In Designing Communication Solutions, students are paired with organizations for which they prepare materials such as marketing strategies, logos, business cards, graphic design pieces, videos, and social media campaigns. Students will assume the role of a "professional creative consultant" and will also begin establishing their own personal branding and portfolio.

APEX – Developing Web Based Technologies

DMACC Course
Grade: 11 and12
Elective Course
2-TERM - Requires 2 Blocks
Prerequisite: None

How does the Internet work? When you tap an app on your phone, what’s going on behind the screen? This course takes an in-depth look at the vast world of digital technology that is quickly becoming known as the foundational language of the world. Associates in Information Management Design have the potential to build websites, test beta versions of software, and learn multiple programming languages alongside knowledgeable experts here in our own booming "Silicon Prairie" metro area. Every company, from construction to hospitals, needs to use digital technology every day in their businesses. Blend your passions with digital technology to be ready for college, career, or maybe even your own entrepreneurial venture.

APEX – Business Startup

Grade: 11 and12
Elective Course
2-TERM - Requires 2 Blocks
Prerequisite: None
Recommended: Complete 1 APEX course before registering for Business Startup

The APEX Business Startup course is for any student completing at least one previous APEX course and would like to continue work in an economic sector while exploring a business startup opportunity. The APEX Business Startup course would connect students with a network of mentors to learn about topics such as the business model canvas, market research, design thinking, financing and funding models, patent support, and planning for successful scaling and growth. Presenting a final “shark tank” style pitch would be the culmination project at the end of the course.

APEX – Architecture & Engineering

DMACC Course
Grade: 11 and12
Elective Course
2-TERM - Requires 2 Blocks
Prerequisite: None

In APEX Architecture & Engineering, students will become part of cross-discipline teams within a growing architecture and engineering design firm and will work alongside professionals on projects for healthcare, industry, education, government and commercial clients. Students will be exposed to multiple design professions including architecture, interior design, structural and mechanical engineering, electrical and civil engineering, landscape architecture and surveying. They will gain experience with design processes and begin to develop an understanding of construction technologies and technical aspects of the built environment.

APEX – Engineering Technology & Robotics

DMACC Course
Grade: 11 and12
Elective Course
2-TERM - Requires 2 Blocks
Prerequisite: None

This course will focus on the rapidly growing industry of robotics and the role of advanced manufacturing. Students will learn about high-demand and high-paying careers associated with the subject that include, but are not limited to, robotic manufacturing, process engineering, fabrication, machine design and materials handling. Students will be connected to industry partners to explore projects and career opportunities such manufacturing engineer, process development engineer, control systems, computer integrated manufacturing, robotics programming and repair.

APEX – Next Generation Energy

Grade: 11 and12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: None

This course will focus on all forms of renewable energy from an engineering perspective. Studies will focus on the mechanics of each form of energy and the issues preventing growth. Experiences will look at the energy grid system domestically and around the world and identify barriers to renewable energy adoption. The main focus of the course will be to understand the infrastructure needs and careers within each form of energy.

APEX – Construction Leadership

DMACC Course

Grade: 11 and12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: None

Construction Leadership pulls together all the skills to support a successful engineer, supervisor, entrepreneur or self-employed laborer in the construction industry. This course provides opportunities for students to dive into both technical and business exploratory projects in this high-demand field. Topics such as construction engineering, industry safety standards, building codes, industry math, tools, home maintenance, plumbing, green building projects, planning and scheduling, improving productivity, managing project costs, business management and leading teams would be addressed.

APEX – Exploration of Health Sciences & Medicine

DMACC Course

Grade: 11 and12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: None

Exploration of Health Sciences and Medicine is a scientific, inquiry-based

experience to advance the student's understanding of patient care, human physiology, disease process, research, professionalism and ethics. The goal is to develop the student's comfort in the role of a health care provider and develop skills in provider-patient relationships. Students will observe and learn about patient care. In addition to gaining some basic clinical skills, students will also receive advanced instruction from medical experts gaining skills to help further understanding of medical diagnosing and treatment protocols for the patient. Students will be exposed to a variety of health care professions, allowing students to see the advancements and the business side of medicine within projects. The possibility of research projects exists with the program depending on business partner involvement and student interest.

APEX – Exploration in Exercise and Sport Science

DMACC Course

Grade: 11 and12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: None

The foundation of this course is about improving the quality of life through the scientific basis of physical activity, exercise and sport. Students will have the opportunity to be certified as a personal trainer and will complete projects that many colleges don't even offer. This class teaches students about in-demand careers that are more exercise-based such as physical therapy, occupational therapy, recreational therapy, sports medicine, orthopedics, and chiropractic.

APEX – Medical and Bioscience Research

DMACC Course

Grade: 11 and12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: None

The Medical and Bioscience Research course is hands on, inquiry-based research within health and biosciences including a laboratory component. Students will interact with business partners that have laboratory project needs in the area of tissue cell culture (examples: cancer cells, animal cells or plant cells), DNA, natural products discovery, protein and cellular regulation, diagnostics tests for bacteria, food contamination, fungal disease, and more. These biotechnology concepts can transcend medicine, biology, chemistry and all health and bioscience research career areas. Students will become familiar with using biotechnology equipment such as incubators, laminar flow hoods, pipet technique, gel electrophoresis, purification, and Polymerase Chain Reaction (PCR).

APEX – Global Food Systems

(Sustainable Agriculture)

DMACC Course

Grade: 11 and12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: None

This course is an inquiry-based class to explore food, bioscience, and agriculture. Student will focus on projects and learn about agriculture industries, which employ one out of six people in Iowa. The global agriculture system is very complex. It impacts our food, feed, fiber and fuel. Every person is impacted by global agriculture and food systems. All humans need food to

survive. Learn how food gets from the “farm gate to the dinner plate.” This is a great exploration course for those interested in culinary arts, nutrition, health, agriculture, and solving the world’s hunger issues.

APEX – Animal & Veterinary Science

DMACC Course

Grade: 11 and12

Elective Course

2-TERM - Requires 2 Blocks

Prerequisite: None

This course serves as an in-depth, focused course studying animal agriculture veterinary science. Projects covered include topics such as animal production systems, animal nutrition, animal reproduction, veterinary medicine, regulatory issues, global trade issues, biodiversity issues, human nutrition and mat consumption, economic trends in animal production, food processing, global protein issues and careers. Experiences will involve working with actual animal alongside agriculture and zoo professionals.

COMPUTER EDUCATION DEPARTMENT

Course Title	10	11	12	One Term	Pre-requisite Required
Computer Applications (Intro to Technology)	X	X	X	X	
Intro to App Development	X	X	X	X	
App Development	X	X	X		Intro to App Development
Advanced Computer Applications	X	X	X	X	Yes
Multimedia Applications	X	X	X	X	Yes
Advanced Video Production	X	X	X	X	Yes
Programming I	X	X	X	X	Yes
Programming II	X	X	X	X	Yes
AP Computer Science	X	X	X		Yes
Web Design I	X	X	X	X	Yes
Web Design II	X	X	X	X	Yes
Virtual Reality	X	X	X	X	Yes

Computer Applications

(Intro to Technology)

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

This is a hands-on course in which the students will become familiar with a computer and its peripherals while learning to use a variety of software programs and their applications. This course will offer the student experience in e-mail, Internet, word processing, spreadsheet, and presentations as well as the creation and manipulation of graphics. Students will integrate Office capacities to create reports, form letters, mailing labels and other office procedures. Microsoft Office will offer the student experience in a database environment.

The student will:

-  Create word processing, database and spreadsheet documents using the features of an office software program
-  Combine the features of word processing, database and spreadsheet documents to create integrated documents
-  Use database and spreadsheet applications in problem solving applications
-  Create multimedia projects using presentation software
-  Perform Internet searches using the advanced features of a search engine

Intro to App Development

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

Intro to App Development is designed to give students a strong foundation in programming fundamentals, using Swift as the language. Swift is an intuitive programming language created by Apple for building apps on iOS devices. It is designed to scale from writing the simplest programs to the world's most advanced software.

In this one-term course, students will get practical experience with the tools, techniques, and concepts needed to build a basic iOS app from scratch. Prior experience in programming isn't required. Student will learn

interface design principles, along with the Swift language, to create a foundational understanding of programming and creating great apps. Student will learn how to use Swift playgrounds and program X-Code software.

App Development

Grade 10, 11, 12

Elective Course

2-TERM

Prerequisites: Intro to App Development

In this course learners will go more in depth using Swift and X-code. Swift is an intuitive programming language for building apps on iOS devices. It is designed to scale from writing the simplest programs to the world's most advanced software. With iOS as the platform, students will learn object-oriented programming, design patterns, type systems, functional language features, user interface design, best practices in programming, and problem analysis. Students will create an app as the final project. Intro to App Development is a prerequisite for this course.

Advanced Computer Applications

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Computer Applications

Dual Credit (DMACC) Course

This course will advance the skills learned in Computer Applications with a focus on business productivity tools. Training is hands-on to learn applications vital in today's business and industry. The course will dive into advanced uses for the operating system, e-mail, Internet, word processing, spreadsheet, database, and presentation software applications with an emphasis on integration between the programs, decision-making and management of the software, and increased personal marketability.

The student will:

-  Plan and create professional word processing, database, spreadsheet, and presentation documents using the advanced features of an office software program.

The applications will address the needs of real-world scenarios.

- ☒ Integrate word processing, database, spreadsheet, and presentation software.
- ☒ Demonstrate an understanding of computer concepts related to operating systems, application software, computer hardware, Internet searches, and digital citizenship

Multimedia Applications

Grades 10, 11, 12

1-TERM

Prerequisites: Basic computer skills including keyboarding and working with files.

This is a hands-on course in which students will become familiar with a variety of photo editing, sound editing, and video production software programs to manipulate digital files and create multimedia presentations. Students will also learn to use multimedia hardware.

The student will:

- ☒ Convert digital file formats
- ☒ Use multimedia hardware and software
- ☒ Create major multimedia projects that incorporate video, audio, and graphics

Programming I

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Algebra

This course is an introduction to computer programming. The student will learn how software programs communicate with the computer, become familiar with syntax, and practice accepted programming methods. Logic and mathematical knowledge will be required to solve programming problems using constants, variables, arrays, and objects within conditional branches, loops, and functions.

The student will:

- ☒ Write programs using an object-oriented drag-and-drop interface
- ☒ Create code in proper programming style
- ☒ Use control structures to direct the run of programs
- ☒ Apply problem solving skills to write basic programs

Programming II

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisite: Programming I

This course is a continuation of Programming I. Logic and mathematical knowledge will be required to solve programming problems.

Students would learn to identify and use methods of:

- ☒ Recursion
- ☒ Abstract Data Types
- ☒ Events and Controls
- ☒ Searches and Sorts
- ☒ Function overloading
- ☒ Enumeration
- ☒ Threads
- ☒ Graphic and Animation
- ☒ Communication

Web Design I - HYBRID**

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Basic computer skills including keyboarding and working with files.

Students in Web Design I will learn basic principles of web site planning, design, and creation. They will create original animated web page graphics using commercial software and their own web pages using the Hypertext Markup Language (HTML), Cascading Style Sheets (CSS), and a What You See Is What You Get (WYSIWYG) editor.

The student will:

- Use web design principles to plan, design, create, and critique web pages
- Use HTML to construct a web page
- Use CSS to style web pages
- Use a WYSIWYG editor to construct a web page
- Use validation tools to verify web pages are compliant and up to date with current guidelines

Web Design II - HYBRID**

Grades 10, 11, 12

Elective Course

1-TERM

Prerequisites: Web Design I

This course is a continuation of Web

Design I. Students will practice real world methods of planning and design to create web pages for business. They will become familiar with websites and organizations that support web page designers and use professional software to plan, design, and create web pages and web page graphics.

The student will:

-  Use web design principles to plan, design, create, and critique web pages
-  Utilize organizations that support web page designers
-  Use professional software to create web pages and web page graphics
-  Use HTML to construct a web page
-  Use CSS to style web pages
-  Use a WYSIWYG editor to construct a web page
-  Use validation tools to verify web pages are compliant and up to date with current guidelines

Virtual Reality - HYBRID**

Grades 10, 11, 12

Elective Course

1-TERM

Prerequisites: Basic computer skills including keyboarding and working with files.

Completion of at least **one** previous Computer Science, Engineering, or Industrial Technology Course with teacher recommendation.

Virtual Reality is an independent course exploring 3D Modeling using free, industry standard software and related programming languages. Students are expected to create 2 projects a term: 1 personal and 1 for a client. Students must complete all required documentation including project planning, daily logs of work, final project write-ups and tutorials, as well as parent/guardian and client evaluations. Student written work and communication is expected to be timely and of the highest quality.

Students may be asked to make presentations to other students, staff, administration, other schools, trade groups, or as opportunities present themselves. Students are requested to participate in the Virtual Reality Conference each year in to present

and/or serve on a student panel. Because of the independent nature of the class, students with strong work ethic and self-motivation are required. Grades in this course are based on total points. The course may be repeated.

AP Computer Science - HYBRID**

Grades 10, 11, 12

Elective Course

2 TERMS

Prerequisites: Algebra I and Programming I

The content and objectives of AP Computer Science include the course objectives for AP Computer Science A as discussed in the AP Computer Science Course Description. The course focuses on the implementation of data structures and the Java built-in classes for data structures.

This course enhances students' problem-solving abilities. It builds analytical skills that are valuable in computer science, in other courses, and in life; and, of course, students also increase their computer science and programming skills—skills that are needed in an ever-increasing array of college courses and workplaces.

Advanced Video Production

Grades 10, 11, 12

Elective Course

1-TERM, but may be repeated

Prerequisites: Multimedia

The purpose of this course is to develop students understanding of advanced video editing concepts and to prepare students for Final Cut Pro Certification.

Apple Certified Pro

The Apple Training and Certification program is designed to keep you at the forefront of Apple technology. Certification creates a benchmark to demonstrate your proficiency in specific Apple technologies and gives you a competitive edge in today's evolving job market. An Apple Certified Pro is a user who has reached the highest skill level in the use and operation of Apple's Pro

Applications as attested to by Apple. The Apple Final Cut Pro X – Level One certification attests to basic operational knowledge of the Final Cut Pro X application.

What are the benefits of Apple Certification?

Besides differentiating you as a skilled user of an Apple application, becoming an Apple Certified Pro allows you to leverage the power of the Apple brand. When you pass a Certification exam, you receive an email with a PDF copy of your Apple certificate, along with instructions on how to order a printed or a printed and framed certificate.

You also receive a login for the Apple Certification Records System, where you can:

- ☞ Update your profile information and opt in to display your Apple Certification on the Apple Certified Professional Registry
- ☞ Review your certification progress
- ☞ Download your certification logo to use on business cards, resumes, websites, and more.
- ☞ Provide access to employers to verify your certification.

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“Hybrid” is the name for courses that combine face-to-face classroom instruction with online learning. A portion of a Hybrid course is scheduled on-campus and the rest is completed online. Waukee Hybrid courses offer students the best of both worlds, regularly scheduled interaction with teachers, and flexibility of computer-based learning. All Hybrid students must meet classroom and/or online requirements.

BENEFITS OF A HYBRID COURSE:

- ☞ Combines the best features of face-to-face instruction with the best features of online education.
- ☞ Regularly scheduled teacher/student interactions.
- ☞ Flexible course offerings: The hybrid courses meet less frequently on campus than traditional classes, providing flexible course offerings for students who have demanding work schedules and/or family responsibilities.
- ☞ Flexibility of completing assignments via computer-based learning platform.
- ☞ Individualized assistance for students who need additional help.

FAMILY AND CONSUMER SCIENCE DEPT.

Course Title	1 0	1 1	1 2	One Ter m	Two Term s	Pre- requisite Required	Career Cluster
Culinary Arts I	X	X	X	X			Social/ Personal
Culinary Arts II	X	X	X	X		Yes	Social/ Personal
ProStart I	X	X	X		X	Yes	Sales/Manage- ment
ProStart II		X	X		X	Yes	Sales/Manage- ment
Child Development: Prenatal, Infants, and Toddlers	X	X	X	X			Social/ Personal
Child Development: Pre-School	X	X	X	X			Social/ Personal
Interpersonal Relationships	X	X	X	X			Social/ Personal
College & Career Readiness	X	X	X	X			Social/Personal
Housing & Interiors	X	X	X	X			Social/ Personal
Fashion Construction I	X	X	X	X			Arts/Communication
Fashion Construction II	X	X	X	X		Yes	Arts/Communication
Fashion Analysis & Design	X	X	X	X			Arts/Communi- cation

Culinary Arts I

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

Students will learn about nutrition, basic food preparation and procedures, the principles of cooking and baking through demonstrations and lab experiences. Students will practice employability skills and apply criteria for evaluating product quality. Their experience includes a final individual practical lab using the skills acquired during the term.

The student will:

- ☞ Use kitchen equipment, small and large appliances
- ☞ Practice safety and sanitation guidelines
- ☞ Interpret recipes to produce quality products
- ☞ Use math skills to convert and manipulate recipes
- ☞ Prepare foods from the following categories: cookies, quick breads, fruits and vegetables, dairy, and eggs

Culinary Arts II

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Culinary Arts I

Students will expand their knowledge of the culinary world and analyze cooking methods and skills as well as nutrition as it pertains to the following topics: vegetarianism, soup, salads, and casseroles, yeast breads, herbs and spices, rice dishes, pies and pastry. Their experience includes multiple individual labs using the skills acquired throughout the term.

The student will:

- ☞ Explore choices in food selection using new food preparation techniques
- ☞ Explore different cultures and prepare food appropriate to those cultures
- ☞ Prepare food from above mentioned topic areas
- ☞ Practice safety, sanitation, and employability skills in the lab setting

ProStart I

Grade 10, 11, 12
Elective Course
2-TERMS

Prerequisites: Culinary Arts I and II and teacher recommendation.

The ProStart program introduces students to restaurant and foodservice concepts not found in the traditional Foods courses. In addition to the fun of food preparation, topics like customer relations, cost accounting, food cost controls, and marketing are covered. Whether a student plans to go on to college or head straight for a career, the business skills that the ProStart program develops will serve them well in the years ahead and opens student's eyes to the vast and varied career options available to them in this exciting industry.

National ProStart certificates of Achievement are awarded to students who successfully complete 400 hours work experience requirements and examinations given at the end of each year. This certificate tells both future employers and college admission officers of a young person's commitment to a restaurant and foodservice career and often is translated into scholarships and articulation agreements.

There is also an annual state competition for ProStart teams. The state winners travel to the national competition to vie for awards and scholarships.

The student will:

- ☞ Develop successful customer relations
- ☞ Prepare and serve safe food
- ☞ Develop techniques to prevent accidents and injuries
- ☞ Apply effective mise en place through practice
- ☞ Describe and demonstrate several basic pre-preparation techniques
- ☞ Explore basic food service equipment
- ☞ Characterize the roles of various nutrients in people's diets and identify foods that contain these nutrients

- ☞ Demonstrate preparation of breakfast foods, sandwiches, salads, fruits, and vegetables
- ☞ Develop skills in working with a variety of people
- ☞ Demonstrate garnishing skills
- ☞ Develop basic business math skills relating to food service and determine ways to control foodservice costs

ProStart II

Grade 11, 12

Elective Course

2-TERMS

Prerequisites: ProStart I

ProStart II continues to develop the restaurant and foodservice concepts established in ProStart I.

The student will:

- ☞ Explore the history of the foodservice and lodging industry as well as the tourism and retail industry
- ☞ Demonstrate preparation of potatoes and grain products, desserts and baked goods, meat, poultry, seafood, stocks, soups, and sauces
- ☞ Develop techniques to demonstrate the art of food service
- ☞ Explore marketing and the menu of an establishment
- ☞ Develop purchasing and inventory control methods
- ☞ Use standard accounting practices
- ☞ Demonstrate a variety of ways in effective customer communications

Child Development: Prenatal, Infants, Toddlers

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

This child development course explores the following topics: considerations of parenthood, effective parenting skills, conception, prenatal development, birth process, postnatal care, infancy, and toddlers.

A number of practical projects are included. *This course includes content of a sensitive nature such as information about contraceptives and sexuality. These topics will be covered from a comprehensive perspective including but is not limited to "abstinence," other natural, barrier, and hormonal methods.*

The student will:

- ☞ Describe the reproduction process and the stages of pregnancy
- ☞ Examine effective parenting skills and how to implement them
- ☞ Relate making responsible decisions to the realities of early parenthood
- ☞ Examine growth and development through age 2

Child Development: Pre-School

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

This child development course centers around various topics related to children ages 3-6 years old. Topics include: developmental theories, developmentally appropriate practice, center based care, observational methods, and exceptional children. This is a great class for those interested in child care careers.

The student will:

- ☞ Relate physical, emotional, social, and intellectual characteristics to the appropriate age
- ☞ Summarize the importance of child safety
- ☞ Describe the importance of keeping children safe and how this can be achieved
- ☞ Examine careers related to children of all ages

Interpersonal Relationships

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None (“College and Career Readiness” is a good complement to this course)

This course is designed to explore areas of self and relationships with others. Topics included are personality development, family dynamics, communication, conflict management, dating, marriage, family planning, aging, and death. *This course includes content of a sensitive nature such as information about contraceptives and sexuality. These topics will be covered from a comprehensive perspective including but is not limited to “abstinence,” other natural, barrier, and hormonal methods.*

The student will:

- ☞ Examine their personal development in terms of values, morals and character development
- ☞ Understand the evolution of relationships from friendship, through dating and marriage
- ☞ Analyze the different stages and challenges of the family unit in modern society

College and Career Readiness

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None (“Interpersonal Relationship” is a good complement to this course)

Students will explore their transition to life after high school. They will examine potential careers in terms of their interests and skills and examine post-secondary paths to get to that career. They will also explore areas of personal finances like establishing and maintaining a spending plan, utilizing consumer resources, and evaluating various types of credit.

The student will:

- ☞ Evaluate personal values, needs, and wants and create a spending plan. Create SMART (specific, measurable, attainable, realistic, and time-bound) financial goals

- ☞ Create a post-secondary plan for education and career, develop a resume with cover letter, and practice interview skills
- ☞ Compare lines of credit available to the individual and weigh the potential benefits and risks. Evaluate various resources when making a major financial decision such as financing college, selecting housing, or purchasing a car.

Housing & Interiors

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

This class is designed to increase awareness of housing options and selection. Housing trends and styles are explored. Of primary focus are elements and principles of design and their applications to housing and interiors. A number of projects are included.

The student will:

- ☞ Evaluate floor plans
- ☞ Apply elements and principles of design to create environments that are aesthetic and functional
- ☞ Recognize types of housing and furniture styles

Fashion Analysis & Design

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

This class provides experience and information, which introduces students to all phases of the fashion industry from production to consumption. Students will apply art principles to clothing selection and design, analyze fashion trends, review fashion terminology, explore career opportunities and study modern designers and their contributions to the world of fashion. This course does not include sewing or apparel construction.

The student will:

- ☞ Examine the relationship between social, psychological and physiological aspects of clothing and textiles

- ☞ Implement the principles and elements of design through individual and group activities
- ☞ Apply fashion terminology, career opportunities and designer information to the world of fashion
- ☞ Analyze how clothing compliments specific body shapes and creates in impression
- ☞ Design a line of clothing and marketing plan. Present it in a professional portfolio format

Fashion Construction

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

This course is an introduction to basic sewing techniques and provides familiarization with the tools used in the fashion industry. Development of fundamental skills and terminology of clothing construction will be covered. Emphasis is on interrelationship of fabric, fiber, design and construction techniques. The student will construct a variety of projects through the term; estimated additional cost to the student for supplies is approximately \$40-\$60.

The student will:

- ☞ Demonstrate knowledge of the use and care of machines and sewing equipment in a safe manner
- ☞ Analyze information on fabric, patterns and ready-to-wear clothing to make wise decisions
- ☞ Create a collection of textile and clothing product demonstrating execution of various construction techniques

Fashion Construction II

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Fashion Construction I

The students in Fashion Construction II must be able to successfully construct a garment using a commercial pattern. Students will have the opportunity to go more in depth in construction techniques. They will develop and create more complex garments.

The student will:

- ☞ Demonstrate an understanding of appropriate sewing techniques for a specific application.
- ☞ Develop advanced skills in areas of shaping devices, closures, and assembly techniques.
- ☞ Assemble a 3D garment by deciphering technical directions.
- ☞ Modify existing patterns to ensure tailored fit to the wearer's measurements.
- ☞ Develop the ability to evaluate and critique on their construction skills.
- ☞ Reflect with a growth mindset to develop competency.
- ☞ Develop Individual thinking and problem solving skills.

TECHNOLOGY EDUCATION DEPARTMENT

Course Title	10	11	12	One Term	Two Terms	Pre-requisite Required	Career Cluster
Introduction to Drafting & Design	X	X	X	X			Science/ Technical
Architectural Drawing	X	X	X	X			Science/ Technical
Introduction to Construction	X	X	X	X		Yes	Outdoor/ Mechanical
Introduction to Metalworking	X	X	X	X			Outdoor/ Mechanical
Introduction to Woodworking	X	X	X	X			Outdoor/ Mechanical
Advanced Wood Technology	X	X	X	X		Yes	Outdoor/ Mechanical
Advanced Metalworking	X	X	X	X		Yes	Outdoor/ Mechanical
Energy, Power, & Transportation Technology	X	X	X	X		Yes	Outdoor/ Mechanical
Research & Development		X	X	X		Yes	

COMMUNICATIONS

Completion of a course in this area of study will provide an opportunity for the student to become technically competent in a number of communication processes and systems. An understanding and manipulation of necessary resources is needed to develop, produce and deliver electronic and graphic media. Students will process and obtain the knowledge necessary to make decisions concerning the impact of communication on society and the environment.

Introduction to Drafting & Design

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

****Students who have taken Introduction to Engineering and Design may not take this course.**

Introduction to Drafting & Design is an ideal course for students pursuing careers in engineering, manufacturing, or design/drawing. This course will focus on sketching and computer aided drawing. Students will use the design process and a variety of drawing processes on projects. A variety of computer drawing programs will be introduced to students. Students are evaluated on drawings, written assignments, quizzes and tests. This course builds a solid foundation for all the design, manufacturing, and construction courses.

The student will:

-  Apply the design process to a variety of design problems defined by the instructor
-  Complete drawings using proper sketching techniques
-  Use proper drawing and dimensioning techniques for orthographic and pictorial drawings
-  Develop verbal communication skills, social behavioral skills and time management

Architectural Drawing

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Introduction to Drafting & Design or Introduction to Engineering Design recommended

Students pursuing careers in architecture, construction and civil engineering should consider this course. Architectural drawing emphasizes the study of architecture. Students will design residential houses and apply drafting techniques and rules. Projects consist of drawing foundation/basement plans, floor plans, elevation plans, section detail plans and building a house model. Students will apply architectural styles and a variety of engineering design principles in house designs.

The student will:

-  Use computer and peripheral devices to aid in the documentation for design projects
-  Apply technical drawing skills, architectural styles and engineering principles in residential house design
-  Study career pathways for architecture related careers

CONSTRUCTION

Students will study construction systems, materials and processes as they apply to producing buildings and structures. Studies of buildings and structures in the residential, commercial and civil construction area will allow student competency in this area of study.

Technical competency along with employment skills is gained through the environment created with laboratory activities and hands-on projects.

Introduction to Construction

Grade 10, 11, 12

1-TERM

Prerequisites: Introduction to Woodworking Dual Credit (DMACC) Course

Introduction to Construction curriculum is designed to engage students in learning about and producing construction type activities which will teach entry level construction skills and everyday skills used by society. Students will learn how these skills, along with new techniques, impact and affect our daily lives. Areas of safety, print reading, layout, basic

building skills and project development are thoroughly studied. Projects may include site layout, concrete work, shed or garage construction, or any other residential related construction activities. Evaluations will be through class discussions, written assignments, required lab projects, safety skills and work efforts on job sites.

The student will:

- ☞ Demonstrate basic safety and safe operating procedures necessary for a construction project
- ☞ Understand the basic background knowledge required for entry into the construction industry
- ☞ Understand the sequence of procedures necessary for a construction project
- ☞ Differentiate among and apply the appropriate methods to complete major projects

MANUFACTURING

Completion of a program in this area of study will provide an opportunity for the student to become technically competent in a number of manufacturing processes. These areas include material properties, processes and a systematic and logical sequence of manufacturing products created from raw materials.

Competency in the manufacturing area increases awareness of relationship between industry, society and the environment and how each of these domains affects another.

Intro to Metalworking

Cluster Area: Manufacturing

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: It is strongly recommended that Introduction to drafting or Introduction to Engineering Design be taken prior to registering for this class.

The Introduction to Metalworking curriculum is designed to engage students in learning about and producing products, which are made from a variety of metal materials. Students will learn how these processes along with new techniques affect our daily lives. Areas of welding, sheet metal, bench metals, CNC machining, and machine tooling are thoroughly studied. The class will focus on learning metal concepts and how to operate machinery. Students will also learn forming, separating, combining, and finishing

processes. Students will be responsible for purchasing materials for projects not required by the instructor. Evaluations will be through class discussions, written assignments, required lab projects, machine safety skills, and written/lab tests.

The student will:

- ☞ Demonstrate a competent safety level on production machinery and increase their skill level on metal machinery
- ☞ Demonstrate how to work with ferrous and non-ferrous materials
- ☞ Know careers in industry related to manufacturing and metalworking
- ☞ Demonstrate correct layout, measurement, and production of materials by following detail plans
- ☞ Apply manufacturing skills learned throughout the class to make students better problem solvers, consumers, and cooperative workers

Advanced Metalworking

Cluster Area: Manufacturing

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisite: Intro. To Metalworking

This advanced level course will study types of metals and metalworking processes beyond basic metalworking. Instruction will cover machine tooling, CNC machining, metal cutting, and advanced welding. The course consists of required projects. Evaluation includes class discussion, written assignments, lab projects, machine safety and written/practicum tests. Students will study career options related to the various machine tooling areas.

The student will:

- ☞ Set up and use precision machining equipment
- ☞ Understand the processes involved in metal casting by producing machineable casts from a match plate
- ☞ Measure parts using precision measurement tools such as micrometers or dial calipers
- ☞ Perform maintenance procedures on various lab equipment or cutting tools
- ☞ Develop Computer Numerical Code (CNC) programs to produce a usable product
- ☞ Master basic welding skills and understand types of advanced welding

Introduction to Woodworking

Cluster Area: Manufacturing

Grade 10, 11, 12

Elective Course

1-TERMS

Prerequisites: It is strongly recommended that Introduction to drafting or Introduction to Engineering Design be taken prior to registering for this class.

The Introduction to Woodworking curriculum is designed to engage students in learning about and producing products that are made from wood materials. Students will learn how these processes along with new techniques affect our daily lives. Areas of hand tools, machine safety, and basic machine operation are thoroughly studied. The class will focus on wood concepts, wood working processes, and producing different projects. Students will be responsible for purchasing materials for individual projects if not required by the instructor. Evaluations will be through class discussions, written assignments, required lab projects, machine safety skills, and written/lab tests.

The student will:

- ☞ Demonstrate a competent safety level on production machinery and increase their skill level on wood working machines
- ☞ Demonstrate how and where wood product materials are used in manufacturing
- ☞ Know the careers in industry related to manufacturing and woodworking
- ☞ Demonstrate correct layout, measurement, and production of materials by following detailed plans
- ☞ Apply manufacturing skills learned throughout the class to make students better problem solvers, consumers, and cooperative workers

Advanced Woodworking

Cluster Area: Manufacturing

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Introduction to Woodworking

The advanced woods course is designed to increase student skills in the woodworking area. Students taking this class will learn a variety of woodworking procedures and processes. Students are responsible for organizing, building and purchasing of an individualized project. (If students are unable

to acquire materials on their own, arrangements will be made to provide a similar experience with school provided materials but projects will not go home with students in this instance.) The individual project includes research, detailed plans, bill of materials, layout, assembly and finishing. Evaluation includes class discussion, written assignments, required lab projects, machine safety skills and written/practicum tests/final projects.

The student will:

- ☞ Master machinery safety and gain an appreciation for equipment
- ☞ Apply jigs and fixtures for machine operations
- ☞ Demonstrate proper measurement, calculating and layout procedures
- ☞ Draw or sketch desired work pieces along with formulating detailed bill of materials
- ☞ Understand and demonstrate the processes of changing raw materials into useful consumer goods

ENERGY, POWER AND TRANSPORTATION

Students examine sources and types of energy and common energy processing techniques, which include control, transmission and conversion of energy. A direct correlation of transportation and its dependency on energy and power systems will provide an opportunity for students to become technically competent in a variety of transportation processes. Students will study most transportation mediums and environments including land, air and water, and their effect on how society transports people and goods.

Energy, Power and Transportation Technology

Cluster Area: Energy, Power, and Transportation

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Intro. to Woodworking or Intro. to Metalworking

The exploration of alternative energy sources, emerging power control systems, transportation systems and existing energy sources is covered in this course. Students will complete a variety of problem-solving activities in the areas of mechanical energy, solar energy, hydraulics, pneumatics, wind power and internal combustion engines. Students will study small engines and an engine will be provided. Students will be

graded on labs, written activities, projects and written/lab tests.

The student will:

- ☞ Define and identify the different forms of energy and energy conversion
- ☞ Identify the different systems of controlling energy to produce usable power
- ☞ Identify alternative energy sources to fossil fuels
- ☞ Understand and identify current and future trends in transportation
- ☞ Troubleshoot, disassemble, reassemble and maintain an internal combustion engine

Research and Development

Cluster Area: All

Grade 11, 12

1-TERM

Elective Course

Prerequisites: Instructor Approval

The course is designed for those students who wish additional study beyond what is offered in each technical area. Students who take this course do so on a contract basis. Students will choose their area of interest and then contract with the instructor for requirements and grading. A portfolio of student's work is required beyond the basic contract requirements. Contracts may be obtained from the Counselor or instructor.

The student will:

- ☞ Master technical skills in one of the following areas of study:
Communications; Construction;
Manufacturing; Energy, Power and
Transportation; and Engineering
- ☞ Develop a portfolio showing technical skills and work capabilities
- ☞ Become self-driven and develop weekly and long term goals in order to accomplish contract requirements
- ☞ Explain career pathways in a cluster area of interest and develop a vision on how to successfully become part of this profession

PROJECT LEAD THE WAY

Course Title	10	11	12	One Term	Two Terms	Pre-requisite Required	Career Cluster
Principles of Engineering	X	X	X		X	Yes	Science/Technical
Introduction to Engineering and Design	X	X	X		X	Yes	Science/Technical
Civil Engineering and Architecture		X	X		X	Yes	Science/Technical
Digital Electronics	X	X	X		X	Yes	Science/Technical

College credit can be attained toward any Project Lead the Way affiliated school. The University of Iowa and Iowa State University are PLTW affiliates. University of Iowa college credit is attained by achieving a stanine score of 6 or higher on the PLTW national exam. That PLTW stanine scale is 1-9, with 9 being the highest score attainable. 3 hours of college credit will be awarded after meeting the above requirements and paying a fee. DMACC is given to all students registered in IED, POE, and DE once they have completed the course.

Introduction to Engineering Design

Grade 9, 10, 11, 12

Elective Course

2-TERMS (1 High School, 1 College)

Prerequisites: Enrollment in Algebra or Geometry

Dual Credit (DMACC) Course

This course teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using 3D solid modeling CADD software. Products will be designed individually and in a group environment. Students interested in design or engineering will benefit greatly from this course.

Principles of Engineering

Cluster: Engineering

Elective Course

2-TERMS (1 High School, 1 College)

Prerequisites: Introduction to Engineering Design

Strongly recommended: Algebra II

Dual Credit (DMACC) Course

This course helps students understand and focus on real world problems and solution not just design. Students will be provided with the opportunity to learn about various technological systems (simple machines, gears, energy, electricity, robots, bridge building, projectile motion, and materials testing among others). While IED is a prerequisite for this course, content within Principles of Engineering will have a **stronger emphasis** on the Engineering/math/science required and **less** on design and Autodesk inventor usage although it doesn't fully go away. Many activities in this class will be partner based. Students will learn about the concepts within class and then will be tasked with putting them into practice by building, constructing, and testing their

solutions using a variety of different materials and mediums.

The student will:

-  Develop increased knowledge and skill in design, modeling, optimization, engineering systems, technology/society interactions, and engineering ethics
-  Apply and refine a series of broad-based skills needed within the case study activities: communication; use of technical tools, resources and processes; measurement; and applying mathematics and science
-  Develop skills of learning cooperatively with others
-  Research engineering careers using a variety of media sources

ENGINEERING

Students will apply technological, scientific and mathematical principles to solve design, manufacturing and construction problems. Knowledge gained from all areas of academia is converged to brainstorm, research, plan, produce and present a well-organized and suitable solution. The engineering cluster provides a culmination of education, which challenges students' intellectual abilities and skills.

Digital Electronics

Cluster Area: Engineering

Grade 10, 11, 12

Elective Course

2-TERM (1 High School, 1 College)

Prerequisites: Algebra II or concurrent enrollment in Algebra II Highly

Recommended

Dual Credit (DMACC) Course

This course introduces students to applied digital logic, a key element of careers in engineering and engineering technology. This course explores the smart circuits found in watches, calculators, video games, and computers. Students use industry-standard computer software in testing and analyzing digital circuitry. Students design circuits to solve problems and use appropriate components to build their designs. Students use mathematics and science in solving real-world engineering problems. This course covers several topics, including:

-  Analog and digital electrical systems
-  The digital design process

- ☒ Combinational and sequential logic
- ☒ Number systems, Boolean Algebra, and circuit simplification
- ☒ Circuit simulating, prototyping, and building
- ☒ State machines and control systems

Civil Engineering and Architecture

99126, 99127

Cluster Area: Engineering

Grade: 11, 12

Elective Course

2-TERMS

Dual Credit (DMACC) Course

Prerequisites: Architectural Drawing, Introduction to Engineering, Principles of Engineering, Algebra II or concurrent enrollment in Algebra II.

The major focus of the Civil Engineering and Architecture™ (CEA) course is a long-term project that involves the development of a local property site. As students learn about various aspects of civil engineering and architecture, they apply what they learn to the design and development of this property. The course provides freedom to the teacher and students to develop the property as a simulation or to students to model the real-world experiences that civil engineers and architects experience when developing property.

The CEA course is intended to serve as a specialization course within the Project Lead

the Way® sequence. The course is structured to enable all students to have a variety of experiences that will provide an overview of both fields. Students work in teams, exploring hands-on projects and activities to learn the characteristics of civil engineering and architecture.

In addition, students use Revit, which is a state of the art 3D design software package, to help them design solutions to solve their major course project. Students learn about documenting their project, solving problems, and communicating their solutions to their peers and members of the professional community of civil engineering and architecture

ENGLISH DEPARTMENT

Course Title	10	11	12	One Term	Two Terms	Pre-requisite Required	Career Cluster
English Concepts		X	X		X	Yes	Arts/ Communication
English I	X	X	X		X	Yes	Arts/ Communication
English II	X	X	X		X	Yes	Arts/ Communication
English III		X	X		X	Yes	Arts/ Communication
College Prep English			X		X	Yes	Arts/ Communication
Honors English II	X				X	Yes	Arts/ Communication
AP Language & Composition		X			X	Yes	Arts/ Communication
AP Literature & Composition			X		X	Yes	Arts/ Communication
Creative Writing	X	X	X	X			Arts/ Communication
Creative Writing II	X	X	X	X		Yes	Arts/ Communication
Myths & Legends	X	X	X	X			Arts/ Communication
Stories Matter		X	X	X			Arts/ Communication
Introduction to Mass Media	X	X	X	X			Arts/ Communication
Speech I	X	X	X	X			Social/Personal
Speech II	X	X	X	X		Yes	Social/Personal
Speech III		X	X	X		Yes	Social/Personal
Publications I	X	X	X	X		Yes	Social/Personal
Publications II	X	X	X	X		Yes	Social/Personal

English Concepts

Grade 11, 12

Elective Course (fulfills English requirement)

2-TERMS

Prerequisites: Grade 11 or 12 or English II

This course integrates the study of composition and literature by reviewing English II concepts and introducing English III concepts. In the area of writing, skills in usage and mechanics are reviewed with emphasis on practical application to the student's own writing. Students write well-developed paragraphs and multi-paragraph essays. Course work in literature includes a variety of informational texts, novels, and plays. Reading and vocabulary skills are emphasized.

The student will:

-  Write well-developed paragraphs
-  Write multi-paragraph essays
-  Develop reading and vocabulary skills
-  Be exposed to various texts (informational, novels, and plays)

English I - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: None

This course includes the study of grammar, compositions, literature and vocabulary. Grammar skills are integrated into the study of composition. Course work in literature includes short stories, poetry, a Shakespearean play, Greek mythology and a novel. Emphasis is placed on building vocabulary and learning to define, identify and write about common elements of fiction.

The student will:

-  Write various types of paragraphs
-  Read short stories, novels, a drama and an epic for understanding and appreciation
-  Expand vocabulary skills
-  Recognize common literary elements
-  Develop mechanics skill

English II - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: English I

This course integrates the study of composition and literature. In the area of writing, skills in usage and mechanics are reviewed with emphasis on practical application to the student's own writing. Students write well-developed paragraphs and multi-paragraph essays. Course work in literature includes a variety of informational texts, novels, and plays. Reading and vocabulary skills are emphasized.

The student will:

-  Write multi-paragraph essays (narrative, argument, and informative/expository)
-  Expand vocabulary skills
-  Enhance grammar skills
-  Read a variety of literature with application of literary elements

English III - RAI

Grade 11, 12

Elective Course

2-TERMS

Prerequisites: English II

This course surveys primarily American literature in multiple styles/genres: essays, poems, short stories, novels, and plays. Students will compose in a variety of genres including informative, narrative, and argument. Additionally, students will be asked to identify and interpret connections between the literature, what we value as Americans, and what we value about ourselves as contemporary Americans.

The student will:

-  Read and study primarily American literature according to literary and historical movements
-  Write various multi-paragraph essays including informative, narrative, argument, and literary analysis, using appropriate mechanics and citation according to MLA guidelines

- ☞ Expand vocabulary skills
- ☞ Apply literary elements

College Prep English - RAI

Grade 12
Elective Course
2-TERMS

Prerequisites: English III

This course will prepare students for introductory college-level literature and writing experiences. It emphasizes the fundamentals of essay writing as preparation for a freshman composition class. Literature study in both classic and modern British literature will provide a background for college literature and humanities classes.

The student will:

- ☞ Refine basic essay development (form, organization, content and mechanics) to college-level competencies
- ☞ Read, discuss and write about classic and modern British literature
- ☞ Apply MLA format in documented writing
- ☞ Expand vocabulary skills

Honors English II - RAI

Grade 10
Elective Course
2-TERMS

Prerequisites: Honors I or teacher recommendation

Honors English provides an enrichment program in language arts and the humanities. Honors English emphasizes three areas of English study: literature, vocabulary, and writing.

The student will:

- ☞ Master grammar skills
- ☞ Write multi-paragraph essays analyzing literature
- ☞ Read American and British literature
- ☞ Apply literary elements to literature
- ☞ Expand vocabulary skills
- ☞ Begin rhetorical analysis and argument skills

AP Language and Composition -- RAI

Grade 11
Elective Course
2-TERMS

Prerequisites: Honors English II or English III with teacher recommendation based on writing skills.

This is a college-level rhetoric course. The course includes analysis of the rhetorical techniques of professional writers in a variety of genres. The theory and expression of argument is also studied. The course focuses mainly on non-fiction prose; however, a representative sample of American literature is also included. Students interested in taking the AP test will have an opportunity to take the exam when the College Board schedules it in May.

The student will:

- ☞ Develop perceptive reading through close analysis of texts
- ☞ Learn to analyze the purpose, main ideas, tone and rhetorical devices in texts
- ☞ Develop complexity of thought through oral and written expression
- ☞ Attain a mature writing style characterized by depth of analysis, development of ideas, clarity of expression and the emergence of the writer's own voice
- ☞ Develop and practice strategies for writing the free response essay and for answering the objective questions on the AP Language and Composition exam

AP Literature and Composition - RAI

Grade 12
Elective Course
2-TERMS (1 High School, 1 College)

Prerequisites: AP Language or College Prep English with teacher recommendation based on writing skills.

Dual Credit (DMACC) Course

This is an advanced-level literature course, including a survey of representative works from various periods in American, British, & World literature. Written work covers both academic and exploratory writing. Students interested in taking the AP test will have an opportunity to take the exam when the College Board schedules it in May.

The student will:

- ☞ Develop perceptive reading through close analysis of texts, representing various literary genres

- ☞ Attain a mature writing style by preparing essays about the texts (applying MLA format in documented writing)
- ☞ Understand the elements of poetry as they enhance the meaning of a poem
- ☞ Participate in thoughtful class discussions of literature and life
- ☞ Develop and practice procedures for answering objective and subjective items such as those appearing on the AP Literature and Composition exam

Creative Writing - RAI

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisite: None

Recommended to be taken after English III

Students will study the different forms of writing: poems, essays and short stories. They will then draw on personal experiences and use their imaginations to create many kinds of written self-expression in both prose and poetry. They will utilize the writing process including prewriting, conferencing, and the revision stage. Some study of mechanics will also be incorporated as it applies to the student's writing.

The student will:

- ☞ Study different forms of writing
- ☞ Produce a variety of written expression
- ☞ Write multi-paragraph stories

Creative Writing II - RAI

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisite: Creative Writing

Students will continue the study the main genres (script writing, poetry, and narrative) from Creative Writing I with more depth, focusing specifically on an extended project within one of these genres. This course will be a workshop style course, emphasizing the importance of the student's ability to monitor individual progress, set and reflect on goals, and collaborate with peers. Students will thoroughly utilize the writing process, creating multiple drafts and completing thorough revisions, to create a final capstone piece.

The student will:

- collaborate with the teacher (and his/her writing cohort) to create an individualized learning plan
- create a capstone piece of publish-worthy quality
- reflect on, practice, and analyze various writing techniques through the use of creative writing mentor pieces

Myths & Legends - RAI

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

Students will read, discuss and write about various world myths and legends. They will examine how myths and legends reflect the various cultures that produced them.

The student will:

- ☞ Read, discuss and write about various world myths, legends and other folklore
- ☞ Examine how myths, legends and folklore reflect different cultures
- ☞ Reflect knowledge gained through creative projects

Stories Matter

Grade 11, 12
Elective Course
1-TERM

Prerequisites: None

In this course, students will analyze a variety of stories (ones they read, ones they watch, ones they write) in a variety of genres (including, but not limited to, narrative, informative, and argument) as a medium for exploring concepts such as self-awareness, justice, empowerment, communication, creativity, etc.

The student will:

- read, discuss and write a variety of texts in a variety of formats and lengths based on a central concept or theme that will shift with student needs and interests
- focus on the interconnectedness and divergence of stories within the course concept
- advance analysis skills

Introduction to Mass Media

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

***Not all colleges/universities recognize this course as a Language Arts credit.*

Students will study all aspects of mass media: newspapers, magazines, radio, TV, social media/internet and motion pictures. They will learn to examine critically the role of the mass media in today's society

The student will:

- ☞ Study various types of mediums such as television, radio, film and print
- ☞ Learn terms used within the media industry
- ☞ Understand how mass media affects society
- ☞ Write for various journalistic purposes

Oral Communications (DMACC SPC 101)

Grade 11, 12

Elective Course

2-TERMS

Prerequisites: None

Most college degrees require a course in Public Speaking. Speech Communications (or other title) is a 2-term course to fulfill the WHS graduation requirement and college speech course requirement as DMACC credits (3).

- Craft and present speeches for a variety of purposes
- Understand interpersonal communication, roles in groups, and problem-solving
- Use audience analysis to adapt support materials in speech writing
- Practice listening and identifying main ideas, elements of argument, and speaker purpose
- Apply communication process models to own communication experiences

Speech - RAI

Grade 10, 11, 12

Required Course

1-TERM

Prerequisites: None

This is an introductory course in the fundamentals of communication and public speaking. Communication principals like listening, perception, paralanguage, are studied and students will apply understanding to own communication styles for goal setting and improved intrapersonal communication. Speech presentations include demonstration, narrative, informative, and oral interpretation.

The student will:

- ☞ Understand communication process
- ☞ Analyze own communication and communication scenarios
- ☞ Create own study of communication
- ☞ Identify own signs performance anxiety
- ☞ Set goals and reflect on own performances
- ☞ Create speeches with clear main idea and support

Speech II - RAI

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Speech I

This course builds on the fundamentals of Speech I with emphasis on speech writing and the impact on the audience. Students study the effectiveness of famous speeches and use that understanding to get desired results in own presentations.

The student will:

- ☞ develop precise language through speech writing and revision
- ☞ develop techniques of persuasion using logical argument
- ☞ develop the ability to speak effectively in a variety of prepared or spontaneous situations
- ☞ analyze audience
- ☞ measure effectiveness of speeches
- ☞ communicate /problem solve in groups

Speech III - RAI

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisite: Speech I, Speech II

This course builds on the fundamentals of Speech I and Speech II but with emphasis on writing argument. Focus is on using research and word choice to build a persuasive case. Debate styles of Lincoln Douglas and policy are practiced.

The student will:

- ☞ Learn to develop techniques of argument in speaking
- ☞ Learn to debate issues of value and of policy
- ☞ Learn to communicate and work within a group to advocate a legal position in a criminal or a civil case
- ☞ Develop the ability to speak effectively in a variety of prepared or spontaneous situations
- ☞ Develop an appreciation for ordered argument in a democratic society

Publications I - RAI

Grade 10, 11, 12

Elective Course

4-TERMS (Offered during 1A)

Prerequisites: Students must have completed or enrolled in English II.

This course is intended for students with average to strong marketing skills. The class covers journalism, photography with a digital camera, and layout design of newspapers using the InDesign program on a Macintosh computer. Students will conduct interviews and write articles for the Arrowhead. Students taking Publications I will work on a deadline. Grading in this class reflects a student's ability to produce quality work, meeting a specific deadline. Students must have successfully completed or be enrolled English II to take this class.

Successful application is a requirement for registration. Students interested in applying for Publications I need to obtain an application from their counselor and return it to the instructor within the time limits given by the instructor.

The student will:

-  Conduct interviews
-  Write articles
-  Design newspaper layouts
-  Use a digital camera

Publications II - RAI

Grade 10, 11, 12

Elective Course

4-TERMS (Offered during 1B)

Prerequisites: Students must have completed or be enrolled in English II. It is strongly recommended that the student have computer background.

This course is intended for students with average to strong marketing skills. The class covers journalism, photography, Desktop Publishing (using a Macintosh computer), and layout design. Students will design and complete yearbook pages. Students taking Publications II will work on a deadline. Grading in this class reflects a student's ability to produce quality work, meeting a specific deadline

Successful application is a requirement for registration. Students interested in applying for Publications II need to obtain an application from their counselor and return to the instructor within the time limits given by the instructor.

The student will:

-  Design yearbook layouts
-  Write yearbook articles
-  Conduct interviews
-  Learn eDesign and use it to design layouts
-  Use a digital camera

THEATRE

Course Title	10	11	12	One Term	Pre-requisite Required	Career Cluster
Theatre Arts I	X	X	X	X		Social/ Personal
Theatre Arts II	X	X	X	X	Yes	Social/ Personal
Theatre Arts III	X	X	X	X	Yes	Social/ Personal
Technical Theatre I	X	X	X			Social/ Personal
Technical Theatre II	X	X	X		Yes	Social/ Personal
Technical Theatre III	X	X	X		Yes	Social/ Personal

Theatre Arts I

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

This course is a cross-section of theatre arts experiences. We will study plays for their social relevance and historical basis. Students will perform, analyze, create examples of theatre.

The student will:

- ☞ Read texts from American Theatre
- ☞ Compare different character types
- ☞ Use physical and vocal techniques to strengthen acting skill
- ☞ Work together to create a scene
- ☞ Study various theatrical styles
- ☞ See live theatre and write a critique
- ☞ Practice some basic technical theatre elements
- ☞ Participate in various theatre games and activities

Theatre Arts II, III, IV

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Theatre Arts I

This Course will advance study of theatre in multi-leveled classroom where students use different acting techniques, practice directing, and continue study of various playwrights. Activities and units of study will vary each year so students can continue developing without repeating experiences.

Technical Theatre I, II, III

Grade 10, 11, 12

Elective Course

2 Terms

Prerequisites: Interest in theatre

This course integrates design and practical application to create sets and costumes for our theatrical productions. In class, student will analyze scripts, learn set and costume design, and use principals of lighting and sound. Then they will use those designs and principals in set building, costume construction, and all other technical aspects of the show.

The student will use the following 21st century skills:

- ☞ Analysis of scripts and researched information
- ☞ Design possible plans for use in designing the show
- ☞ Use power tools, sewing machines, and other tools for creating sets and costumes
- ☞ Problem solving and troubleshooting
- ☞ Adapting to budgets and time constraints
- ☞ Collaboration on tasks
- ☞ Leadership as crew leaders working on specific aspects of the show

MATHEMATICS DEPARTMENT

Course Title	10	11	12	One Term	Two Terms	Pre-requisite Required	Career Cluster
Algebra I	X	X	X		X	Yes	Science/ Technical
Math Concepts	X	X	X		X	No	Science/ Technical
Basic Geometry	X	X	X		X	Yes	Science/ Technical
Formal Geometry	X	X	X		X	Yes	Science/ Technical
Algebra II	X	X	X		X	Yes	Science/ Technical
Foundations of Algebra II, Part 1	X	X	X		X	Yes	Science/ Technical
Foundations of Algebra II, Part 2	X	X	X		X	Yes	Science/ Technical
Consumer Math		X	X		X	No	Science/ Technical
Finite Math	X	X	X		X	Yes	Science/ Technical
Trigonometry	X	X	X	X		Yes	Science/ Technical
Pre-Calculus	X	X	X		X	Yes	Science/ Technical
AP Calculus	X	X	X		X	Yes	Science/ Technical
Basic Statistics		X	X	X		No	Science/ Technical
Probability & Statistics	X	X	X	X		Yes	Science/ Technical
AP Statistics	X	X	X		X	Yes	Science/ Technical

Consumer Math

Grade 11, 12
Elective Course
2-TERMS

Prerequisites: Math Concepts or Algebra

This course focuses on the basic skills necessary to function in everyday life situations. Areas of study include finances, real estate, taxes and insurance.

The student will:

- ☞ Know how to compute issues dealing with wages and the deductions that are included
- ☞ Know how to perform all aspects associated with checking and savings accounts
- ☞ Know how to perform all aspects associated with credit cards, personal loans and buying a house
- ☞ Know how to compute the costs associated with buying, leasing or renting an automobile

Algebra I - RAI

Grade 10, 11, 12
Elective Course
2-TERMS

Prerequisites: Pre-Algebra or consent of instructor

This course is designed as a college preparatory course to continued studies in mathematics and science. Areas of study include solving linear equations and inequalities, quadratic equations and systems of equations using the real numbers. Also included is graphing (both on a number line and in a coordinate plane), factoring, and working with functions. Problem solving will occur with all the above topics.

The student will:

- ☞ Use order of operations to evaluate phrases and perform the four basic operations with rational numbers
- ☞ Solve, graph and write linear equations and inequalities
- ☞ Translate verbal sentences and apply the problem-solving techniques to solve real life problems
- ☞ Perform the four basic operations and factor polynomials and solve quadratic equations

- ☞ Use proportions and systems of equations to solve word and numeric problems

Math Concepts II

Grade 10, 11, 12
Elective Course
2 – TERMS

Prerequisites: None

Math Concepts II is designed as a prerequisite course for Algebra I and Consumer Math. Math Concepts II improves a student's foundational skills and prepares them for Algebra I or Consumer Math. It is for the student who needs additional work on basic mathematical concepts and fundamental algebraic ideas.

The student will:

- ☞ Use order of operations to evaluate expressions and perform four basic operations with rational numbers
- ☞ Write, compare, and solve ratios and proportions
- ☞ Solve one- and two-step equations
- ☞ Identify and graph points in the coordinate plane
- ☞ Use equations, tables, and graphs to solve problems

Basic Geometry

Grade 10, 11, 12
Elective Course
2-TERMS

Prerequisites: Algebra I

Several mathematical concepts are learned by experimentation and construction.

The student will:

- ☞ Know the terms and symbols used in geometry
- ☞ Learn the logical organization of inductive and deductive reasoning to prove congruence and/or similarity of geometric figures

- ☞ Know and be able to use formulas to find the distance between two points and perimeters and areas of two-dimensional figures
- ☞ Know how to set up and solve a proportion
- ☞ Learn techniques for drawing realistic looking geometric figures
- ☞ Know the names and measures of angles formed by a transversal cutting parallel lines
- ☞ Know how to find lengths of sides and measures of angles of right triangles
- ☞ Know how to use a straightedge and compass to construct various geometric figures

Formal Geometry - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: Algebra I

This course is designed for college-bound students who intend to enroll in Algebra II. It uses both plane and spatial objects to accomplish a sound development of logic. Students are given frequent opportunities to use definitions, postulates and theorems to formulate proofs. A deep study of triangles and other polygons is included. A short time is spent on straight-edge and compass constructions.

The student will:

- ☞ Use coordinate geometry to find midpoints and lengths of segments and slopes of lines
- ☞ Recognize and apply the postulates, theorems, definitions and algebraic techniques to find segment length and angle measurements in congruent triangles, similar triangles, and quadrilaterals
- ☞ Find measures of angles, arcs and segments involving circles
- ☞ Find the areas, circumferences and perimeters of various plane figures
- ☞ Organize theorems, postulates and definitions into logical sequential two-column proofs

Algebra II - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisite: Formal Geometry

Algebra II enhances the problem-solving process started in Algebra I by continuing to develop the basic and advanced properties of functions and algebra. Algebra II gives students the opportunity to model real data by understanding and applying the algebraic concepts of equations and inequalities, basic relations and functions, polynomials, and exponential functions. Students in Algebra II are able to describe the world around them by utilizing estimation, technology, and graphing techniques. Algebra II is designed to meet part of the three-year entrance requirements for mathematics to most colleges. Algebra II provides a valuable background for those entering technical fields and also serves as a useful course for other college-bound students.

The student will:

- ☞ Solve linear equations and inequalities
- ☞ Graph and evaluate linear equations and functions
- ☞ Use systems of linear equations and inequalities to solve problems
- ☞ Solve and graph quadratic functions
- ☞ Evaluate, graph, and solve polynomial equations and functions
- ☞ Simplify radical expressions and solve equations involving radicals
- ☞ Graph and solve exponential and logarithmic equations
- ☞ Simplify rational expressions and graph and solve rational functions and equations
- ☞ Evaluate trigonometric functions and inverse trigonometric functions

Foundations of Algebra II, Part 1 and Part 2 – - RAI

Grade 10, 11,12
Elective Course
4-terms

This course is designed to cover some topics found in the 2-term algebra II curriculum with opportunities for additional review and practice built into the daily lessons. It is for the student who needs self-confidence in mathematics and more emphasis on fundamental algebraic ideas. It is intended to be equivalent to the standard second-year algebra course. Meets same requirements for college acceptance.

Part 1

Prerequisites: Algebra I, Basic Geometry or Formal Geometry

The student will:

- ☒ Solve linear and absolute value equations and inequalities
- ☒ Graph and evaluate linear equations and functions
- ☒ Use systems of linear equations and inequalities to solve problems
- ☒ Use matrices to organize numerical data
- ☒ Solve and graph quadratic functions and inequalities
- ☒ Evaluate, graph, and solve polynomial equations and functions

Part 2

Prerequisites: Foundations of Algebra II (part 1)

The student will:

- ☒ Simplify radical expressions and solve equations involving radicals
- ☒ Graph and solve exponential and logarithmic equations
- ☒ Simplify rational expressions and graph and solve rational functions and equations
- ☒ Evaluate trigonometric functions and inverse trigonometric functions

Trigonometry - RAI

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: Algebra II (B or higher recommended)

This course would explore in-depth applications of trigonometry in numerous chosen fields of study. Students will become more aware of the uses of trigonometry as they relate to the fields of astronomy, surveying, navigation, construction, geography, physics, engineering, chemistry, and calculus.

The student will:

- ☒ Measure angles in radians and degrees
- ☒ Evaluate trigonometric functions
- ☒ Solve triangles and find the area of triangles
- ☒ Graph trigonometric functions
- ☒ Determine the amplitude, period, and phase shift for a graph
- ☒ Evaluate inverse trigonometric functions
- ☒ Verify trigonometric identities
- ☒ Solve trigonometric equations

Pre-Calculus - RAI

Grade 10, 11, 12
Elective Course
2-TERMS

Prerequisites: Trigonometry
Dual Credit (DMACC) Course

Recommended: C or higher in Trigonometry

This course is a culmination in the process of acquiring the fundamental skills of algebra, geometry and trigonometry and is designed to meet the needs of the college-bound student. General areas of study include functions, graphs, and their applications. Most of the time is spent on the polynomial, exponential, logarithmic, and trigonometric functions. Equations and graphs of the conic sections are also included. Some time is spent studying vectors, matrices, and limits.

The student will:

- ☞ Graph linear, polynomial, radical, trigonometric, logarithmic, and exponential functions
- ☞ Study the nature of graphs and various transformations
- ☞ Solve systems of equations and inequalities by utilizing algebraic algorithms, matrices, and graphing
- ☞ Study trigonometric identities before applying them to solve trigonometric equations
- ☞ Transfer the concepts of the rectangular coordinate system to the polar coordinate plane
- ☞ Graph and recognize conic sections by their equations
- ☞ Explore limits

AP Calculus AB - RAI

Grade 10,11,12

Elective Course

2-TERMS

Prerequisites: Pre-Calculus (B or higher recommended)

Dual Credit (DMACC) Course

This course contains coverage of all topics required for the AP Calculus AB exam, and is designed for prospective mathematics majors as well as for students whose primary interests are in engineering, physics, business or the life sciences. Applications include approximations by differentials, work, max./min. and solids of revolution problems. Techniques of differentiation and integrations are studied throughout the course.

The student will:

- ☞ Recognize functions when described graphically, numerically, in tables and in words
- ☞ Know how to graph elementary functions, including algebraic, exponential, logarithmic and trigonometric functions
- ☞ Know the relationship of the graphs of functions, their first derivatives and their second derivatives
- ☞ Know the procedures for finding derivatives and anti-derivatives of algebraic and transcendental functions
- ☞ Know how to find maximum and minimum functional values of a given domain
- ☞ Know how to determine limits, continuity and differentiability of functions

- ☞ Know how to interpret the meaning of the integral
- ☞ Know how to apply the fundamental theorem of integral calculus to evaluate integrals
- ☞ Know how to apply integration and differentiation techniques to solve real world problems

AP Calculus BC (Calculus II) - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: AP Calculus AB, ALEKS SCORE 30

Dual Credit (DMACC) Course

The course contains coverage of all topics required for the AP Calculus BC exam, and is designed for students whose primary interests are mathematics, engineering, physics, business or life sciences. The course will include all topics from AP Calculus AB, as well as additional topics listed below:

The student will:

- ☞ Analyze planar curves including those given in parametric form, polar form, and vector form, including velocity and acceleration
- ☞ Find numerical solution of differential equations using Euler's method
- ☞ Use L'Hospital's Rule, including its use in determining limits and convergence of improper integrals and series
- ☞ Compute derivatives of parametric, polar, and vector functions
- ☞ Study a variety of applications of integrals
- ☞ Take antiderivatives by substitution, parts, and simple partial fractions (nonrepeating linear factors only)
- ☞ Find improper integrals (as limits of definite integrals), as well as study applications of antidifferentiation
- ☞ Solve logistic differential equations and using the in modeling

- ☞ Find numerical approximations to definite integrals
- ☞ Use of Riemann sums (using left, right, and midpoint evaluation points) and trapezoidal sums to approximate definite integrals of functions represented algebraically, graphically, and by tables of values
- ☞ Study series of constants, including decimal expansion, geometric series with applications, harmonic series, alternating series with error bound
- ☞ Apply the ratio test for convergence and divergence
- ☞ Compare series to test for convergence or divergence
- ☞ Know how to use Taylor polynomial approximation, Maclaurin series and the general Taylor series centered at $x=a$, Maclaurin series for the functions e^x , $\sin x$, $\cos x$, and $1/(1-x)$
- ☞ Be comfortable using formal manipulation of Taylor series and shortcuts to computing Taylor series, including substitution, differentiation, antidifferentiation, and the formation of new series from known series
- ☞ Use functions defined by power series, as well as study radius and interval of convergence of power series
- ☞ Apply Lagrange error bound for Taylor polynomials

Finite Math - RAI

Grades 10, 11, 12
Elective Course
2-TERMS

Prerequisites: Algebra II, ALEKS SCORE 30
Dual Credit (DMACC) Course

This is a general education course in practical mathematics for those students not majoring in mathematics or science. This course will include such topics as set operations and applications, methods of counting, probability, systems of linear equations, matrices, geometric linear programming and an introduction to Markov chains. The use of a graphing calculator is required.

The student will develop skills involving:

- ☞ Slopes and Equations of Lines
- ☞ Linear Functions and Applications
- ☞ The Least Squares Line

- ☞ Solution of Linear Systems by the Echelon Method
- ☞ Solution of Linear Systems by the Gauss-Jordan Method
- ☞ Addition and Subtraction of Matrices
- ☞ Multiplication of Matrices
- ☞ Matrix Inverses
- ☞ Graphing Linear Inequalities
- ☞ Solving Linear Programming Problems Graphically
- ☞ Applications of Linear Programming
- ☞ Slack Variables and the Pivot
- ☞ Maximization Problems
- ☞ Minimization Problems; Duality
- ☞ Simple and Compound Interest
- ☞ Future Value of an Annuity
- ☞ Present Value of an Annuity; Amortization Sets
- ☞ Applications of Venn Diagrams
- ☞ Introduction to Probability
- ☞ Basic Concepts of Probability
- ☞ Conditional Probability; Independent Events
- ☞ Bayes' Theorem
- ☞ The Multiplication Principle; Permutations Combinations
- ☞ Probability Applications of Counting Principles
- ☞ Binomial Probability
- ☞ Probability Distributions; Expected Value
- ☞ Basic Properties of Markov Chains
- ☞ Absorbing Markov Chains
- ☞ Strictly Determined Games
- ☞ Mixed Strategies
- ☞ Game Theory and Linear Programming

Basic Statistics

Grade 11, 12
Elective Course
1-TERM

Prerequisites: None

This course will provide an introduction to statistics and probability and how they are applied to the real world. This course satisfies the graduation requirement for the graduating classes of 2016 and beyond.

Students will:

- ☒ Apply common vocabulary that is used in basic statistics
- ☒ Analyze graphs and distributions
- ☒ Find values that describe the data, such as measures of central tendency and measures of variability and measures of position
- ☒ Find basic probability using multiplication and addition rules
- ☒ Calculate probabilities using normal distributions

Probability and Statistics - RAI

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: Algebra II

This course will provide an introduction to statistics and probability, and how they are applied to the real world. The general areas of study will include analyzing data, graphic displays, probability rules, counting principles, simulations, random variables, normal distributions, and regression analysis. The intent of this course is to help prepare the student for college and for further study in mathematics.

The student will:

- ☒ Represent data in graphical displays
- ☒ Calculate central measures and measures of position
- ☒ Use counting principles
- ☒ Perform probability simulations
- ☒ Perform random sampling
- ☒ Know how to use statistical inference to make decisions
- ☒ Calculate probabilities using binomial or normal distributions

Advanced Placement Statistics - RAI

Grade 10, 11, 12

Elective Course

2 Terms

Prerequisite: Algebra II

Dual Credit (DMACC) course

This course is a college freshman level course offered at Waukee High School. This course offers students an opportunity to earn college math credit in addition to or instead of taking AP Calculus.

- ☒ AP Statistics will introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will be exposed to four broad conceptual themes:
- ☒ Exploring Data: Describing patterns in data and departures from patterns
- ☒ Sampling and Experimentation: Planning, designing, and conducting a study or experiment
- ☒ Anticipating Patterns: Exploring random phenomena using probability and simulation
- ☒ Statistical Inference: Estimating population parameters and testing hypotheses

Students who successfully complete the course may receive college credit through the AP Statistics examination or directly from DMACC as a concurrent credit course. AP Statistics corresponds to MAT 157 Elementary Statistics at DMACC. Students may earn 4 credits upon successful completion of both terms.

MUSIC DEPARTMENT

Course Title	Course #	10	11	12	One Term	Four Terms	CO-requisite Required	Career Cluster
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Instrumental Music

10 th Band	46116 46117 46118 46119	X				X		Arts/ Communication
11 th , 12 th Band	46060 46061 46065 46066		X	X		X		Arts/ Communication
Band Music	46062 46063 46067 46068	X	X	X		X	Yes	Arts/ Communication

Vocal Music

Bella Voce or Warrior Chor	46105 46106 46107 46108	X				X		Arts/ Communication
Intermezzo	46092 46093 46094 46095		X	X		X		Arts/ Communication
A Cappella	46080 46085 46086 46087	X	X	X		X	Yes	Arts/ Communication
Cantate	46096 46097 46098 46099	X	X	X		X	Yes	Arts/ Communication
Mannerchor (Bass Clef)	46090 46091 46101 46102	X	X	X		X	Yes	Arts/ Communication

Music History/Theory	26100	X	X	X	X		Pre-Requisite Yes	Arts/ Communication
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INSTRUMENTAL MUSIC

Grade 10, 11, 12
Elective Course
4-TERMS

Prerequisites: None

Instrumental music is scheduled daily and includes the following:

10th Band – 46116, 46117, 46118, 46119 –

The concert band performs at 3-5 home concerts every year plus state large group contest in the spring. All students are encouraged to participate in various honor bands and a solo and ensemble contest. The principles of musicianship are taught as they relate to intonation, phrasing, tone, color, balance and blend.

11th & 12th Band—46060, 46061, 46065, 46066 –

****Students should register for 11/12 Band.*

Following auditions they will be place in one of the following ensembles.

11-12 Symphonic Band—this ensemble is open to all 11th and 12th grade instrumental students. The ensemble performs at 3-5 home concerts every year as well as state large group in the spring. Students are encouraged to participate in various honor bands and solo and ensemble contests. The principles of musicianship are taught as they relate to intonation, phrasing, tone, color, balance, and blend.

11-12 Wind Symphony—this is an auditioned group consisting of approximately 45 students. This top concert ensemble performs at 3-5 home concerts as well as state large group in the spring. Advanced literature will be explored and students will be exposed to a wide variety of wind band literature. Students will also be encouraged to participate in honor bands and solo and ensemble festivals. Advanced levels of musicianship will be taught and applied in this group.

Marching Band – 46060, 46061, 46065, 46066 –

All band members participate in the Waukee Warrior Regiment. This group meets during the fall and spring marching season. In addition to performing at all home football games, the marching band attends out-of-town performances in the fall. The marching band will participate in the Iowa High School Music Association's state marching band contest and may also perform at many local and regional band days and parades.

Duplication of personnel may occur in some cases with performance responsibilities being split. Auditions will occur in late September. Please note that concert band membership is required of all jazz band members.

The student will:

- ☒ Participate in various performance ensembles
- ☒ Enhance solo and small ensemble training and performance
- ☒ Enhance a knowledge of basic musicianship
- ☒ Enhance and improve band skills dealing with winds and percussion
- ☒ Demonstrate a minimum performance expectation at the high school level
- ☒ Comprehend music in various cultures and know the historical background of the work
- ☒ Be aware of the value of music as a life skill
- ☒ Develop music through computer based instruction

Band/Music – 46062, 46063, 46067, 46068

Band/Music is an extension of the band period. Rehearsal techniques are expanded upon. Supplemental music is prepared and sight-reading skills are developed. We also explore different musical styles and do some work with composers and current events in music. Students are required to be enrolled in 11-12 Band.

VOCAL MUSIC

Grade 10, 11, 12
Elective Course
4-TERMS

Prerequisites: None

The vocal music department consists of several choirs. Enrollment is open to all High School students. Students involved in vocal music will be able to demonstrate correct singing techniques and skills; exhibit proper rehearsal and concert etiquette; gain a greater independence in performing

music; as well as singing a wide variety of choral repertoire.

Cantate – 46096, 46097, 46098, 46099

This ensemble consists of all treble voice students in grades 10-12 who are **not** enrolled in instrumental music. Advanced study of vocal pedagogy related specifically to the treble voice will be experienced in detail. Integration of solfege and music literacy skills will also be implemented through a varied repertoire. Students are required to be enrolled in either Intermezzo or A Cappella.

Mannerchor (Bass Clef)– 46090, 46091, 46101,

46102 This ensemble consists of all bass clef voice students in grades 10-12 who are **not** enrolled in instrumental music. Advanced study of vocal pedagogy related specifically to the bass voice will be experienced in detail. Integration of solfege and music literacy skills will also be implemented through a varied repertoire. Students are required to be enrolled in either Intermezzo or A Cappella.

Bella Voce/Warrior Chor (Chorale

Treble/Bass)- 46105, 46106, 46107, 46108

This is an ensemble open to all 10th grade students. Study of singing techniques and skills, focusing on sound unification, intonation and vocal independence will be explored and discussed, through a wide variety of literature. Solfege and music literacy will be explored in detail. Chorale students are eligible and encouraged to participate in other musical opportunities outside of the school day and typically participate in at least one required performance each term.

Intermezzo – 46092, 46093, 46094, 46095

This is an ensemble open to all grades 11-12. Additional 10th grade bass clef students will be used to create a balanced ensemble. Further study of singing techniques and skills, focusing on sound unification, intonation, vocal independence and stage presence will be explored and discussed, through a wide variety of literature. Study in solfege and music literacy will continue.

Intermezzo students are eligible and encouraged to participate in other musical opportunities outside of the school day and typically participate in at least one required performance each

A Cappella – 46080, 46085, 46086, 46087

This is an auditioned ensemble open to all students grades 10-12 who elicit a mature vocal tone and

basic music literacy skills. Students in this ensemble participate in an intensive and highly rewarding musical experience. In depth study of music from each time period of musical history will be explored, including multi-cultural selections from around the world. Vocal production, independence, and musical precision will be explored in detail with deliberate emphasis on unaccompanied singing. This ensemble tours to a variety of destinations. A Cappella students are eligible and encouraged to participate in other musical opportunities outside of the school day, participate in at least one required performance each term and are the featured curricular ensemble for the annual production of “*Festival of Peace*”.

Music History/Theory

Grade 10, 11, and 12

Elective Course

1-TERM

Prerequisites: 2 terms of Vocal and/or Instrumental Music; or approval of director pending previous musical experience

This course is designed to give the students the necessary fundamentals and historical background for college study in music. Stylistic characteristics, major composers, and monumental musical works are studied from historical periods. Note reading, scales, intervals, and composition will be explored in detail. Students will know and understand how music is constructed; be able to read and understand written music; identify specific characteristics of music by historical placement; and identify and contrast major historical figures in music.

PHYSICAL EDUCATION DEPARTMENT

Course Title	10	11	12	One Term	Two Terms	Pre-requisite Required	Career Cluster
Health I	X	X	X	X			Social/ Personal
Health II	X	X	X	X		Yes	Social/ Personal
Intro to Strength Training	X	X	X	X			Social/ Personal
Peer Assisted Learning (PAL)		X	X	X			Social/ Personal
Advanced Strength Training	X	X	X	X			Social/ Personal
Team Sports	X	X	X	X			Social/ Personal
Individual Sports	X	X	X	X			Social/ Personal
Warrior Fit	X	X	X	X			Social/ Personal
Lifeguarding		X	X	X		Yes	Social/ Personal

Health I (Same as Health 9)

Grade 10, 11, 12

Required Course

1-TERM

Prerequisites: None

This comprehensive course introduces students to a wide range of health subject areas. The areas of study include fitness and nutrition, diseases and disorders, adolescent growth and development, consumer and environmental concerns, and substance use and abuse. Within these areas, students will further explore stress management, teen suicide and human sexuality issues.

The student will:

- ☒ Know essential concepts about the identification and prevention of diseases.
- ☒ Analyze community resources that support mental/emotional, social and physical health.
- ☒ Understand key concepts of interpersonal relationships, communication, and advocacy.
- ☒ Demonstrate goal-setting & decision making skills.
- ☒ Achieve and maintain health-enhancing level of physical activity.
- ☒ Practice preventative health behaviors.
- ☒ Analyze the influence of family, peers, health professionals, culture, media, technology, and other health factors.
- ☒ Access valid information, products and services.
- ☒ Recognizes the personal, social, and legal consequences of substance abuse.
- ☒ Understand factors that influence sexual health.
- ☒ CPR/First Aid Instruction – Fulfilling State of Iowa requirement

Health II

Grade 10, 11, 12

Elective Course

1 – Term

Prerequisites: Health I

This course is designed to introduce students to the concept of Public Health (the laws and regulations that promote and protect the health of

people and the communities where they live, learn, work, and play). Students will gain a better understanding of the role Public Health plays in their everyday lives through reviewing previous and current public health issues and strategies. Students will also explore an issue in Public Health that is most interesting to them and develop their own strategies to combat the problem.

The student will:

- ☒ Know essential concepts about the identification and prevention of diseases.
- ☒ Analyze community resources that support mental/emotional, social and physical health.
- ☒ Understand key concepts of interpersonal relationships, communication, and advocacy.
- ☒ Demonstrate goal setting & decision making skills.
- ☒ Practice preventative health behaviors.
- ☒ Analyze the influence of family, peers, health professionals, culture, media, technology, and other health factors.
- ☒ Access valid information, products and services.

PE - Intro to Strength Training

Grade 10, 11, 12

Required Course

1-TERM

Prerequisites: None

The goal of this course is to provide a student an opportunity to learn proper weight training techniques and understand the appropriate progression of a fitness program. Students will work in the areas of muscular strength, endurance, and flexibility.

The student will:

- ☒ Increase muscular development, flexibility, and cardiovascular endurance
- ☒ Develop proper techniques and alignment for safe, injury-free participation in all fitness activities
- ☒ Understand health related and skill related fitness components and terminology

- ☞ Identify the skeletal and muscular systems
- ☞ Understand the importance of maintaining proper body composition, weight control, and diet
- ☞ Develop and exhibit good sportsmanship, cooperation, teamwork, emotional control, leadership, and a positive self concept
- ☞ Demonstrate, recognition, and acceptance of one's own strengths and limitations, as well as those of others
- ☞ Understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction
- ☞ Acquire the knowledge and skill necessary to maintain a healthy and active life

Peer Assistance Learning (PAL)

Grade 11, 12

Required Course

1-TERM

Prerequisites: None

The key element of PAL is peer teaching. The PE instructor and a student "coach" provide individualized instruction. You will become a trained "coach" to provide a fun atmosphere in which all students will experience success. PALS contribute to the learning experiences of students with special needs. PAL enrollment will be limited, with students involved in the Best Buddies program receiving first priority and seniors receiving second priority in the scheduling process.

The student will:

- ☞ Provide students an individualized P.E. experience made possible through peer partners
- ☞ Provide a variety of activities to improve growth and physical development
- ☞ Offer a variety of experiences to improve emotional growth and development

- ☞ Provide interpersonal experiences with students and peer partners to promote social growth
- ☞ Provide a variety of recreational and athletic activities to acquaint students with appropriate uses of leisure time
- ☞ Provide training for peer partners and teachers in order to meet student goals adapted from PEOPLE Program, 3839 W. Camelback Rd., Phoenix, AZ 85019*

PE – Advanced Strength Training

Grade 10, 11, 12

Required Course

1-TERM

Prerequisites: None

To provide students the means by which they may train consistently, sensibly and systematically over designated periods of time in a safe, clean, and professional environment in order to help prevent injury and improve athletic performance.

The student will:

- ☞ Increase muscular strength development, muscular endurance, cardiovascular fitness, flexibility, speed, and agility
- ☞ Develop proper techniques and alignment for safe, injury-free participation in all fitness activities
- ☞ Understand health related and skill fitness components and terminology.
- ☞ Identify the skeletal and muscular systems
- ☞ Understand the concepts of strength training and speed development
- ☞ Understanding the importance of maintaining proper body composition, weight control, and diet as an athlete
- ☞ Understanding the importance in today's athlete the use of weight and speed training
- ☞ Develop and exhibit good sportsmanship, cooperation, teamwork, emotional control, leadership, and a positive self concept

- ☞ Demonstrate, recognition, and acceptance of one's own strengths and limitations, as well as those of others
- ☞ Understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction
- ☞ Acquire the knowledge and skill necessary to maintain a healthy and active life

PE - Team Sports

Grade 10, 11, 12

Required Course

1-TERM

Prerequisites: None

The goals of this course are to develop physical fitness, establish an understanding of team sports and promote a healthy lifestyle. Skills, techniques, and fundamental will be emphasized.

Activities may include, but are not limited to, Volleyball, Softball, Football, Basketball, Soccer, Frisbee games, Team Handball, Lacrosse, Floor Hockey

The student will:

- ☞ Demonstrate knowledge of history, rules, terminology, strategies, safety measures and equipment selection and care for the selected activities
- ☞ Develop and exhibit good sportsmanship, cooperation, teamwork, emotional control, leadership, and a positive self-concept
- ☞ Develop proper techniques and alignment for safe, injury-free participation in all fitness activities
- ☞ Increase muscular development, cardiovascular fitness, and flexibility
- ☞ Demonstrate, recognition, and acceptance of one's own strengths and limitations, as well as those of others
- ☞ Understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction

- ☞ Acquire the knowledge and skill necessary to maintain a healthy and active life

PE - Individual Sports

Grade 10, 11, 12

Required Course

1-TERM

Prerequisites: None

The goals of this course are to develop physical fitness, establish an understanding of individual sports and promote a healthy lifestyle. Skills, techniques, and fundamental will be emphasized.

Activities include:

- A. Golf, Tennis, Archery, and Disc Golf (Terms 1,4)
- B. Badminton, Pickle ball, Ping Pong, and Archery (Terms 2,3)

The student will:

- ☞ Demonstrate knowledge of history, rules, terminology, strategies, safety measures and equipment selection and care for the selected activities
- ☞ Develop and exhibit good sportsmanship, cooperation, teamwork, emotional control, leadership, and a positive self-concept
- ☞ Develop proper techniques and alignment for safe, injury-free participation in all fitness activities
- ☞ Increase muscular development, cardiovascular fitness, and flexibility
- ☞ Demonstrate, recognition, and acceptance of one's own strengths and limitations, as well as those of others
- ☞ Understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction
- ☞ Acquire the knowledge and skill necessary to maintain a healthy and active life

PE – Warrior Fit

Grade 10, 11, 12

Required Course

1-TERM

Prerequisites: None

The goal of this course is to offer a student an intense prescribed fitness program to enhance their cardiovascular fitness. Activities will include strength training workouts, circuit training workouts, aerobics, kick-boxing, resistance bands, and yoga.

The student will:

- ☒ Increase muscular development, flexibility, and cardiovascular endurance
- ☒ Develop proper techniques and alignment for safe, injury-free participation in all fitness activities
- ☒ Understand health related and skill related fitness components and terminology
- ☒ Identify the skeletal and muscular systems
- ☒ Understand the importance of maintaining proper body composition, weight control, and diet
- ☒ Understanding the principles of cardiovascular training
- ☒ Develop and exhibit good sportsmanship, cooperation, teamwork, emotional control, leadership, and a positive self concept
- ☒ Demonstrate, recognition, and acceptance of one's own strengths and limitations, as well as those of others
- ☒ Understands that physical activity provides opportunities for enjoyment, challenge, self-expression, and social interaction
- ☒ Acquire the knowledge and skill necessary to maintain a healthy and active life

PE - Lifeguarding

Grade 11, 12

Required Course

1-TERM

Prerequisites: **1.)** At least 15 years old by the end of the course. **2.)** Must swim 300 yards, using the following strokes in order: 100 yards of front crawl using rhythmic breathing and stabilizing, propellant kick, 100 yards of breaststroke, 100 yards of either front crawl or breaststroke. **3.)** Must tread water for 2 minutes using only their legs. **4.)** Swim 20 yards using front crawl or breaststroke, surface dive to a depth of 10 feet, retrieve a 10-pound brick, return to the surface, and swim 20 yards back to starting point with both hands holding the brick. Must be completed in 1:40 or less.

The goal of the course is to help the participants become familiar with potential hazards of water activities, to prevent accidents, and to respond effectively if an emergency does occur. Basic water safety, advanced swimming strokes, water rescue, and first aid and CPR will be covered in this course. Students must provide their own transportation to the Waukee Family YMCA pool. ***Students will be charged a \$35 fee for Red Cross certification cards.**

SCIENCE DEPARTMENT

Course Title	10	11	12	One Term	Two Terms	Pre-requisite Required	Career Cluster
Biology	X	X	X		X		Science/ Technical
Honors Biology	X				X		Science/ Technical
Chemistry I	X	X	X		X	Yes	Science/ Technical
Anatomy		X	X		X	Yes	Science/ Technical
AP Biology		X	X		X	Yes	Science/ Technical
Astronomy	X	X	X	X			Science/ Technical
AP Physics I		X	X		X	Yes	Science/ Technical
AP Physics II		X	X		X	Yes	Science/ Technical
Geology	X	X	X	X		Yes	Science/ Technical
Environmental Ecology	X	X	X	X			Science/ Technical
AP Chemistry		X	X		X	Yes	Science/ Technical

Biology - RAI

Grade 10, 11, 12

2-TERMS

Prerequisites: None

Biology is fundamental to all of the life sciences. This course is intended to be the first step for the student intending to continue with advanced science courses. The basic unit of life, the cell, its internal structure and function are emphasized during the first term. The basic concepts of genetics and its implications are discussed. All forms of life are studied with the interdependence of living organisms stressed. Each unit uses lab activities to supplement other classroom procedures.

The student will:

- ☞ Be able to explain why diversity is necessary for the survival of life
- ☞ Be able to explain the interdependence of living organism
- ☞ Describe the structure and functions of the systems in multi-cellular organisms

Honors Biology - RAI

Grade 10

Elective Course

2 TERMS

Honors Biology is intended for students seeking a science or health field career and /or planning to take AP Biology. Evolution is the unifying theme in biology and will be presented as such, throughout the course. Scientific methodology, biochemistry, the processes of the cell including cell division, genetics, photosynthesis and respiration are emphasized. All forms of life are studied with emphasis placed on ecology and evolutionary trends.

The student will:

- ✗ Identify and describe the significance of evolution for each topic studied
- ✗ Demonstrate understanding of research by designing and conducting experiments of alternate variables
- ✗ Describe the chemical reactions involved in cell functions. Learn to write in a scientific style

- ✗ Explain population dynamics and how humans impact the environment.

Chemistry I - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisite: Algebra I

This course is designed to prepare juniors and seniors interested in science. The course covers the principles of inorganic chemistry. The main areas covered are properties of atoms, chemical bonding and principles of chemical reactions. Quantum theory is presented in terms of its relationship to atomic structure. The course also includes an introduction to thermodynamics, reaction rate and chemical equilibrium, volumetric analysis, acid base chemistry and electrochemistry. Laboratory experiences will allow the student to study and apply the concepts studied.

The student will:

- ☞ Know the structure of an atom and be able to predict how it will react with other atoms
- ☞ Understand the conservation of matter in physical and chemical change
- ☞ Know that forces exist between and within atoms
- ☞ Know the structure of an atom and be able to predict how it will react with other atoms
- ☞ Understand how elements are arranged in the periodic table according to similar properties and that this arrangement shows repeating patterns
- ☞ Know that substances react chemically in characteristic ways with other substances to form new substances with different properties
- ☞ Know methods used to separate mixtures into their component parts
- ☞ Know that chemical reactions can take place at vastly different rates
- ☞ Understand that chemical reactions either release or consume energy

Human Anatomy - RAI

Grade 11, 12

Elective Course

2-TERMS

Prerequisites: Modern Biology
Recommended - Chemistry

A systematic approach to physiology and anatomy is followed in which each major system of the body is studied separately. The integumentary system, skeletal system, muscular system is emphasized during the first term. The study of the motion of the human body (Kinesiology) will be the focus during the skeletal and muscular systems. The Nervous System, endocrine system, cardiovascular system, lymphatic system, respiratory system, digestive system, urinary system, and reproductive system will be discussed throughout second term. The anatomy of the system is studied first, followed by the physiology of the system. Finally, the pathology and disorders associated with each system are investigated. Labs supplement the class work.

The student will:

- ☞ Itemize the structures of a cell and the functions they perform
- ☞ Be able to explain cell differentiation and the importance of cell specialization
- ☞ Perform accurate scientific investigations and effectively communicate those results
- ☞ Be able to describe the structure and function of the systems in the human organism
- ☞ Describe how the structure and function of the skeletal, muscular, and nervous systems interact to provide movement

AP Physics I - RAI

Grade 10, 11, 12
Elective Course
2-TERMS

Prerequisite: Algebra II

Recommended - Trigonometry

Students explore principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits.

The course is based on six Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world. The following are Big Ideas:

- ☞ • Objects and systems have properties such as mass and charge.
- ☞ Systems may have internal structure.

- ☞ • Fields existing in space can be used to explain interactions.
- ☞ • The interactions of an object with other objects can be described by forces.
- ☞ • Interactions between systems can result in changes in those systems.
- ☞ • Changes that occur as a result of interactions are constrained by conservation laws.
- ☞ • Waves can transfer energy and momentum from one location to another without the permanent transfer of mass and serve as a mathematical model for the description of other phenomena.

AP Physics II - RAI

Grade 11, 12
Elective Course
2-TERMS

Prerequisites: AP Physics I

Co-requisite: Pre-Calculus

Students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for AP Physics students. Such practices require that students:

- Use representations and models to communicate scientific phenomena and solve scientific problems;
- Use mathematics appropriately;
- Engage in scientific questioning to extend thinking or to guide investigations within the context of the AP course;
- Plan and implement data collection strategies in relation to a particular scientific question;
- Perform data analysis and evaluation of evidence;
- Work with scientific explanations and theories; and connect and relate knowledge across various scales, concepts, and representations in and across domains.

Geology - RAI

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

Geology is an introduction to the

processes (internal and external) that shape the surface of the Earth. Its central curriculum themes include a study of the solid portions of our earth; its crust, the forces that make and shape it, its rocky composition, the natural resources it provides, and the significant role the solid earth plays in shaping the nature and diversity of life on this planet.

The student will:

- ☒ Understand the driving forces behind for continental drift
- ☒ Understand the structure and composition of Earth's layers
- ☒ Know that rocks, rock layers, and fossils determine the age of the Earth
- ☒ Illustrate the processes involved in the water cycle
- ☒ Know the composition and structure of the Earth's atmosphere
- ☒ Understand the processes of the rock cycle
- ☒ Understand the roles of weather and erosion in Earth's composition
- ☒ Understand the roles of geological influences on climate

Astronomy - RAI

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

Astronomy focuses on the scientific development of the various theories regarding the universe. The motion and life cycle of celestial objects are examined.

The Student will:

- ☒ Know the history for the development of modern astronomy
- ☒ Know the structure of the different types of telescopes used by astronomers
- ☒ Know the properties of the electromagnetic spectrum
- ☒ Know characteristics and movement patterns of the objects in our Solar System
- ☒ Know how the regular and predictable

motions of the Earth and Moon explain phenomena on Earth

- ☒ Know characteristics of the Sun and understands process of stellar evolution
- ☒ Recognize that the universe is made of thousands of galaxies
- ☒ Know that man has explored space and continues to explore space

Environmental Ecology- RAI

Grade 10,11,12

Elective Course

1-TERM

Prerequisites: None

Environmental Ecology is a course that is designed to introduce students to major ecological concepts and the environmental problems that affect the world in which we live. There is an urgent need for environmental education. This course provides one way in which students can become aware of the interactions of people and their environment. The curriculum focuses on concepts that are real-life issues. It promotes awareness and understanding of practical every day problems that affect our lives

This course will introduce environmental processes and the influence of human activities upon them. Topics include environmental sustainability, ecology, population growth, natural resources, and a focus on current environmental problems from scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues.

The student will:

- ☒ Discuss current environmental issues with an understanding of the basic ecological concepts involved.
- ☒ Develop a worldview related to an understanding of current environmental issues and how global problems affect us locally.
- ☒ Demonstrate an understanding of core ecological principles, and define

scientific principles and concepts as related to environmental studies and sustainability.

- ☞ Understand that small fluctuations in the environment can produce dramatic effects in the earth system.
- ☞ Illustrate how humans modify ecosystems as a result of population growth, technology, and consumption.
- ☞ Utilize the scientific method of learning to formulate and revise environmental sciences concepts, models and predictions.

Advanced Placement Chemistry - RAI

Grade 11, 12

2-TERMS

Elective Course

Prerequisites: Chemistry I, Algebra II

AP Chemistry is designed to be the equivalent of a first-year college chemistry course. A college text is used and a variety of college-level experiments will be done in the laboratory. Topics such as the structure of matter, kinetic theory of gases, chemical equilibria, chemical kinetics and thermodynamics are presented in considerable depth. The course should contribute to the development of the student's ability to think clearly and to express ideas orally and in writing, with clarity and logic, when dealing with chemical problems. This will prepare the student to take the AP Chemistry exam given in the spring.

The student will be able to explain and apply the following concepts:

- ☞ The chemical elements are the building blocks of matter, which can be understood in terms of the arrangements of atoms.
- ☞ Chemical and physical properties of materials can be explained by the structure and the arrangement of atoms, ions, or molecules and the forces between them.
- ☞ Changes in matter involve the rearrangement and/or reorganization of atoms and/or the transfer of electrons.
- ☞ Rates of chemical reactions are determined by details of the molecular collisions.
- ☞ The laws of thermodynamics describe the essential role of energy and explain

and predict the direction of changes in matter.

- ☞ Bonds or attractions that can be formed can be broken. These two processes are in constant competition, sensitive to initial conditions and external forces or changes.

Advanced Placement Biology - RAI

Grade: 11, 12

2-TERMS (1 High School, 1 College)

Prerequisites: Biology, Chemistry

Dual Credit (DMACC) course

AP Biology is a college level biology course normally taken by biology majors as freshmen. A college text is used and a quarter of class time will be spent in lab. Evolutionary themes are incorporated into each unit as it is the foundation of modern biological models and thought. Topics covered in first year biology will be reviewed as summer homework. The first test grade for AP Biology will be over this material. Topics covered in-depth will include: evolution, metabolism, photosynthesis and respiration, biotechnology, plant and animal form and function and ecology.

The student will:

- ☞ Use collected data to solve biological problems
- ☞ Design and conduct their own experiments
- ☞ Learn to write in a scientific style
- ☞ Use photosynthesis and respiration as a means of explaining energy transfer in living systems
- ☞ Describe how the structure of the cell and its components fit their function
- ☞ Use techniques of modern biotechnology to transform an organism
- ☞ Describe the mechanisms of evolution
- ☞ Relate structures to functions in the systems of plants and animals

SOCIAL STUDIES DEPARTMENT

Course Title	10	11	12	One Term	Two Terms	Career Cluster
Recent United States History	X	X	X	X		Social/ Personal
American History		X			X	Social/ Personal
AP American History		X	X		X	Social/ Personal
AP European History		X	X		X	Social/ Personal
American Government			X	X		Social/ Personal
AP U.S. Government and Politics		X	X		X	Social/ Personal
Psychology		X	X	X		Social/ Personal
Sociology		X	X	X		Social/ Personal
Contemporary Affairs	X	X	X	X		Social/ Personal
Economics		X	X	X		Social/ Personal

Recent U.S. History - RAI

Grade 10, 11, 12

Elective Course

1-TERM

Prerequisites: None

The Recent United States History course will focus on the political, social and economic history from the 1960's to today in American History.

The student will:

- ☞ Develop an understanding of significant events from the formative decades of the 60's, 70's, 80's and 90's in American History.
- ☞ Make connections between recent events and modern American History.
- ☞ Understand domestic and foreign policy of modern American presidents and how policies impact American History today.

American History - RAI

Grade 11

Required Course

2-TERMS

Prerequisites: None

This course studies the advance of the U.S. from post reconstruction America to the present. The past is related to the present as much as possible to bring history up to date. The role of women and minorities is included in each unit where applicable. Social changes, formation and refinement of government, development of industry, labor unions, political parties and all phases of American society are studied.

The student will:

- ☞ Understand the concept of the "American Dream" and its impact on the shaping of American culture and society from the post reconstruction era to the present
- ☞ Recognize American culture as diverse and understand the reasons for its complexity
- ☞ Interpret the themes of the American past from the context of a variety of social sciences (e.g., politically, economically, geographically, historically and socially)
- ☞ Differentiate between decisions made by influential Americans which influenced "successes" and "failures" of the American way of life

- ☞ Discover the cause and effect relationships of American history that have led the country to its present state

Advanced Placement American History - RAI

Grade 11

Elective Course

2-TERMS

Prerequisites: None

This course may be substituted for American History.

Dual Credit (DMACC) Course

This course is a thorough study of our nation's development from discovery to the present using university level texts. The course is a one-year course designed for students who wish to achieve excellence in American History. Political, social, diplomatic and economic history will be emphasized. Historiography will be a major area of study within each unit.

The student will:

- ☞ Demonstrate a comprehensive knowledge of America's history
- ☞ Discover the cause and effect relationships of American history that have led the country to its present state
- ☞ Have proficiency in the writing of a persuasive history essay
- ☞ Present the ability to construct a history research paper using the proper format
- ☞ Develop strategies for taking the AP U.S. History exam

Advanced Placement European History - RAI

Grade 11, 12

Elective Course

2-TERMS

Prerequisites: None

DMACC Dual Credit

The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. Without this knowledge, we would lack the context for understanding the development that played a fundamental role in shaping the world in which they live. Without this knowledge, we would lack the context or understanding the development of contemporary institutions, the role of

continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse.

The student will:

-  Know facts, concepts and theories pertaining to basic events, movements and developments that shaped history.
-  Develop an understanding of some of the principal themes in modern European History.
-  Analyze historical evidence and historical interpretation.
-  Express historical understanding in writing.

American Government - RAI

Grade 12

Required Course

1-TERM

Prerequisites: None

All phases of federal government in reference to its operation, basic organization, relationship of the individual to the government and comparison of our government to other types of government are studied. Emphasis is placed on the relationship of the legislative, executive and judicial branches of government.

The student will:

-  Identify the basic idea of government and the principles underlying American democracy
-  Recognize the origins of American political thought through the Declaration of Independence, Bill of Rights and the Constitution
-  Examine the civil rights and liberties of United States citizens
-  Examine the role of citizens in the political system and learn how public opinion affects government policy
-  Identify the three branches of the federal government, the members' powers and functions of each
-  Understand the election process through the electoral college

AP U.S. Government & Politics - RAI

Grade 11, 12

Elective Course

2 – TERM

Prerequisite: None

This course may be substituted for American Government

Dual Credit (DMACC) Course

AP United States Government and Politics is a college-level introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will read and analyze U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions between political institutions and behavior. They will read and interpret data, develop evidence-based arguments, and engage in an applied civics or politics research-based project.

The student will:

-  Describe and explain constitutional and political institutions, principles, processes, models and/or beliefs
-  Explain connections among political behaviors, institutions, beliefs, and cultural factors
-  Read, analyze, and interpret quantitative data to draw conclusions about political principles, processes, behaviors, and outcomes
-  Read, analyze, and interpret qualitative sources
-  Develop an argument about political principles, processes, behaviors, and outcomes

To help students meet these goals, the course should cover the following topics:

- Constitutional Underpinnings of United States Government
- Political Beliefs and Behaviors
- Political Parties, Interest Groups, and Mass Media
- Institutions of National Government
- Public Policy
- Civil Rights and Civil Liberties

Psychology - RAI

Grade 11, 12
Elective Course
1-TERM

Prerequisite: None

This course provides a general introduction to human behavior including: workings of the mind, learning behavior, human relations, group behavior, social attitudes, personality formation and abnormal behavior. A scientific orientation is stressed with an emphasis on scientific methods and procedures. Special areas included are learning theory, biological foundation of behavior, theories of personality and psychological development.

The student will:

- ☞ Learn about the development of the field of psychology and its major schools of thought
- ☞ Become aware of the biological reasons for our behavior
- ☞ Learn how psychologists study, analyze and interpret behavior
- ☞ Study the changes in behavior experienced over the course of a human life
- ☞ Examine abnormal behavior, its causes and treatments
- ☞ Utilize their knowledge of the scientific process to develop and implement a simple psychological experiment

Sociology - RAI

Grade 11, 12
Elective Course
1-TERM

Prerequisites: None

This course is concerned with the study of the ways in which people interact with one another. It involves learning about relationships within groups (such as peer groups), the relationships in social institutions (such as the family) and the organization of societies. Sociology also deals with vital issues and social problems such as juvenile delinquency, death and dying and personal values. Sociology is a science in which man seeks to better understand himself and his relationships with others.

The student will:

- ☞ Know the definition of sociology and purposes of the field of sociology
- ☞ Develop an awareness of how norms and values in a society are formed and enforced
- ☞ Understand the formation of groups, status and role relationships in society
- ☞ Demonstrate how the family fits in as an institution in society
- ☞ Realize how culture influences the socialization process of an individual from early childhood on into adulthood and old age
- ☞ Understand how inequities in wealth, power and prestige have a direct affect on social problems like prejudice, discrimination, racism and crime
- ☞ Be able to objectively communicate to fellow students on social issues important to our culture

Contemporary Affairs - RAI

Grade 10, 11, 12
Elective Course
1-TERM

Prerequisites: None

Contemporary Affairs deals with global problems as they pertain to the United States today. These issues will be addressed from a variety of perspectives that include, but are not limited to, historical, political, economical, environmental and religious horizons. The course will be responsive to change as developments arise around the world and will be highlighted through the assistance of multi-media, research and lecture/discussion. Students are offered the opportunity to understand the background of existing world problems and will propose plausible solutions to these dilemmas.

The student will:

- ☞ Be familiar with the organization and content of a daily newspaper
- ☞ Be aware of the role that print and broadcast media play in communicating news to the world
- ☞ Actively participate in class discussions based on current events
- ☞ Reflect on major world problems and propose possible solutions
- ☞ Work effectively in a group setting to complete a project

Economics - RAI

Grade 11, 12

Elective

1-TERM

Prerequisites: None

In this course, the basic theory of Economics as a concept of choice and self-interest, why people make choices that satisfy their needs and wants, and how those choices may affect others is explored. Economics is the study of our lives – our jobs, our homes, our families and the little decisions we face every day. This class will help better prepare you for the soon reality of being an adult and the rights and responsibilities that go along with those tenants. Students will focus on how at an individual and community level decisions are made on issues such as what to produce, how to produce and for whom to produce. Using a combination of lectures, videos, simulations, readings, discussions, issues of scarcity, supply, demand, price, credit, business organizations, labor, inflation, unemployment, money, poverty, and government will be tackled.

The student will:

- ☞ Describe the basic characteristics of the U.S. economic system with an emphasis on the role of private property, the price system, competition and entrepreneurship
- ☞ Demonstrate how fundamental economic concepts such as markets, economic incentives and opportunity costs operate in the United States and throughout the world
- ☞ Develop an understanding of the economic principles that influence business decisions
- ☞ Describe the economic role governments play in a market economy
- ☞ Understand the need for ethical standards for business leaders, producers and consumers
- ☞ Explore career opportunities, consumer issues and other aspects of personal economics

WORLD LANGUAGES DEPARTMENT

Course Title	10	11	12	One Term	Two Terms	Pre-requisite Required	Career Cluster
Spanish I	X	X	X		X		Arts/ Communication
Spanish II	X	X	X		X	Yes	Arts/ Communication
Spanish III	X	X	X		X	Yes	Arts/ Communication
Spanish IV	X	X	X		X	Yes	Arts/ Communication
AP Spanish		X	X		X	Yes	Arts/ Communication
German I	X	X	X		X		Arts/ Communication
German II	X	X	X		X	Yes	Arts/ Communication
German III	X	X	X		X	Yes	Arts/ Communication
German IV	X	X	X		X	Yes	Arts/ Communication
German V		X	X		X	Yes	Arts/ Communication

Spanish I - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: None

Spanish I is a two-term course, which is an introduction to the Spanish language and cultures of Spanish-speaking countries. The student will develop a solid foundation in speaking, listening, reading and writing through various thematic based units. Subject matter will deal with everyday topics such as self, family, home, school, leisure time activities, etc. Much of the class will be conducted in Spanish to promote the use and understanding of the language from the very beginning of study.

The student will:

- ☞ Recognize material studied when encountered in a familiar context
- ☞ Begin to produce accurately the sounds of the language when using familiar context
- ☞ Ask and answer a variety of questions related to the units of study
- ☞ Begin to produce simple sentences using course content

Spanish II - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: Spanish I

Spanish II is a two-term course that continues the development of the skills from Spanish I. The student will develop a solid foundation in speaking, listening, reading and writing through various classroom activities, projects and regular out-of-class preparation. Emphasis is placed on vocabulary acquisition and expansion of the tenses. The class is conducted mostly in Spanish and the students are expected to participate in Spanish.

The student will:

- ☞ Recognize increasingly complex material in familiar contexts
- ☞ Produce accurately the sounds of familiar material
- ☞ Begin to recognize familiar material in new settings

- ☞ Begin to produce related sentences, which form simple paragraphs about familiar material

Spanish III - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: Spanish II

The student will work towards a solid foundation in speaking, listening, reading and writing through various classroom activities, projects and regular out-of-class preparation. Students will expand their knowledge of vocabulary and grammatical structures of the language through reading, conversation and writing for various purposes. Students will continue to build literacy through a variety of reading strategies. Students will continue to improve communication skills through a variety of listening and speaking activities. Cultural products, practices, and perspectives of the Spanish-speaking countries will be studied. This course is designed to enhance the academic preparation of college-bound students.

The student will:

- ☞ Begin to identify the topic of familiar material used in unfamiliar settings
- ☞ Produce accurately the sounds of unfamiliar material
- ☞ Read aloud unfamiliar material in new settings
- ☞ Begin to produce related sentences, which form simple paragraphs about unfamiliar material

Spanish IV - RAI

Grade: 10, 11, 12

Elective Course

2-TERMS

Prerequisites: Spanish III

Spanish IV is a two-term, rigorous college preparatory course that continues the skills developed in Spanish III. Students will refine the foundational skills learned in previous Spanish courses and continue to increase their Spanish language proficiency in speaking, listening, reading and writing through various classroom activities, projects and regular out-of-class preparation. More emphasis will be placed on vocabulary

building and all tenses previously learned are reviewed and enhanced. New tenses and moods will also be learned. Students will be introduced to various types of literature and historical texts through the Spanish language. This course is taught primarily in Spanish. Students will be expected to respond and interact in Spanish.

The student will:

- ☞ Recognize complex material in a variety of settings, by a variety of speakers and authors
- ☞ Use pronunciation which is intelligible to native speakers in all circumstances
- ☞ Read aloud unfamiliar material with pronunciation intelligible to native speakers
- ☞ Produce complex sentences to express original thought

AP Spanish - RAI

Grade 11, 12

Elective Course

2-TERMS

Prerequisites: Spanish IV

Dual Credit (DMACC) Course

AP Spanish is a two-term course with a continued emphasis on speaking, listening, reading and writing. In addition to grammar review, students will have the opportunity to study content related to the six AP themes: personal and public identities, families and communities, contemporary life, global challenges, beauty and aesthetics, and science and technology. Students are expected to speak primarily in Spanish during class. **It is crucial that students are comfortable speaking Spanish and understand the expectation for daily interaction in Spanish.** There will be weekly assessments for speaking, reading, writing and listening skills. AP Spanish is taught in Spanish and will prepare students for the AP Spanish language exam.

The student will:

- ☞ Analyze and synthesize complex material in a variety of settings, by a variety of speakers
- ☞ Use pronunciation which is intelligible to native speakers in all circumstances
- ☞ Produce complex sentences to express original thought

- ☞ Interact in Spanish on a daily basis

German I - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: None

German I is a 2-term course using higher order thinking and reasoning skills to learn basic German vocabulary and grammar. Students will develop a foundation in the language skills of listening, speaking, reading, and writing through thematic based units. In addition to German language skills, students also study geographic and cultural information about the countries in which German is spoken.

The student will:

- ☞ Recognize material studied when encountered in a familiar context
- ☞ Begin to produce accurately the sounds of the language when using familiar context
- ☞ Recognize course content when encountered in a familiar context
- ☞ Begin to produce simple sentences using course content

German II - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: German I

This course continues the study of the German language with presentation of expanded vocabulary and more complex grammatical structures, including use of modal verbs and the conversational past tense. Students continue to acquire competence in the language skills of listening, reading, writing and speaking. Additional cultural and geographical information about German-speaking countries is presented.

The student will:

- ☞ Recognize increasingly complex material in familiar contexts
- ☞ Produce accurately the sounds of familiar material
- ☞ Begin to recognize familiar material in new settings

- ☞ Begin to produce related sentences, which form simple paragraphs about familiar material

German III - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: German II

Students will continue to develop their ability to communicate in German through vocabulary expansion and acquisition of more complex grammatical structures, some of which include future and narrative past tenses, conjunctions and prepositions.

Students will also continue to expand their geographical and cultural knowledge of German-speaking countries as well as a portion of Europe in the context of the EU (European Union).

The student will:

- ☞ Begin to identify the topic of familiar material used in unfamiliar settings
- ☞ Produce accurately the sounds of unfamiliar material
- ☞ Read aloud unfamiliar material in new settings
- ☞ Begin to produce related sentences, which form simple paragraphs about unfamiliar material

German IV - RAI

Grade 10, 11, 12

Elective Course

2-TERMS

Prerequisites: German III

Dual Credit (DMACC) Course

German IV is a 2-term course with a continued emphasis on speaking, listening, reading and writing. Emphasis is also placed on vocabulary building, grammatical structures, culture and geography. Students are introduced to various types of German literature and to several different German companies. This course is taught primarily in German and is designed to enhance the academic preparation of college-bound students. Students are expected to respond and interact in German.

The student will:

- ☞ Recognize complex material in a variety of settings, by a variety of speakers
- ☞ Use pronunciation which is intelligible to native speakers in all circumstances
- ☞ Read aloud unfamiliar material with pronunciation intelligible to native speakers
- ☞ Produce complex sentences to express original thought

German V - RAI

Grade 10, 11, 12

Elective Course

2-TERM

Prerequisites: German IV

Dual Credit (DMACC) Course

German V is a two-term course with a continued emphasis on speaking, listening, reading and writing. In addition to language grammar review, students will have the opportunity to study German literature, art and music. Emphasis is also placed on vocabulary building, grammatical structures, culture and geography. This course is taught primarily in German and is designed to enhance the academic preparation of college-bound students. German V students are expected to respond and interact in German.

The student will:

- ☞ Recognize complex material in a variety of settings, by a variety of speakers
- ☞ Use pronunciation which is intelligible to native speakers in all circumstances
- ☞ Read aloud unfamiliar material with pronunciation to native speakers
- ☞ Produce complex sentences to express original thought

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