



**Maquoketa Valley  
High School  
Course Catalog  
2025-2026**



# Maquoketa Valley's Commitment to Empowering All Students for Lifelong Success

*(All courses reinforce the importance of our Guidelines for Success)*

## **Guidelines for Success:**

**Perseverance:** Refusing to give up in the face of adversity. No matter how difficult the task.

- Try problem solving before asking for help. Don't give up.
- Have the courage to try, even though you are afraid of failing
- Accept and learn from your mistakes

**Respect:** Being courteous to others through actions and words, and treating others the way you want to be treated.

- Take pride in yourself
- Thoughtfully look at and listen to others
- Greet others
- Calmly share disagreements
- Use appropriate language
- Accept decisions of those in authority

**Motivation:** Being eager to act and work appropriately.

- Be productive in the classroom environment
- Attend class regularly and on time
- Be involved in academic and nonacademic activities
- Exhibit body language that displays positive energy

**Responsibility:** Keeping promises, meeting obligations, and being accountable for your actions.

- Come prepared and complete work on time
- Ask for help when needed
- Communicate with teachers in a timely manner when absent
- Take care of your property as well as the property of others
- Be a team player

**Integrity:** Using an internal set of ethical values to guide the decision-making process. Keep your word and commitments.

- Be truthful with yourself and others
- Be an upstander and bring out the best in others
- Do the right thing even when no one is looking

# Maquoketa Valley Graduation Requirements

*Course Descriptions start on page 7*

Core Curriculum:	31 credits
Electives:	<u>17 credits</u>
<b>TOTAL:</b>	<b>48 credits</b>

## Core Curriculum (31 credits required)

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*\* indicates dual credit course*

### English: 8 credits / 8 semesters

Year 1 - Required:

- English I

Year 2 - Required:

- English II
- Speech

Year 3 - Required to choose from:

- American Literature I & II
- English III

Year 4 - Required to choose from:

- Composition I & II \*
- English IV

Additional Courses:

- Introduction to Literature \*
- Creative Writing I & II
- Public Speaking\*

### Financial Literacy: 1 credit / 1 semester

- Consumer Finance

### Physical Education: 2 credits / 2 semesters

Note: PE is required every semester unless a student meets one of the exemptions. A PE excusal form must be signed by the student and parent to be exempt, and then approved by a school official.

- Physical Education (1.0 credit/semester)
  - Includes both P.E. & Athletic Performance

### Social Studies: 6 credits/ 6 semesters

Year 2 - Required:

- World History

Year 3 - Required:

- U.S. History **OR** AP U.S. History

Year 4 - Required:

- American Government

Additional Courses:

- Social Issues
- 60's America
- Street Law
- Character Development & Leadership

### Health: 1 credit / 1 semester

- Health I

### Technology: 1 credit / 1 semester

- Graphic Design
- Microsoft Office & Keyboarding\*
- Information Computing \*
- CAD Exploration
- Photography
- Computer Science Principles

# Core Curriculum (31 credits required)

## Science - 6 credits / 6 semesters

### Possible Course Sequences:

Year	Minimum Required	1 upper level course	2 upper level courses	3 upper level courses
1	Earth Science	Earth Science	Earth Science	Earth Science
2	Biology	Biology	Biology <b>AND</b> Physical Science	Biology <b>AND</b> Physical Science
3-4	Physical Science	Year 3: Physical Science  Year 4: Choose from: <ul style="list-style-type: none"> <li>• Chemistry</li> <li>• AP Physics</li> <li>• Anatomy &amp; Physiology</li> </ul>	<i>Choose one course year 3 &amp; 4:</i> <ul style="list-style-type: none"> <li>• Chemistry</li> <li>• AP Physics</li> <li>• Anatomy &amp; Physiology</li> </ul>	<i>Double-up year 3 or 4, take remaining course other year:</i> <ul style="list-style-type: none"> <li>• Chemistry</li> <li>• AP Physics</li> <li>• Anatomy &amp; Physiology</li> </ul>

## Math - 6 credits / 6 semesters

\*\* Algebra 1 or its equivalent (Basic Algebra A and B) is required

### Possible Course Sequences:

Year	Requires Teacher Recommendation	6-8 credits	8-10 credits	Recommended Sequence for AP Calculus (Students who took Algebra I as 8th Graders)
1	Basic Algebra A **	Algebra I **	Algebra I	Geometry
2	Basic Algebra B **	Geometry	Geometry	Algebra II
3	Choose from: <ul style="list-style-type: none"> <li>• Geometry</li> <li>• Applied Math</li> <li>• No Math</li> </ul>	Algebra II	Algebra II	Choose From: <ul style="list-style-type: none"> <li>• Precalculus</li> <li>• Precalculus &amp; Statistics</li> </ul>
4	Choose from: <ul style="list-style-type: none"> <li>• Geometry</li> <li>• Applied Math</li> <li>• Algebra II</li> <li>• No Math</li> </ul>	Choose from: <ul style="list-style-type: none"> <li>• Precalculus</li> <li>• Statistics</li> <li>• Applied Math</li> <li>• No Math</li> </ul>	Choose from: <ul style="list-style-type: none"> <li>• Precalculus</li> <li>• Statistics</li> <li>• Applied Math</li> <li>• Pre-Calculus &amp; Statistics</li> </ul>	Choose From: <ul style="list-style-type: none"> <li>• AP Calculus</li> <li>• AP Calculus &amp; Statistics</li> </ul>

## Electives (17 credits required)

Students may choose courses from this list of electives or courses they have not already taken from the core course list.  
\* indicates dual credit course

### Agriculture:

- Introduction to Agricultural Leadership and FFA 9-12
- Introduction to Agricultural Science 9-12
- Crop Production 10-12
- Principles of Agronomy \* 10-12
- Horticulture I 11-12
- Horticulture II: Greenhouse Management 11-12
- Animal Science I 10-12
- Animal Science II 10-12
- Animal Science III \* 11-12
- Agriculture Business 11-12
- Natural Resources 9-12
- Agricultural Biotechnology 10-12
- Ag Metal Fabrication 9-12
- Ag Leadership 10-12
- Agriscience Applications 9-12

### Art:

- Ceramics 9-12
- Drawing I 9-12
- Drawing II 9-12
- Two Dimensional Art 9-12
- Three Dimensional Art 9-12
- Photography (Technology Credit) 9-12
- Graphic Design (Technology Credit) 10-12
- Art Portfolio - Traditional 12
- Art Portfolio - Technology 12

### Family & Consumer Science:

- Advanced Fashion Design 9-12
- Beginning Foods 9-12
- Fashion Design 9-12
- Interior Design 9-12
- Advanced Foods 10-12
- Child Development 11-12
- Independent Living 11-12
- FCS Advanced Studies - Fashion 12
- FCS Advanced Studies - Foods 12

### World Language:

- Spanish I 9-12
- Spanish II 10-12
- Spanish III 11-12
- Spanish IV 12
- Spanish Culture and Conversation 11-12

### Industrial Technology:

- Engineering 9-12
- Electricity 9-12
- Woodworking I 9-12
- Woodworking II 10-12
- Wood Productions 10-12
- Construction Trades 9-12
- Drafting I 9-12
- Drafting II 9-12
- CAD Exploration (Technology Credit) 9-12
- Advanced Construction 10-12
- Small Gas Engines 9-12

### Business & Information Technology

- Introduction to Business 9-12
- Microsoft Office II & Information Computing \* 10-12  
(Technology credit) 9-12
- Principles of Management 10-12
- Sports and Entertainment Marketing 9-12
- Computer Science Principles 9-12  
(Technology Credit)
- Introduction to Accounting I \* 10-12
- Employability Skills \* 11-12
- Internship/Mentorship/Work Experience 11-12

### Health:

- Health II 9-12

### Music:

- Instrumental Music 9-12
- Vocal Music 9-12
- Music Theory 9-12

**Advanced Placement (AP) Courses:** High school courses that can earn college credit upon receiving a passing score on placement exam (check with college of choice about transferability of credit)

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- AP Physics
- AP U.S. History
- AP Calculus

**Biliteracy Seal:** An award given by a school district in recognition who have studied and attained proficiency in two or more languages by high school graduation.

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- ACT English score of 18+; Students must receive a score of 5 or higher in ALL areas of reading, writing, speaking, and listening.
- Currently enrolled in Spanish III or IV
- Says that you are bilingual; for workforce or college placement (*can* earn 6-18 college credits AT university of choice.)

**Dual Credit Courses\*:** High school courses that also earn college credit (check with college of choice about transferability of credit) *example: Introduction to Psychology NICC*

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### **Concurrent Courses Offered at Maquoketa Valley:**

*defined as subset of dual enrollment course taught by college approved high school teachers in a secondary environment*

#### **Business & Information Technology:**

- Microsoft Office II & Information Computing
- Introduction to Accounting I
- Employability Skills
- Microsoft Office and Keyboarding

#### **English:**

- Composition I
- Composition II
- Introduction to Literature
- Public Speaking

#### **Agriculture:**

- Principles of Agronomy (Plant Science II)
- Animal Science III

#### **Financial Literacy:**

(Can earn college credit upon receiving a passing score on the final exam. Credit is earned through UNI. Check with the college of choice about transferability of credit.)

- Consumer Finance

**Additional dual credit courses are offered through Kirkwood, Jones County Regional Center Kirkwood (Career Academies), and NICC. Some dual credit courses require ALEKS and/or ACCUPLACER testing.**

## Sample 4-Year Plan with Required Courses:

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Year 1 Sample Schedule	
Math:	Algebra 1, Basic Algebra A, or Geometry
English:	English I
Science:	Earth Science
Choose from:	Health 1 Physical Education Spanish I (most 4-year colleges have a foreign language requirement) Electives

Year 2 Sample Schedule	
English:	English II/Speech
Social Studies:	World History
Science:	Biology
Choose from:	Required core credits Math Course  Electives (Explore a pathway!)

Year 3 Sample Schedule	
English:	American Literature I & II <u>OR</u> English III
Science:	Physical Science
Social Studies:	U.S. History <u>OR</u> AP U.S. History
Choose from:	Required core credits Electives (Explore a pathway!)

Year 4 Sample Schedule	
English:	Composition I & II <u>OR</u> English IV
Social Studies:	American Government
Choose from:	Required core credits Electives (Explore a pathway!)



# Course Descriptions

## **Six Period Requirement:**

- All students are required to take a minimum of six classes each semester.
- Physical Education may not be counted as one of the six classes. This includes PE & Athletic Performance courses.
  - Students enrolled in PE or Athletic Performance during the day can have 1 study hall.
  - Students enrolled in both PE & Athletic Performance during the school day can have 1 study hall.
  - Students must take PE each semester they are enrolled at MV, unless they meet one of the exemptions.
    - There is a PE excusal form that must be signed by parents and the student.
- Band and/or Vocal may be counted as one of the six subjects. Students receive one credit for every successful semester completed and the grade received is included when determining students' grade point averages.
- Concurrent credit courses receive one credit for every successful semester completed and the grade received is included when determining the students' grade point average.
- Correspondence courses receive one credit for every successful semester completed and the grade received is included when determining the students' grade point average. Maquoketa Valley students are allowed a maximum of two correspondence courses, pending principal approval.

## **Study Halls:**

- Study Hall may not be counted as one of the six subjects.
  - Students must write in a "Study Hall" if they wish to take one.
- Seniors may have a maximum of two study halls per semester.
- Freshman, Sophomores, and Juniors can only have one study hall one semester, and two study halls the other semester if they meet the athletic exemption.
- We encourage all students to enroll in 7 courses every semester they are enrolled.

## **After Initial registration and scheduling, student schedule changes may only be made according to the following criteria:**

1. Approved changes by the teacher.
2. Failure in 1st or 2nd semester course (s).
3. Computer or clerical error. (Master schedule changes)
4. Special education placement.
5. Failure to meet a course prerequisite.
6. Seniors who must enroll in a course to meet graduation requirements.
7. Wanting to add a course without disturbing the rest of the schedule.



## Agriculture:

In order for a student to be in FFA, they must be enrolled in 1 semester of an Agricultural Education course per year.

**Course Name:** Introduction to Agricultural Leadership and FFA  
Grade: 9 - 12                      No. of Semesters: 1 (FIRST SEMESTER)

Introduction to Agriculture Leadership and FFA introduces students to agricultural opportunities and the pathways of study in agriculture. Students enrolled in Introduction to Agriculture experience hand-on activities, projects, and problems. Student experiences involve the study of communication, leadership, FFA opportunities, and careers within agriculture. Throughout the course are activities to develop and improve employability skills of students through practical applications. Students explore career and post-secondary opportunities in each area of the course. It is recommended that students begin with this course which is offered in the **FALL ONLY**. It is highly recommended that if a student wishes to participate in FFA during high school that they take this course.

**Course Name:** Introduction to Agricultural Science  
Grade: 9 - 12                      No. of Semesters: 1

Introduction to Agricultural Science introduces students to the agriscience pathways of study within agriculture. Students enrolled in Introduction to Agricultural Science experience hands-on activities, projects, and problems. Student experience involves the science of agriculture, plants, animals, ag power and technology, and natural resources. Students will also explore various careers and post-secondary opportunities in each respective area in the course. There is no prerequisite, though it is recommended that students take this course after Introduction to Agricultural Leadership and FFA.

**Course Name:** Crop Production                      *(Plant Science I)*  
Grade: 10 - 12                      No. of Semesters: 1  
**Prerequisite:** Introduction to Agricultural Science

Plant Science I will provide a foundation of plant science knowledge and skills. Students will experience various plant science concepts through exciting "hands-on" activities, projects, and problems. Student experiences will include the study of plant anatomy and physiology, classification, and the fundamentals of production and harvesting. Students will learn how to apply scientific knowledge and skills to use plants effectively for agronomic, forestry, and horticultural industries. Students will discover the value of plant production and its impact on the individual, the local, and the global economy. Students will work on major projects and problems similar to those that plant science specialists, such as horticulturalists, agronomists, greenhouse and nursery managers, and plant research specialists, face in their respective careers.

**Course Name:** Principles of Agronomy *(Plant Science II)*  
Grade: 10 - 12                      No. of Semesters: 1  
**Prerequisite:** Crop Production  
**Dual/3 Credit Hours NICC AGA:114**

Plant Science II will provide a foundation of plant science and agronomy skills. This course focuses on crop, soil and environmental sciences in agricultural systems in the world. Topics covered include plants, soil, climate, tillage and seeding, seed and grain quality, weed and pest management and sustainable aspects of crop production. This course is built on hands-on learning practices.

**Course Name:** Animal Science I  
Grade: 10 - 12                      No. of Semesters: 1  
**Prerequisite:** Introduction to Agricultural Science

An in-depth look at the care and management of the major livestock species will be the focus of this course. Housing facilities, behavior, and equipment selection will be included units in this course as well as identification of livestock, reproductive technologies, to round out this course. Students will have the opportunity to hear from guest speakers and take related field trips.

**Course Name:** Animal Science II  
Grade: 10 - 12                      No. of Semesters: 1  
**Prerequisite:** Animal Science I

Students will develop knowledge and skills related to proper nutrition, disease, reproduction, animal systems/anatomy, and veterinary science. Labs and field trips will be used to lend practical experience to this opportunity. Animal nutrition, health, reproduction, facilities, product processing, and farm operations are possible topics covered. Students will study beef, dairy, sheep, swine, horses, fowl and small animals.

**Course Name:** Animal Science III  
Grade: 11 - 12                      No. of Semesters: 1  
**Prerequisite:** Animal Science II  
**Dual/3 Credit Hours NICC AGS:114**

Animal Science III introduces students to the various species and breeds of domestic animals to create an understanding of the principles of food animal production, product marketing, and issues conforming to the animal industry. Topics of study include: anatomy, domestication, industry structures, and current issues in society.

**Course Name:** Agriculture Business  
Grade: 11 - 12                      No. of Semesters: 1  
**No Prerequisite**  
**Guideline:** Introduction to Agriculture

Students will explore business management concepts and forms, including: budgets, balance sheets, checking accounts, credit, income statements, recordkeeping, financial analysis, cash flows, net worth, assets and liabilities and sales. Students will develop their own business plan for an agribusiness of their choice.

<p><b>Course Name: Horticulture I</b> Grade: 10 - 12      No. of Semesters: 1 (FIRST SEMESTER)</p> <p>This semester course is designated to present knowledge and skills in the many areas of horticulture. This course will focus on the many sectors of the horticulture industry including home horticulture, landscape design, propagation techniques and greenhouse management. Hands-on experience will include the care, preparation of greenhouse plants and hydroponics.</p>	<p><b>Course Name: Horticulture II: Greenhouse Management</b> Grade: 10 - 12      No. of Semesters: 1 (SECOND SEM.)</p> <p>This course will focus on all aspects of growing plants and flowers in a greenhouse. Additionally, students will be learning the basics of horticulture and greenhouse production. Students will gain hands-on experience by working in the greenhouse and preparing for the spring FFA plant sale in every aspect including, seed selection, seed starting, design, marketing and promotion, budgeting, and sales.</p>
<p><b>Course Name: Natural Resources</b> Grade: 9 - 12      No. of Semesters: 1</p> <p>This is a foundation-level course within our program of study. This course provides a variety of experiences in the fields of natural resources and ecology. Students explore hands-on projects and activities while studying topics such as land use, stewardship, and environmental agencies. Study of the natural world including biomes, land, air, energy, use and care as well as a focus on issues surrounding humankind's interaction with the Earth is addressed in this course.</p>	<p><b>Course Name: Ag Biotechnology</b> Grade: 11 - 12      No. of Semesters: 1</p> <p>This course will explore the impact that biotechnology has in all agricultural applications. A variety of application techniques will be used in both crop production and animal science to provide students with an understanding of these significant technologies and how they are changing the world of agriculture.</p>
<p><b>Course Name: Ag Metal Fabrication I</b> Grade: 9 - 12      No. of Semesters: 1</p> <p>Students will study the characteristics of metal and how it is processed into useful products. Tool sharpening, gauge construction, craftsmanship, and repair will be explained and expanded upon so the student will learn additional techniques of separating, welding, and melting metal. The student will practice Arc, MIG, oxygen/acetylene cutting, and plasma arc</p>	<p><b>Course Name: Advanced Ag Leadership</b> Grade: 10 - 12      No. of Semesters: 1</p> <p>The National FFA Organization is dedicated to making a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success. This course, open to all students, will focus on improving leadership and communication skills through application of agricultural concepts. Class activities include book studies, Career Development Events, organized debates, and discussion on current agricultural issues, and coordinating one local event. Enrollment in this course must be approved by the FFA Advisor.</p>
<p><b>Course Name: Agriscience Applications</b> Grade: 9 - 12      No. of Semesters: 1</p> <p>This course will encourage students to assume the role of a student researcher who will study and apply scientific principles and emerging technologies in an agricultural enterprise. Students are allowed to choose their own path of study for this course from the following topics: Animal Systems, Environmental Services/Natural Resource Systems, Food Products and Processing Systems, Plant Systems, Power, Structural and Technical Systems, and Social Science. As a final project, students will be required to complete an agriscience/science fair project to apply and communicate their science skills.</p>	

<p><b>Art:</b></p> <hr style="border: 2px solid red;"/>	
<p><b>Course Name: Ceramics</b> Grade: 9 - 12      No. of Semesters: 1</p> <p>Ceramics is an art course designed to introduce students to clay, pottery and sculpting. Students will learn the basics of clay preparation and storage as well as proper use of tools. Discussions of the properties and forming of clay will be included. In addition, construction of basic geometrics in clay will be demonstrated throughout the class. Students will learn to build simple clay projects using a variety of methods including pinch, coil, and slab pottery. Students will also be introduced to the ceramic wheel and pottery. Lastly the students will learn the basics for kiln operations and the glazing process.</p>	<p><b>Course Name: Photography</b> Grade: 9 - 12      No. of Semesters: 1</p> <p>Students will be introduced to the basic principles of photography and camera usage. Emphasis will be placed on the artistic qualities of photography and photo composition but will also familiarize students with digital cameras and camera options. Students will work with both black and white photography and color as well as design elements. Students will work with digital cameras and Adobe Photoshop.</p>

<p><b>Course Name: Drawing I</b> Grade: 9 - 12                      No. of Semesters: 1</p> <p>Drawing I is an art course designed to introduce students to drawing and drawing materials. Students will learn about techniques in line and composition as well as practice shading techniques while exploring pencil, charcoal, and color. Students will gain knowledge in perspective, shading, light, and shadow. In addition, students will gain experience in observation skills (how to look at objects around us). Use of real life models will be used to develop realism and style.</p>	<p><b>Course Name: Graphic Design</b> Grade: 10 - 12                      No. of Semesters: 1 (SECOND SEM.)</p> <p>This course emphasizes design elements and principles in the purposeful arrangement of images and text to communicate a message. It will focus on creating art products such as advertisements, product design and identity symbols. Graphic Design may investigate the computer's influence on and role in creating contemporary designs and provide a cultural and historical study of master design works of different periods and styles.</p>
<p><b>Course Name: Drawing II</b> Grade: 9 - 12                      No. of Semesters: 1 <b>Prerequisite: Drawing I</b></p> <p>Drawing II is an art course designed to build on and strengthen skills and techniques learned in Drawing I. Students are encouraged to explore, specialize, and develop individual drawing skills and interests. Students are asked to validate their artwork with personal connections to their subject. More challenging, real life drawings are stressed through pencil, ink, color ink, charcoal, pastels, and color pencils.</p>	<p><b>Course Name: Art Portfolio - Technology</b> Grade: 12                              No. of Semesters: 1</p> <p>Art Portfolio Technology is an independent work art class for seniors who are college prep and want to develop a more in depth background and portfolio for college. Students will develop a high level of skill in technology based materials, including photography and graphic design. Students will further their knowledge of computer programs including Photoshop, Illustrator and InDesign. Students need to have completed Photography and Graphic Design before registering for Art Portfolio.</p>
<p><b>Course Name: Two Dimensional Art</b> Grade: 9 - 12                      No. of Semesters: 1</p> <p>2D art is an art course designed to introduce students to hands-on projects through a variety of media and techniques. Students will create projects that show creativity and knowledge of techniques while learning to use a variety of tools and materials. Students can expect to gain experience in a variety of media including water color painting, oil painting, pencil, charcoal, ceramics, and linoleum block printing.</p>	<p><b>Course Name: Art Portfolio - Traditional</b> Grade: 12                              No. of Semesters: 1</p> <p>Art Portfolio Traditional is an independent work art class for seniors who are college prep and want to develop a more in depth background and portfolio for college. Students will develop a high level of skill in a variety of art media including crafts (wood, paper, wire, clay, glass), drawing (pencil, charcoal, pastel, ink), and clay (ceramics, pottery, sculpture). Art Portfolio is designed for the self-motivated and self disciplined art student. Students need to have completed all five art classes, not including Photography or Graphic Design to register for Art Portfolio.</p>
<p><b>Course Name: Three Dimensional Art</b> Grade: 9 - 12                      No. of Semesters: 1</p> <p>3D art is an art course designed to build on skills learned in 2D Art. Students will work to further develop and refine painting, design, and drawing skills. Students will gain experience with hands-on activities that stimulate the imagination and give them opportunities to become proficient at using a variety of media including acrylic &amp; oil painting, silk screen printing, pencil, and pastels, macramé, and various sculpting media.</p>	

## Business & Information Technology:

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<p><b>Course Name: Introduction to Business</b> Grade: 9 - 12                      No. of Semesters: 1</p> <p>A one semester elective course recommended to students in grades 9-10 that introduces students to the exciting and challenging world of business. This course will increase your preparation to be a knowledgeable consumer, well-prepared employee, and effective citizen in our economy. It will also serve as a background for other business courses taken during high school, prepare you for future employment or business ownership, and make you a better informed citizen for an expanding international economy.</p>	<p><b>Course Name: Microsoft Office &amp; Keyboarding</b> Grade: 9 - 12                      No. of Semesters: 1 <b>Dual/3 Credit Hrs NICC ADM:116</b></p> <p>Review of proper keyboarding techniques with an emphasis placed on speed and accuracy development. Practical Microsoft applications in producing business forms, presentations, interoffice correspondence, letters, reports, and tables utilizing Word, Excel and PowerPoint to prepare you for daily business activities.</p>
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<p><b>Course Name: Introduction to Accounting I</b>  Grade: 10 - 12                      No. of Semesters: 1  <b>Dual/3 Credit Hrs NICC ACC:115</b></p> <p>Introduction to Accounting I is a one-semester course designed for Juniors and seniors. Basic accounting principles are presented to introduce beginning students to fundamental accounting concepts. The accounting cycle of journalizing transactions, posting, adjusting and closing entries, as well as the preparation of financial statements is emphasized for service and merchandising businesses. The scope and depth of accounting concepts discussed are aimed at non-accounting majors.</p>	<p><b>Course Name: Microsoft Office II and Information Computing</b>  Grade: 10 - 12                      No. of Semesters: 1  <b>Dual/3 Credit Hrs NICC CSC:116</b>  <b>Prerequisite: Microsoft Office Basics &amp; Keyboarding C- or higher</b></p> <p>It is recommended that students take the Microsoft Office Basics &amp; Keyboarding course before taking this course. A one semester, elective course where students utilize Microsoft Word to edit and create business forms, interoffice correspondence, letters, reports, tables. Using Excel students will create spreadsheets for the business world creating formulas with functions, sorting and filtering information and creating charts to visually make their data easier to understand. Business presentations will be created using PowerPoint. Students will have the opportunity to certify as a Microsoft Office Specialist in Word Excel and Access to increase their marketability in the workplace. In the real-world businesses don't use Google sheets or slides, they live in Microsoft productivity tools. Take this course and you will have a competitive edge in the job market.</p>
<p><b>Course Name: Principles of Management</b>  Grade: 10 - 12                      No. of Semesters: 1</p> <p>This one-semester course introduces high school students to the fundamentals of management, equipping them with the knowledge and skills needed to understand and apply essential management principles. Students will analyze real-world management scenarios and develop decision-making, problem-solving, and leadership skills. By the end of the course students will have a strong foundation in management concepts, preparing them for future academic and professional opportunities in business and leadership roles. This course is ideal for students interested in business and entrepreneurship.</p>	<p><b>Course Name: Sports and Entertainment Marketing</b>  Grade: 9 - 12                      No. of Semesters: 1  <b>Prerequisite: Introduction to Business</b></p> <p>It is required for students to take, Introduction to Business course before taking this course. This semester class is designed for students who are interested in pursuing a business career. This class covers the broad concept of sports and entertainment marketing including product, distribution, promotion and price decisions. It involves discussion of the role buyers, social issues involved in the marketing process, environmental problems, and the philosophy of marketing management. If you are thinking about a career in marketing or graphic design this is a great course.</p>
<p><b>Course Name: Computer Science Principles</b>  Grade: 9 - 12                      No. of Semesters: 1</p> <p>CSP introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. CSP will include topics such as digital information, the internet, app design, data, cybersecurity, and more. If you are thinking about a career in technology this would be a great course.</p>	<p><b>Course Name: Employability Skills</b>  Grade: 11 - 12                      No. of Semesters: 1  <b>Dual/3 Credit Hours NICC WBL:110</b></p> <p>Students will learn and practice soft skills, including professionalism, responsibility, time management, workplace communication and develop an understanding of the negative effects of absenteeism and tardiness. Student will learn and complete a job application, create a cover letter, resume with references, a thank you note and will have a LinkedIn page built to start connecting with companies, colleges, and professionals. Students will have mock interviews and take time to do some career exploration. Students may also choose to enter directly into the workforce after successfully completing the course in hand with a professional cover letter and resume that can be used for both scholarship applications and careers. One job shadow will be required.</p>
<p><b>Course Name: Internship/Mentorship</b>  Grade: 11 - 12                      No. of Semesters: 1-3  1-2 credits per semester  <b>Prerequisite: Employability Skills with a C or higher</b></p> <p>Paid/Unpaid career exploration where the student works 4/8+ hours per week at the worksite. You must provide your own transportation has a cumulative GPA of 2.00 or higher. You will keep a timesheet and complete reflection assignments explaining the hard and/or soft skills utilized on the job.</p>	

## English:

### Course Name: English I

Grade: 9 No. of Semesters: 2

Freshman English focuses on four writing-based units: narrative, expository, argumentative, and multi-genre. Literature studies include a variety of genres (short stories, poetry, dramatic play, novels, videos/movies, songs, informational reading, and more). Students have the opportunity to practice on-the-spot writing and reading novels of their choice. In addition, vocabulary will be studied during the narrative unit.

### Course Name: English II

Grade: 10 No. of Semesters: 1

The Sophomore English course is designed to cover a variety of genres. Study from the text will be interspersed with a number of individual units. Along with literature study, students will complete a variety of writing assignments and other projects. The overall goal is to continue to improve writing, thinking, and communication skills.

### Course Name: Speech

Grade: 10 No. of Semesters: 1

The purpose of this course is to enable the student to understand and apply speech principles to their lives. The long-term goal is to help students feel comfortable expressing ideas, opinions, and information throughout life. Students will work on speaking, listening, researching, and writing skills.

### Course Name: English III

Grade: 11 No. of Semesters: 2

Admission into this course is by teacher recommendation only. This course will allow students to work through given material at an individualized pace, with an emphasis on core content delivered through instruction that is catered to meet the needs of each student. Much of this course is similar to American Literature (also a Junior-level course). This course will focus on various pieces of American literature throughout history. Students will read from multiple text sets which will include short stories, poems, songs, novels, informational reading, videos/movies, pictures, and more. These juniors will be challenged to read frequently, take notes/annotate texts, and retain an understanding of their reading material for purposes of discussion, writing projects, and presentations. This class will focus on skills related to standard English grammar and usage when writing by completing frequent quick-writes. In addition, students will read for enjoyment, selecting reading materials that spark their interest.

### Course Name: English IV

Grade: 12 No. of Semesters: 2

Previously named Applied English and Communications or College Prep English, this course provides senior-level students with an opportunity to utilize their reading, writing, listening, and speaking skills by concentrating on real-world applications. Instruction and assessments during this course emphasize the practical use of written and verbal communication as a workplace tool rather than as a scholarly or literary tool. During Semester 1, students will explore the theme of dreams & goals through various anchor texts and activities. Students will read one novel and focus on close reading skills, discussions, and using textual evidence to support viewpoints. Semester 2 will include a mentor text that will be used to identify universal themes of the human experience. Students will also explore the ethical use of digital tools and the responsibilities of being a digital citizen. Civic duty and planning for the future will also be researched. Workplace and college discussions/lessons will be embedded.

### Course Name: Composition I

Grade: 11 - 12 No. of Semesters: 1

**Dual/3 Credit Hours NICC ENG:105**  
**Requires Accuplacer Writeplacer score of 5, ACT English score of 18 OR cumulative GPA through sophomore year of high school of 2.80.**

A writing course that prepares the student for the types of communication and thought essential to academic and working-world success. The course focuses on writing as a process and is intended to help students identify and refine their own personal writing. Instruction includes basic research and documentation skills.

### Course Name: American Literature

Grade: 11 No. of Semesters: 2

This course will focus on various pieces of American literature throughout history. Students will read from multiple text sets which will include short stories, poems, songs, novels, informational reading, videos/movies, pictures and more. These juniors will be challenged to read frequently, take notes in an interactive notebook, and retain understanding of their reading material for purposes of discussion, writing projects, and presentations. This class will focus on skills related to standard English grammar and usage. In addition, students will read two novels of their choice for enjoyment

### Course Name: Composition II

Grade: 12 No. of Semesters: 1

**Dual/3 Credit Hrs NICC ENG:106**

Composition II provides a continued focus on writing as a process with emphasis on persuasion, evaluation, analysis, investigation, research and documentation of sources. Students may take Composition II after successful completion of Composition I with a C- or better.

<p><b>Course Name: Public Speaking</b>  Grade: 11 - 12                      No. of Semesters: 1 (FIRST SEMESTER)  <b>Dual/3 Credit Hrs NICC SPC:112</b></p> <p>An introductory course designed to help students develop skills as speakers and critical listeners, increase understanding of the concepts and principles of verbal communication, and become more effective communicators in formal and informal speaking situations. Students will be able to apply key concepts and principles of oral communication to effectively organize, develop, and deliver a variety of speech types. EDUCATION (COURSE) LEARNING OUTCOMES (ELOs): Students will be able to identify different listening styles and strategies. Students will be able to experiment with various strategies for building confidence. Students will be able to implement methods for gathering data to analyze an audience. Students will be able to demonstrate effective speech preparation and delivery. Prerequisite(s): None. 3 credits</p>	<p><b>Course Name: Introduction to Literature</b>  Grade: 12                              No. of Semesters: 1 (SECOND SEM.)  <b>Dual/3 Credit Hours NICC LIT:101</b>  <b>Successful completion of Composition I.</b></p> <p>Introduction to Literature focuses on the craft of narrative literature (short story, poetry, drama) with an emphasis on analysis and response. It includes the study of established as well as recent literary texts. Students receive credit through Northeast Iowa Community College in Peosta. Students are required to take Composition I before this course.</p>
<p><b>Course Name: Creative Writing</b>  Grade: 9 - 12                      No. of Semesters: 1</p> <p>Creative Writing will offer students the opportunity to develop and improve writing techniques and individual style in various genres including, but not limited to, fractured fairy tales, urban legends/myths, writing from artwork, and other mini-writing opportunities. Students will also complete an author study where they learn writing techniques from a published author and share their learning with the class. The primary emphasis in class will be on keeping a creative writing journal, establishing a routine for writing, and producing a portfolio of creative writing at the end of the semester.</p>	<p><b>Course Name: Creative Writing II</b>  Grade: 9 - 12                      No. of Semesters: 1  <b>Prerequisite: Creative Writing I</b></p> <p>Creative Writing II will offer students the opportunity to continue to develop and improve techniques and individual style in various topics including, but not limited to, inspiration from music lyrics, exquisite corpse writing, poetry, and other mini-writing opportunities. Students will learn how to implement their skills in the real world by exploring career pathways and other creative outlets for their writing. The primary emphasis in class will be on completing daily writing prompts in a creative writing journal, establishing a routine for writing, and producing a portfolio of creative writing.</p>

<p><b>Family &amp; Consumer Science:</b></p> <hr/>	
<p><b>Course Name: Fashion Design</b>  Grade: 9 - 12                      No. of Semesters: 1</p> <p>Fashion Design is the first course of a two-course sequence. This course is designed to give students a general understanding of the clothing and textile industry. Information provided covers basic garment construction, selection and care of various fabrics and textiles, and the elements and principles of design in addition to the creation of different projects. The course includes units on fashion design, careers in the fashion industry, and garment construction. Possible construction projects would consist of: pajama pants, simple tops, pillows, hat and scarf, and simple home decorations, including easy quilts. The use and programming of embroidery machines and heat presses will also be part of this class. Limit 10 students per class.</p>	<p><b>Course Name: Beginning Foods</b>  Grade: 9 - 12                      No. of Semesters: 1</p> <p>Beginning Foods is the first course of a two-course sequence. This semester's course provides students with an understanding of principles and safety in the kitchen. Other topics include meal planning, food buying, and etiquette. The foods covered are: fruits, vegetables, quick breads, yeast breads, and cereal grains. A study of the nutrition of each group is integrated into each topic. Students will learn how to read and interpret a recipe and have a basic understanding of nutrition and its importance to the human body throughout life. In addition, students will learn basic cooking principles associated with different foods, be able to accurately measure different types of ingredients, have a basic knowledge of the tools used in cooking, and gain knowledge of proper food storage, safety, and sanitation procedures. Limit of 16 students per class.</p>
<p><b>Course Name: Advanced Fashion Design</b>  Grade: 9 - 12                      No. of Semesters: 1  <b>Prerequisite: Fashion Design</b></p> <p>Advanced Fashion Design is the second course of a two-course sequence. The students construct a variety of units throughout the semester, in addition to other sewing requirements. The students learn the basics of pattern reading, interpret pattern instructions, and become more confident and independent in garment construction. Possible projects include: dresses, skirts, blouses, dress pants, jackets, and home furnishings. Quilting techniques and machine embroidery will also be emphasized in this class. Students must have successfully passed Fashion Design if wishing</p>	<p><b>Course Name: Advanced Foods</b>  Grade: 10 - 12                      No. of Semesters: 1  <b>Prerequisite: Beginning Foods</b></p> <p>Advanced Foods is the second course in a two-course sequence. This semester's course is a continuation of Beginning Foods. More emphasis is placed on meal management and careers in the food service industry. Topics include: eggs, pies and pastry, dairy and cheese, poultry, seafood and fish, meat, cakes and cookies, soups, salads, and casseroles. A special project will focus on international culture and foods. Students must have successfully passed Beginning Foods if wishing to take this course. Students will create</p>



<p>to take this course or get permission from the teacher. An emphasis on business, designing of apparel, and heat transfers are also part of this sequence. Limit of 10 students per class.</p>	<p>an entire meal as part of a final project. Limit of 16 students per class.</p>
<p><b>Course Name: Child Development</b> Grade: 11 - 12                      No. of Semesters: 1</p> <p>Child Development provides knowledge about the physical, mental, emotional, intellectual, and social growth of children. Human growth and development from ages 0 to 6 years will be presented. A Head Start observation and teaching will be a part of this course. Students will be able to accept, enjoy and be interested in children, and be better able to understand the needs of children and the factors which promote their growth and development. They will also learn how children grow emotionally, socially, physically, intellectually, and mentally and be able to understand themselves better through studying the growth and development of children. Limit of 20 students per class.</p>	<p><b>Course Name: Interior Design</b> Grade: 9 - 12                      No. of Semesters: 1</p> <p>The primary focus of this course is the interior design of a home. Through design, students begin to understand that interior design is an environment created by the structure, furnishings, and surroundings of the home. Students will be able to evaluate the various types of housing available, set up goals for the homes they will eventually establish, be able to furnish, and decorate a home using the principles and elements of design, draw and understand basic blueprint symbols, and recognize various period homes from American History. Limit of 14 students per semester.</p>
<p><b>Course Name: Independent Living</b> Grade: 11 - 12                      No. of Semesters: 1</p> <p>Independent Living is a course designed to help students prepare for living on their own. The content focuses on areas that they will encounter as they become adults and move on with education, careers, and perhaps families. The students will focus on five main content areas: learning to manage, understanding relationships, managing finances, living on your own, and balancing work and family. In addition, they will learn basic clothing repair and care. Life skills needed to be an effective member of a family and society will also be examined. Limit of 20 per class.</p>	<p><b>Course Name: FCS Advanced Studies - Fashion</b> Grade: 12                              No. of Semesters: 1 <b>Prerequisite: Fashion Design and Advanced Fashion Design</b></p> <p>This is an advanced-level class for seniors only. It is a third-level class for those students who have successfully passed both Fashion Design and Advanced Fashion Design or are recommended by the teacher. Students will be in charge of designing and marketing their product or one designed for them. They will use the design techniques learned in the previous classes to design a product and then implement technology to produce the written directions and patterning techniques to then market their product to the textile and fashion industry. Limit 10 students per class.</p>
<p><b>Course Name: FCS Advanced Studies - Foods</b> Grade: 12                              No. of Semesters: 1 <b>Prerequisite: Beginning Foods and Advanced Foods</b></p> <p>This is an advanced class for seniors only. It is a third-level class for those who have successfully passed both Beginning and Advanced Foods classes or are recommended by the teacher. Students will be in charge of the planning, ordering, and bookkeeping of a business that revolves around food. They will plan menus, and cost items, market their business through advertising, and business finances, and then keep track of all receipts of their business. Students will research healthy recipes, be able to use a variety of strategies to advertise their products, and then utilize a spreadsheet to show profits through their business. Limit of 16 students per class.</p>	

<p><b>Financial Literacy:</b></p> <hr/>	
<p><b>Course Name: Consumer Finance</b> Grade: 11 - 12                      No. of Semesters: 1 <b>Test for 3 Credit Hours - need a 70 or higher on exam</b></p> <p>Students have the opportunity to test and earn 3 UNI credits at the end of the course. Units covered include making financial goals, types of savings, financing large purchases, career preparation, funding college, investments and retirement/estate planning.</p>	

## Health:

### Course Name: Health I

Grade: 9 - 12      No. of Semesters: 1

Health I is a comprehensive semester course designed to implement the basic knowledge of health for adolescents. The primary focus of this course helps students examine their lifestyles, select goals, and make plans to achieve and maintain optimum health. Students will develop knowledge, skills and an understanding in the areas of health and wellness, relationships, mental and emotional health, managing stress, body hygiene, male/female reproductive systems, STDs, AIDS, alcohol, tobacco and drugs. It is highly recommended that this course be taken during ninth grade.

### Course Name: Health II

Grade: 9 - 12      No. of Semesters: 1

Health II is a comprehensive semester class designed to extend previous knowledge from Health I for the health and wellness of adolescents. Students will focus on the knowledge, skills and understanding of responsible behavior to maintain optimum health. Students will learn about food and nutrition and how it affects your entire life, managing their weight, eating disorders, food safety, infectious diseases, HIV/AIDS, basic exercising and fitness.

## Industrial Technology:

### Course Name: Engineering

Grade: 9 - 12      No. of Semesters: 1

Engineering I is to expose students to mechanics, power, technology, and career options in the world of engineering. Students participating in this course will have experiences in various mechanical and engineering concepts with exciting hands-on activities, projects, and problems. Students' experiences will involve the study of the 5 step engineering design process. Students will acquire the basic skills to operate, repair, engineer, and design new products. Throughout the course, students will apply engineering principles to the construction of machines and structures.

### Course Name: Electricity

Grade: 9 - 12      No. of Semesters: 1

Electricity is a specialized semester long course where students taking this can expect to learn basic house and circuit wiring techniques. This will involve wiring three-way switches, outlets with and without switches, and low voltage circuits. This course will also cover AC and DC current, along with solar/wind power. This course will be a great step for any student interested in potential electrician careers.

### Course Name: Woodworking I

Grade: 9 - 12      No. of Semesters: 1

In this course, students will learn woodworking fundamentals as they are introduced to a core set of skills necessary in the construction industry such as: Basic Safety, Construction Math, Use and Care of Hand and Power Tools, Blueprint Reading, and Basic Communication and Employability Skills. This introductory course will provide students with a basic background to the woodworking industry. Woodworking I is a project oriented course requiring the student to use multiple types of tools and machinery.

### Course Name: Woodworking II

Grade: 10 - 12      No. of Semesters: 1

**Prerequisite: Woodworking I**

Woodworking II is a project oriented course requiring the student to build a major woodworking project at his/her expense. Laboratory time will be devoted to project construction. Class time will be spent using technology tools to manage personal schedules, preparing blueprints and other business communication, and develop skills related to word processing and spreadsheet management. A student in this class needs the fundamentals taught in Woodworking I before taking this class.

### Course Name: Small Gas Engines

Grade: 9 - 12      No. of Semesters: 1

Small Gas Engines course is a hands-on based course. The students will learn about how 2 and 4 stroke gas engines operate. In this course, students will completely tear down and rebuild Kohler 7.75 series engines and/or John Deere Gator motors. Students will start with the blower hosing all the way to removing the piston and crankshaft. While learning about the functions and purpose of every part. Students are also encouraged to bring in their own units to work on, along with fixing units for members in our community.

### Course Name: Wood Productions

Grade: 10 - 12      No. of Semesters: 1

**Prerequisite: Woodworking I**

Students will mass produce a product to sell to family/friends/public. Students will be designing, marketing, assembling, manufacturing, shipping and handling the product. Students will not be required to pay for materials for these projects. Students will have a better understanding of material and labor cost of products and also how to manage their own company.



<p><b>Course Name: Construction Trades</b>  Grade: 10 - 12                      No. of Semesters: 1 (SECOND SEMESTER)  <b>Prerequisite: Woodworking I</b></p> <p>Students will learn the basics of construction trades. Trades included are, but not limited to, drywall, masonry, flooring, tile laying, electricity, roofing, framing, finish trimming, etc. Skills for these areas will include hands-on projects that students will build and troubleshoot. Presentation, speakers, and demonstrations will be included in the course. If students are interested in working in the construction field, this will be a greater class to try different trades.</p>	<p><b>Course Name: Drafting I</b>  Grade: 9 - 12                      No. of Semesters: 1</p> <p>Drafting I is an in-depth study in drafting using mechanical hand equipment and drawing tables. The following areas will be covered: equipment usage, lettering, dimensioning, geometric construction, orthographic projection, simple floor plans, plan, elevation, section and auxiliary views.</p>
<p><b>Course Name: Drafting II</b>  Grade: 9 - 12                      No. of Semesters: 1  <b>Prerequisite: Drafting I</b></p> <p>Drafting II is an in-depth study in drafting using mechanical hand equipment on drawing tables. The following will be covered: pictorial drawing (isometric and oblique), dimensioning and notes, and drawing a house design of your choice.</p>	<p><b>Course Name: CAD Exploration</b>  Grade: 9 - 12                      No. of Semesters: 1</p> <p>Students will have the option to explore three different areas of CAD (computer aided drafting) Engineering, Architecture, and Solid Modeling. All students will learn CAD Engineering skills with advanced students learning Solid Modeling and Architecture skills. Students will learn how to use AutoCAD to create simple, and complex engineering drawings.</p>
<p><b>Course Name: Advanced Construction</b>  Grade: 10 - 12                      No. of Semesters: 2  <b>Prerequisite: Woodworking I</b></p> <p>Advanced construction will give the student the opportunity to build a structure while using the knowledge gained from the classroom including: structural building materials, fasteners, and adhesives; proper use of hand and power tools; floor systems; wall and ceiling framing; roof framing; and window and door construction and installation. The student will learn to use skills to construct made to order larger projects, buildings, customer house repairs, and more.</p>	

## Mathematics:

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<p><b>Course Name: Basic Algebra A</b>  Grade: 9                              Number of Semester: 2</p> <p>This two-semester course generally covers the same topics of Algebra, including solving linear equations, solving linear inequalities, graphing linear functions, writing linear functions, and solving systems of linear equations. A scientific calculator is recommended for this course.. Admission into this course is by teacher recommendation only.</p>	<p><b>Course Name: Basic Algebra B</b>  Grade: 10                              Number of Semester: 2</p> <p>This two-semester course generally covers the same topics of Algebra, including exponential functions, polynomial equations and factoring, graphing quadratic functions, and solving quadratic equations. A scientific calculator is recommended for this course. Admission into this course is by teacher recommendation only.</p>
<p><b>Course Name: Algebra</b>  Grade: 9 -10                      Number of Semester: 2</p> <p>This two-semester course teaches concepts that will be used in all other math courses. Topics that will be covered include solving linear equations and inequalities, graphing and writing linear functions, solving systems of linear equations, exponential functions, polynomial equations, factoring, graphing quadratic functions, solving quadratic equations, and radical functions and equations. Assessments include daily written assignments, quizzes, and tests. A TI-83 Plus or TI-84 Plus graphing calculator will be required. The color version of TI-84 plus is allowed, but CAS operating systems are not allowed.</p>	<p><b>Course Name: Geometry</b>  Grade: 9 -12                      Number of Semester: 2  <b>Prerequisite: Algebra</b></p> <p>Geometry is a year-long course that follows Algebra and emphasizes a formal approach to the study of plane geometry. The main topics covered are reasoning and proof, parallel and perpendicular lines, transformations, congruent triangles, relationships with triangles, polygons, similarity, right triangles and trigonometry, circles, circumference, area, and volume.  <i>Prerequisite: Must have completed Algebra</i></p>

<p><b>Course Name: Algebra II</b>  Grade: 10-12                      Number of Semester: 2  <b>Prerequisite: Geometry</b></p> <p>Algebra II will develop the students' abilities to solve a variety of equations and use these as models for real-world situations. Specific topics will include: linear functions, quadratic functions, quadratic equations and complex numbers, polynomial functions, rational exponents and radical functions, exponential and logarithmic functions, rational functions, sequence and series, and trigonometric ratios and functions. A TI-83 Plus or TI-84 Plus graphing calculator will be required. <i>Prerequisite: Must have completed Geometry.</i></p>	<p><b>Course Name: Precalculus</b>  Grade: 11-12                      Number of Semester: 2  <b>Prerequisite: Algebra II</b></p> <p>Precalculus is a two-semester course that will <i>extensively</i> integrate statistical, algebraic and trigonometric concepts through work with functions. Students taking precalculus should have successfully completed Algebra, Geometry, and Algebra II. Problem solving will be an integral part of the course utilizing the graphing calculator. Specific topics will include extensive function analysis of the twelve basic functions, as well as polynomial, power, rational, exponential, logistic, and logarithmic functions. We will also spend time studying trigonometry including function analysis and applications. Assessments include daily assignments, quizzes, board work, and tests. A TI-83 Plus or TI-84 Plus graphing calculator will be required and used extensively throughout the course. The color version of TI-84 plus is allowed, but CAS operating systems are not allowed. <i>It should be noted that pre-calculus is an upper-level math course and should be treated as such. Prerequisite: Successful completion of Algebra II.</i></p>
<p><b>Course Name: Statistics</b>  Grade: 11-12                      Number of Semester: 1  <b>Prerequisite: Algebra II</b></p> <p>Statistics is a one-semester course. Concepts which will be covered include visual representations of data, measures of central tendency, variance, standard deviation, analyzing data, transformations of data, z-scores, probability, permutations, combinations, binomial and normal distributions. A TI-83 Plus or TI-84 Plus graphing calculator will be required and used extensively throughout the course. The color version of TI-84 plus is allowed, but CAS operating systems are not allowed. The course will include daily assignments, notes, quizzes, tests and board work. <i>Prerequisite: Must have completed Algebra II.</i></p>	<p><b>Course Name: AP Calculus</b>  Grade: 12                              Number of Semester: 2  <b>Prerequisite: Precalculus</b></p> <p>Calculus topics presented will include limits and continuity, derivatives and differentiation, and integrals and integration. Concepts discussed will include the chain rule, implicit differentiation, the mean-value theorem, extreme values, concavity, inflection points, the fundamental theorem of calculus, definite and indefinite integrals, integration by substitution, L'Hopital's Rule, and numerous types of functions including but not limited to exponential, logarithmic, and trigonometric. Assessments will include daily work, frequent quizzes, tests, and extensive board work. A TI-83 Plus or TI-84 Plus graphing calculator will be required and used extensively throughout the course. The color version of TI-84 plus is allowed, but CAS operating systems are not allowed. <i>It should be noted that calculus is an upper-level math course and should be treated as such. Prerequisite: Successful completion of Precalculus.</i></p>
<p><b>Course Name: Applied Math</b>  Grade: 12                              Number of Semesters: 2</p> <p>Applied Math is a non-algebra review of basic mathematics geared toward the senior student about to enter the job market. Topics that will be covered include gross income, net income, budgeting, checking and savings accounts, purchases, credit cards, loans, vehicle costs, housing costs, and insurance.</p>	

## Music:

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### Course Name: Instrumental Music

Grade: 9 - 12

Number of Semesters: 2

Instrumental Music meets five days a week during the school day. Membership is open to all high school students who have previous experience in the Middle School Instrumental Music program or have completed a period of individual lessons. The main emphasis is concert band with other performance opportunities available. Wildcat Marching Band: The Marching Band is the performing group for the beginning of the fall semester and provides entertainment for the crowd at home football games. In addition, the band will march in the Homecoming parade. All students enrolled in the band are considered members of this group and are required to be at all rehearsals and performances. Concert Band: The Concert Band is the performing group, which immediately follows the fall marching season. The band performs three concerts within the school year and non-graduating members will take part in the end of the year commencement ceremonies. In addition, the band competes in various other festivals sponsored in the state. All students enrolled in the band are considered members of this group and are required to be at all rehearsals and performances. Pep Band: The Pep Band is comprised of the students in band and will perform at pep rallies and most home basketball games. Instrumental Music also offers the following extra curricular opportunities: Jazz Band: The Jazz Band is a small ensemble which studies and performs jazz music at concerts and in various parts of the community. In addition, the band competes in various other festivals sponsored in the state. Membership is open to all high school band students with the desire to learn about jazz and who qualify for the needs of the Jazz Band. If there is enough interest within the membership of the Concert Band a second Jazz Band will be formed. All students selected for the Jazz Band are required to be at all rehearsals and performances. Pit Orchestra: The Pit Orchestra is a small ensemble that performs with the musical cast for the Fall Musical. Membership is open to all high school students who qualify for the needs of the Pit Orchestra. All students selected for the Pit Orchestra are required to be at all Pit Orchestra rehearsals and performances, as well as full musical rehearsals the week of the performance.

### Course Name: Vocal Music

Grade: 9 - 12

Number of Semesters: 2

Vocal Music meets five days a week during the school day. Membership is open to all students, regardless of experience. In this course, students will develop the skills necessary to produce a healthy vocal tone. Students will also develop melodic and rhythmic music reading skills, music listening skills, and vocal performance skills. Students will study a variety of repertoire representing different time periods, genres, and languages to be performed throughout the school year. All students will present in the Fall Concert, Winter Concert, MV's Got Talent, and Spring Awards Concert as well as participate in State Solo/Ensemble Contest and State Large Group Contest. Additional optional performance opportunities will take place throughout the school year. Vocal Music also offers the following extra curricular opportunity: Vocal Jazz Ensemble Vocal Jazz Ensemble: Membership is by audition. Auditions take place in October and the Vocal Jazz season runs through March. In Jazz Ensemble, students study and perform vocal jazz arrangements. Students must be able to attend three 45-60 minute rehearsals each week outside of the school day. The Vocal Jazz Ensemble attends 2-3 jazz festivals, competes in 2-3 contests, and occasionally performs in home concerts throughout the school year.

### Course Name: Music Theory

Grade: 9 - 12

Number of Semesters: 1

Music Theory is a one semester course designed to teach the foundations of music. Students enrolled in this course will explore music concepts like notation, key signatures, time signatures, scales, chords, cadences, and much more. Assessments will include in-class work, take-home assignments, quizzes, and tests. Composition techniques and music history will also be explored during the course. Students are not required to be enrolled in a music ensemble to take this course.

## Physical Education:

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### Course Name: Physical Education

Grade: 9-12

Number of Semesters: 1

The goals of this course are to develop physical fitness, establish an understanding of team/individual sports and promote a healthy lifestyle. Activities include individual and team sports such as; volleyball, football, basketball, soccer, wiffle ball, badminton, table tennis,

### Course Name: Athletic Performance

Grade: 9-12

Number of Semesters: 1

The goals of this course are to develop athletic abilities during the school day instead of before and after school. This will include weight training, plyometrics, speed training, and sports specific athletic enhancement. Students will be given a full

<p>cooperative games, fitness testing, outdoor games and lifelong activities. Physical conditioning is included. Students will earn one credit each semester they successfully complete Physical Education. This course will meet 5 days a week. Students are required to take PE every semester they are enrolled unless they are exempt. A minimum of two semesters of Physical Education is required for graduation.</p>	<p>credit each semester they successfully complete athletic performance. Students are able to take this class every semester and receive credit. Zero Hour will be before school and will acquire half a credit and will meet every other day. This class counts as a PE credit. *Prerequisite: Must be out for a sport in the same calendar year as the class.*</p>
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<p><b>Science:</b></p> <hr/>	
<p><b>Course Name: Earth Science</b> Grade: 9                      No. of Semesters: 2</p> <p>Earth Science offers insight into the environment on earth and the earth's place in space. This course presents the concepts and principles essential to students' understanding of the dynamics and history of the earth. This course will explore geology, astronomy, earth history, climate, and human's influence on the planet.</p>	<p><b>Course Name: Chemistry</b> Grade: 11 - 12                      No. of Semesters: 2 <b>Prerequisite: Physical Science</b></p> <p>Chemistry is a branch of physical science that deals with the study of matter through investigations on how properties of substances determine how they interact, combine, and change to form new substances. Topics in chemistry will be covered through research, lectures, and laboratory activities. Many concepts in Chemistry involve problem solving that requires a strong math background. It is strongly recommended that students have completed one year of Algebra and Geometry, as well as being co-enrolled in Algebra II. Physical Science is a prerequisite for this class.</p>
<p><b>Course Name: Biology</b> Grade: 10                      No. of Semesters: 2 <b>Prerequisite: Earth Science</b></p> <p>This course consists of the study of modern biological concepts aligned with the Next Generation Science Standards (NGSS). Biology is a course that focuses on the study of life through research, lecture, and laboratory activities. Students will need to have successfully completed one year of Earth Science prior to taking Biology.</p>	<p><b>Course Name: Human Anatomy &amp; Physiology</b> Grade: 11 - 12                      No. of Semesters: 2 <b>Prerequisite: Chemistry</b></p> <p>Anatomy &amp; Physiology is a course that focuses on the structure and function of the various organ systems, organs, tissues, and cells of the human body. Students will study how the structure (Anatomy) affects the function (Physiology) of the various parts of the human body and will be required to make connections as to why certain disorders and diseases affect the normal functioning of the human body. It is strongly recommended that students have successfully completed Biology and Physical Science prior to taking Anatomy &amp; Physiology. In addition students should have already successfully completed or be currently enrolled in Chemistry.</p>
<p><b>Course Name: Physical Science</b> Grade: 10 - 11                      No. of Semesters: 2</p> <p>This course involves the study of the structure of matter and the changes it undergoes as well as energy. The course is broken down into two semesters, chemistry and physics. Chemistry will examine the molecular make-up of matter and Physics will investigate the energy and forces within matter.</p>	<p><b>Course Name: AP Physics</b> Grade: 11 - 12                      No. of Semesters: 2 <b>Prerequisite: Algebra II</b></p> <p>AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through classroom study, in-class activity, and hands-on, inquiry-based laboratory work as they explore concepts like systems, fields, force interactions, change, conservation, and fluids. Physics students will be asked to carry out higher order math problems and apply the results in a lab format.</p>

## Social Studies:

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### Course Name: World History

Grade: 10                      No. of Semesters: 2

The primary focus of the course is learning about world civilizations and their connection(s) to present day. Students will be able to understand our social, legal, economic and political systems of the past and discuss the fundamental ideas of history such as civilization, nationalism, imperialism and colonialism. This course will also focus on the development of historical thinking skills such as analyzing, predicting, summarizing, chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative.

### Course Name: U.S. History

Grade: 11                      No. of Semesters: 2

This course provides an overview of the history of the United States, examining time periods from colonialism to the present time. It is designed to focus on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative) and an understanding of content learning objectives organized around seven main themes (America & National Identity; Work, Exchange & Technology; Geography & The Environment; Migration & Settlement; Politics & Power; America in the World; America & Regional Culture; Social Structures). We hope to instill in students the developmental skills, attitudes, behaviors, and social tolerance that will enable them to be positive, active participants in society as well as to take pride in the United States and in themselves as Americans.

### Course Name: A.P. U.S. History

Grade: 11                      No. of Semesters: 2

As the College Board defines, AP United States History is a course designed to focus on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative) and an understanding of content learning objectives organized around seven themes (America & National Identity; Work, Exchange & Technology; Geography & The Environment; Migration & Settlement; Politics & Power; America in the World; America & Regional Culture; Social Structures). This course will cover American history from the Pre-Columbian period to the present and will be taught in accordance with the AP U.S. History curriculum framework prepared by the College Board to prepare students for the AP U.S. History exam in May. **NOTE:** Students who opt NOT to take the Advanced Placement United States History Exam will NOT receive AP credit for the course and the course will be changed to American History.

### Course Name: American Government

Grade: 12                      No. of Semesters: 1

This course provides an overview of the structure and functions of the U.S. government and political institutions, and examines constitutional principles, the concepts of rights and responsibilities, the role of political parties and interest groups, and the importance of civic participation in the democratic process. The structure and function of state and local government is also examined.

### Course Name: Character Development & Leadership

Grade Level: 11-12              Number of Semesters: 1

The primary objective of this course is to improve the character and leadership skills of students. Students will immerse themselves in the study of 18 commonly valued traits through ethical dilemmas, character movie segments, current events, group discussions, core readings, expository writing, and numerous guest speakers. While the primary goal is to improve character and leadership traits, students will be challenged to improve their reading and writing skills as well as their public speaking and emotional IQ through the use of HOT (higher order thinking) activities. The lesson plans incorporated will reflect various learning styles and give students adaptable ways to learn the subject matter in a meaningful way. Students will be given opportunities to apply the concepts of the course to their personal lives and future goals.

### Course Name: The 60's America

Grade Level: 10 - 12              Number of Semesters: 1

"Today our concern must be with the future. For the world is changing. The old era is ending. The old ways will not do."  
– John F. Kennedy, 1960.

The course traces and documents changes of the 1960s. The period from the election of John F. Kennedy (1960) to the fall of Saigon (1975) remains crucial for an understanding of current issues and attitudes. Those years reshaped American culture and society in many ways. Events and slogans shattered the images of an earlier time and created a new America.

<p><b>Course Name: Social Issues</b> Grade Level: 9 - 12      Number of Semester: 1</p> <p>Social Issues introduces students to a variety of everyday social issues. Course content is designed (but not limited) to look at these issues from a social perspective. It will also work to help students understand the differences in one's behaviors in an individual setting from that in a social setting. This course is designed to be student-directed. Much of the context covered will be adapted to current and present-day events. A large emphasis is also placed on present-day culture and social norms. This course will also focus on the development of critical thinking skills such as analyzing, predicting, summarizing, chronological reasoning, comparing and contextualizing, crafting quality arguments using empirical evidence, and interpreting and synthesizing the social narrative.</p>	<p><b>Course Name: Street Law</b> Grade Level: 10 - 12      Number of Semester: 1</p> <p>Street Law is the concept of educating people about law that is of practical use in everyday life (on the streets). Every purchase, lease, contract, marriage, divorce, crime or traffic violation places the citizen face-to-face with the law. Street Law is designed to provide you with an understanding of your legal rights and responsibilities, knowledge of everyday legal problems, and the ability to analyze, evaluate, and in some situations, resolve legal disputes. Street Law addresses general problems in the areas of criminal, consumer, family, housing and individual rights law. The course also discusses situations such as what to do if you are the victim of crime, when and how to select an attorney, the legal rights and responsibilities of parents and children, how to register to vote, and what to do about discrimination or other violations of your constitutional rights. These and all of the topics covered in Street Law are designed to help you survive on the street.</p>
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<p><b>World Language:</b></p> <hr/>	
<p><b>Course Name: Spanish I</b> Grade: 9 - 12      No. of Semesters: 2</p> <p>In this course we will be immersing ourselves in the <b>culture and language</b> of Spanish speaking people around the world. We will be defining our <i>Communication</i> skills, gaining different <i>Cultural</i> perspectives, <i>Comparing</i> the Spanish language and culture to our own, <i>Connecting</i> our world language skills to other subject areas and seeing the strong Hispanic influence even within our own <i>Communities</i>. We will use thematic content in level one such as basic conversation, school, clothing, food, family and sports. We focus on the present tense most of the year and learn the past tense in the fourth quarter. Be prepared to sing, dance, act, converse, and create – all in <b>Spanish!</b> And remember, learning a language is unlike anything you've learned before – so be prepared for some hard, fun work!</p>	<p><b>Course Name: Spanish II</b> Grade: 10 - 12      No. of Semesters: 2 <b>Prerequisite: Spanish I</b></p> <p>In this course we will be immersing ourselves in the culture and language of Spanish speaking people around the world. We will be refining our <i>Communication</i> skills, gaining more <i>Cultural</i> perspectives, <i>Comparing</i> the Spanish language and culture to our own, <i>Connecting</i> our world language skills to other subject areas. We will expand on thematic content learned in level one such as leisure activities, clothing, shopping, health and movies. Additionally, we will work on talking about the past using Spanish's two past tenses, and finish all major verb tenses, such as Future, Conditional, Present Perfect, and Mandatos. As you may remember from Spanish I, you should be prepared to sing, dance, act, converse, create, work hard and have fun!</p>
<p><b>Course Name: Spanish III</b> Grade: 11- 12      No. of Semesters: 2 <b>Prerequisite: Spanish I and Spanish II</b></p> <p>Students in this course expand their ability to communicate in Spanish in a variety of situations. Through a series of theme-based units, students will explore different literary words from the Spanish-speaking world. In this course, students will develop their abilities to understand written and spoken Spanish. They will also expand on their abilities to interact with other students in an informal conversational setting. This course will also prepare students to deliver written and spoken presentations in Spanish regarding what they have read and learned. In Spanish III we put our two years of hard work into more real-life application by focusing on communication.</p>	<p><b>Course Name: Spanish IV</b> Grade: 12      No. of Semesters: 2 <b>Prerequisite: Spanish I, Spanish II, and Spanish III</b></p> <p>Students develop more sophisticated communication skills in all four areas for listening, speaking, reading and writing with an emphasis on the ability to interact orally and in writing. The <i>authentic</i> reading selections are emphasized at this level. Students communicate using more complex language structures and express abstract ideas with reasonable fluency. Students are able to create and listen with understanding to reports and presentations. They are also able to describe, summarize and discuss selected Upper Levels themes and topics. Each topic addressed in this program has progress indicators defining what students will be able to do. Essential vocabulary and language structures are presented to students within the context of the themes and topics.</p>

<p><b>Course Name: Spanish Culture and Conversation</b>  Grade: 11- 12                      No. of Semesters: 1  <b>Prerequisite: Spanish I and Spanish II</b></p> <p>This course focuses on conversation emphasizing pronunciation, fluency, and comprehension through listening. It provides an introduction to the Spanish language and culture. The course will include the necessary oral practice of dialogue. To accomplish this objective, films are used as an instructional tool. The films are geographically oriented, and units will focus on themes and events that occur in each film. Daily lessons will consist of vocabulary review (for comprehension of the film excerpt of the day), recall of events of the film, cultural information exposed in the film, questioning that ties themes current in students' lives with that of the film, and interpretation of the film and its characters, plots, and themes. Language will be used through storytelling- in person, and audibly through podcasts and more. <i>This will greatly enhance students' speaking and listening skills for the Seal of Biliteracy Seal.</i></p>	
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<p><b>Special Education:</b></p> <hr style="border: 1px solid red;"/>	
<p><b>Course Name: L.S. 9<sup>th</sup> Language Arts &amp; Reading</b>  Grade Level: 9                      Number of Semesters: 2</p> <p>These two courses are individualized to reinforce student's language arts strengths and remediate their weaknesses in reading and written expression. This course will focus on general skills needed to be successful in the regular education classrooms. Students enrolled in both the language arts and reading sections will receive two credits per semester.</p>	<p><b>Course Name: 9<sup>th</sup> Math</b>  Grade Level: 9                      Number of Semesters: 2</p> <p>This course individualizes the student's needs in the area of mathematics to reinforce the students' strengths and to remediate their weaknesses. The course focuses on general computation skills and pre-algebra concepts.</p>
<p><b>Course Name: L.S. 10<sup>th</sup> Language Arts &amp; Reading</b>  Grade Level: 10                      Number of Semesters: 2</p> <p>These two courses are designed to improve deficit areas in the student's language arts area. Reading comprehension and fluency are emphasized along with a variety of written expressive project and activities. Students enrolled in both the language arts and reading sections will receive two credits per semester.</p>	<p><b>Course Name: 9th/10th Algebra A</b>  Grade Level: 9/10                      Number of Semesters: 2</p> <p>This two-semester course generally covers the same topics of Algebra, including solving linear equations, solving linear inequalities, graphing linear functions, writing linear functions, and solving systems of linear equations. Admission into this course is by teacher recommendation only.</p>
<p><b>Course Name: L.S. 11<sup>th</sup> Language Arts &amp; Reading</b> Grade  Grade Level: 11                      Number of Semesters: 2</p> <p>These two courses are a continuation of the previous language arts and reading courses. Students will continue to work on improving their overall written language and reading skills. Students will earn one credit per semester.</p>	<p><b>Course Name: 9th/10th General Math</b>  Grade Level: 9/10                      Number of Semesters: 2</p> <p>General Math is a basic math course geared toward independent living skills. Some topics that will be covered include earning money, buying food, shopping for clothes, managing a household, buying and maintaining a car, budgeting, and banking skills.</p>
<p><b>Course Name: L.S. 12<sup>th</sup> Language Arts &amp; Reading</b> Grade  Level: 12                      Number of Semesters: 2</p> <p>This course focuses on writing and reading fundamentals that are related to the world of work. Students will earn one credit per semester.</p>	<p><b>Course Name: L.S. Applied Math</b>  Grade Level: 12                      Number of Semesters: 2</p> <p>Applied Math is a non-algebra review of basic mathematics geared toward the senior student about to enter the job market. Some topics that will be covered include gross income, net income, budgeting, checking and savings accounts, purchases, loans, vehicle costs, and housing costs. Juniors will need special permission from the special education teacher and principal to take this course as a junior.</p>
<p><b>Course Name: Work Experience</b>  Grade Level: 11 - 12                      Number of Semesters: 2</p>	



<p>The purpose of this course is for the students to establish an employee-employer relationship in some local business or industry. Students will be placed within the school or in a community work site to explore various job skills. Students will receive one or two credit hours per semester. This course is offered to Level II and Level III students. Freshman and sophomores will need special permission from the work experience coordinator to participate in a work experience.</p>	
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# SCHOOL TO WORK OPPORTUNITIES at MV

## 1. Job Shadowing:

- Students are entering Junior/Senior year, or are at least 16 years of age.
- Sophomore, Junior and Seniors can sign up for the [Career Learning Link](#) through NICC also.
- Students 16 years and older can pick up a job shadow application from Mrs. Carroll (outside her classroom). If you plan to move forward to the opportunities listed below, pick up a **reflection, business survey, & thank-you card** from Mrs. Carroll.

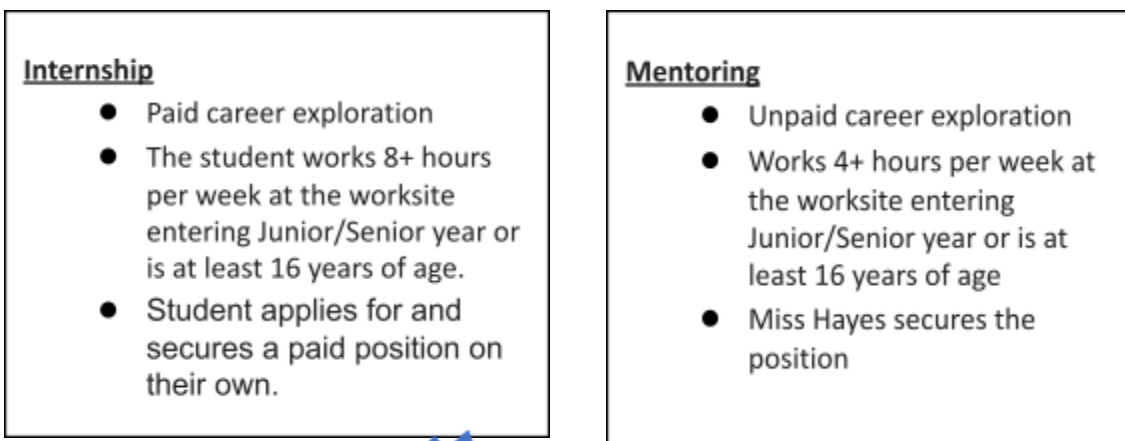
## 2. PRE-EMPLOYMENT STRATEGIES:

- It is required to complete Pre-Employment Strategies with a grade of "C" or better prior to item 3, working during the school day.

## 3. WORK DURING THE SCHOOL DAY FOR TWO PERIODS:

- Required to complete Pre-Employment Strategies with a grade of "C" or better.

### Choose a path



- Provides own transportation
- Has a cumulative GPA of 2.00 or higher
- Keeps a time log
- Monthly photo and an explanation of how this relates to Pre-Employment topics discussed in class.
- May complete one semester or the entire school year.
- Receives 1 high school credit per period - Maximum of 2 periods / 2 credits per semester. Can earn up to six credits.
- Takes monthly photos explaining the hard and/or soft skills they are working on
- Grading is 65% Percent Performance Evaluation by Employer; 15% time sheets; 20% Monthly photo/explanation.
- Students **MAY NOT** work for their immediate family member.

Students are more than the number they earn on a standardized test. Our high school strives to provide students with rigorous academic programs, personalized and career-specific learning experiences and social and emotional skills that prepare them to be global citizens in an ever-changing world. The scores on standardized tests are one of many potential indicators that demonstrate readiness for life beyond high school. We are educating students who will leave high school with academic skills that make them college and career ready, with the grit and perseverance to tackle and achieve their goals, and with the mindset that empowers them to approach their future with confidence.



### College Ready Indicators:

Students are considered “college ready” if they meet the indicators or the standardized testing benchmarks listed below.

#### Academic Indicators

GPA 2.8 out of 4.0 **AND one or more** of the following academic indicators:

- Algebra II proficiency (earned A,B, or C)
- Senior year math course/4 years of math (excluding Applied Math)
- CTE pathway course sequence completed
- Dual credit or AP course proficiency (earned A,B, or C)
- AP exam score of 3+
- College Prep course proficiency (including passing Accuplacer exam score)

#### Standardized Testing Benchmarks

(Minimum score on any one of the following)

- ACT Exam: English (18) /Reading (22) /Science (23)/ Math (22)
- SAT Exam: Math (530)/Reading and Writing (480)
- College Readiness Placement Assessment (determined by post-secondary institution)

#### Additional Factors:

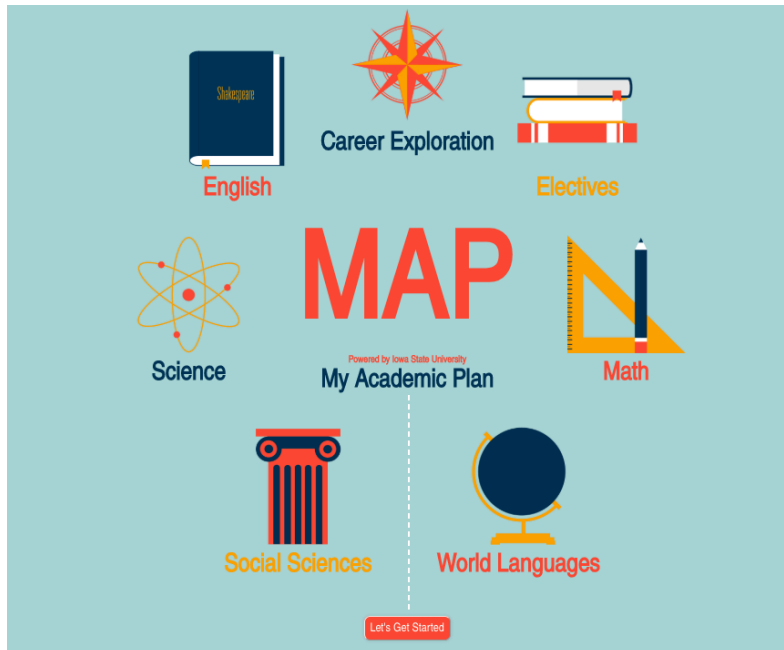
- Completion of Career Ready indicators (next page)
- Completion of a career pathway
- Completion of tasks related to college admission such as college visits, financial aid application (FAFSA), admission application, scholarship application, etc.
- Development of Maquoketa Valley’s Guidelines for Success

### Career Ready Indicators:

Students are considered “career ready” if they have identified a career interest and meet 2 or more of the benchmarks listed below.

Career Cluster identified **AND two or more** of the following benchmarks:

- 90% Attendance
- 25 hours of Community Service/Volunteering
- Workplace Learning Experience/Job Shadow (includes participation in teacher assistant program)
- Completion of coursework for a career pathway
- Participation in two or more organized Co-Curricular/Extra-Curricular Activities:
  - Includes Yearbook, School Newspaper, FFA, Drama/Speech, Band, Choir, Sports
- Development of Maquoketa Valley’s Guidelines for Success



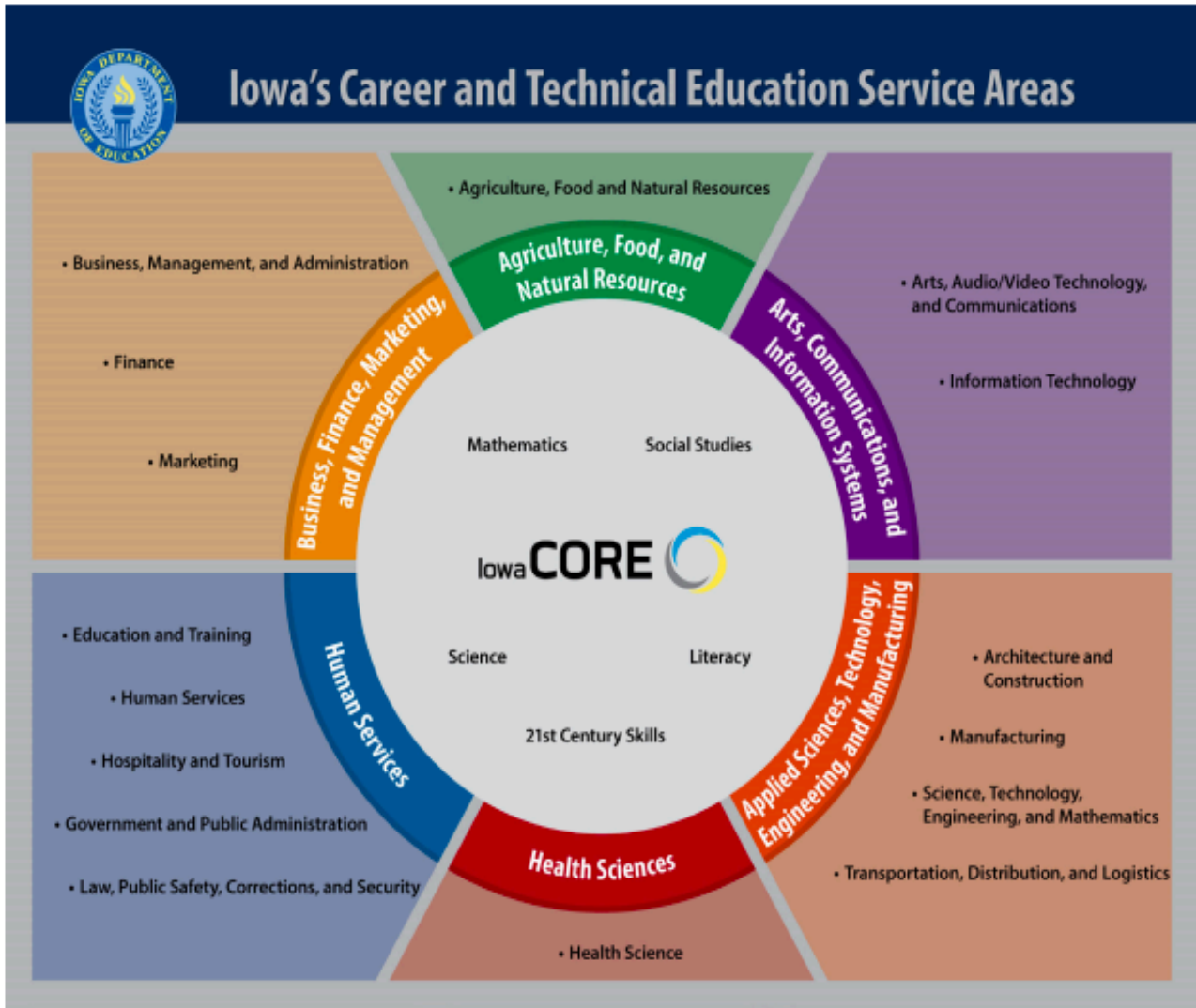
[My Academic Plan](#) (MAP) is an Internet-based career exploration and planning tool used by Maquoketa Valley students. It guides students through a series of steps which allow them to:

- Identify their own interests, work values, and skills through simple online inventories.
- Explore career options which best match interests, work values, and skills.
- Plan high school course schedule with their career goals in mind.
- Explore college majors or training programs which prepare them for their intended career, and then identify a college or training that best fits them.

### **Additional Information:**

- [Military Careers](#) you can take back to civilian life
- Iowa [colleges](#) tuition, and room and board cost
- How much will your [student loan](#) be per month?

There are 16 nationally recognized career clusters. Each contains multiple career pathways.



The goal of career pathways is to assist students in planning their high school course schedule with their career goals in mind. Each pathway provides suggested courses and experiences, lists possible college majors and possible career options. The pathways include links to more information about careers as well as links to colleges' programs of study for various majors. These links are provided to allow students insight on the types of classes required for the major. The links are not endorsements for any particular college. Maquoketa Valley CSD encourages students to explore various colleges' programs to find the best fit.



# Career Pathways

Explore careers through [My Academic Plan](#)



## Career Cluster: Agriculture, Food & Natural Resources

You can learn more about this career cluster [here](#). [This document](#) lists related degrees, careers & salaries.

Environmental Science.....	13
Food Products & Processing.....	14
Plant & Animal Systems.....	15
Power Structural & Technical Systems.....	16

## Career Cluster: Applied Science, Technology, Engineering & Manufacturing:

You can learn more about this career cluster [here](#).

<a href="#">Advanced Manufacturing</a> .....	17
<a href="#">Building Trades</a> - Carpentry, Electricity, Plumbing, HVAC (Heating, Ventilation, Air-Conditioning) .....	18
<a href="#">Engineering</a> .....	19

## Career Cluster: [Arts](#), [Communication](#), & [Information Solutions](#):

Arts (Performing): Acting & Technical Theater.....	20
Arts (Performing): Instrumental.....	21
Arts (Performing): Vocal.....	22
Arts (Visual): Art Galleries & Museum Curation.....	23
Arts (Visual): Graphic Design.....	24
Arts (Visual): Illustrator, Professional Artist.....	25
Arts (Visual): Photography.....	26
Communication: Events Planner.....	27
Communication: Journalism & Broadcasting.....	28
Communication: Writer, Author, Editor.....	29
Information Systems: Information Technology.....	30
Information Systems: Programming & Software Development.....	31

## Career Cluster: Business, Finance, Marketing & Management

Corporate Real Estate.....	32
<a href="#">Finance</a> .....	33
<a href="#">Marketing</a> .....	34
<a href="#">Management</a> .....	35
Management Software.....	36
<a href="#">Statistics/Math</a> .....	37
Supply Chain Management.....	38

## Career Cluster: [Health Sciences](#)

You can learn more about this career cluster [here](#).

Medical Professions.....	39
Medical Technicians & Assistants.....	40

## Career Cluster: Human Services

You can learn more about this career cluster [here](#).

<a href="#">Education</a> .....	41
<a href="#">Hospitality &amp; Tourism</a> .....	42
<a href="#">Political Science, Law &amp; Corrections</a> .....	43
<a href="#">Social Work, Counseling &amp; Mental Health</a> .....	44

## Career Pathway: Environmental Science

Career Cluster: Agricultural, Food & Natural Resources

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Chemistry
- AP Physics\*
- Anatomy & Physiology
- Management
- Environmental Science (JREC)\*

### Recommended Core Courses:

- Earth Science
- Biology

### Related Electives:

- Spanish
- Psychology\*
- Oral Communications\*
- Electricity
- Animal Science

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### External Experiences:

- Job Shadows: DNR, Fish Hatchery, ASCS
- Community & School Activities/Organizations
  - FFA
  - IT Club
  - 4-H
  - Boy/Girl Scouts
  - Contest Speech

### College Majors (examples):

- [Environmental Science](#)
- [Environmental Control Technologies/Technicians](#)
- [Environmental Engineering Technology](#)
- [Forestry](#)
- Hazardous Materials Management
- [Water Quality and Wastewater Treatment](#)
- [Natural Resources Management](#)

### Careers (examples):

- [Environmental Engineering Technician](#)
- [Hazardous Materials Removal Worker](#)
- [Occupational Health and Safety Specialist](#)
- [Refrigeration Mechanic and Installer](#)
- [Water and Wastewater Treatment Plant and System Operator](#)



## Career Pathway: Food Products & Processing

Career Cluster: Agricultural, Food & Natural Resources

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Chemistry
- AP Physics\*
- Anatomy & Physiology
- Marketing
- Management
- Emerging Technology Trends\*
- Survey of Animal Industry (JREC)\*

### Recommended Core Courses:

- Biology
- Health I
- Comp I\*
- Comp II\*

### Related Electives:

- Health II
- Spanish
- Psychology\*
- Accounting
- Oral Communications\*
- Advanced Animal Science
- Animal Production
- Farm Business Management
- Beginning Foods
- Advanced Foods
- Microsoft Suite Basics\*

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### External Experiences:

- Job Shadows:
- Community & School Activities/Organizations:
  - FFA
  - 4-H
  - Contest Speech
  - Boy/Girl Scout

### College Majors (examples):

- [Agricultural and Food Products Processing](#)
- [Agricultural Business and Management \(2 yr\) \(4 yr\)](#)
- [Agricultural Business Technology](#)
- [Agricultural/Farm Supplies Retailing and Wholesaling](#)
- [Biological Systems Engineering](#)
- [Food Science](#)
- [Food Technology and Processing](#)

### Careers (examples):

- [Agricultural and Food Science Technician](#)
- [Agricultural Technician](#)
- [Chemical Technician](#)
- [Farm and Ranch Manager](#)
- [Food Science Technicians](#) or [Technologist](#)
- [Pest Control Worker](#)

## Career Pathway: Plant and Animal Systems

Career Cluster: Agricultural, Food & Natural Resources

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Chemistry
- AP Physics\*
- Anatomy & Physiology
- Survey of Animal Industry (JREC)\*

### Recommended Core Courses:

- Biology
- Health I
- Comp I\*
- Comp II\*

### Related Electives:

- Health II
- Spanish
- Psychology\*
- Recordkeeping
- Oral Communications\*
- Advanced Animal Science
- Animal Production

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### External Experiences:

- Job Shadows
- Community & School Activities/Organizations
  - FFA
  - 4-H

### College Majors (examples):

- [Agricultural Animal Breeding](#)
- [Agricultural Systems Technology](#)
- [Animal Ecology](#)
- [Agronomy](#)
- Animal Health and Nutrition
- Animal Sciences ([2 yr](#)) ([4 yr](#))
- Animal Training
- [Dairy Science](#)
- [Dog/Pet/Animal Grooming](#)
- [Equestrian/Equine Studies](#)
- [Ag Production Management](#)
- Poultry Science

### Careers (examples):

- [Agricultural and Food Science Technician](#)
- [Agricultural Technician](#)
- [Animal Breeder](#)
- [Animal Caretaker](#)
- [Animal Scientist](#)
- [Animal Trainer](#)
- [Aquacultural Manager](#)
- [Farmworker: Farm, Ranch and Aquacultural Animals](#)
- [Farming, Fishing and Forestry Worker](#)
- [Food Science Technician](#)
- [Veterinarian/Veterinarian Technician](#)

## Career Pathway: Power Structural & Technical Systems

Career Cluster: Agriculture, Food & Natural Resources

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Welding
- Ag Mechanics
- AP Physics\*
- Electricity
- AP Calculus AB\*

### Recommended Core Courses:

- Oral Communications\*

### Kirkwood Academies Offered through MV:

- [Automotive Technology](#)\*
- [Advanced Manufacturing with Robotics and Welding](#)

### Related Electives:

- Spanish
  - Crop Production
  - AP Computer Science Principles \*
- 

### External Experiences:

- Community & School Activities/Organizations
  - 4H
  - FFA
  - IT Club

### College Majors (examples):

- [Agricultural Mechanics](#) and Equipment/Machine Technology
- [John Deere TECH](#)
- [Precision Agriculture](#) (GIS/GPS)
- Agricultural Mechanization
- [Agricultural Power Machinery Operation](#)

### Related Certificates (NICC/KCC):

- [Kirkwood Welding Diploma/Degree](#)
- [NICC Welding Certificate](#)
- Snap-On Certifications:
  - **Torque**
  - **Hand Tool Safety**
  - **Electrical Tool Safety**
  - **Wheel Alignment**
  - **Solus Scantool**
  - **Shopkey Service Information**
  - **525 Multimeter**
- ASE Certifications (ASE stands for Automotive Service Excellence):
  - **G1 maintenance and Light Repair.**
- SP2 Certifications:
  - **Mechanical Safety**
  - **Mechanical Pollution Prevention**

### Careers (examples):

- [Agricultural Engineer](#)
- [Agricultural Equipment Operator](#)
- [Farm Equipment Mechanics and Service Technician](#)
- [Mobile Heavy Equipment Mechanic](#)
- [Recycling Technician](#)
- [Remote Sensing Technician](#)

## Career Pathway: Advanced Manufacturing

Career Cluster: Applied Sciences, Technology, Engineering, Manufacturing

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Ag Architectural Drawing I
- Ag Architectural Drawing II
- Ag Structures I
- Ag Construction and Technology

Welding

### Recommended Core Courses:

- Algebra 1
- Geometry

### Kirkwood Academies Offered through MV:

- [Advanced Manufacturing with Robotics and Welding\\*](#)
  - [Engineering - Project Lead the Way \\*](#)
- 

### External Experiences:

- Job Shadows: Paladin, Henderson Manufacturing, XL Specialized Trailers, John Deere, Farm-Tek Clear Span, Hawkeye Tool and Die (Jesup)
- Community & School Activities/Organizations:

### Related Certificates (NICC/KCC):

CNC Mill Operator: NIMS: National Institute of Metal Working Society

CNC Lathe Operator: NIMS: National Institute of Metal Working Society

Welding: SENSE 1

Computer Integrated Manufacturing: CIM

### College Majors (examples):

- [Electrical Engineering](#)
- Industrial Technology ([4 year](#)) ([2 year](#))

### Community College/Certificate (examples):

- [Advanced Manufacturing and Robotics Technologies](#)
- [CNC Machining Technology](#)
- [Advanced Welding Technologies](#)
- [Automation and Instrumentation Technologies](#)
- [Electronics Engineering Technology](#)

### Careers (examples):

- [CNC \(Computer Numerical Control\) Machinist](#)
- [Tool and Die Machinist](#)
- [Robotic Technician](#)
- [Welder](#)
- [Explore other production careers](#)

[Website](#) designed for educators and students to explore career opportunities and educational requirements in the field of Advanced Manufacturing

## Career Pathway: Building Trades-Carpentry, Electricity, Plumbing, HVAC (Heating, Ventilation, Air-Conditioning)

Career Cluster: Applied Sciences, Technology, Engineering, Manufacturing

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Ag Structures I
- Ag Structures II
- Ag Electricity I
- Ag Electricity II
- Ag Architectural Drawing I

### Recommended Core Courses:

- Algebra 1
- Geometry

### Related Electives:

- Welding
- Ag Architectural Drawing III
- Ag Mechanics
- Construction of Technology
- Ag Architectural Drawing II

### Kirkwood Academies Offered through MV:

- [ACE \(Architecture, Construction, Engineering\)\\*](#)
- 

### External Experiences:

- Job Shadows: Any carpenter, electrician, plumber, HVAC, mason, and/or concrete company
- Community & School Activities/Organizations: Set-building for fall musical and/or spring play

### College Majors (examples):

- [Construction Management](#)

### Community College/Certificate (examples):

- [Carpenter](#)
- [HVAC](#)
- [Electrician](#)
- [Powerline](#)
- [Plumber](#)
- [Project Management](#)
- [Construction Estimator](#)

### Careers (examples):

- [Carpenter](#)
- [Electrician](#)
- [Plumber](#)
- [HVAC Technician](#)
- [Estimator](#)
- [Project Manager](#)
- [Explore other construction careers](#)

[Website](#) designed for educators and students to explore career opportunities and educational requirements in the field of Architecture, Construction and Engineering

## Career Pathway: Engineering

Career Cluster: Applied Sciences, Technology, Engineering, Manufacturing

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\* by those that earn college credit or a career certification

\*\*college credit earned if certain score is achieved on AP Exam (depends on school attending)

### Pathway Courses:

- Ag Architectural Drawing I
- Ag Architectural Drawing II
- Ag Electricity I
- Computer Software Technology

### Kirkwood Academies Offered through MV:

- [Engineering - Project Lead the Way](#) \*
- [ACE \(Architecture, Construction, Engineering\)](#) \*

### Recommended Core Courses:

- Pre-Calculus/AP Calculus AB\*\*
  - Algebra 1, Geometry, Algebra 2
- Chemistry
- AP Physics I\*\*
- American Literature I and II
- Composition I\* and II\*

### Related Electives:

- Statistics
- Spanish
- Ag/Science classes (Agricultural Engineer)

---

### External Experiences:

- Job Shadows: Ferr Graham, Paladin, XL Specialized Trailers, Henderson Manufacturing, FarmTek, Manchester Fish Hatchery
- Community & School Activities/Organizations:

### University Majors (examples):

- [Engineering](#)
- [Mathematics](#)

### Community College/Certificate (examples):

- CAD/Mechanical Engineering Technology ([2-year AAS degree at Kirkwood Community College](#))
- [Engineering Technician](#)

### Careers (examples):

- [Mechanical Engineer](#)
- [Biomedical Engineer](#)
- [Nuclear Engineer](#)
- [Aerospace Engineer](#)
- [Civil Engineer](#)
- [Architectural Engineer](#)
- [Computer Engineer](#)
- [Chemical Engineer](#)
- [Agricultural Engineer](#)
- [Environmental Engineer](#)
- [Electrical Engineer](#)
- [Engineering Technician](#)
- [Other mechanical engineering careers](#)
- [Other civil engineering careers](#)
- [Other chemical and material engineering careers](#)
- [Other electrical engineering careers](#)
- [Other careers in Energy and Natural Resource eng.](#)

[Website](#) designed for educators and students to explore career opportunities and educational requirements in the field of Architecture, Construction and Engineering

## Career Pathway: Arts, Performing - Acting & Technical Theatre

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Advanced Speech
- Fashion Design/Advanced Fashion Design
- Construction & Technology/Ag Structures II

### Recommended Core Courses:

- Speech

### Related Electives:

- Creative Writing
  - Intro to Lit\*
- 

### External Experiences:

- Job Shadows: Theatre Cedar Rapids
- Community & School Activities/Organizations:  
Spring Play, Fall Musical, Large Group & Individual  
Speech, Set Building for Shows

### College Majors (examples):

- [Theater](#) (B.A.)
- [Theater](#) (A.A.)
- [Acting](#)

Other education options:

[Improv workshops](#)

### Careers (examples):

- [Actor](#)
- [Director](#)
- [Producer](#)
- [Talent Director](#)
- [Stage Manager](#)
- [Set/Exhibit Designer](#)
- [Makeup Artist](#)
- [Costume Designer/Attendant](#)
- [Technical Director](#)
- [Light Designer](#)
- [Sound Designer/Engineer](#)
- [Drama Educator](#)

## Career Pathway: Arts, Performing - Instrumental

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Instrumental Music
- Music Appreciation\* (JREC)

### Recommended Core Courses:

- Speech

### Related Electives:

- Vocal Music
- 

### External Experiences:

- Job Shadows:
- Community & School Activities/Organizations: Jazz Band, Marching Band, Concerts, Festivals, Pit Orchestra, Pep Band, Contests
- Summer Music Camps

### College Majors (examples):

- [Music Education](#)
- [Music Performance](#)
- [Music Therapy](#)
- [Music \(A.A.\)](#)

### Careers (examples):

- [Band director](#)
- [Solo performer](#)
- [Music director](#)
- [Professional Band/Orchestra member](#)
- [Military musician](#)
- [Pit Orchestra performer](#)
- Marching band drill writer
- Drumline instructor
- Church Musician
- [Composer/Arranger](#)
- Instrumental Studio



## Career Pathway: Arts, Performing - Vocal

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Vocal Music
- Music Appreciation\* (JREC)

### Recommended Core Courses:

- Speech
- Comp 1

### Related Electives:

- Instrumental Music
  - Creative Writing 1
  - Creative Writing 2
- 

### External Experiences:

- Job Shadows:
- Community & School Activities/Organizations:  
Vocal Jazz, Musical, Contests, Festivals, Concerts
- Summer Music Camps

### College Majors (examples):

- [Music Education](#)
- [Music Performance](#)
- [Music Therapy](#)
- Musical Theatre ([minor](#))
- [Composition](#)

### Careers (examples):

- [Music Teacher](#)
- [Chorus Director](#)
- [Military Musician](#)
- [Music Director](#)
- [Professional Singer](#)
- [Music Therapist](#)
- [Actor](#)
- [Composer/Arranger](#)
- Church Musician
- Voice Studio

## Career Pathway: Arts, Visual - Art Galleries and Museum Curation

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Photography
- Graphic Design
- Drawing 1 & 2
- Fundamentals of Art 1 & 2
- Ceramics
- Interior Design
- Fashion Design
- Advanced Fashion Design

### Recommended Core Courses:

- Speech

### Related Electives:

- Principles of Marketing

### Kirkwood Academies Offered through MV:

- [Graphic Communication Technology](#)\*
- 

### External Experiences:

- Job Shadows: newspapers - sports
- Community & School Activities/Organizations:  
Wildcat Echo, yearbook

### College Majors (examples):

- Art ([B.A.](#)) ([A.A.](#))
- [Art History](#)
- [Art & Design](#)
- [Studio Art](#)
- Graphic Design ([A.A.](#))([B.F.A.](#))
- Graphic Communication Technology ([A.A.](#))

### Careers (examples):

- [Curator](#)
- [Restoration Artist](#)
- [Craft Artist](#)

## Career Pathway: Arts, Visual - Graphic Design

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Photography
- Graphic Design

### Recommended Core Courses:

- Interior Design
- Fashion Design
- Advanced Fashion Design

### Kirkwood Academies Offered through MV:

- [Graphic Communication Technology](#)\*

### Related Electives:

- Principles of Marketing
- Drawing I and II
- Interior and Exterior Design
- Web Design
- Emerging Business Technologies

---

### External Experiences:

- Job Shadows: newspapers - sports
- Community & School Activities/Organizations:  
Wildcat Echo, yearbook

### College Majors (examples):

- [Art & Graphic Design](#)
- Graphic Design ([A.A.](#))([B.F.A.](#))
- Graphic Communication Technology ([A.A.](#))
- [Graphic Technologies](#)

### Careers (examples):

- [Graphic Designer](#)
- [Fashion Designer](#)
- [Marketing Manager](#)
- [Web Developer](#)
- [Military Multimedia Illustrator](#)
- [Art Director](#)
- [Multimedia Artist / Animator](#)

## Career Pathway: Arts, Visual - Illustration and Professional Artist

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Photography
- Graphic Design
- Drawing 1 & 2
- Fundamentals of Art 1 & 2
- Ceramics
- Interior Design
- Fashion Design
- Advanced Fashion Design

### Recommended Core Courses:

- Speech

### Related Electives:

- Principles of Marketing

### Kirkwood Academies Offered through MV:

- Graphic Communication Technology\*
- 

### External Experiences:

- Job Shadows: newspapers - sports
- Community & School Activities/Organizations:  
Wildcat Echo, yearbook

### College Majors (examples):

- [Art History](#)
- [Art & Graphic Design](#)
- [Graphic Design \(A.A.\)\(B.F.A.\)](#)
- [Studio Art](#)
- [Journalism](#)
- [Creative Writing](#)

### Careers (examples):

- [Graphic Designer](#)
- [Web Developer](#)
- [Multimedia Artist and Animator](#)
- [Art Director](#)
- [Craft Artist](#)
- Tattoo Artist
- Sketch Artist
- Automotive Airbrush Designer

## Career Pathway: Arts, Visual - Photography

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Photography
- Graphic Design

### Recommended Core Courses:

- Speech

### Related Electives:

- Principles of Marketing

### Kirkwood Academies Offered through MV:

- [Graphic Communication Technology](#)\*
- 

### External Experiences:

- Job Shadows: newspapers - sports
- Community & School Activities/Organizations:  
Wildcat Echo, yearbook

### College Majors (examples):

- [Art History](#)
- [Photography](#)
- [Art & Graphic Design](#)
- Graphic Design ([A.A.](#))([B.F.A.](#))
- [Studio Art](#)
- [Journalism](#)
- [Creative Writing](#)

### Careers (examples):

- [Photographer](#)
  - Military Photographer
  - Commercial Photographer
  - Scientific Photographer
  - Photojournalist
- [Photography Education](#)
- [Wedding/Event Photographer/Portrait Photographer](#)

## Career Pathway: Communication - Events Planner

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Introduction to Business
- Principles of Marketing

### Recommended Core Courses:

- Speech
- Composition 1 & 2

### Kirkwood Academies Offered through MV:

- [Hospitality Management](#)

### Related Electives:

- Advanced Speech
  - Interior Design
  - Information Computing
  - Fundamentals of Art 1 & 2
- 

### External Experiences:

- Job Shadows:
- Community & School Activities/Organizations:  
*Wildcat Echo*, yearbook, Large Group Speech,  
Individual Speech, Spring Play, Fall Musical

### College Majors (examples):

- [Communications](#)
- [Hospitality](#)
- [Public Relations](#)
- [Marketing](#)
- [Sport and Recreation Management](#)

### Related Certificates (NICC/KCC):

- National Restaurant Association Educational Foundation Certification Exam
- ServSafe Food Handler

### Careers (examples):

- [Meeting, Event & Convention Planner](#)
  - Wedding Planner
  - Exhibition Coordinator
  - Special Events Planner
  - Trade Show Promotions

## Career Pathway: Communication - Journalism & Broadcasting

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Speech
- Composition I
- Composition II

### Recommended Core Courses:

- Speech
- Composition I
- Composition II

### Kirkwood Academies Offered through MV:

- [Graphic Communication Technology\\*](#)

### Related Electives:

- Graphic Design
- Photography
- Advanced Speech
- Creative Writing 1 & 2
- Interior Design

---

### External Experiences:

- Job Shadows: area newspapers; KMCH
- Community & School Activities/Organizations: *Wildcat Echo*, yearbook, Large Group Speech (TV News & Radio Broadcasting categories), Individual Speech (Radio News Announcing)

### College Majors (examples):

- [Digital Media Production](#)
- [Journalism and Mass Communications](#)
- [Journalism and Communications](#)

### Careers (examples):

- [Newspaper/TV Reporter](#)
- [Broadcast News Analyst](#)
- [Radio/TV Announcer](#)
- [Audio/Visual Equipment Technician \(Camera Person, Editor, Sound\)](#)
- [News Producer](#)

## Career Pathway: Communication - Writer/Author/Editor

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- American Literature 1 & 2
- English 3
- Composition 1 & 2
- Intro to Literature
- Speech

### Recommended Core Courses:

- American Literature 1 & 2
- English 3
- Composition 1 & 2
- Intro to Literature
- Speech

### Related Electives:

- Creative Writing 1 & 2
- Advanced Speech

---

### External Experiences:

- Job Shadows: area newspapers; area authors (ex: Kay Woodhouse)
- Community & School Activities/Organizations: *Wildcat Echo*, yearbook, Large Group Speech, Individual Speech
- Writing on own - entering contests

### College Majors (examples):

- [English](#)
- [Creative Writing](#)
- [Communications](#)
- [Digital Media](#)
- [Public Relations](#)
- [Technical Communications](#)
- [Writing](#)

### Careers (examples):

- [Copywriter](#)
- [Author](#)
- [Songwriter](#)
- [Playwright](#)
- [Editor/Proofreader](#)
- [Technical Writer](#)
- [Grant Writer](#)
- [Speech Writer](#)



## Career Pathways: Information Systems - Information Technology

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Introduction to Computer Business Applications\*
- Web Design\*
- Emerging Technology Trends\*
- Programming & Logic\*
- Pre-employment Strategies\*

### Recommended Core Courses:

- AP Calculus AB
- AP Physics
- Speech

### Related Electives:

- Statistics

### Kirkwood Academies Offered through MV:

- [Computer Programming and Software Development \(Coding\)](#) \*

---

### External Experiences:

- Job Shadows: Cartegraph, ITS, Regional Medical Center
- Community & School Activities/Organizations: IT Club

### College Majors (examples):

- [Computer Engineering](#)
- [Computer Science \(4 year\) \(2 year\)](#)
- [Business and Web Programming](#)
- [Computer Technology, Networking, and Programming](#)
- [Management Information Systems](#)
- [Business Analytics and Information Systems](#)
- [Digital Media](#)
- [Technical Communications](#)

### Careers (examples):

- [Computer & Information Research Scientist & Systems Manager](#)
- [Computer Network Architect](#)
- [Computer Systems Analyst](#)
- [Computer User Support Specialist](#)
- [Network & Computer Systems or Database Administrator](#)

[Website](#) designed for educators and students to explore career opportunities and educational requirements in the field of Information Technology

# Career Pathway: Information Systems - Programming & Software Development

Career Cluster: Arts, Communication, & Information Systems

---

\* by those that earn college credit or a career certification

## Pathway Courses:

- Introduction to Computer Business Applications\*
- Web Design\*
- Programming & Logic\*
- Pre-employment Strategies\*

## Recommended Core Courses:

- AP Calculus AB
- AP Physics
- Speech

## Kirkwood Academies Offered through MV:

- [Computer Programming and Software Development \(Coding\)](#) \*

## Related Electives:

- Statistics
  - Graphic Design
- 

## External Experiences:

- Job Shadows: Cartegraph, ITS, Regional Medical Center
- Community & School Activities/Organizations: IT Club

## College Majors (examples):

- [Robotics](#)
- [Computer Engineering](#)
- [Computer Science \(4 year\) \(2 year\)](#)
- [Business and Web Programming](#)
- [Computer Technology, Networking, and Programming](#)
- [Management Information Systems](#)
- [Business Analytics and Information Systems](#)
- [Digital Media](#)
- [Technical Communications](#)
- [Web Systems](#)

## Careers (examples):

- [Computer & Information Research Scientist & Systems Manager](#)
- [Computer Hardware Engineer](#)
- [Computer Network Architects](#)
- [Computer Programmer](#)
- [Computer Science & Engineering Teacher](#)
- [Computer Systems or Information Security Analyst](#)
- [Computer User Support Specialist](#)
- [Multimedia Artist & Animator](#)
- [Network & Computer System or Database Administrator](#)

## Career Pathway: Corporate Real Estate

Career Cluster: Business, Finance, Marketing, & Management

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Introduction to Business
- Microsoft Suite Basics\* (course change for Keyboarding II NICC)
- Introduction to Accounting I\*
- Introduction to Marketing
- Introduction to Management
- Introduction to Computer Business Applications\*
- Consumer Finance/Personal Finance
- Pre-employment Strategies\*
- Business Innovation (JREC)\*

### Recommended Core Courses:

- Algebra 1 and 2
- Pre-Calculus
- Statistics

### Related Electives:

- Spanish 1-4
- 

### External Experiences:

- Job Shadows:
  - Gosling: F&M Bank, TransAmerica
- Business & Industry Day
- Community & School Activities/Organizations:
  - FFA
  - 4-H
  - Officers positions in any organization

### College Majors (examples):

- [Real Estate](#)
- [Finance](#)
- [Business Analytics](#)

### Related Certificates (NICC/KCC):

[Microsoft Office Specialist](#)

### Careers (examples):

- [Abstractor](#)
- [Commercial Appraiser](#)
- [Real Estate Sales Agent](#)
- [Commercial Developer](#)
- [Commercial Lender](#)
- [Real Estate Attorney](#)
- [Broker](#)

## Career Pathway: [Finance](#)

Career Cluster: Business, Finance, Marketing, & Management

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Introduction to Business
- Microsoft Suite Basics\* (course change for Keyboarding II NICC)
- Introduction to Accounting I\*
- Introduction to Marketing
- Introduction to Management
- Introduction to Computer Business Applications\*
- Consumer Finance/Personal Finance
- Pre-employment Strategies\*
- Business Innovation (JREC)\*
- Statistics (JREC)\*
- Personal Finance (JREC)\*

### Recommended Core Courses:

- Algebra 1 and 2
- Geometry
- Pre-Calculus
- Statistics

### Related Electives:

- Spanish 1-4
- 

### External Experiences:

- Job Shadows:
  - Gosling; F&M Bank, TransAmerica
- Business & Industry Day
- Community & School Activities/Organizations:
  - FFA
  - 4-H
  - Officers positions in any organization

### College Majors (examples):

- [Accounting](#)
- [Finance](#)
- [Business Analytics](#)
- [Economics](#)

### Related Certificates (NICC/KCC):

[Microsoft Office Specialist](#)

### Careers (examples):

- [Accountant](#)
- [Loan Officer](#)
- [Auditor](#)
- [Financial Analyst](#)
- [Financial Planner](#)
- [Commodities Trader](#)
- [Sales Agents, Securities and Commodities](#)

## Career Pathway: **Marketing**

Career Cluster: Business, Finance, Marketing, & Management

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Introduction to Marketing
- Introduction to Management
- Introduction to Business
- Microsoft Suite Basics\* (course change for Keyboarding II NICC)
- Introduction to Accounting I\*
- Fundamentals of Web Design\*
- Emerging Technology Trends\*
- Computer Science Principles AP\*
- Pre-Employment Strategies\*
- Business Innovation (JREC)\*
- Hospitality Marketing & Social Media (JREC-part of Hospitality Mgmt Academy)\*

### Recommended Core Courses:

- Algebra 1 and 2
- Statistics
- English I
- English II
- Speech
- American Lit I & II/English III
- Applied English/College Prep English/Composition I\*/Composition 2\*

### Related Electives:

- Spanish 1-4
  - Fundamentals of Art I
  - Graphic Design
  - Photography
- 

### External Experiences:

- Job Shadows
- Business & Industry Day
- Community & School Activities/Organizations:
  - Speech
  - Drama
  - FFA
  - 4-H
  - Officers positions
  - Team captains
  - Student Council
  - IT Club

### College Majors (examples):

- Marketing ([4 year](#)) ([1-2 year](#))
- [Entrepreneurship](#)
- [Technical Communications](#)
- [Art & Graphic Design](#)
- [Data Science](#)
- [Marketing Management](#)
- [Advertising](#)

### Related Certificates (NICC/KCC):

[Microsoft Office Specialist](#)

Google Analytics IQ Certification -an industry recognized certification that can help you get the most out of digital analytics and give you an edge in your career.

### Careers (examples):

- [Marketing analyst](#)
- [Promotions Director](#)
- [Public Relations Director](#)
- [Advertising Manager](#)
- [Social Media Strategist](#)
- [Global Marketing Specialist](#)

## Career Pathway: Management

Career Cluster: Business, Finance, Marketing, & Management

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Introduction to Business
- Introduction to Management
- Introduction to Marketing
- Microsoft Suite Basics\* (course change for Keyboarding II NICC)
- Introduction to Accounting I\*
- Introduction to Computer Business Applications\*
- Emerging Technology Trends\*
- Computer Science Principles AP
- Pre-Employment Strategies\*
- Business Innovation (JREC)\*

### Recommended Core Courses:

- Algebra 1 and 2
- Statistics
- English I
- English II
- Speech
- American Lit I & II/English III
- Applied English/College Prep English/Composition I\*/Composition 2\*

### Related Electives:

- Spanish 1-4
- Character & Leadership

### Kirkwood Academies Offered through MV:

- Hospitality Management
- 

### External Experiences:

- Job Shadows: John Deere, Rockwell,
- Business & Industry Day
- Community & School Activities/Organizations:
  - Speech
  - Drama
  - FFA & 4-H
  - Officers positions
  - IT Club
  - Student Council

### College Majors (examples):

- Human Resources Management
- Management (4 year) (1-2 year)
- Management Information Systems
- Business Administration
- Supply Chain Management
- Marketing Management
- Health Care Administration

### Related Certificates (NICC/KCC):

Microsoft Office Specialist

### Careers (examples):

- Manager
- Sales Representatives
- Human Resources Specialist
- Insurance Agent
- Business Analyst
- Information Technology Project Manager
- Financial Clerk
- Realtor Broker
- Online Entrepreneur

## Career Pathway: Management Information Systems

Career Cluster: Business, Finance, Marketing, & Management

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Introduction to Marketing
- Introduction to Business
- Microsoft Suite Basics\* (course change for Keyboarding II NICC)
- Introduction to Computer Business Applications\*
- Introduction to Accounting I\*
- Emerging Technology Trends\*
- Fundamentals of Web Design\*
- Computer Science Principles AP\*
- Pre-Employment Strategies\*

### Recommended Core Courses:

- Algebra 1 and 2
- Statistics
- Pre-Calculus
- Calculus
- English I
- English II
- Speech
- American Lit I & II/English III
- Applied English/College Prep English/Composition I\*/Composition 2\*

### Related Electives:

- Spanish 1-4
- 

### External Experiences:

- Job Shadows
- Business & Industry Day
- Community & School Activities/Organizations:
  - Speech
  - Drama -Light/Sound Engineer & Designers
  - IT Club

### College Majors (examples):

- [Management Information Systems](#)
- Computer Science (4 year) (2 year)
- [Business Analytics](#)
- [Computer Software Development](#)

### Related Certificates (NICC/KCC):

[Microsoft Office Specialist](#)

### Careers (examples):

- [Software Engineer](#)
- [Network Security or Administrator](#)
- [Robotics Engineer](#)
- [Web Developer](#)
- [Software/App Developer](#)

## Career Pathway: Statistics/Math

Career Cluster: Business, Finance, Marketing, & Management

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Introduction to Business
- Microsoft Suite Basics\* (course change for Keyboarding II NICC)
- Introduction to Accounting I\*
- Introduction to Marketing
- Introduction to Management
- Introduction to Computer Business Applications\*
- Consumer Finance/Personal Finance
- Pre-employment Strategies\*
- Statistics (JREC)\*

### Recommended Core Courses:

- Algebra 1 and 2
- Geometry
- Pre-Calculus
- Statistics
- AP Calculus AB

### Related Electives:

- Spanish 1-4
- 

### External Experiences:

- Job Shadows

### College Majors (examples):

- [Economics](#)
- [Data Science](#)
- [Statistics](#)
- [Finance](#)
- [Business Analytics](#)
- [Actuarial Science](#)
- [Math](#)
- [Management Information Systems](#)

### Related Certificates (NICC/KCC):

[Microsoft Office Specialist](#) - Excel

### Careers (examples):

- [Economist](#)
- [Environmental Economist](#)
- [Actuary](#)
- [Statistical Assistant](#)
- [Financial Analyst](#)



## Career Pathway: Supply Chain Management

Career Cluster: Business, Finance, Marketing, & Management

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Introduction to Business
- Microsoft Suite Basics\* (course change for Keyboarding II NICC)
- Introduction to Accounting I\*
- Introduction to Marketing
- Introduction to Management
- Introduction to Computer Business Applications\*
- Consumer Finance/Personal Finance
- Pre-employment Strategies\*

### Recommended Core Courses:

- Algebra 1 and 2
- Pre-Calculus
- Statistics

### Related Electives:

- Spanish 1-4
- 

### External Experiences:

- Job Shadows:
  - Gosling: F&M Bank, TransAmerica
- Business & Industry Day
- Community & School Activities/Organizations:
  - FFA
  - 4-H
  - Officers positions in any organization

### College Majors (examples):

- [Supply Chain Management](#)
- [Finance](#)
- [Business Analytics](#)

### Related Certificates (NICC/KCC):

[Microsoft Office Specialist](#)

### Careers (examples):

- [Global Commodities Director](#)
- [Logistics Manager](#)
- [Material Flow Coordinator](#)
- [Supply Chain Manager](#)
- [Purchasing Manager](#)

## Career Pathway: Medical Technicians & Assistants (2 year path)

Career Cluster: Health Sciences

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Chemistry
- AP Physics
- Anatomy & Physiology

### Recommended Core Courses:

- Biology
- Health I
- Comp I\*
- Comp II\*

### Kirkwood Academies Offered through MV:

- [EMT\\*](#)
- [Patient Care\\*](#)

### Related Electives:

- Health II
  - Spanish
  - Psychology
  - Recordkeeping
  - Oral Communications\*
  - Advanced Animal Science
  - Animal Production
- 

### External Experiences:

- Job Shadows:
- Community & School Activities/Organizations:
- Contest Speech

### College Majors (examples):

- [Emergency Medical Technology/Technician](#)
- [Health Informatics/Medical Records](#)
- [Medical Lab Technician](#)
- [Nursing](#)
- [Pharmacy Technician](#)
- [Respiratory Care](#)
- [Surgical Tech](#)
- [Dental Hygiene](#)
- [Medical Assisting](#)
- [Occupational Therapy Assistant](#)
- [Physical Therapy Assistant](#)
- [Exercise Science and Wellness](#)

### Related Certificates (NICC/KCC):

- Certified Nurses Aid (CNA)
- Health Support Professional (HSP)

### Careers (examples):

- [Dental Laboratory Technician](#)
- [Dietitian and Nutritionist](#)
- [Emergency Medical Technicians and Paramedic](#)
- [Health Technologists and Technician](#)
- [Medical Records and Health Information](#)
- [Nurse/Nursing Assistant](#)
- [Physical Therapy Assistant](#)
- [Pharmacy Technician](#)
- [Radiology \(ultrasound, mammography, CT, MRI\)](#)

## Career Pathway: Medical Professions (4+ year path)

Career Cluster: Health Sciences

---

\* by those that earn college credit or a career certification

### Pathway Courses:

- Chemistry
- AP Physics
- Anatomy & Physiology

### Kirkwood Academies Offered through MV:

- [EMT](#)\*
- [Patient Care](#)\*

### Recommended Core Courses:

- Biology
- Health I
- Comp I
- Comp II

### Related Electives:

- Health II
- Spanish
- Psychology
- Recordkeeping
- Oral Communications
- Advanced Animal Science
- Animal Production

---

### External Experiences:

- Job Shadows:
- Community & School Activities/Organizations:

### College Majors (examples):

- [Biochemistry](#)
- [Public Health](#)
- [Dentistry](#)
- [Health Promotion and Education](#)
- [Medicine](#)
- [Kinesiology](#)
- [Nursing](#)
- [Pharmacy](#)
- [Radiation Sciences](#)

### Related Certificates (NICC/KCC):

- Certified Nurses Aid (CNA)
- Health Support Professional (HSP)

### Careers (examples):

- [Dentist/Dental Technician](#)
- [Dietitian and Nutritionist](#)
- [Emergency Medical Technicians and Paramedic](#)
- [Health Technologists and Technician](#)
- [Medical Records and Health Information](#)
- [Nurse](#)
- [Nurse Practitioner](#)
- [Occupational and Physical Therapist](#)
- [Pharmacist](#)
- [Physician Assistant](#)
- [Physician/Doctor/Surgeon](#)
- [Neuropsychologist](#)

## Career Pathway: Education

Career Cluster: Human Services

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Child Development
- Intro to Psychology (online)
- Exploring Teaching (JREC)\*

### Recommended Core Courses:

- Speech

### Related Electives:

- World Language (Spanish)
  - Character Development & Leadership
  - Social Issues
  - Oral Communications (online)
  - Instrumental & Vocal Music (primary education)
- 

### External Experiences:

- Job Shadows:
- Community & School Activities/Organizations:
  - Student council
  - Student Tutor
  - Service Learning
  - Teacher Assistant Program
  - Speech

### College Majors (examples):

- Early Childhood Education ([4 year](#)) ([2 year](#))
- [Primary Education \(Elementary\)](#)
- [Secondary Education Endorsement \(Grades 5-12\)](#)  
(Major in subject you plan to teach)
- [Special Education](#)

### Related Certificates (NICC/KCC)

- CPR

### Careers (examples):

- [Education Administrator](#)
- [Coach](#)
- [Elementary Teacher](#)
- [Secondary Teacher](#) (junior high / high school)
- [Librarian](#)
- [ESL Teacher](#)
- [PreSchool Teacher](#)
- [Recreation Worker](#)
- [Special Education Teacher](#)
- [School Counselor](#)
- [Vocational Education Teacher](#)
- [Paraprofessional Educator/Teacher Assistant](#)

## Career Pathway: Hospitality and Tourism

Career Cluster: Human Services

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Character Development & Leadership
- Foods I, II, Advanced (Club 109)
- Hospitality program (KCC/JREC)

### Kirkwood Academies Offered through MV:

- [Hospitality Management Academy](#)\*

### Recommended Core Courses:

- Speech

### Related Electives:

- World Language (Spanish)
- Principles of Management
- Principles of Marketing
- Intro to Business
- Horticulture I & II

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### External Experiences:

- Job Shadows
- Community & School Activities/Organizations:
  - FFA
  - Spanish Club
  - Speech

### College Majors (examples):

- [Culinary Arts](#)
- [Hospitality Administration/Management](#)

### Related Certificates (NICC/KCC)

- Conversational Spanish

### Careers (examples):

- [Baker](#)
- [Chef and Head Cook](#)
- [Food Service Manager](#)
- [Hotel/Resort Manager](#)
- [Waiter/Waitress](#)

## Career Pathway: Political Science, Law, and Corrections

Career Cluster: Human Services

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Street Law
- Character Development & Leadership
- Social Issues
- Intro to Psychology (online)
- Intro to Criminal Justice (JREC)\*

### Recommended Core Courses:

- Speech
- World History
- U.S. History / A.P.U.S. History
- Government

### Related Electives:

- World Language (Spanish)
- 

### External Experiences:

- Job Shadows:
- Community & School Activities/Organizations:
  - Student council
  - Student Tutor
  - Service Learning
  - Teacher Assistant Program
  - Speech

### College Majors (examples):

- [Political Science](#)
- [Criminal Justice \(2 yr\) \(4 yr\)](#)
- [Court Reporter](#)
- [Forensic Science](#)
- [Criminology, Law and Justice](#)
- [Legal Assistant/Paralegal](#)
- [Social Work](#)
- [Human Services \(2 yr\)](#)
- [Social Justice](#)

### Related Certificates (NICC/KCC)

- CPR

### Careers (examples):

- [Arbitrator](#)
- [Child, Family and School Social Worker](#)
- [Correctional Officer](#)
- [Court Reporter](#)
- [Paralegal/Legal Assistant](#)
- [Judicial Law Clerk](#)
- [Lawyer](#)
- [Criminal Investigator/Detective/Special Agent](#)
- [Forensic Science Technician](#)
- [Immigration and Customs Inspector](#)
- [Police Officer/Detective](#)
- [Private Detective](#)
- [Sheriffs and Deputy Sheriff](#)

## Career Pathway: Social Work, Counseling, Mental Health Services

Career Cluster: Human Services

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\* by those that earn college credit or a career certification

### Pathway Courses:

- Child Development
- Character Development & Leadership
- Social Issues
- Intro to Psychology (online)
- Intro to Human Services (JREC)\*

### Recommended Core Courses:

- Speech
- Health I & Health II

### Related Electives:

- World Language (Spanish)
- 

### External Experiences:

- Job Shadows:
- Community & School Activities/Organizations:
  - Student Council
  - Student Tutor
  - Service Learning
  - Teacher Assistant Program
  - TEL
  - Mentoring (Helping Services)
  - Speech

### College Majors (examples):

- [Public Health Services](#)
- [Family Services](#)
- [Psychology](#)
- [Social Work](#)
- [Human Services \(2 yr\)](#)
- [Substance Abuse/Addiction Counseling](#)
- [Sociology](#)

### Related Certificates (NICC/KCC)

- CPR

### Careers (examples):

- [Child and Family Social Worker](#)
- [Clinical, Counseling and School Psychologist](#)
- [Substance Abuse and Behavior Disorder Counselor](#)
- [Hospice Counselor](#)