

# North Mahaska High School Course Description Guide 2019-2020

EQUITY STATEMENT It is the policy of the North Mahaska Community School District not to illegally discriminate on the basis of race, color, national origin, sex, disability, religion, creed, age (for employment), marital status (for programs), sexual orientation, gender identity, and socioeconomic status (for programs) in its educational programs and its employment practices. There is a grievance procedure for processing complaints of discrimination. If you have questions or a grievance related to this policy please contact the district's Equity Coordinator, Nicole DeBoef, 2163 135th Street, New Sharon, IA 50207 at 641-637-4187 or at [deboefn@nmwarhawks.org](mailto:deboefn@nmwarhawks.org).

# NORTH MAHASKA

## GRADUATION REQUIREMENTS

### 2019-2020

<p style="text-align: center;"><b><u>LANGUAGE ARTS: 8 required</u></b></p> <p><b>Required:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;"><b>English I</b></td> <td style="text-align: right;"><b>2 credits</b></td> </tr> <tr> <td style="padding-left: 20px;"><b>English II</b></td> <td style="text-align: right;"><b>2 credits</b></td> </tr> <tr> <td style="padding-left: 20px;"><b>English III</b></td> <td style="text-align: right;"><b>2 credits</b></td> </tr> </table> <p><b><u>2 more required from the following:</u></b></p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">American Literature</td> <td style="text-align: right;">1 credit</td> </tr> <tr> <td style="padding-left: 20px;">Communications</td> <td style="text-align: right;">1 credit</td> </tr> <tr> <td style="padding-left: 20px;">Advanced Writing</td> <td style="text-align: right;">1 credit</td> </tr> <tr> <td style="padding-left: 20px;">College Prep</td> <td style="text-align: right;">1 credit</td> </tr> <tr> <td style="padding-left: 20px;">Composition I (Indian Hills)</td> <td style="text-align: right;">1 credit</td> </tr> <tr> <td style="padding-left: 20px;">Composition II (Indian Hills)</td> <td style="text-align: right;">1 credit</td> </tr> </table>	<b>English I</b>	<b>2 credits</b>	<b>English II</b>	<b>2 credits</b>	<b>English III</b>	<b>2 credits</b>	American Literature	1 credit	Communications	1 credit	Advanced Writing	1 credit	College Prep	1 credit	Composition I (Indian Hills)	1 credit	Composition II (Indian Hills)	1 credit	<p style="text-align: center;"><b><u>SCIENCE: 6 required</u></b></p> <p><b>Required:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;"><b>Physical Science</b></td> <td style="text-align: right;"><b>2 credits</b></td> </tr> <tr> <td style="padding-left: 20px;"><b>Biology</b></td> <td style="text-align: right;"><b>2 credits</b></td> </tr> <tr> <td style="padding-left: 20px;"><b>Health</b></td> <td style="text-align: right;"><b>1 credit</b></td> </tr> </table> <p><b><u>1 more required from the following:</u></b></p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">Agriscience I</td> <td style="text-align: right;">1 or 2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Chemistry</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Anatomy/Physiology</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Microbiology</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Physics</td> <td style="text-align: right;">2 credits</td> </tr> </table>	<b>Physical Science</b>	<b>2 credits</b>	<b>Biology</b>	<b>2 credits</b>	<b>Health</b>	<b>1 credit</b>	Agriscience I	1 or 2 credits	Chemistry	2 credits	Anatomy/Physiology	2 credits	Microbiology	2 credits	Physics	2 credits
<b>English I</b>	<b>2 credits</b>																																		
<b>English II</b>	<b>2 credits</b>																																		
<b>English III</b>	<b>2 credits</b>																																		
American Literature	1 credit																																		
Communications	1 credit																																		
Advanced Writing	1 credit																																		
College Prep	1 credit																																		
Composition I (Indian Hills)	1 credit																																		
Composition II (Indian Hills)	1 credit																																		
<b>Physical Science</b>	<b>2 credits</b>																																		
<b>Biology</b>	<b>2 credits</b>																																		
<b>Health</b>	<b>1 credit</b>																																		
Agriscience I	1 or 2 credits																																		
Chemistry	2 credits																																		
Anatomy/Physiology	2 credits																																		
Microbiology	2 credits																																		
Physics	2 credits																																		
<p style="text-align: center;"><b><u>MATH: 6 required</u></b></p> <p><b><u>6 credits required from the following:</u></b></p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">General Math</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Consumer Math</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Algebra IA</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Algebra IB</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Algebra I</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Geometry</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Algebra II</td> <td style="text-align: right;">2 credits</td> </tr> <tr> <td style="padding-left: 20px;">Pre-Calculus</td> <td style="text-align: right;">2 credits</td> </tr> </table>	General Math	2 credits	Consumer Math	2 credits	Algebra IA	2 credits	Algebra IB	2 credits	Algebra I	2 credits	Geometry	2 credits	Algebra II	2 credits	Pre-Calculus	2 credits	<p style="text-align: center;"><b><u>Social Studies: 6 required</u></b></p> <p><b>Required:</b></p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;"><b>US History I</b></td> <td style="text-align: right;"><b>2 credits</b></td> </tr> <tr> <td style="padding-left: 20px;"><b>US History II</b></td> <td style="text-align: right;"><b>2 credits</b></td> </tr> <tr> <td style="padding-left: 20px;"><b>American Government</b></td> <td style="text-align: right;"><b>1 credit</b></td> </tr> </table> <p><b><u>1 more required from the following:</u></b></p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">Law Studies</td> <td style="text-align: right;">1 credit</td> </tr> <tr> <td style="padding-left: 20px;">World Cultures</td> <td style="text-align: right;">1 credit</td> </tr> <tr> <td style="padding-left: 20px;">Sociology</td> <td style="text-align: right;">1 credit</td> </tr> <tr> <td style="padding-left: 20px;">Economics</td> <td style="text-align: right;">1 credit</td> </tr> <tr> <td style="padding-left: 20px;">Psychology</td> <td style="text-align: right;">1 credit</td> </tr> </table>	<b>US History I</b>	<b>2 credits</b>	<b>US History II</b>	<b>2 credits</b>	<b>American Government</b>	<b>1 credit</b>	Law Studies	1 credit	World Cultures	1 credit	Sociology	1 credit	Economics	1 credit	Psychology	1 credit		
General Math	2 credits																																		
Consumer Math	2 credits																																		
Algebra IA	2 credits																																		
Algebra IB	2 credits																																		
Algebra I	2 credits																																		
Geometry	2 credits																																		
Algebra II	2 credits																																		
Pre-Calculus	2 credits																																		
<b>US History I</b>	<b>2 credits</b>																																		
<b>US History II</b>	<b>2 credits</b>																																		
<b>American Government</b>	<b>1 credit</b>																																		
Law Studies	1 credit																																		
World Cultures	1 credit																																		
Sociology	1 credit																																		
Economics	1 credit																																		
Psychology	1 credit																																		
<p style="text-align: center;"><b><u>Additional Requirements</u></b></p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;"><b>Computer Applications I</b></td> <td style="text-align: right;"><b>1 credit</b></td> </tr> <tr> <td style="padding-left: 20px;">Personal Finance (2021 &amp; after)</td> <td style="text-align: right;">1 credit</td> </tr> </table>	<b>Computer Applications I</b>	<b>1 credit</b>	Personal Finance (2021 & after)	1 credit	<p style="text-align: center;"><b><u>Physical Education: 2 required</u></b></p> <p><b><u>2 credits required from the following:</u></b></p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">Physical Education</td> <td style="text-align: right;">.25 credit per sem</td> </tr> <tr> <td style="padding-left: 20px;">Weights</td> <td style="text-align: right;">.50 credit per sem</td> </tr> </table>	Physical Education	.25 credit per sem	Weights	.50 credit per sem																										
<b>Computer Applications I</b>	<b>1 credit</b>																																		
Personal Finance (2021 & after)	1 credit																																		
Physical Education	.25 credit per sem																																		
Weights	.50 credit per sem																																		

Required Credits	29
Elective Credits	19
Total Credits for Graduation	48

## **COLLEGE-BOUND COURSE RECOMMENDATIONS:**

College-bound students should consider challenging themselves with advanced work in the areas of math, science and English. Three years of math and science is required at most 4 year colleges, and four years is recommended. Four years of English is required at most 4 year colleges. Two years of a foreign language is encouraged for the college bound. Students should become familiar with the requirements needed for admissions to our state universities. If you meet the standards for admissions to the University of Iowa, Iowa State University, and the University of Northern Iowa, then you will satisfy the requirements of most nearly all four year colleges.

### **NORTH MAHASKA'S COLLEGE-BOUND CURRICULUM**

#### **Grade 9**

**English I**

**Algebra I**

**Physical Science**

**Computer Apps I**

**Spanish I**

**Personal Finance**

#### **Grade 10**

**English II**

**Geometry**

**Biology**

**US History I**

**Spanish II**

**Health Issues I**

#### **Grade 11**

**English III**

**Algebra II**

**Chemistry I**

**US History II**

**Spanish III**

**Health Issues II**

#### **Grade 12**

**Composition I**

**Composition II**

**Advanced Writing**

**College Prep**

**Am. Government**

**Psychology**

**Spanish IV**

**Pre-Calculus**

**Physics**

#### **\*Note:**

An extra social study elective is needed for graduation and needed to meet most college requirements of three years of social studies. Students may select a semester of Law Studies, World Cultures, Sociology, Economics or Psychology, in order to meet that requirement.

Students unable to satisfy the requirements of admissions to a four year college or who are unable to academically survive all of the above listed courses, are still considered college bound. Those students who do not meet the requirements, or who are not ranking in the top 50% of their class, may wish to initially enroll in a community college. Iowa's community colleges have an open enrollment status, meaning the student simply needs a high school diploma or GED. If the student then wishes to transfer to a four year college after 1 year at the community college, they will need to demonstrate success with a grade point average in college of 2.5. If the student wishes to transfer after two years of community college experience, they will need to demonstrate success with a grade point average of 2.0.

# Senior Year Plus Programs

## **Advanced Placement (AP®)**

Advanced Placement (AP®) courses are college-level courses offered by high schools. The courses, curriculum requirements, and optional tests are provided by The College Board. Based on the examination score and the postsecondary institution's policies, students may be eligible for college credit or advanced standing at the college or university they later matriculate.

## **Post Secondary Enrollment Options (PSEO)**

The Postsecondary Enrollment Options Act was enacted in 1987 to promote rigorous academic pursuits by providing high school students access to enroll part-time in nonsectarian courses in eligible postsecondary institutions. Now offered through Senior Year Plus, the program is available to eligible juniors and seniors as well as freshmen and sophomores who are identified as gifted and talented according to the school district's criteria and procedures.

## **Concurrent Enrollment**

The concurrent enrollment program, also known as district to-community college sharing, promotes rigorous academic or career and technical pursuits by providing opportunities for high school students to enroll part-time in eligible nonsectarian courses at or through community colleges. Per Senior Year Plus, concurrent enrollment courses are offered through contractual agreements between community colleges and school districts within their service area.

## **Career Academies**

Career academies are programs of study offered to high school students through an agreement or contract between their high school and a community college. They bridge high school and community college CTE programs. Iowa defines career academies differently than national models which often involve small learning communities. In Iowa, career academies are programs of study that combine a minimum of two years of secondary education with an associate degree in a career preparatory program. The career academy is a program of study that is non-duplicative, sequential, and ensures that the course of study is skill standards-based, integrates academic and technical instruction, utilizes work based and work site learning where appropriate and available, utilizes an individual career planning process with parent involvement, and prepares an individual for entry and advancement in a high-skill and rewarding career field.

## University of Iowa minimum requirements:

	<b>If applying to Liberal Arts &amp; sciences, Business, Public Health, or Elementary Education</b>	<b>If applying to Engineering</b>	<b>If applying to Nursing Early Decision Program</b>
<b>English/Language Arts</b>	4 years	4 years	4 years
<b>World Languages</b>	2 years in a single language*	2 years in a single language*	Minimum second-level proficiency in one world language
<b>Natural Science</b>	3 years, including courses in physical science, biology, chemistry, environmental science, or physics	3 years; highly recommended to have one year of physics and one year of chemistry	3 years, including one year each of biology, chemistry and physics
<b>Social Studies</b>	3 years	2 years	3 years
<b>Algebra</b>	2 years	2 years	2 years
<b>Geometry</b>	1 year	1 year	1 year
<b>Higher Mathematics</b>	—	1 year pre-calculus or equivalent	—

\*Liberal Arts and Sciences students must complete 4 years in a single language to graduate from the university; Business students must complete 4 years in one language or 2 years each in two languages. Students who have taken the requisite years in high school have fulfilled these requirements. Engineering students must complete 2 years in a single language which meets both the admission and graduation requirement.

## Iowa State University minimum requirements:

Subject	Requirement	Description
English/Language Arts	4 years	Emphasizing writing, speaking, and reading, as well as an understanding and appreciation of literature
Mathematics	3 years	Including one year each of algebra, geometry, and advanced algebra.
Science	3 years	Including at least two years of courses which emphasize elements of biology, chemistry, or physics.
Social Studies	2 years	

## Additional entrance requirements for the Colleges of Engineering and Liberal Arts and Sciences

In addition to the high school course requirements listed above, students applying for admission to the College of Engineering must complete two years of a single foreign language. Students applying for admission to the College of Liberal Arts and Sciences must complete a third year of social studies and two years of a single foreign language.

## University of Northern Iowa minimum requirements:

Subject	Requirement	Description
English	4 years	May include one year of speech, communications and/or journalism.
Mathematics	3 years	Must include equivalent of algebra, geometry, and algebra II.
Science	3 years	General science, biology, chemistry, earth science and/or physics are acceptable. Laboratory experience is highly recommended.
Social Studies	3 years	Anthropology, economics, geography, government, history, psychology and/or sociology are acceptable.

Electives	2 years	Additional courses from subject areas identified above are acceptable. May include foreign language* and/or fine arts**.
-----------	---------	--

*\*Two years of one foreign language in high school with a C- or above in the last course meets the university graduation requirement. The university highly recommends that students fulfill this requirement while in high school.*

*\*\*Fine arts courses count toward meeting the 15 minimum core course requirements, but are not counted in the RAI calculation.*

## **Regents Admissions Index**

Students who wish to enter the University of Iowa, Iowa State University or University of Northern Iowa directly from high school will be considered for admission based on their completion of minimum high school course requirements and their Regent Admission Index (RAI). There are two mathematical formulas for calculating RAI, the primary RAI formula (for students whose high school provides class rank) and the Alternative RAI formula (for students whose high school does not provide class rank). The formulas and course requirements are as follows:

<b>Primary RAI Formula</b> <i>(for students whose high school provides class rank)</i>	<b>Alternative RAI Formula</b> <i>(effective for Fall 2016 applicants whose high school does not provide class rank)</i>
<p>ACT Composite x 2 + Percentile class rank x 1 + Cumulative GPA x 20 + Number of years high school core courses x 5 <b>Your RAI</b></p>	<p>ACT Composite x 3 + Cumulative GPA x 30 + Number of years of high school core courses x 5 <b>Your RAI</b></p>

**Note:** For purposes of calculating the RAI, ACT composite score has a top value of 36 (SAT scores will be converted to ACT composite equivalent); high school rank is expressed as a percentile, with 99 as the top value; high school GPA is expressed on a 4-point scale; and number of high school courses completed in the core subject areas is expressed in terms of years or fractions of years of study.

*Applicants who achieve at least a 245 RAI score and who meet the minimum high school course requirements are guaranteed admission. Applicants who achieve less than a 245 RAI score but meet the minimum high school course requirements will be considered for admission on an individual basis.*

# Agriculture Education

## **AGRISCIENCE (CASE Agriculture, Food and Natural Resources)**

### **ELECTIVE ONE OR TWO SEMESTERS**

#### **Science Credit/s**

#### **Prerequisite: None**

Grade: 9 -12

Introduction to Agriculture, Food, and Natural Resources (AFNR) is the first course in the CASE sequence of courses, which will introduce students to leadership, science, plants, animals, natural resources, and agricultural mechanics using the hands-on approach of activities, projects, and problems. Students also develop a career portfolio as they investigate their personal interests and careers in agriscience. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions and learning.

## **PLANT SCIENCE (CASE Plant Science)**

### **ELECTIVE ONE OR TWO SEMESTERS**

#### **Prerequisite: None - Agriscience I encouraged**

Grade: 10-12

Plant Science will expose students to the world of agriculture, plant sciences, and career options. Students will have experiences in various plant science concepts, through exciting "hands-on" activities, projects, and problems. Student's 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 agricultural and horticultural production. These tasks will be done through individual work, group work and class involvement.

## **AG BUSINESS MANAGEMENT**

### **ELECTIVE ONE OR TWO SEMESTERS**

#### **Prerequisite: None**

Grade: 11-12

A course designed as an introduction to agribusiness management in the free enterprise system with an emphasis on management of production agriculture. Instruction includes a study of basic management concepts, government policy, economic principles, budgeting, accounting, finance,

risk management, factors of production and marketing. Students will develop an understanding of commodities, markets and the business aspect of agriculture. This is meant to be an upper level agriculture class to challenge students to think about the business aspect of agriculture.

## **ANIMAL SCIENCE**

### **ELECTIVE ONE OR TWO SEMESTERS**

#### **Prerequisite: None**

Grade: 9-12

Animal Science will engage students in hands-on laboratories and activities to explore the world of animal agriculture. Throughout the course, students will develop a comprehensive Producer's Management Guide for an animal of their choice. Student experiences will involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing. Throughout the course, students will consider the perceptions and preferences of individuals within local, regional, and world markets. Students will explore hands-on projects and activities to learn the characteristics of animal science and work on major projects and problems similar to those that animal science specialists, such as veterinarians, zoologists, livestock producers, and industry personnel, face in their respective careers.

## **HORTICULTURE**

### **ELECTIVE ONE SEMESTER (Spring) Indian Hills Concurrent Course - HS and College credit Prerequisite: None**

Grade: 10 – 12

Horticulture will be an introduction to the field of horticultural plant growth and greenhouse management. Time will be spent on identification and growth of houseplants, and annual and perennial bedding plants. Time will be spent covering careers in horticulture, propagation and reproduction of plants, greenhouse production and management, pesticides, and fertilizers. Various skills such as pruning, grafting, and flower arrangement will be learned.



## **TURF & LANDSCAPE MANAGEMENT ELECTIVE ONE OR TWO SEMESTERS**

**Prerequisite: None**

Grade: 9-12

Turf and Landscape Management courses provide instruction that incorporates plant science, soil and media mixtures, plant identification and optimal environments, and landscape design. This course emphasizes applying such knowledge and skill to the design, establishment, and maintenance of lawns, parks, open space, and similar environments.

**SURVEY OF THE ANIMAL INDUSTRY** Elective: One semester (Spring) Indian Hills Concurrent Course - HS and College credit Grade: 10-12 Prerequisite: none 3 Hours Credit with Indian Hills Community College (concurrent credit) in Sustainable Agriculture. Integration of livestock in sustainable farming systems including small-scale production for niche markets. Topics include breed selection, nutrition, reproduction, disease, processing, land management for hogs, poultry, cattle, sheep, and goats. Lab work required.

## **AGRICULTURE INDEPENDENT STUDY ELECTIVE ONE SEMESTER**

**Prerequisite: Instructor approval**

Grade: 9-12

This is a special agriculture class for students that qualify. The student must be able to work independently on a specific course offering. This class is designed for students that may have scheduling conflicts and cannot get into a regular agriculture class, or may have special or unique interests that cannot be developed in regular agriculture classes. FFA leadership and occupational goals are incorporated in the course offering.

\*SAE \*\*FFA

\*SAE (Supervised Agriculture Experience) An additional 1/2 credit when completed along with regular class credit.

Note: All students will be required to have an SAE project and keep approved SAE records as outlined by State & Federal requirements for Agriculture Education. This requirement can be filled by one or more of the following:

- 1) Owning and managing a production agriculture project.
- 2) Owning and managing an ag related business.

- 3) Placement in an ag production work experience.
- 4) Placement in an agribusiness work experience.
- 5) Completing a major home or community improvement project.
- 6) Laboratory work such as the school landlab or greenhouse.
- 7) Job shadowing.
- 8) Agriscience Research Project.
- 9) Participate in the PAL'S program.

\*\* FFA

FFA Membership is part of the Agriculture Education program. To maintain FFA membership, a student must be enrolled in at least one semester of agriculture education per year.

## **NATURAL RESOURCES**

**Length: 1 Semester**

**Prerequisites: None**

**Credit: 0.5**

**Elective: 9-12**

Natural Resources is a 1-semester course designed to focus on the environment. The goal of this course is to expose students to their impact and effect on the environment around them. Students will be challenged to examine how they can change the environment in their local, state, nation, and world. In order for students to be able to improve the environment around them, they first have to be aware of the different components of the environment and how they interact with each other.

Students will use the book Ecology of Fish and Wildlife by Delmar Publishing. The areas that the students will explore will include:

- Principles of ecology
- Small Mammals
- Large Mammals
- Hoofed/Cloven Hoofed mammals
- Moles, mice, rats, lemmings
- Understanding relationships between ecology and agriculture
- Wildlife resources
- Ecology of mammals and birds
- Ecology of fish, reptiles, and amphibians
- Conservation of natural resources
- Human connection to wildlife and natural resources
- Record books

Some of the projects included in this course will be:

- Reporting on a local natural resource problem
- Taxidermy a small mammal
- Presenting effects of the food chain when parts are removed
- Reporting on local habitat improvements
- Record keeping

Because FFA is a central part of the agricultural program, basic FFA knowledge and its opportunities will be integrated throughout the year. Skills learned through the FFA and classroom/laboratory instruction will be utilized for creating a Supervised Agricultural Experience (SAE) project for each individual student. Students will be assessed on performance, quizzes, tests, SAE and agri-business projects, behavior and leadership involvement.

## **VET TECH**

**Length: 1 Semester**

**Prerequisites: At least 1**

**year of agriculture classes, preferable animal industry.**

**Credit: 0.5**

**Elective: 10-11**

This course will develop students' understanding of the small and companion animal industry, animal anatomy and physiology, animal nutrition, animal reproduction, animal ethics and welfare issues, animal health, veterinary medicine, veterinary office practices, and animal services to humans. Career exploration will focus on veterinarian, veterinary lab technicians, office lab assistant, small animal production, research lab assistant, and animal nutrition lab technician. Students will do a lot of hands-on activities within this class including giving injections, taking temperatures, finding the pulse rate, wrapping broken legs, etc.

Animal Nutrition

Animal Reproduction

Animal Health & Behavior

Animal Welfare & Rights

Principles of Disease

Because FFA is a central part of the agricultural program, basic FFA knowledge and its opportunities will be integrated throughout the year. Skills learned through the FFA and classroom/laboratory instruction will be utilized for creating a Supervised Agricultural

Experience (SAE) project for each individual student. Students will be assessed on performance, quizzes, tests, SAE and agri-business projects, behavior and leadership involvement.

## **Art Education**

### **ART I**

#### **ELECTIVE ALL YEAR**

**Prerequisite: None**

Grades: 9-12

In this course, the student will identify, use, and compare the art elements and principles to create a visual language in which ideas, emotions, and feelings are expressed. Various movements of art history will be explored. Students will complete projects in a wide variety of media including painting, drawing, graphic arts, ceramics, and sculpture.

### **PAINTING**

#### **ELECTIVE**

#### **ONE SEMESTER**

**Prerequisite: Art I with a "C" average**

Grades: 9-12

The students will study color theory as it applies to the 2-dimensional areas of painting. Students will discuss different masterpieces of art history and discover how the artist used paint as a visual language. Media used will be acrylic, tempera, watercolor and gouache.

### **DRAWING**

#### **ELECTIVE**

#### **ONE SEMESTER**

**Prerequisite: Art I with a "C" average**

Grades: 10-12

The students will learn various drawing techniques including figure drawing, observation drawing and sighting skills. They will work with graphite,

charcoal, pen and ink, colored pencils, and pastels to create 2-dimensional projects.

## **Business Education**

### **PERSONAL FINANCE**

#### **ELECTIVE ONE SEMESTER**

**Prerequisite: None**

Grade: 9-12

This is a one-semester course. The purpose is to prepare students for the transition from high school to work, college, military, or Vocational-Technical schools. The focus is on independent living and decision-making skills. Topics covered include career decisions, money management, financial security, credit management, risk management, and resource management. This course will teach ways to avoid or correct debt problems, and to properly use various types of credit. In addition, the design of this course will be to explain how investing builds wealth and helps meet financial goals. Each individual will be given the tools to develop a plan for spending and saving and also for keeping and using financial records.

### **ACCOUNTING I**

#### **ELECTIVE**

#### **ALL YEAR**

**Prerequisite: None**

Grade: 11-12

This course deals with the employment side of accounting and also the personal use aspect. Accurate records, banking, and income taxes are stressed. This is basically proprietorship bookkeeping and the student

should possess fairly good math skills. The student should be highly motivated since a considerable amount of work is required both in the classroom and out.

## **GENERAL BUSINESS ELECTIVE**

### **ONE SEMESTER**

**Prerequisite: None**

**Grades: 9-12**

This course dives into basic business principles. We explore how economic activity affects each stage of the business cycle, along with the everyday life of consumers. From there, we move into business ethics and responsibilities towards consumers and the general population. We consider what traits are necessary for entrepreneurs to be successful and determine what makes a leader a good leader, followed up by studying different leadership styles. The final piece we analyze is the global economy, and how the American Government navigates through the space of global competition, trade barriers, and alliances.

## **COMPUTER APPLICATIONS**

### **ONE SEMESTER**

**Prerequisite: None**

**Grades 9-12**

Required class for graduation. This is a one-semester course in the introduction to computers, exploring how to use computer applications in business and hobbies. The course consists of an introduction to word processing, database, desktop publishing, spreadsheets and, internet and web page designing.

## **ENTREPRENEURSHIP**

### **ONE SEMESTER**

**Prerequisite: none**

**Grades 9-12**

## **FOREIGN LANGUAGE**

### **SPANISH I**

**ELECTIVE ALL YEAR**

**Prerequisite: None**

**Grade: 9-11**

Spanish I is the introductory course in this target language. The objective of the program is to attain oral, aural, written, and visual proficiency appropriate to this level. In the beginning course, stress is placed on grammar, verb structure, common expressions, and cultural awareness. Instruction is given bilingually in Spanish and English.

### **SPANISH II - III - IV**

**ELECTIVE ALL**

**YEAR**

**Prerequisite: Passing grade in previous semester of Spanish**

**Grade: 10-12**

These are upper level courses in the target language designed to build and strengthen skills attained in Spanish I. The objective of these courses is to attain oral, aural, written, and visual proficiency appropriate to their level. Stress is placed on grammar, verb structure, common expressions, and cultural awareness. Instruction is given bilingually. The courses must be taken in sequence in consecutive years.

## **FAMILY AND CONSUMER SCIENCE**

### **FAMILY & CONSUMER SCIENCE**

**I ELECTIVE ONE**

**SEMESTER Prerequisite: None**

**Grade: 9-12**

This course is an introduction to the other High School FCS semester classes. It provides a good background for more advanced courses. The first semester covers the areas of Personal/Family Relationships, Consumer Skills, and Food and Nutrition. Career exploration is also emphasized.

### **FAMILY & CONSUMER SCIENCE**

**II ELECTIVE ONE**

**SEMESTER Prerequisite: None**

**Grade: 9-12**

This course is an introduction to the other High School FCS semester classes. It provides a good background for more advanced courses. The second semester covers Textiles and Clothing, Child Development and Housing / Interior Design units. Career exploration is also emphasized.

### **FAMILY RELATIONSHIPS**

**ELECTIVE ONE**

**SEMESTER Prerequisite: None**

**Grade: 11-12**

This course prepares students for understanding family goals and responsibilities. Units include: understanding oneself, dating, engagement and weddings, marriage, parenthood.

Understanding the demands of contemporary family life is stressed along with understanding the psychology and characteristics of good relationships.

### **FOOD & NUTRITION I**

**ELECTIVE ONE**

**SEMESTER Prerequisite: None**

**Grade: 10-12**

Comprehensive study of food preparation, consumer skills, and nutrition are emphasized. Hands on lab experiences, hosting a holiday meal and career exploration are highlights of the course. Healthy food choices and nutrition are also covered.

**FOOD & NUTRITION II**  
**ELECTIVE ONE**  
**SEMESTER Prerequisite:**  
**Food I**  
**Grade: 10-12**

Continuation of Foods I learning. Cooking labs include milk, eggs, meat, poultry, cheese, cake decorating, legumes, casseroles, soups, and meal planning. Text material also covers nutrition, food safety and kitchen equipment.

**HEALTH ISSUES**  
**ONE SEMESTER**  
**Prerequisite: None**  
**Grades: 9-12**

Required for graduation.

**SPORTS NUTRITION**  
**ONE SEMESTER**  
**Prerequisite: None**  
**Grades: 9-12**

**CHILD DEVELOPMENT**  
**ONE SEMESTER**  
**Prerequisite: None**  
**Grades: 9-12**

College class through Indian Hills Community College taught on the North Mahaska campus. Through instruction in this course, the student will become better prepared for parenthood or childcare occupations. Emphasis is on how children develop and how to guide the behavior of children. Application of parenting and childcare situations are stressed, with student directly observing children at a child care facility. Students simulate parenting with "Baby Think It Over" dolls.

## **TECHNOLOGY EDUCATION**

**INDUSTRIAL DESIGN I**  
**ELECTIVE ONE**  
**SEMESTER Prerequisite:**  
**None**  
**Grade: 9-12**

Industrial design I is designed to give the student experiences in the fundamentals of drafting (2D auto Cad). The fundamentals will cover the following: Sketching, dimensioning, orthographic projections, sectional views, and working drawings.

**INDUSTRIAL DESIGN II**  
**ELECTIVE ONE SEMESTER**  
**Prerequisite: Industrial**  
**Design I Grade: 9-12**

Students in this course will do 3d modeling, sectional views, auxiliary views, detailed screw threads, and some technical illustrations. This course is recommended for students interested in careers related to design manufacturing, or students interested in careers related to design, manufacturing, or engineering (Students will be using Inventor)

**MACHINE TOOL TECHNOLOGY I (Intro**  
**Woods I) ELECTIVE ONE**  
**SEMESTER**  
**Prerequisite: None**  
**GRADE 9-12**

Manufacturing techniques deals in the use of hand tools and power equipment. It provides basic instruction and information in the area of planning, manufacturing, and finishing a project with an emphasis on power tools use and safety. This course is a prerequisite for other wood courses, so the student interested in woodworking is encouraged to enter this course early in his/her high school career. Second semester industrial manufacturing. Sample projects will include hand cutting mortis and tendon, dovetail joint, comprehensive safety course, magazine racks, turning pens, intro to laser, end tables

**ADVANCED MANUFACTURING TECH II**  
**(Metals II) ELECTIVE ONE**  
**SEMESTER**  
**Prerequisite: Machine Tool**  
**Technology II Grade: 11-12**

This course emphasizes techniques in welding using Arc welders, Mig welders. Students will also learn basic Machining techniques using a manual milling machine, and metal lathe. Examples of projects: Various joints, Small metal blocks, Center punch

**MACHINE PROCESSES (Woods III)**  
**ELECTIVE ONE SEMESTER (2 Period Block)**  
**Prerequisite: Machine Tool Technology I & II and**  
**Advanced Manufacturing Tech I & II**  
**Grade: 10-12**

"This course will study advanced woodworking machine procedures that are used in a mass production project. Students will be required to Plan and Document all progress of projects. (Students will be required to turn in a portfolio that will document all progress on project and properly plan and execute a project for start to finish.)"

**MACHINE PROCESSES (Metals III)**  
**ELECTIVE ONE SEMESTER (2 Period Block) Prerequisite: Machine Tool Technology II / Instructor approval**  
**Grade: 10-12**

“This course will study advanced metal machine procedures that are used in a mass production project. Students will be required to Plan and Document all progress of projects. (Students will be required to turn in a portfolio that will document all progress on project and properly plan and execute a project for start to finish.)”

**TECHNOLOGICAL PROCESSES ELECTIVE: ONE SEMESTER Prerequisite:**  
**Grades: 9-12**

Technological processes course provide students with the opportunity to focus on one or more areas of industrial technology, applying technological processes to solve real problems and developing the knowledge and skills to design, modify, use and apply technology appropriately. Students may examine case studies, explore simulation, or design and build prototypes and working models. Examples: Students will learn Corel Draw, Photo laser lab, also the workings of the laser. Students will also learn the program that comes with the 3d printer and also will use both machines. They will learn how to take orders over phone and face to face. Students will learn how to bill and explain a billing process. At the end of the course students will invent a product and print a prototype with a 3d printer.

**EMERGING TECHNOLOGIES ELECTIVE: ONE SEMESTER Prerequisites:**  
**Grades: 9-12**

Emerging technologies courses emphasize student’s exposure to and understanding of new and emerging technologies. The range of technological issues varies widely but typically include laser, fiber optics, electronics, robotics, computer technologies, cad/cam, Communication modalities, and transportation technologies. Examples: Work on laser, Work with 3d printer, Auto tech, and diagnosis participation are vital to successful completion of the class.

**WELDING ACADEMY - YEAR ONE ELECTIVE: YEAR LONG Prerequisites: None**  
**Grades: 11-12**

Indian Hills Community College Classes taught on North Mahaska campus.

**WELDING ACADEMY - YEAR TWO ELECTIVE: YEAR LONG**

**Prerequisites: completion of Year 1 Welding Academy**  
**Grades: 12**

Indian Hills Community College Classes taught on the Oskaloos High School campus to receive two-year welding certification.

## LANGUAGE ARTS

**ENGLISH I REQUIRED ALL YEAR Prerequisite:**  
**None**  
**Grade: 9**

Students will read and study a variety of literature (fiction, non-fiction, poetry, drama, vocabulary, Shakespeare and two to three novels). The goal in this class is to prepare students for the critical thinking required in high school classes.

**ENGLISH II REQUIRED ALL YEAR Prerequisite: Successful completion of English I**  
**Grade: 10**

Students in this course will study a variety of literature (fiction, non-fiction, poetry, drama), vocabulary, English usage, and punctuation. Attention will be given to writing and discussion. Class attendance and participation are vital to successful completion of the class.

**ENGLISH III REQUIRED ALL YEAR Prerequisite:**  
**None**  
**Grade: 11**

Students in this course will study a variety of literature (fiction, non-fiction, poetry, drama), vocabulary, English usage, and punctuation. Attention will be given to writing and discussion, and speech delivery skills. Class attendance and participation are vital to successful completion of the class.

**AMERICAN LITERATURE I ELECTIVE ALL YEAR Prerequisite:**  
**Grades: 11-12**

This is a chronologically arranged survey of the literature in America since the earliest settlement of the New World. Students are encouraged to relate historical and socioeconomic influences to the writings of various time periods. Students are also encouraged to develop an awareness of the American style portrayed by various authors. Writing is also developed in connection with literary works, including the use and understanding of literary terms. Group discussions and projects play an important role. One major paper is required each semester.

**ADVANCED WRITING**  
**ELECTIVE ONE**  
**SEMESTER Prerequisite:**  
**None**  
**Grade: 12**

The primary focus of this course is extensive practice in writing literary analysis papers. The goal is not to cover every type of paper assignment expected in college, but to help students write enough so that their fear of writing is diminished. Writing assignments will be done both in and outside of class. Time may also be spent on vocabulary, punctuation review, and reading. This course is highly recommended for those going on to college.

**COLLEGE PREP**  
**ELECTIVE ONE SEMESTER**  
**Prerequisite: Advanced Writing (with a passing grade) Grade: 12**

Students will learn the proper procedures in writing a documented research paper using APA standards, as well as writing several different types of essays. Students in this course will also read, comprehend, discuss, and draw conclusions on selected advanced literary forms. This course is highly recommended for those students who are college-bound.

**COMMUNICATIONS**  
**ELECTIVE: ONE SEMESTER**  
**Prerequisite: English II**  
**Grades: 10-12**

## **MATH**

**GENERAL MATH**  
**ELECTIVE ALL**  
**YEAR Prerequisite:**  
**None**  
**Grade: 9**

This course is designed for those students not ready for or taking Algebra IA or Algebra I. The course is designed to review the general mathematical concepts and use those concepts in practical applications. This is a good math course for those students in need of practicing those general concepts before moving on.

**ALGEBRA IA**  
**Elective All Year**  
**Prerequisite: Successful completion of 8<sup>th</sup> math/instructor approval**  
**Grade 9-12**

This class is designed for the student not quite ready for the pace of Algebra one, but wants to take the Algebra one course. This class goes at half the pace of Algebra one. The first semester of Algebra one is covered in this class for the year. Topics covered include connections to Algebra, properties of real numbers, solving linear equations, graphing linear equations and functions, and writing linear equations.

**ALGEBRA**  
**IB Elective**  
**All Year**  
**Prerequisite: Completion of Algebra 1A**

This class will cover the second semester of Algebra one. It is similar to Algebra one, but is completed at a slower pace. Topics covered include solving and graphing linear inequalities, systems of linear equations and inequalities, exponents and exponential functions, and quadratic equations and functions

**CONSUMER MATH**  
**ELECTIVE ALL YEAR**  
**Prerequisite: Math I or Algebra I Grade: 11-12**

This course is designed to help students cope with everyday economic decisions they will have to make. The topics covered will be: transportation, income, consumerism, banking, home ownership, auto ownership, insurance, and taxes, investments, retirement, and consumer probability and statistics.

**ALGEBRA I**  
**ELECTIVE ALL YEAR**  
**Prerequisite: Successful completion of 8th grade math / instructor approval**  
**Grade: 9-12**

Algebra I is the initial math course for the college-bound student and consists of: Connections to Algebra, Properties of Real Numbers, solving linear equations, linear functions and their graphs, writing linear equations, solving and graphing linear inequalities, systems of linear equations and inequalities, exponents, quadratic equations and functions, polynomials and factoring. This course should be taken if the student intends to pursue higher math courses.

**GEOMETRY**  
**ELECTIVE ALL YEAR**  
**Prerequisite: Algebra I or Algebra IA & IB Grade: 10-12**

Students in this course of study will cover the following topics: Basics of Geometry, reasoning and proof, perpendicular and parallel lines, congruent triangles, properties of triangles, quadrilaterals, similarity, right triangles and trigonometry, circles, area of polygons and circles and surface area and volume.

**ALGEBRA II**  
**ELECTIVE ALL YEAR**  
**Prerequisite: Algebra I, Geometry or Algebra IA & IB**  
**Grade: 10-12**

This course is a more advanced study of some of the topics previously studied in Algebra I. The topics for this course are: linear equations, inequalities and functions, systems of linear equations and inequalities, matrices and determinants, quadratic functions, polynomials and polynomial functions, powers, roots, and radicals, right triangle trigonometry, sequences and

series, statistics.

## PRE-CALCULUS

**ELECTIVE ALL YEAR**

**Prerequisite: Geometry and Algebra II Grade: 11-12**

This course is intended for those students needing a solid preparation for college mathematics. The following topics will be covered: analytical geometry, trigonometry, functions, polynomials, inequalities, exponents and logarithms, sequences and series, probability, statistics, and elementary calculus.

## MUSIC EDUCATION

### SENIOR HIGH BAND

**ELECTIVE ALL**

**YEAR Prerequisite:**

**None**

**Grade: 9-12**

This is a continuation of the junior high band. Development of basic techniques is emphasized and attention is given to advanced techniques as they apply to student's individual needs. There are several public performances and contests during the school year. Performance groups include: concert, marching, and pep bands. Students have the opportunity to participate in honor bands, small ensembles, and jazz band. Lessons are required and count as part of the course grade.

### SENIOR HIGH CHORUS

**ELECTIVE ALL**

**YEAR Prerequisite:**

**None**

**Grade: 9-12**

This course is a continuation of junior high chorus. Soprano, alto, tenor and bass choral music is used to better accommodate the vocal needs of senior high students. There are several public performances and contests during the school year.

## PHYSICAL EDUCATION

### PHYSICAL EDUCATION

**REQUIRED ALL**

**YEAR Prerequisite:**

**None**

**Grade: 9-12**

Physical Education should broaden the student's view of our athletic work, and also encourage personal fitness throughout life. Physical activity is an enjoyable and essential part of our lives. Physical Education provides a child with the knowledge, skills, and direction to begin the journey to a healthy, happy, and productive life. Today's sedentary lifestyle has created crises in

children's lives. "Because of the current obesity epidemic, children today have a shorter life expectancy than their parents for the first time in 100 years" (Dr. William Klish, Baylor College of Medicine). Quality physical education in junior high and high school can help to reverse this dangerous trend. Some of the units covered include: Physical fitness, volleyball, pickleball, table tennis, badminton, archery, fishing, weight lifting, and softball. It is state law that every student shall participate in Physical Education every semester.

## WEIGHTS AND CONDITIONING

**Elective: ONE SEMESTER OR YEAR LONG**

**Prerequisite: None**

**Grades: 9-12**

## SCIENCE EDUCATION

### PHYSICAL SCIENCE

**REQUIRED ALL**

**YEAR Prerequisite:**

**None**

**Grade: 9-10**

This is a course of pre-physics and pre-chemistry. Beginning with the study of principles of basic physics and including some study of basic chemistry

### BIOLOGY

**REQUIRED ALL**

**YEAR Prerequisite:**

**None**

**Grade: 10-11**

This is a science course studying living things and features some laboratory activities and deals with issues in biology such as the environment, evolution, and genetic issues. Within this course, students will improve their skills in: observing, classifying, exploring, predicting, inferring, hypothesizing, and decision-making.

### HEALTH ISSUES

**REQUIRED ONE**

**SEMESTER**

**Prerequisite: None**

**Grade: 9-12**

This course is designed to cover topics, which we deal with every day in our contemporary world. Units should include: personal health, food and nutrition, environmental health, safety and survival skills, substance abuse, emotional health, and prevention and control of disease.

### CHEMISTRY

**ELECTIVE ALL YEAR**

**Prerequisite:** Physical Science with "C+" grade Enrolled or completed Algebra II with a minimum of "C+" grade in Algebra I & II  
**Grade: 11-12**

This is an introductory course, which is comprehensive as well as relevant. The aim of this course is to enable students to develop a better understanding of their physical world. The central theme of this course is the basic principle that the properties of matter are the consequence of the structure of matter. A balanced approach will be presented in combining chemical theories and concepts with quantitative problems and laboratory work. A working knowledge of algebraic manipulation is required as there is quite a bit of math in this course.

**PHYSICS  
ELECTIVE ALL YEAR**

**Prerequisite:** Physical Science with "C+" grade Enrolled in or completed Algebra II with minimum of "C+" grade in Algebra I & II  
**Grade: 11-12**

This course is a modern approach to introductory physics. It was developed in a logical order to make the study of physics very challenging. The central theme of the course is the interrelationship between matter and energy. The essential concepts of physics will be developed in a logical sequence so that students in this course can be encouraged to think independently. A balanced approach involving quantitative problems, lab work, and class discussion will be used.

**HUMAN ANATOMY  
AND PHYSIOLOGY  
ELECTIVE ALL  
YEAR**

**Prerequisite:** Biology with at least a "B" grade or instructor approval  
**Grade: 11-12**

This course is designed for those interested in advanced studies in the scientific area. Areas to be covered include: anatomy and physiology, dissection, and the use of equipment for testing (vision, nerve stimulation, and reaction time). Students will be encouraged to work independently.

**MICROBIOLOGY  
ELECTIVE: ALL YEAR**

**Prerequisite:** Successful completion of Biology  
**Grades: 11-12**

**SOCIAL STUDIES EDUCATION**

**AMERICAN HISTORY I  
REQUIRED ALL**

**YEAR Prerequisite:**  
**None**  
**Grade: 10**

This course is designed to study our country's major events before 1865. Students will become acquainted with our heritage and

how past events can help us make predictions for the future. This course will use class discussions, films, and class debates, projects, and the study of current events.

**AMERICAN HISTORY II  
REQUIRED ALL  
YEAR Prerequisite:**

**None**  
**Grade: 11**

This course is designed to study our country's major events since 1865. Students will become acquainted with our heritage and how past events can help us make predictions for the future. This course will use class discussions, films, and class debates, projects, and the study of current events.

**SOCIOLOGY  
ELECTIVE ONE  
SEMESTER Prerequisite:**

**None**  
**Grade: 11-12**

This course will study the relationship between individuals and groups. How are people affected when they join a group? Units will include: social problems, racial problems, marriage and divorce, juvenile delinquency, drugs, and alcoholism. The class will use readings, discussions, contemporary films, and lectures.

**WORLD CULTURES  
ELECTIVE ONE  
SEMESTER Prerequisite:**

**None**  
**Grade: 11-12**

An exploration of human cultural diversity, from small-scale hunter-gatherer societies to large-scale industrial societies. Areas covered include gender roles, religion, warfare, and ethnic conflict. Students will study the different norms, traditions and beliefs of cultures and make comparative analysis between them.

**ECONOMICS  
ELECTIVE ONE  
SEMESTER Prerequisite:**

**None**  
**Grade: 11-12**

This course studies how different economic systems operate and how the individual consumer is affected. Economic events around the world can have an affect on us locally. Emphasis will be placed upon the supply and demand theories, reading business graphs, money and banking, price determination, types of businesses, taxes, international trade, and the stock market.

**LAW STUDIES  
ELECTIVE ONE  
SEMESTER Prerequisite:**



**None**

**Grade: 10-12**

Law Studies courses examine the history and philosophy of law as part of U.S. society and include the study of the major substantive areas of both criminal and civil law, such as constitutional rights, torts, contracts, property, criminal law, family law, and equity. Although these courses emphasize the study of law, they may also cover the workings of the legal system.

## **PSYCHOLOGY**

**ELECTIVE ONE**

**SEMESTER Prerequisite:**

**None**

**Grade: 11-12**

This course is an introduction to the scientific study of human behavior. Special emphasis will be given to the different theories, which attempt to explain what motivates human behavior and the factors, which influence personality. Topics covered are: history of psychology as a science, influences of heredity and environment, the learning process, intelligence, personality, perception, abnormal psychology, social psychology.

## **AMERICAN GOVERNMENT**

**REQUIRED ONE**

**SEMESTER Prerequisite:**

**None**

**Grade: 12**

The purpose of this course is to acquaint the students with our federal, state, and local governments. An attempt will be made to create a knowledge and appreciation of the principles underlying a sound government. Some of the topics covered will include: civic duties, rights and responsibilities, political campaigns, how politics affects our government, and structure of the government.

## **COLLEGE AND CAREER READINESS**

### **ACT PREP**

**ELECTIVE: ONE SEMESTER**

**Prerequisite: None**

**Grades: 11-12**