Ames High School
Course Planning Book

2025 - 2026

Ames High School

AMES COMMUNITY SCHOOL DISTRICT PURPOSE STATEMENT:

Ames Community School District Commits to Equity and Access that Empowers Every Individual to Reach Their Full Personal and Educational Potential.

It is the policy of the Ames Community School District not to discriminate on the basis of race, color, national origin, sex, disability, religion, creed, age (for employment), marital status (for programs) in its education 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 Shan Seivert, Director of Human Resources, shan.seivert@ames.k12.ia.us - District Office, 2005 24th St. Ames, IA 50010, 515-268-6610.

The Ames Community School District offers career and technical education programs in the following areas of study:

- Agriculture, Food and Natural Resources
- Information Solutions
- Applied Sciences, Technology, Engineering, and Manufacturing
- Human Services
- Business, Finance, Marketing, and Management

Ames High School
Dr. Paul Numedahl, Principal
Kenneth Damron, Associate Principal
Nicole Patton, Associate Principal

Dear Ames High School Students and Families,

Course selection is an essential aspect of high school. Many students find their passion during this portion of their lives. This passion can be a career and technical area, a core subject, band, music or fine arts. It is also a time to be educated in the needed curricular areas to further our democracy.

High school is the beginning of educating our students for their futures. These futures can include career and technical training, two-year associate degrees, certificates and endorsements, military services, employment, or a four-year college degree. Whatever your student chooses, Ames High School will provide the needed curriculum. As you review this handbook, please keep in mind the graduation requirements and the different post-secondary options.

This course planning book will provide the needed information for students and parents/guardians to select courses based on graduation requirements and elective courses. The process of choosing these courses should be reviewed by the students, parents/guardians, and AHS staff if needed. Our goal is for students to be challenged academically and to grow as people through the selection of courses. Please review this material with your students and help them in deciding the best courses available for them to meet their academic goals.

If you have any questions or would like assistance in planning, please contact the AHS Counselors at 515-817-0600.

AHS Student Services and Administration,

Paul Numedahl, Principal
Kenneth Damron and Nicole Patton, Associate Principals
Julie Bryant, John Burke, Allison DiBlasi, Rachel Krofta, & Bonnie May, Counselors
Catherine Monroe - Student Services Secretary
Gina North - Registrar

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GENERAL ACADEMIC & GRADUATION INFORMATION

GRADUATION REQUIREMENTS:
A minimum of **44** academic credits is required for graduation from Ames High School. A credit is earned by receiving a passing grade for a one-semester course that meets a minimum of three times per week or the equivalent.

8 English Credits	**1 Practical Arts Credit** From Career & Technology Education
6 Mathematics Credits Including Algebra 2, Adv. Algebra 2	**1 Fine Arts Credit** From Visual Arts or Music
6 Science Credits Including Earth & Space Science	**4 PE Credits** (1 course taken every year)
6 Social Studies Credits Including World Studies, US History Sociology or AP Psychology, US Government	**1 Personal Finance Credit** Taken Senior year. Can be taken as a junior if seats are available in the fall.
1 Health Credit Taken Sophomore Year	**CPR required for graduation** (Opportunities will be provided prior to graduation)

Freshmen and **sophomores** are required to take a minimum of **6 courses each semester.**
Juniors and **seniors** are required to take a minimum of **5 courses each semester.**

Transfer students must meet all credit requirements for graduation. In addition, students transferring in their senior year must earn a minimum of 10 AHS credits in order to receive an AHS diploma. Mid-year graduates may deduct 5 credits from the above requirement.

Early completion and graduation: Students wanting to complete graduation requirements early, at the end of their junior year or the end of the first semester of their senior year, must work with their counselor. Seniors who complete graduation requirements at mid-year are encouraged to participate in the spring graduation ceremony.

- **Only those students who have completed the credits required for graduation can participate in the ceremony.**

CONTRACT GRADE WITH A PASS/FAIL OPTION
REQUEST FORM

Students may contract for a letter grade. If the student doesn't achieve the contracted grade a P or F is recorded. Pickup the form from your counselor. Please use an ink pen to fill out the form.

StudentName:_____Grade:_____Instructor:_____

Course Name:_____Course #:_____Sec#:_____Period:_____

Contracted Letter Grade:

_____ A- or better
_____ B- or better
_____ C- or better
_____ Pass/Fail only

_____	_____	_____
Parent Signature	Instruction/Roster Teacher Signature	Counselor Signature
_____	_____	_____
Date	Date	Date

Contract Grade with a Pass/Fail Option

1. The decision to take one or more courses for a contract grade with a pass/fail option must be made within a period of thirty-five (35) school days after the beginning of each new semester.

2. A freshman or sophomore may take a class for a contract grade with a pass/fail option if the class is in addition to five other full credit courses the student is taking that semester. (University classes earning three or more credits count as a full credit course.)

3. A junior or senior may take a class for a contract grade with a pass/fail option if the class is in addition to four other full credit courses the student is taking that semester. (University classes earning three or more credits count as a full credit course.)

4. For a list of courses eligible to be taken for a contract grade with a pass/fail option, see the other side of this form. Dual-credit courses are not eligible to be taken on a pass/fail basis.

5. The student will be required to attend all classes and complete assignments made by the instructor.

6. If considering college athletics, please check the NCAA website concerning taking a core class pass/fail.

7. Some colleges count a "P" on your transcript as the lowest passing grade, (D-) so plan accordingly.

8. Students will receive a copy of this request form via the teacher.

COURSES ELIGIBLE TO BE TAKEN PASS/FAIL, BY DEPARTMENT:

Dual credit courses are NOT eligible to be taken on a contract grade pass/fail basis.

Art, Career Technology Education/Vocational, Music, and Physical Education (except Health):
All courses in these departments, except for dual credit courses.

Science
All courses

Social Studies
All courses except: World Studies, Honors World Studies, US History, and US Government.

World Language
3rd and 4th year of a language. (Special education students may take the 1st or 2nd year of a language pass/fail if it is part of their IEP.)

Pass/Fail and Special Education Students

1. Deadline exceptions may be made for special education students if the teacher, special education teacher, and parent are in agreement that Pass/Fail is the most appropriate way for grading the student.

2. A special education student may take a course Pass/Fail if the student's Individual Education Plan (IEP) states that general education courses may be taken Pass/Fail.

ACCELERATION

Personal acceleration involves moving a student through the traditional educational organization more quickly. Decisions about the appropriateness of personal acceleration and the extent of acceleration for a given student will be made based on the Ames Community School District Acceleration Process.

Applications must be turned in to Ames High Student Services February 7th, 2025.

For students entering grades 9, 10, 11, and 12, adhere to the specified application deadlines. For test out dates, check with the department. All other acceleration requests for the next semester include:

- Grade level acceleration
- Acceleration in different content areas.

Acceleration Information - Can be found here

Acceleration Application - Can be found here

EXTENDED LEARNING PROGRAM (ELP)

Extended Learning Program (ELP) is Ames High School's talented and gifted program. Contact Dr. Bonnie May, High School ELP Coordinator/Counselor for classes offered, with questions or for more information.

ALTERNATIVE LEARNING PROGRAM (ALP)

Every student can learn! At Ames High School our Alternative Learning Program (ALP) provides several support program options designed for students in which circumstances may interrupt them from achieving their highest educational potential or have roadblocks that keep them from earning a high school diploma.

The ALP staff along with the students develop a plan of action which include instruction of the core subjects such as Math, Science, Social Studies and English while offering electives to meet the graduation requirements. It may include progress monitoring, instructional support, mentoring, or counseling.

To participate in ALP, A student must meet the requirements according to the state definition as established in Iowa Code 257.39

Senior Year Plus

Through Senior Year Plus (SYP), school districts are provided with a variety of options to enhance students' high school experience. Enacted by the legislature in 2008, SYP was created to provide increased and more equal access to college credit and advanced placement courses. Courses delivered through SYP provide students the opportunity to take a rigorous college curriculum and receive, in many cases, both high school and college credit concurrently. Iowa high school students enroll in college coursework through a variety of mechanisms including Postsecondary Enrollment Option (PSEO), courses delivered through sharing agreements between community colleges and local school districts, and enrollment in college courses independently as a tuition paying student. Additionally, students enroll in high school courses that postsecondary institutions recognize for college credit or advanced standing.

Postsecondary Enrollment Options Program (PSEO) allows eleventh and twelfth grade students, as well as ninth and tenth grade students identified as gifted and talented by their local district, to enroll in college courses. Through the program, individual students may enroll in an eligible postsecondary course if a comparable course is not offered at their school. Successful completion of the course also generates high school credit and applies toward district subject area and graduation requirements.

Concurrent enrollment courses are offered through contractual agreements between community colleges and school districts. Through the program, community college courses are offered to classes of high school students in grades 9 through 12. The classes are college classes — even if they are held in a school district classroom. During the time of the concurrent enrollment course, the site acts as a satellite location of the college. The instructor may be a community college instructor or a high school instructor employed by the contracted district who meets state and college faculty standards and requirements.

TAKING PSEO COURSES AT IOWA STATE UNIVERSITY

Please consult with an ISU advisor for class choices that align with your college educational goals.

Visit the ISU PSEO website for information. Forms are also available from the Office of the Registrar at the high school. Submit forms to the office of the Registrar at AHS (located in Student Services) for review. **DO NOT** send forms to ISU.

You can search for ISU classes here. You can also visit the ISU Class Schedule to search for exact days and time of class offerings. Select the Term and indicate the Department to begin your search. Use this information to complete your Registration Form. Please note the pre-requisites when you click on the class title.

For First Time Enrollment in an ISU PSEO Course complete these three forms:

1. ISU PSEO Nondegree Student Application
2. ISU PSEO Registration Form
3. ISU PSEO Agreement Form for AHS

(Once approved by AHS and ISU, students will be asked to complete the steps to create an ISU student account, email account and take math placement tests if needed).

If you already have taken an ISU PSEO course or have an ISU account complete these two forms:

1. ISU PSEO Registration Form
2. ISU PSEO Agreement Form for AHS

For information contact the AHS registrar, gina.north@ames.k12.ia.us or ISU at isupseo@iastate.edu

THE DEADLINE TO SIGN UP FOR FALL COURSES IS AUGUST 1ST, SPRING DEADLINE IS DECEMBER 1ST

TAKING COURSES THROUGH DMACC

A list of approved DMACC courses can be found here: Contracted Courses with DMACC.

A. You can explore DMACC Career Advantage options here.

B. Please use the DMACC online Schedule of Courses to search for the class CRN number. The CRN number will be required to register for an in-person course.
   1. There are no paper forms to sign up for courses at DMACC. The two registration links below change every semester:
   2. If you wish to take an in-person course on the DMACC campus you can register here.
   3. If you wish to take an online course at DMACC you can register here.

C. A student must be proficient/advanced, according to their ISASP scores, in English, math and science. Go to Alternate Measures of Proficiency to see how non proficient students may qualify. If you are taking a Math course with DMACC, plan to take the ALEKS test when you register. Take it through your myDMACC student account.

For dual enrollment courses held at AHS, students can submit a course request in Infinite Campus. Please contact your AHS counselor or DMACC Advisor if you have any questions about class choices.

THE DEADLINE TO SIGN UP FOR FALL COURSES IS AUGUST 1ST, SPRING DEADLINE IS DECEMBER 1ST

DMACC HUNZIKER CENTER CAREER ACADEMY COURSES

The DMACC Career Academy at the Hunziker Center provides career and technical education programs primarily for high school students through a collaborative partnership with local school districts.* The Career Academy serves students from multiple districts and beyond, offering access to advanced, state-of-the-art facilities for a variety of educational programs, including:

- Automotive Mechanics Technology
- Building Trades/Finish Carpentry
- Business
- Certified Nursing Assistant (CNA) formerly known as Health Occupations
- Criminal Justice
- Culinary Arts
- Teacher Academy
- Welding - taught at Nevada High School
- Computer Programming-Virtual (beginning in Fall 2025)

DMACC Application - If you have already filled out a DMACC application, skip this step.

Career Academy Pre-Registration link (25-26)

***You do not have to be proficient in reading, math or science to take these courses at the DMACC Hunziker Center.**

ACHIEVEMENT TESTS

The Iowa Statewide Assessment of Student Progress (ISASP) is given annually to freshmen, sophomores, and juniors. In addition, students have the opportunity to take several achievement tests. Each of these tests has a registration deadline.

• **PSAT/NMSQT** - administered in mid-October at Ames High. College bound juniors should plan to take this test. High achieving sophomores also are encouraged to take this exam. The test is a preliminary SAT and **used by the National Merit Scholarship Corporation as its qualifying test to determine National Merit Semifinalists.** *Estimated cost - $19.00*

- **ACT and/or SAT** - administered five to six times during the school year on national testing dates at a location outside of Ames High. These are the two tests that are commonly used in the application process to colleges and universities. While some universities may not require these tests for admissions, they may be required for merit scholarships. Students should check with the colleges they are applying to. Students may register for the ACT online here or for the SAT here. Fee waivers are available in Student Services for students who qualify. Standard prep booklets are also available in Student Services. **Counselors urge prospective college bound students to take either of these tests at the end of the second semester of the junior year.**
  Estimated costs: ACT - $69 or SAT - $68.
  If there is enough student interest, AHS will offer an ACT/SAT test prep class after school hours - one in the fall and one in the spring for $35.

ADVANCED PLACEMENT (AP) COURSES & ESTS

Ames High School teaches **Advanced Placement courses** in Calculus AB, Chemistry, Biology, English Literature & Composition, English Language & Composition, Physics 1, Psychology, U.S. Government, U.S. History, and European History. For course descriptions: https://apcentral.collegeboard.org/courses

- ***No application is required to take an AP course.***

Advanced Placement tests are administered each May at Ames High School according to a national testing schedule. High scores on the AP exams may result in the awarding of credit by a student's post secondary institution. **However, students need to review individual college policies for awarding credit on AP exams.** Registration for most AP exams occurs in October, with payment for the exams due at registration. *Estimated cost - $99.00 per test.*

ENTERING A COLLEGE OR UNIVERSITY

Successful college work can ordinarily be done only by those who have learned to study efficiently and effectively in high school and who have demonstrated academic achievement while meeting the requirements for admission. Certain colleges/universities will not admit students whose academic achievement is too low. Students who plan to enter a college or university should check carefully on entrance requirements before completing registration for high school work. A summary of the course requirements for admission to Iowa Regents' Universities is summarized on the last page of this course planning book.

NAVIANCE STUDENT

Naviance Student is Ames High School's College Application Management System
The Naviance Student website is here. Students login by clicking on Clever

Through Naviance Student, students will:

- Discover their own unique strengths, connect their interests, values & strengths to careers, and help them see their own potential and set future goals
- Research the employment outlook in different careers & create a plan for themselves
- Perform college searches & compare/match/contrast colleges and majors
- View scattergrams as well as the college acceptance history of previous Ames High graduates
- View which college representatives are scheduled to visit Ames High
- Request transcripts, monitor college applications, create resumes, view scholarship information

FINANCIAL AID INFORMATION FOR COLLEGE

Most financial aid to students is based on need. Eligibility for federal/state programs is determined through the **F**ree **A**pplication for **F**ederal **S**tudent **A**id. www.fafsa.gov

- Before filling out the FAFSA, the student must create an FSA ID Federal Student Aid (FSA) ID. (Once your FSA ID is verified, typically within 5 days or so, you can then fill out the FAFSA).
- Assistance can be obtained through federal/state programs as well as a variety of other sources.
- The FAFSA form typically opens in November/December.
    - For more information on the FAFSA, click here.
- Many colleges/universities have their own "priority aid deadlines." Students should check with the colleges/universities they are applying to and find out their financial/priority aid deadlines.
- It is recommended that students apply for financial aid as soon as the form opens. The sooner it is submitted, the sooner the financial aid office can determine what your aid package will be.
- By visiting with financial aid personnel during college visits, students can become informed about the college's/universitiy's scholarships and loans as well as other federally-funded programs.
- ICAN (Iowa College Access Network) will help you create an FSA ID and fill out the FAFSA free of charge. Here is a link to their website. ICAN Website or you can call them at (877)272-4692 or you can email them ICAN@ICANsucceed.org

ELIGIBILITY FOR HIGH SCHOOL ATHLETICS/ACTIVITIES
Interscholastic Athletics and Co-Curricular Programs

Participation in interscholastic athletics and co-curricular activities is a privilege. School athletics and activities provide the benefits of promoting additional interests and abilities in the students during their school years and for their lifetimes. Students who participate in interscholastic athletics and co-curricular activities should be acknowledged as standout student ambassadors of the school district throughout the calendar year. Therefore, the school district maintains high expectations for all participants in athletics and co-curricular activities.

Eligibility requirements listed below pertain to interscholastic athletics (including drill team and cheerleading), music, and speech (including debate & drama.)

A. The following **ACADEMIC ELIGIBILITY** rules are established to be in compliance with the academic eligibility rules of the state associations governing athletics, speech, and music.
Academic Eligibility Rules for Interscholastic Athletics (includes drill team & cheerleading) music and speech (includes debate & drama.)

1. To be academically eligible for the above listed activities, the student must be passing all courses at the end of the previous semester.
2. An INCOMPLETE at the end of the semester means the student has not yet completed the course requirements and results in ineligibility until the work is completed and the teacher submits a passing grade to the Registrar's office.
3. A student with a disability who has an individualized education program (IEP) shall not be denied eligibility on the basis of scholarship if the student is making adequate progress, as determined by school officials, towards the goals and objectives on the student's IEP.

B. Eligibility requirements for **Interscholastic Athletics** (including drill team and cheerleading.)
1. Be considered a full-time student during their athletic season.
2. Have a signed parent permission slip on file at the school.
3. Have had a physical within 13 months and the physical must be on file at the school.
4. The student hasn't reached 20 years of age.
5. Have returned or paid for equipment lost from previous seasons.
6. Not possess or use tobacco or tobacco products (include vaping), alcohol, or controlled substances.
7. Not play on a regularly organized team other than the teams representing the Ames Community School District during the same season without previous written consent of the principal/designee.
8. A student under any in-school and/or out-of-school suspension is ineligible for any school activity during the course of the suspension. Eligibility is reinstated following in-school suspension at 3:35pm the last day of the suspension. For out-of-school suspension, eligibility is reinstated the calendar day following the date the suspension is completed.
9. To participate in daily practice or game a student must have attended a full day of school or have an excused absence.

Any questions regarding the implementation of the above standards can be answered by calling Athletic Director Lyle Fedders, 515.817.0611.

NCAA ACADEMIC REQUIREMENTS

The NCAA Eligibility Center must certify student athletes who wish to be eligible for athletics as a college freshman at NCAA Division I and Division II institutions. Those students should apply to the NCAA Eligibility Center immediately after their junior year grades are posted on their transcript.

1. **Core Courses:** 16 core courses are required for NCAA Division I & Division II. See the chart below for the breakdown of the 16 core courses requirement. Seven of these 10 required courses must be in English, math or natural/physical science. A repeat of one of the "locked in" courses will not be used if taken after the seventh semester begins.

2. **Do I need to submit a standardized test score to the NCAA?** As of January 2023, standardized test scores are **not required** for **all** student-athletes who initially enroll full time on or after August 1, 2023. During the 2023 NCAA Convention, **Divisions I** and **II** adopted legislation to remove standardized test scores for these students. The vote was based on the recommendation from the **Standardized Test Score Task Force**, a specialized group charged with reviewing initial-eligibility requirements as part of the NCAA's eight-point **plan to advance racial equality**.

3. **Grade-Point Average: Only core courses** are used in the calculation of the grade-point average. Be sure to look at Ames High School's list of NCAA-approved core courses on the Eligibility Center website to make certain that the courses being taken have been approved as core courses. The NCAA's high school portal lists Ames High core courses under the high school code 160140. The website has tables noting the sliding scale core grade-point average requirements for Division I. Division II has no sliding scale. The minimum core grade point average is 2.0. The core grade point average required to be eligible for Division I competition on or after August 2, 2016, is 2.3.

4. **NOTE:** The Ames High courses entitled ADVANCED JOURNALISM, and SPIRIT (AHS YEARBOOK), are not approved by NCAA for student-athletes.

5. For credit recovery and non-traditional courses, go to NCAA to see new criteria.

Core Units Required for NCAA Certification

	Division I	Division II
English Core Math Core* Science Core Social Science Core	4 years 3 years 2 years 2 years	3 years 2 years 2 years 2 years
Additional from English, Math, or Science	1 year	3 years
Additional Courses (from any category above, or in a foreign language, comparative religion/philosophy)	4 years	4 years
TOTAL CORE UNITS REQUIRED	16	16

***IMPORTANT NOTE:** For students enrolling as a college freshman, Division I certification requires 2 years of math, including at least one year of algebra and one year of geometry (or a course for which geometry is a prerequisite.)*

MISCELLANEOUS INFORMATION

Alternative Credits

High School Correspondence and Online Courses

- Students must obtain **prior administrative approval** before taking any correspondence course or a class via the internet for Ames High credit.

College Credit Courses

1. The student must obtain **prior administrative approval** before taking any college credit course.
2. An Ames High student who fails to obtain prior administrative approval before taking any college credit course will not have that course appear on their Ames High transcript.
3. Ames High will be in full compliance with the Post-Secondary Enrollment Options Act of the Iowa Department of Education.
4. A course must carry the equivalent of three (3) semester hours or more of college credit to receive one (1) high school credit

Interim Grade Reports

Teachers post grades every three weeks. Students and parents can see their grades by going to the Infinite Campus Portal here.

Class Rank

Ames High School does not report class rank. 4.0 is the highest achievable GPA. Therefore, students who have a GPA of 4.0 may report that they rank first or are tied for first in their class.

Honor Roll

Three honor rolls are prepared at the end of each semester. Students earn their place on one of the three honor rolls by having a current semester grade point average of at least 3.0, 3.5 or 4.0.

Incomplete, Temporary Grade of:

Any semester grade of "incomplete" will be converted to a grade of "F" two weeks after the end of the semester unless there are authorized extenuating circumstances or the teacher notifies the Registrar's office of a different grade.

Repeating a Class

AHS will record both grades on the transcript but compute only *the most recent grade* in the GPA whenever a class is repeated. Credit will only be awarded once toward graduation requirements.

Withdrawal from a Class

A student may drop a class up to **15 school days** into the semester without penalty, if the student still has enough classes to be a full-time student. If a student drops after the 15th school day of the semester or drops below full-time status, the student will receive an "F" for the course. The "F" will appear on the transcript and the student will be ineligible for 30 calendar days for athletic, music, or speech activities during the next semester.

"Graduate with Distinction" Criteria:

3.80 cumulative GPA at the end of the first semester of the student's senior year.

Grades from another country:

Students going to school in another country will receive a transcript transfer grade of 'P' for passing for credits earned in that country for courses that are accepted by Ames High School.

ART EDUCATION - THE VISUAL ARTS

Visual art is essential to the development of the whole person and should be an integral part of every child's education. As a basic means of human expression and communication it is a necessary component in understanding the visual complexity of the world. Experiences in art production, art criticism, aesthetics, and art history enable students to better understand themselves, their environment, their culture and the multicultural nature of humankind.

Visual art is a tangible expression of human creativity. Through art education, students have an opportunity to see beyond formulas and imitations, and to experience the value of invention, humor, fantasy, and experimentation. Students learn to develop meaningful ideas and to show a spark of intellectual or creative curiosity toward work.

Visual art makes a unique contribution to the growth of the learner. As a separate discipline, it conveys knowledge and meaning not learned through the study of other academic subjects. As an interdisciplinary partner, it brings fuller meaning to many disciplines. In addition, art education provides students with instruction and practice in the basic skills of critical thinking, decision-making, problem solving, and communication. Students develop self-worth and confidence as they expand their ability to solve problems, to communicate ideas and to express feelings. These life skills increase educational, professional, & career opportunities. Art enriches the human experience within and across cultures, connecting the past, present, and future.

ART DEPARTMENT

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Foundations of 2-Dimensional Art (2D Art)	X	X	X	X	Either Semester
Drawing, Painting, Printmaking I		X	X	X	Either Semester
Advanced Drawing, Painting, Printmaking: Levels 2-7		X	X	X	Either Semester
Foundations of 3-Dimensional Art (3D Art)	X	X	X	X	Either Semester
Advanced 3D Art: Levels 2-8	X	X	X	X	Either Semester
Ceramics I	X	X	X	X	Either Semester
Advanced Ceramics: Levels 2-7		X	X	X	Either Semester
Jewelry I	X	X	X	X	Either Semester
Advanced Jewelry: Levels 2-7		X	X	X	Either Semester
Foundations of 4-Dimensional Art (4D Art) & Animation	X	X	X	X	Either Semester
Advanced 4D Art & Animation: Levels 2-8	X	X	X	X	Either Semester
Graphic Design I	X	X	X	X	Either Semester
Advanced Graphic Design: Levels 2-8	X	X	X	X	Either Semester
Photography I	X	X	X	X	Either Semester
Advanced Photography: Levels 2-8	X	X	X	X	Either Semester

*Freshmen can only take the advanced classes after a prerequisite is met, so only in the Spring Semester of their Freshmen year.

ART CLUB & NATIONAL ART HONOR SOCIETY

Open to all students!
See information at the end of the department course descriptions.
Contact person: Lindsay Wede

ART PREREQUISITES

Foundations of 2-Dimensional Art (2D Art) is the prerequisite for the one-semester course of drawing, painting, printmaking.
Foundations of 3-Dimensional Art (3D Art) is the prerequisite for Advanced 3D Art and for the one-semester courses of ceramics and jewelry.
Any art course will meet the Fine Arts graduation requirement.
Art courses that do **NOT** require a prerequisite are:

- Foundations of 2-Dimensional Art
- Foundations of 3-Dimensional Art
- Graphic Design
- Photography
- Foundations of 4-Dimensional Art

2-DIMENSIONAL ART (2D Art) OFFERINGS

FOUNDATIONS of 2-DIMENSIONAL ART (2D ART)

Students should bring a sketchbook.
This one-semester course offers basic experiences in drawing, painting, printmaking, and art history. It is a prerequisite for all 2-Dimensional courses, except Graphic Design, 4D Art and Photography.

DRAWING, PAINTING, PRINTMAKING

Prerequisite: Foundations of 2-D ART
Students should bring a sketchbookA sheet of mat board is requested for projects but may be provided if needed.
This is a one-semester course open to students who have had 2-D Art. The course is an introduction to drawing, painting, and printmaking along with composition. Art works created will be both realistic and abstract. A variety of mediums will be used such as pen and ink, colored pencil, printmaking ink, watercolor and acrylic paint.

ADVANCED DRAWING, PAINTING, PRINTMAKING - LEVELS 2-7

Prerequisite: Foundations of 2-D ART, Drawing, Painting, Printmaking
Students should bring a sketchbook. A sheet of mat board is requested for projects but may be provided if needed.
These advanced courses are to be taken in order of prerequisite. Due to class sizes, an advanced level course and a beginning level course are frequently offered during the same class period. Each course offers a greater in-depth study of various art styles and advanced art techniques. Choice of materials is offered on some projects.

GRAPHIC DESIGN

A sheet of mat board is requested for projects but may be provided if needed.
Graphic Design 1 is a one-semester course open to students in grades 9 – 12. This course offers basic experiences in the theory and practice of advertising and commercial art in our society. Students will learn to apply elements and principles of design to create pieces such as logos, product ads, posters, and web pages. Adobe Illustrator, In Design and Photoshop will be taught. Projects are customer driven.

ADVANCED GRAPHIC DESIGN - LEVELS 2-8

Prerequisite: Graphic Design
A sheet of mat board is requested for projects but may be provided if needed.
These advanced courses are one-semester courses to be taken in order of prerequisite. Due to class sizes, an advanced level course and a beginning level course are frequently offered during the same class period. This course offers the student the opportunity to do advanced graphic design art works. In Design, Photoshop and Illustrator will be used.

3-DIMENSIONAL ART (3D ART) OFFERINGS

FOUNDATIONS Of 3-DIMENSIONAL ART (3D Art)

Students should bring a sketchbook.

This is a one-semester course open to all students that fulfills the fine arts requirements for graduation and is a prerequisite for Jewelry, Ceramics and Advanced 3-D Art. This course acquaints students with the elements and principles of design using three-dimensional media: ceramics, fibers, mixed media, jewelry,and metal tooling.

ADVANCED 3-DIMENSIONAL ART - LEVELS 2-8

Prerequisite: Foundations of 3-D Art

These advanced courses are to be taken in order of prerequisite. Due to class sizes, advanced level courses and beginning level courses are frequently offered during the same class period. Course work includes individually determined projects and greater in-depth work in applying advanced skills.

CERAMICS I

Prerequisite: Foundations of 3-D Art

A student may enter Ceramics 1 after successful completion of Foundation 3-Dimensional Art. This course expands and develops concepts, techniques, and skills presented in the Foundations 3-D Course. Students work in a studio environment where they are responsible for organization and management of all phases of ceramics work from wedging clay to loading the kiln. Hand built clay forms; wheel thrown pottery and glazing techniques will be created in this one semester course. Students must be ready to make a serious commitment to their work.

ADVANCED CERAMICS - LEVELS 2-7

Prerequisite: Foundations of 3-D Art; Ceramics 1

These courses are designed to enable a student to further advance his/her knowledge of ceramics.
Levels 2 - 7 may be an organized, individual study program, with the instructor and student developing his/her own program of study, setting specific goals to be met by the end of the semester. Due to class sizes, advanced level courses and beginning level courses are frequently offered during the same class period. Students must be ready to make a serious commitment to their work.

JEWELRY I

Prerequisite: Foundations of 3-D Art

A student may enter Jewelry 1 after successfully completing Foundation of 3-Dimensional Art. The class is directed toward designing and constructing jewelry utilizing a variety of techniques. In addition to further expansion of basic techniques, cold-construction, soldering, and casting.

ADVANCED JEWELRY - LEVELS 2-7

Prerequisites: Foundations of 3-D Art; Jewelry 1

These courses are designed to enable a student to advance his/her knowledge of jewelry as adornment or jewelry techniques. This class is an organized, individualized study program. Due to class sizes, advanced level courses and beginning level courses are frequently offered during the same class period. Students may be charged for certain materials.

ADDITIONAL ART OFFERINGS

FOUNDATIONS OF 4-DIMENSIONAL ART & ANIMATION (4D ART)

No Prerequisite

This one-semester course offers students an opportunity to create works of art using Adobe Creative Cloud Programs and other programs. These programs are used to create special effects in print and video.

ADVANCED 4-DIMENSIONAL ART & ANIMATION - LEVELS 2-8

Prerequisite: Foundations of 4-D Art

This advanced course is a continuing study of hypermedia. Due to class sizes, advanced level courses and beginning level courses are frequently offered during the same class period. Students will work with Adobe Creative Cloud programs and other programs to create art works and animations. Students will also study the history, principles and types of animation and learn to make their own videos and animations.

PHOTOGRAPHY I

No prerequisite

There will be materials to buy for this class. Approximate cost is $75-$100.

Photography 1 is a one-semester course open to all students. This course will cover darkroom photography. This course offers basic experiences with the 35 mm camera and related equipment and the basic skills needed to develop and print black and white film in a darkroom. Access to a 35 mm camera is suggested but students can check out cameras. Students must be ready to make a serious commitment to their work.

ADVANCED PHOTOGRAPHY - LEVELS 2-8

Prerequisite: Photography 1

There will be materials to buy for this class. Approximate cost is $75-$100.

These advanced courses are one-semester courses to be taken in order of prerequisite. The courses offer the student the opportunity to pursue greater-in-depth study and experiences using the 35 mm camera and related equipment and further development of darkroom skills, as well as digital photography skills. The student may be introduced to special printing techniques such as photograms, multiple exposures, texture screens, toning, solarization. ed. Opportunities to use a digital camera, Adobe Photoshop, and Adobe Lightroom will also be explored.

INDEPENDENT STUDIO

There will be a fee or materials to buy for this class.

Independent Study is a one-semester course that can be taken when a student cannot fit an advanced art course into their schedule. The student will be able to pursue greater in-depth study of the chosen medium. Teacher and student should agree upon the course and level of study. This course can be taken repeatedly. This course may only be taken with **teacher pre-approval and a written note only.**

ART CLUB ***NOT A COURSE ****

Art Club is a student-led group that provides an opportunity for students to come together outside of art classes to do more art, both independent and collaboratively. Members also have the opportunity to apply for National Art Honor Society. This additional honor provides access to more contests and other opportunities in art. Some club traditions include: making the Art Club Calendar, participating in the Memory Project, and selling work at the Beautiful Land Market. Students also regularly bring new ideas to explore and do. Bring yours! Contact Lindsay Wede if you want to get more involved.

CAREER & TECHNICAL EDUCATION DEPARTMENT

What is Career & Technical Education?

Career and Technical Education (CTE) in Iowa includes organized educational programs offering a sequence of courses which are directly related to the preparation of individuals in employment in current or emerging occupations. These programs include competency-based, applied learning which contributes to an individual's academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, and occupational-specific skills.

At Ames High School, successful completion of any CTE course will meet the graduation requirement for a practical arts credit. However, successful completion of a complete "pathway" could lead to a professional industry certification. Pathways are outlined in the following pages for each service area offered at Ames High.

An additional and valuable benefit to CTE programs is the opportunity for work-based learning. This is a way to connect to business and industry in a variety of ways, including potential internships or related authentic experiences. These opportunities act as a capstone to a CTE program and help further the personal and professional development of students as they move on after high school.

What are the benefits of CTE?

Students who enroll in CTE courses develop and enhance skill sets which are quality pieces of their future personal and professional lives. These skills include, but are not limited to:

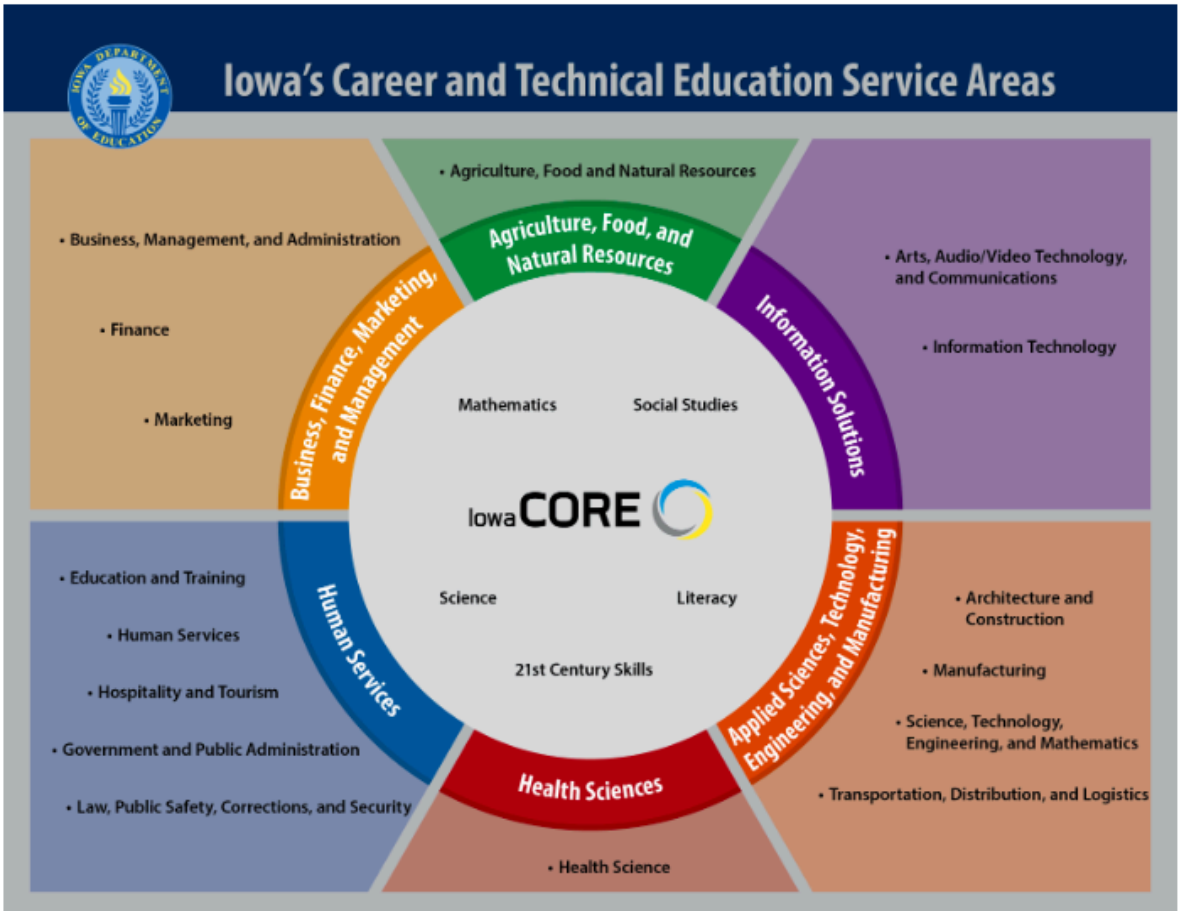
- Communication
- Problem Solving
- Critical Thinking
- Creative Thinking
- Teamwork
- Leadership
- Management
- Budgeting
- Ethics
- Personal Marketing
- Interviewing Skills
- Employability

Opportunities to connect to business and industry in a meaningful and authentic way!
Students can participate in the **Ames High Enterprise** - a collaboration with other CTE areas to provide a rich and authentic experience, preparing students for what comes next after high school!

What courses are considered CTE?

The Iowa Department of Education maintains 6 different service areas within CTE. Ames High School offers multiple pathways within 5 of these service areas. If pathways or service areas are not offered at Ames High School, students can attend DMACC for the Career Academy programming at no cost as part of their normal high school schedule. These programs include Health Occupations, Criminal Justice, Teacher Academy, Automotive, Culinary, Building Trades, and Welding and are outlined in the Story County Vocational Cooperative Courses (DMACC Career Academy) section.

What are the Service Areas offered?



Within each service area are pathways that could lead to industry certification. Ames High School CTE offers pathways within 5 of the 6 service areas. The pathways offered include:

1. AGRICULTURE, FOOD, AND NATURAL RESOURCES
   - Agriculture, Food and Natural Resources
2. INFORMATION SOLUTIONS
   - Graphics Communication
3. APPLIED SCIENCES, TECHNOLOGY, ENGINEERING, AND MANUFACTURING
   - Architecture and Construction
   - Manufacturing
   - Drafting/ Design Engineering Technologies/ Technicians
4. HUMAN SERVICES
   - Early Childhood Education and Teaching
5. BUSINESS, FINANCE, MARKETING, AND MANAGEMENT
   - Business, Management, and Administration
   - Marketing

Students within the Ames High CTE will have various opportunities to experience working with other areas within CTE, as well as core subject areas. This helps provide a more comprehensive and authentic experience while allowing students the chance to try out different areas they may not have otherwise considered.

AGRICULTURE

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Introduction to Agriscience	X	X			Fall Semester
Agriculture, Food, & Natural Resources	X	X			Spring Semester
Natural Resources	X	X	X	X	Either Semester
Animal Science		X	X	X	Either Semester
Plant Science		X	X	X	Either Semester
Food Science & Safety			X	X	Full Year Course
Agricultural Power and Technology		X	X	X	Full Year Course
Agricultural Business Foundation			X	X	Either Semester
Advanced Animal Science*			X	X	Either Semester
Advanced Plant Science*			X	X	Either Semester
Internship Program*			X	X	Spring Semester
Ag Research & Development Capstone				X	Either Semester

***These are college credit courses. The final grade will be on the DMACC & Ames High School transcript.**

Dual Credit Courses Earn AHS Credit *and* DMACC College Credit					
COLLEGE CREDIT COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Advanced Animal Science (AGS114)			X	X	Either Semester
Advanced Plant Science (AGA114)			X	X	Either Semester
Internship Program 1 (WBL 110)			X	X	Spring Semester
Internship Program 2 (WBL 150)				X	Spring Semester

Student Organization (FFA)*
Open to any students enrolled in agriculture courses! Follow us at @amesffa and @littlecyag. See information at the end of the agriculture course descriptions. Contact person: Mrs. Brooks

Supervised Agricultural Experiences and work-based learning opportunities will be part of each course.

INTRODUCTION TO AGRISCIENCE

This course introduces students to the whole agricultural education program. Students will learn about classroom and FFA opportunities and develop a Supervised Agricultural Experience (SAE). Other units include communication in agriculture and agricultural sciences investigation. Students are strongly encouraged to take Agriculture, Food, and Natural Resources with this course.

AGRICULTURE, FOOD, AND NATURAL RESOURCES

This course continues to build off of skills learned in Introduction to Agriscience while focusing on the natural resources, plant and animal, and power, structural and technical systems pathways of agriculture. Students are strongly encouraged to take introduction to Agriscience with this course.

NATURAL RESOURCES

Students will examine the importance of natural resources in our lives and how to manage them for our benefit. Education units will include opportunities in natural resources, soil formation and physical properties, land use, conservation and management, soil fertility, wildlife management, air and water quality management, and weather and climate.

ANIMAL SCIENCE

In this introductory animal science course students will learn about the value and utilization of animals in our lives, covering both livestock and companion animals. Animal nutrition, growth, health, behavior, reproduction, and genetics will be explored.

PLANT SCIENCE

This course will focus on landscaping, floriculture, and vegetable and flower production. Hands-on activities may include plant propagation and growth, soils and growing media, plant protection, and integrated pest management.

FOOD SCIENCE AND SAFETY

Students will complete hands-on activities, projects, and problems that simulate actual concepts and situations found in the food science and safety industry, allowing students to build content knowledge and technical skills. Students will investigate areas of food science, including food safety, food chemistry, food processing, food product development, and marketing.

AGRICULTURE POWER & TECHNOLOGY

Agriculture Power and Technology course is a foundation course within the CASE sequence of courses. The course provides students a variety of experiences that are in the fields of agricultural engineering. Students are immersed in inquiry-based exercises that tie in the math and science of agricultural mechanics and engineering. Throughout the course, students apply technical skills while becoming competent in the process used to operate, repair, engineer, and design agricultural tools and equipment.

AGRICULTURAL BUSINESS FOUNDATION

This CASE course utilizes activities, projects, and problems that incorporate business mathematics and reading and writing components in the context of agriculture. This course is structured for all students to experience an overview of agricultural business management. Students will learn about starting a business, the cost of doing business, how to manage risk, and finalizing a business plan.

ADVANCED ANIMAL SCIENCE - Dual Credit Course

Prerequisite: Animal Science

This course explores issues impacting the United States and the international animal industry. The main emphasis of the course is on the animal industry in the global market, animal production management, anatomy and physiology, and marketing of farm animals.

ADVANCED PLANT SCIENCE - Dual Credit Course

Prerequisite: Plant Science

This course explores the general principles of crop production and management. Major areas of study include food production, crop classification, plant growth factors, seed production and variety selection.

INTERNSHIP PROGRAM (Internship 1 & Internship 2) - Dual Credit Courses

Instructor Approval Required

Internship 1: This 2-period block course is designed to help students enter a path that leads to highly skilled occupations. Students are expected to take initiative for their own learning as they seek to gain valuable experiences and explore potential career paths. Through an application and interest inventory process, students will be placed with quality employers for a semester-long unpaid internship. This is a highly independent experience that is designed for students to demonstrate responsibility in completing course requirements and meeting deadlines.

Internship 2: This 2-period block course is designed to build upon skills and experiences obtained in Internship 1. Students will explore additional fields of interest and/or continue to build occupational knowledge and professionalism.

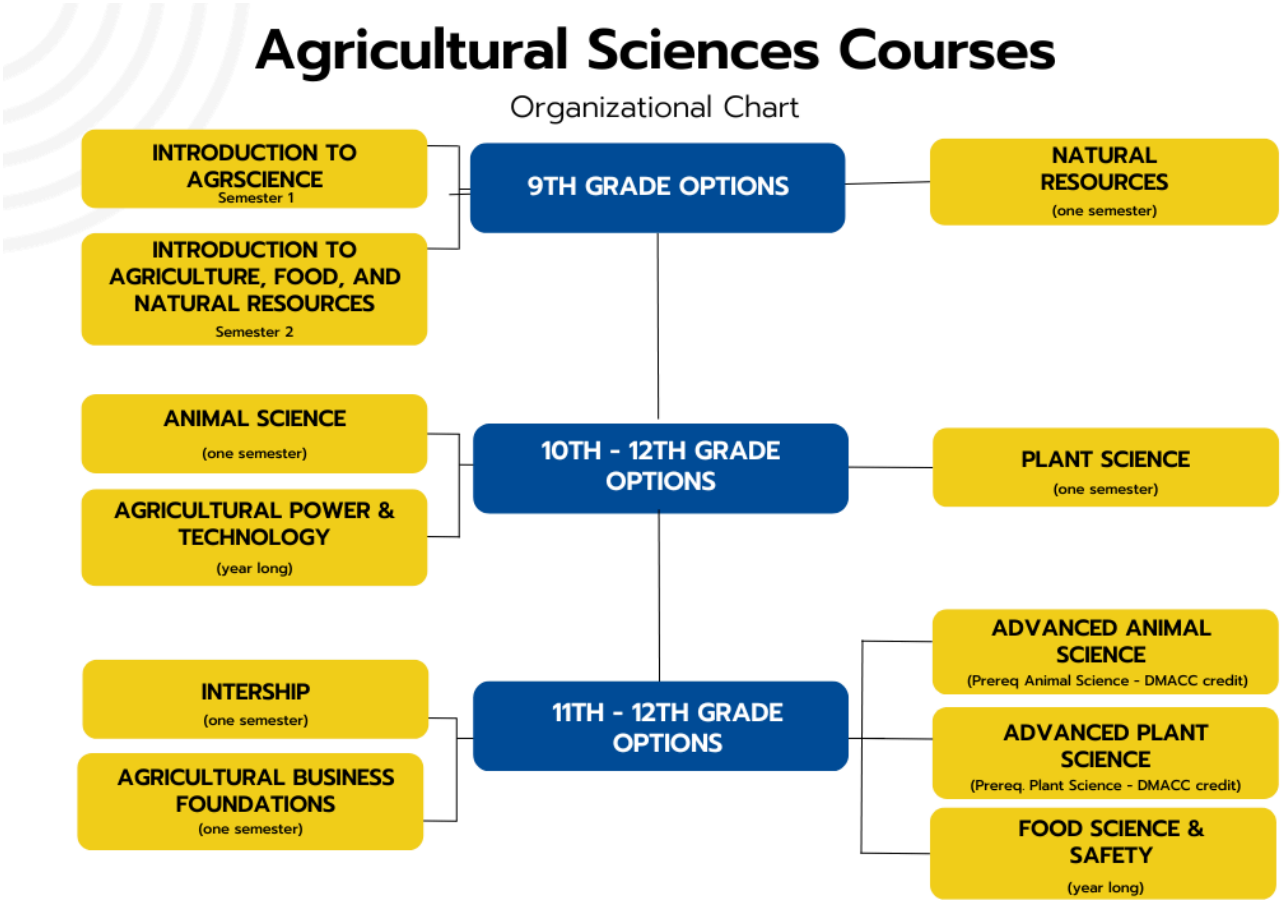
***Prerequisite Internship 1 - Seniors only*

AG RESEARCH AND DEVELOPMENT CAPSTONE

This capstone course will culminate students' experiences in agriculture based on the pathway of study they pursued. In this course students will develop and Improve critical thinking and employability skills as they learn to solve real-world problems, conduct research, analyze data, and develop new products and protocols.

FFA ***NOT A COURSE ** - intracurricular organization that is incorporated into ag courses!*

FFA is a student organization for those interested in agriculture and leadership. The National FFA Organization is committed to the individual student, providing a path to achievement in leadership, personal growth and career success through agricultural education. This supplements and is implemented throughout all ag courses. Follow us @amesffa and @littlecyag



INFORMATION SOLUTIONS

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Advertising	X	X	X	X	Either Semester
Video Production	X	X	X	X	Either Semester
Web Design		X	X	X	Either Semester
Microsoft Certification *		X	X	X	Either Semester
Internship Program 1*			X	X	Spring Semester
Internship Program 2*				X	Spring Semester

***These are college credit courses. The final grade will be on the DMACC & Ames High School transcript.**

Dual Credit Courses Earn AHS Credit *and* DMACC College Credit					
COLLEGE CREDIT COURSE		GRADES			SEMESTER OFFERED
		9	10	11	12	
Microsoft Certification	(BCA212)		X	X	X	Either Semester
Internship Program 1	(WBL 110)			X	X	Spring Semester
Internship Program 2	(WBL 150)				X	Spring Semester

Student Organization (DECA)
Open to any students enrolled in business courses! **See information at the end of the business department course descriptions.** **Contact person: Mrs. Schieffer**

ADVERTISING

Learn the history and development of advertising as well as effective business and advertising techniques. Obtain understanding of careers in the industry as well as learn standards of the industry. Utilize web based software to create creative marketing pieces.

VIDEO PRODUCTION

Learn the history and development of video production and film technologies. Obtain understanding of careers in the industry as well as learn standards of the industry. Students will learn skills and practices in various aspects of video production by applying the elements of art, principles of design, integration of technology.

WEB DESIGN

Learn the history and development of web design. Obtain understanding of careers in the industry as well as learn standards of the industry. Students learn skills and practices in various aspects of web design by applying the elements of art, principles of design, integration of technology.

MICROSOFT CERTIFICATION - Dual Credit Course

Obtain proficiency and official certification in Microsoft Word and Excel through various business simulations. Certification credentials can be displayed on resumes and applications for college, jobs, and scholarships.

INTERNSHIP PROGRAM (Internship 1 & Internship 2) - Dual Credit Courses

Instructor Approval Required

Internship 1: This 2-period block course is designed to help students enter a path that leads to highly skilled occupations. Students are expected to take initiative for their own learning as they seek to gain valuable experiences and explore potential career paths. Through an application and interest inventory process, students will be placed with quality employers for a semester-long unpaid internship. This is a highly independent experience that is designed for students to demonstrate responsibility in completing course requirements and meeting deadlines.

Internship 2: This 2-period block course is designed to build upon skills and experiences obtained in Internship 1. Students will explore additional fields of interest and/or continue to build occupational knowledge and professionalism.

***Prerequisite Internship 1 - Seniors only*

DECA *****NOT A COURSE ***** DECA, a national association of marketing students, is a career and technical student-led organization focused on the development of emerging leaders and entrepreneurs. This supplements and is integrated throughout all business courses. Students gain professional, technical, and leadership skills and build their network through various projects and opportunities.

APPLIED SCIENCES, TECHNOLOGY, ENGINEERING, & MANUFACTURING

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Computer-aided Manufacturing	X	X	X	X	Either Semester
Introduction to Carpentry	X	X	X	X	Either Semester
Introduction to Manufacturing	X	X	X	X	Either Semester
Engineering CADD Drafting		X	X	X	Either Semester
Architectural CADD Drafting		X	X	X	Either Semester
Manufacturing and Welding		X	X	X	Either Semester
Advanced Manufacturing and Welding		X	X	X	Either Semester
Woodworking 1		X	X	X	Either Semester
Woodworking 2		X	X	X	Either Semester
Carpentry 1		X	X	X	Either Semester
Carpentry 2		X	X	X	Either Semester
Contract Woodworking			X	X	Either Semester
ITEC Contract Advanced Technology			X	X	Either Semester
Internship Program 1*			X	X	Spring Semester
Internship Program 2*				X	Spring Semester

***These are college credit courses. The final grade will be on the DMACC & Ames High School transcript.**

Dual Credit Courses Earn AHS Credit *and* DMACC College Credit					
COLLEGE CREDIT COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Internship Program 1 (WBL 110)			X	X	Spring Semester
Internship Program 2 (WBL 150)				X	Spring Semester

Student Organization (SKILLS USA)
Open to any students enrolled in Industrial Tech courses! **See information at the end of the Industrial Tech courses descriptions.** **Contact person: Mr. Leonard**

COMPUTER-AIDED MANUFACTURING

In the beginning CAD class students will explore various computer based systems and be challenged to invent, innovate, and problem solve as they design and build various projects. A primary focus will be made on design and students will learn software applications to run a laser engraver, 3D printer, CNC plasma cutter and screen printing equipment.

INTRODUCTION TO CARPENTRY

Students will learn the basics of carpentry and various woodworking techniques. The course will include the safety precautions and correct setup and operation of most of the lab equipment. Students will complete a number of required projects to demonstrate their proficiency in being able to set up and safely operate the equipment.

INTRODUCTION TO MANUFACTURING

Students will learn the basics of manufacturing and various metal fabrication techniques. Have the opportunity to perform techniques such as cutting, bending, welding and machining. Students will complete a number of required projects to demonstrate their proficiency in being able to set up and safely operate the equipment.

ENGINEERING CADD DRAFTING

***Prerequisite: Computer Aided Manufacturing*

Use computer aided drafting and design (CADD) to perform all functions of 2D and 3D drawings. Students will learn proportion, geometric shapes, scaling, visualization and design through various modeling applications.

ARCHITECTURAL CADD DRAFTING

***Prerequisite: Computer Aided Manufacturing*

Use computer aided drafting and design (CADD) to perform various architectural designs. Students will study factors like energy savings, use of renewable resources and the impact on our environment.

MANUFACTURING AND WELDING

***Prerequisite: Intro to Manufacturing*

Second level metalworking course that will advance the skills learned in Intro to Manufacturing. Focus will be on metal removal processes, precision machining, out of position welding, reading welding diagrams and welding accuracy. The following major equipment/processes will be made available to students; engine lathe, vertical milling machine, welders (SMAW, GMAW, oxy-act, TIG) plasma cutter and CNC plasma table. Lab activities will involve the integration of materials and processes into individual and team projects and assignments.

ADVANCED MANUFACTURING AND WELDING

***Prerequisite: Manufacturing and Welding*

Third level metalworking course that works with advanced machining and welding techniques. The overall goal is to create advanced projects that combine multiple skills and content components. Students will have the opportunity to work with CNC technologies as well as design and build projects individually and with peers.

WOODWORKING 1

***Prerequisite: Introduction to Carpentry*

This course is designed to advance the skills gained in Intro to Carpentry. Students will learn different woodworking techniques, such as joinery, epoxy, and finishing. Students will be expected to design and build various wood projects to be completed during the course of the semester. Some other areas of study may include basic CAD and 3D modeling operations, basic CNC programming and use of the laser engraver.

WOODWORKING 2

***Prerequisite: Woodworking 1*

This course will build off the skills learned in Woodworking 1. Students will learn advanced joinery techniques, in depth project planning practices and participate in a manufacturing production run that will focus on student enterprise. Students will continue to use the laser engraver and CNC technologies.

CARPENTRY 1

***Prerequisite: Introduction to Carpentry*

This course will focus on the building trades with an emphasis on residential house carpentry. Students will learn basic home repair principles and introductory level construction skills such as plumbing, electrical, framing, drywall and basic concrete applications. The goal will be to build a small structure.

CARPENTRY 2

***Prerequisite: Carpentry 1*

This course will advance students' knowledge of residential construction. Students will learn project estimation, project planning and jobsite safety. The goal is to build a functional tiny house.

CONTRACT WOODWORKING

***Prerequisite: Woodworking 2 and Carpentry 2*

Students will contract with their instructor on an individual basis for project activities and work schedule. Work independently in the labs on projects with instructors present. Students must apply and communicate with the instructor their intent before registering for the class.

ITEC CONTRACT METALS ADVANCED TECHNOLOGY

***Prerequisite: Woodworking 2, Carpentry 2 OR Advanced Metals and Welding **Instructor Approval*

Students will contract with their instructor on an individual basis for project activities and work schedule. Work independently in the labs on projects with instructors present. Students can focus on woods, metals or combination projects to advance their skills. Students must apply and communicate with the instructor their intent before registering for the class.

INTERNSHIP PROGRAM (Internship 1 & Internship 2) - Dual Credit Courses

Instructor Approval Required

Internship 1: This 2-period block course is designed to help students enter a path that leads to highly skilled occupations. Students are expected to take initiative for their own learning as they seek to gain valuable experiences and explore potential career paths. Through an application and interest inventory process, students will be placed with quality employers for a semester-long unpaid internship. This is a highly independent experience that is designed for students to demonstrate responsibility in completing course requirements and meeting deadlines.

Internship 2: This 2-period block course is designed to build upon skills and experiences obtained in Internship 1. Students will explore additional fields of interest and/or continue to build occupational knowledge and professionalism.

***Prerequisite Internship 1 - Seniors only*

HUMAN SERVICES

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Introduction to Human Services	X	X	X	X	Either Semester
Lifespan Nutrition and Wellness	X	X	X	X	Spring Semester
Child Development I	X	X	X	X	Either Semester
Child Development II		X	X	X	Either Semester
Early Childhood Education I		X	X	X	Either Semester
Early Childhood Education II		X	X	X	Either Semester
Early Childhood Education III - Field Experience			X	X	Either Semester
Internship Program*			X	X	Spring Semester

***This is a college credit course. The final grade will be on the DMACC and Ames High School transcript.**

Dual-Credit Courses Earn AHS Credit *and* DMACC College Credit					
COLLEGE CREDIT COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Internship Program 1 (WBL110)			X	X	Spring Semester
Internship Program 2 (WBL 150)				X	Spring Semester

Student Organization (FCCLA)
Open to any students enrolled in Human Services courses! **See information at the end of the Human Services course descriptions.** **Contact person: Ms. Hansen**

INTRODUCTION TO HUMAN SERVICES

Introduces students to careers and opportunities within Human Services areas that support individuals and families. Topics include: career and workforce preparation, family, parenting, money management, decision-making skills, communication skills, nutritional literacy, and individual roles and responsibilities within the family, community and workforce.

LIFESPAN NUTRITION AND WELLNESS

This is a laboratory course that allows students to use principles of lifetime wellness and nutrition to help them make informed choices that promote wellness as well as pursue careers related to hospitality and tourism, education and training, human services, and health sciences.

CHILD DEVELOPMENT I

This course explores child growth and development from conception to age one. Topics covered include childcare practices and parenting. This course provides introduction to education and training requirements and opportunities for career paths in early childhood education and services.

CHILD DEVELOPMENT II

***Prerequisite: Child Development I*

Students will understand the aspects of child growth and development in children ages 2-8. Topics include positive guidance techniques, milestones in development across domains, and other child-related issues. Hands-on learning activities, observation techniques, and lab experiences in working with young children may be included.

EARLY CHILDHOOD EDUCATION I

***Prerequisite: Child Development II*

Students will take a look at what a career in early childhood education is like. Students will complete multiple observational experiences with young children and learn the foundations of early childhood education and traits and aptitudes that make a quality teacher.

EARLY CHILDHOOD EDUCATION II

***Prerequisite: Early Childhood Education I*

This course will continue preparation for child related education careers. Students will practice communication skills that contribute to positive relationships, observe developmental norms, promote problem solving skills, and plan various activities to use with children. This course will involve a weekly lab experience working with young children.

EARLY CHILDHOOD EDUCATION III - FIELD EXPERIENCE

***Prerequisite: Early Childhood Education II*

This course provides students a hands-on opportunity to work with children in a professional lab setting. Experiences include demonstrating employment skills required to work with children, maintaining a healthy environment for children, implementing developmentally appropriate practices, developing and implementing activities and curriculum and developing positive relationships with children.

INTERNSHIP PROGRAM (Internship 1 & Internship 2) - Dual Credit Courses

Instructor Approval Required

Internship 1: This 2-period block course is designed to help students enter a path that leads to highly skilled occupations. Students are expected to take initiative for their own learning as they seek to gain valuable experiences and explore potential career paths. Through an application and interest inventory process, students will be placed with quality employers for a semester-long unpaid internship. This is a highly independent experience that is designed for students to demonstrate responsibility in completing course requirements and meeting deadlines.

Internship 2: This 2-period block course is designed to build upon skills and experiences obtained in Internship 1. Students will explore additional fields of interest and/or continue to build occupational knowledge and professionalism.

***Prerequisite Internship 1 - Seniors only*

FCCLA *****NOT A COURSE ***** Family, Career and Community Leaders of America (FCCLA) is a career and technical student-led organization focused on developing skills for life in the multiple roles of family member, wage earner and community leader. This supplements and is integrated throughout all human services courses. Students gain professional, technical, and leadership skills and build their network through various projects and opportunities.

BUSINESS, FINANCE, MARKETING, AND MANAGEMENT

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Introduction to Business	X	X			Either Semester
Marketing and Selling	X	X	X	X	Either Semester
Accounting 1*		X	X	X	Full Year Course
Business and Personal Law		X	X	X	Either Semester
Entrepreneurship 1		X	X	X	Either Semester
Accounting 2			X	X	Full Year Course
Entrepreneurship 2			X	X	Full Year Course
Business Engagement Collaborative*			X	X	Fall Semester
Advanced Business Engagement Collaborative*			X	X	Fall Semester
Internship Program*			X	X	Spring Semester
Entrepreneurship 3/Start Up				X	Full Year Course
Personal Finance – Graduation Requirement			X	X	Either Semester

***These are college credit courses. The final grade will be on the DMACC & Ames High School transcript.**

Dual-Credit Courses Earn AHS Credit *and* DMACC College Credit					
COLLEGE CREDIT COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Accounting 1 (ACC104)		X	X	X	Full Year Course
Bus. Engagement Collaborative (ADM221)			X	X	Fall Semester
Adv. Business Engagement Collab. (ADM936)				X	Fall Semester
Internship Program 1 (WBL110)			X	X	Spring Semester
Internship Program 2 (WBL150)				X	Spring Semester

Student Organization (DECA)
Open to any students enrolled in business courses! **See information at the end of the business course descriptions.** **Contact person: Mrs. Schieffer**

INTRODUCTION TO BUSINESS

Get a basic overview of the various fields within business including entrepreneurship, management, human resources, marketing and finance accounting. This is your opportunity to explore the business world and begin to develop skills that employers are looking for in potential employees.

MARKETING AND SELLING

Develop a basic understanding of what marketing really is and figure out the importance of basic sales techniques as they apply to a variety of industries and careers. This is a project-based, hands-on course that allows students to be creative and explore new and innovative ideas.

ACCOUNTING 1 – Dual Credit Course

Accounting introduces students to financial information needed in all business-related occupations. Students will explore the accounting cycle as they record income and expenses and prepare financial reports for sole proprietorships. Students will be engaged with hands-on simulations and activities.

BUSINESS & PERSONAL LAW

Explore the facts and proper procedures in current and previous cases that help define and explain your rights as an individual and business. Areas of study include, but are not limited to, criminal law, civil law, employment law, contract law, consumer law, and estate planning.

ENTREPRENEURSHIP 1

Explore the basics of creating and running a new business. Develop a business plan, including a marketing campaign, financial projections, and other information needed to get your business off and running.

ACCOUNTING 2

***Prerequisite: Accounting 1*

Build upon your accounting skills by developing in-depth knowledge of the principles of accounting through hands-on simulations and activities.

ENTREPRENEURSHIP 2

*Entrepreneurship 1 is **NOT** a prerequisite for Entrepreneurship 2.* Juniors and Seniors

Students will operate the Little Cyclone Central, a student-run school-based enterprise. Manage production, inventory, financial operations, marketing, staffing, and policies and procedures to maximize your business success.

BUSINESS ENGAGEMENT COLLABORATIVE – Dual Credit Course

***Any Business or Information Solutions course or Instructor Approval*

An innovative work-based learning program for juniors and seniors that meets for a 2-class period block. Test out some of your various interest areas while completing projects for businesses around the community. Connect with businesses and industries through your projects and a mentoring program to build your network and see your work being implemented in a professional setting. Additional components include resume building, mock interviews, and job shadow opportunities.

ADVANCED BUSINESS ENGAGEMENT COLLABORATIVE – Dual Credit Course

***Prerequisite: Business Engagement Collaborative*

Build on your experience from Business Engagement Collaborative and expand further on your business and industry connections through higher level business community projects. Continue your career exploration process through job shadow and mock interview opportunities. Advanced level students contribute as mentors for first-year BEC students.

INTERNSHIP PROGRAM (Internship 1 & Internship 2) - Dual Credit Courses

Instructor Approval Required

Internship 1: This 2-period block course is designed to help students enter a path that leads to highly skilled occupations. Students are expected to take initiative for their own learning as they seek to gain valuable experiences and explore potential career paths. Through an application and interest inventory process, students will be placed with quality employers for a semester-long unpaid internship. This is a highly independent experience that is designed for students to demonstrate responsibility in completing course requirements and meeting deadlines.

Internship 2: This 2-period block course is designed to build upon skills and experiences obtained in Internship 1. Students will explore additional fields of interest and/or continue to build occupational knowledge and professionalism.

ENTREPRENEURSHIP 3 / START-UP

***Prerequisite: Entrepreneurship 2*

Imagine, pitch, start, and run your own business over the course of the year. Engage in area pitch competitions to gain vital feedback and potential seed capital. Leave the course with the potential to continue your business beyond high school, or use it as a way to better develop your entrepreneurial skill sets.

PERSONAL FINANCE

Personal Finance is a senior required course. Gain vital money management skills that will help as you prepare for life on your own. Learn how to budget, ways to help pay for college, and lots of helpful ideas to better control your finances and live a life that isn't weighed down by debt.

DECA ORGANIZATION ***NOT A COURSE*** DECA is a career and technical student-led organization focused on the development of emerging leaders and entrepreneurs. This supplements and is integrated throughout all business courses. Students gain professional, technical, and leadership skills and build their network through various projects and opportunities.

ENGLISH

Students must take one *WRITING* course and one *LITERATURE* course in grades 9, 10, & 11.

Course		GRADES				SEMESTER OFFERED
		9	10	11	12	
9th						
English 9 Workshop	(writing)	X				Fall Semester
English 9 Literature	(literature)	X				Spring Semester
10th						
Basic Composition	(writing)		X			Either Semester
Creative Writing	(writing)		X			Either Semester
Mythology, Fantasy, Folklore	(literature)		X			Either Semester
Survey of Literature (10th)	(literature)		X			Either Semester
American Literature	(writing & literature)		X			Both Semesters
11th & 12th						
Speech	(writing)			X	X	Either Semester
Multimedia Composition	(writing)			X	X	Spring Semester
Introduction to Journalism	(writing)			X	X	Fall Semester
Activism & Social Justice Lit.	(literature)			X	X	Either Semester
Horror Literature	(literature)			X	X	Either Semester
Science-Fiction Literature	(literature)			X	X	Either Semester
Shakespeare (Offered 25-26)	(literature)			X	X	Either Semester
American Society Through Film*	(Literature)			X	X	2nd Semester
12th						
Survey of Literature (12th)	(Literature)				X	Either Semester
ELECTIVES - Must be taken in addition to required English Courses**						
Drama		X	X	X	X	Either Semester
Adv. Journalism (*AHS* Newspaper - The Web)			X	X	X	Either Semester
SPIRIT (AHS Yearbook)			X	X	X	Either Semester

*Two-period block with English and sociology credit, or a social studies elective credit, if a sociology credit has already been earned. (Course meets daily)

+Sophomores who want to take Adv. Journalism 2nd semester to write for the AHS Newspaper, take Intro to Journalism first semester, even though it is an 11-12 course. It's taken in addition to their 10th grade writing & lit courses.

**The NCAA and many colleges do *NOT* accept these electives as core English courses towards admissions.

Dual Credit Courses Earn AHS credit and DMACC College Credit					
College Credit Course	**GRADES**				**Semester Offered**
	9	10	11	12	
American Society Through Film* (HUM 121)			X	X	Semester Literature & Humanities
AP English Language & Composition* (ENG 105 & 106)			X	X	Full-Year Course (writing & literature)
AP English Literature & Composition* (Lit 101 & 185)			X	X	Full-Year Course (writing & literature)
Creative Writing (11-12)* (ENG221)			X	X	Semester writing
World Literature 2* (LIT 151) (Offered 26-27)			X	X	Semester literature

*These are college credit courses. The final grade on the DMACC & Ames High School transcript must be proficient according to ISASP scores in Reading, Math & Science to take dual credit courses.

ACTIVISM AND SOCIAL JUSTICE LITERATURE (11-12)

This course is designed to introduce students to social justice issues and assist them in discovering their ability to create positive change in their own world. Students will read about and critically analyze various social movements related to topics such as race, ethnicity, gender, sexual orientation, socioeconomic status, human rights, food and health, environmental issues, immigration, etc. Students will explore and discuss how these concepts influence human understanding, relationships, and behavior to gain awareness of inequality and injustice and begin to address historical and contemporary issues relevant to students' present day lives. The course encourages students to think critically and expansively about the social world and conditions of humanity through reading/writing, researching, discussing, & analyzing movements of study.

AMERICAN SOCIETY THROUGH FILM (11-12)

American Society through Film is a dynamic and interdisciplinary course designed to provide students with dual Ames High credit in both English and Sociology and DMACC credit for HUM121 (America in the Movies). This course delves into the rich tapestry of American society by examining its representation in film from the early 20th century to the present day. Through the lens of cinematic storytelling, students will explore critical sociological themes while analyzing and critiquing films.

ADVANCED CREATIVE WRITING (11-12) – Dual Credit Course

Advanced Creative Writing is designed for students who enjoy writing and introduces them to some of the processes and techniques writers employ to create fiction, poetry, and song lyrics. Through writing workshops and individual conferences, students learn to give and receive critical feedback, ultimately polishing and submitting their original work for publication for an authentic audience beyond the classroom setting. Students will read the works of professional writers and apply the principles of imaginative writing to their own work.

AMERICAN LITERATURE (10)

American Lit courses are **STRONGLY suggested for students planning to take AP English courses later in high school. The fall semester's nonfiction and rhetoric focus more specifically helps with AP Language and Composition preparation, while the spring semester's focus on literary analysis helps with AP Literature and Composition.

First semester begins with the introduction of Europeans onto the American continent, covering explorers and indigenous peoples, English settlement of New England, foundational documents of America, and ideological movements including the Great Awakening and Transcendentalism. Goals are to both analyze how literature and culture affect each other and examine rhetoric or literary qualities of works from this time period. Written assignments will include persuasive, expository, analysis, and annotative texts. Class discussion will include seminars and formal presentations, individual and group. Texts may include: *The Absolutely True Diary of a Part-Time Indian, The Crucible,* and a variety of short stories, poems, and publications, including "The Declaration of Independence," "The Constitution," and "Common Sense."

In the second semester, this course resumes study of American Literature in the antebellum period to the present, covering Realism & Romanticism, the Harlem Renaissance, Roaring Twenties, Depression, Civil Rights movement, and contemporary authors, poets, and essayists. Goals are to both analyze how literature and culture affect each other and examine literary styles. Written assignments will include persuasive, expository, analysis, and annotative texts. Class discussion will include seminars and formal presentations, individual and group. Texts may include: *Masque of the Red Death, The Open Boat, Of Mice & Men*, *A Raisin in the Sun*, and a variety of short stories, poems, and publications.

AP ENGLISH LANGUAGE & COMPOSITION (11-12) – Dual Credit Course

The AP English Language and Composition course cultivates the reading and writing skills students will need for college success and for intellectually responsible civic engagement as an adult. The course focuses on rhetorical analysis of nonfiction texts and the development and revision of well-reasoned, evidence-centered analytic and argumentative writing. This College Board-approved course aligns to introductory college-level rhetoric and writing courses. AP Language and Composition emphasizes reading nonfiction texts (essays, journalism, science writing, autobiographies, criticism, documentaries, and advertisements) from many disciplines and historical periods in thematic units from the *The Language of Composition*. APLAC students should anticipate daily reading and composition activities. This course prepares students for the Advanced Placement exam while meeting DMACC Composition I and Composition II course requirements. This course must be taken for DMACC credit.

AP ENGLISH LITERATURE & COMPOSITION (11-12) – Dual Credit Course

AP English Literature and Composition will engage you in the careful reading and critical analysis of literature, poetry, and drama at a collegiate level and will prepare you for the Advanced Placement exam while meeting DMACC Lit 101 & Lit 185 course requirements. **NOTE: There is a required Summer Reading Component to this class.**

BASIC COMPOSITION (10)

Basic Composition focuses on improving students' knowledge of grammar, punctuation, and other writing conventions through implementing the writing process of brainstorming, drafting, revising, and organizing written work. In this course, students will write several papers which may include expository, comparison/contrast, and argumentative.

CREATIVE WRITING (10)

Creative Writing is designed for students who enjoy writing and introduces them to some of the processes and techniques writers employ to create fiction, poetry, and song lyrics. Through writing workshops and individual conferences, students learn to give and receive critical feedback, ultimately polishing and submitting their original work for publication for an authentic audience beyond the classroom setting.

ENGLISH 9 LITERATURE

English 9 Literature cultivates the varied reading, analysis, and speaking skills students will need for their future English courses in high school and beyond. Units include independent reading, Shakespeare's *Romeo & Juliet*, and great speakers. Through these units, students will engage in individual conferences to work on their skills as well as small-group and large-group discussions and interactions.

ENGLISH 9 WORKSHOP

English 9 Workshop introduces students to a variety of writing skills such as creative writing (narrative and poetry), informational writing (journalistic news and feature stories), and argumentative writing (close-reading and analysis with academic documentation.)

HORROR LITERATURE (11-12)

Don't fear, this isn't a slasher class! Horror literature examines the sociological & psychological purpose that fear serves a culture while reading a variety of diverse authorship. Students will study the symbolism of horror writing, whether in haunted hotels or in "the other." Written work will include research, creative writing, and literary analysis. Texts may include *Frankenstein, The Shining, I am Legend, The Haunting of Hill House, Red Moon,* and a variety of short stories, analytical essays, and multimedia.

INTRODUCTION TO JOURNALISM (11-12)

Concurrent 10th for students taking Adv. Journalism 2nd semester of the sophomore year.

Introduction to Journalism is a project-based journalistic writing course with a focus on news, features, and opinion articles. This writing studio model involves idea incubation, framing an idea for a piece of writing, research/drafting/feedback in a reading/writing workshop, writing a final draft, and publication. Intro students have the opportunity to submit their best work to the school newspaper for online publication! Project-based journalistic writing provides students with transferable tools such as how to pitch a creative idea, how to schedule and manage time for projects, how to give and receive feedback on creative projects, and how to evaluate one's own work to revise for publication. After completing Introduction to Journalism, strong writers are encouraged to enroll in Advanced Journalism.

MULTIMEDIA COMPOSITION (11-12)

Digital literacy competencies are important for learners in all fields of study. Today, every student needs to be able to create to learn. This course focuses on the lifelong learning process that involves accessing, analyzing, creating, reflecting, and taking action, using the power of communication and information to make a difference in the world. Multimedia Composition balances critical thinking about media and digital composition with digital media creation. We'll use critical questions about the purpose, form, and content of all forms of communication, and then we'll apply our knowledge to create blogs, social media, digital images, podcasts, infographics, videos, and screencasts.

MYTHOLOGY, FANTASY, FOLKLORE (10)

Move beyond *Percy Jackson* and read stories from throughout human history & around the world. Explore the purpose of storytelling in culture, analyze the author's craft, and research a topic of your choosing. Texts may include *Norse Mythology, The Hobbit,* or *A Wizard of Earthsea*.

SCIENCE FICTION LITERATURE (11-12)

Explore a genre as vast as our galaxy and read stories from a variety of diverse authors, times, and sub-genres. Investigate the union of science and literature as they predict possible futures, wonderful or terrible through writing creative, analytical, and informational texts. Works may include *The Handmaid's Tale, 1984, Station 11, Binti*, and *Brave New World*.

SHAKESPEARE (11-12)

This course offers the opportunity for students to study and reflect upon the themes presented in Shakespeare's works. Literature will include a sampling of Shakespearean sonnets and at least one play from each category: comedy, tragedy, and history. In this course, students improve their critical-thinking skills as they determine the underlying assumptions and values within Shakespeare's texts and as they understand how the work reflects society's problems and culture. Students will emphasize comprehension, discernment, and critical-thinking skills in the reading as they discuss many literary techniques. Students will participate and collaborate in interactive close reading activities that will get them on their feet to help understand the complex texts. Some writing assignments are required as an additional method to develop and improve critical-thinking and analytical skills.

SPEECH (11-12)

Learn how to improve as a public speaker and communicator in general. Students will draft and deliver a variety of speeches such as expository, persuasive, and demonstrative to gain confidence as a speaker in small and large group situations. Course topics may include (but are not limited to) research and organization, writing for verbal delivery, stylistic choices, visual and presentation skills, analysis and critique.

SURVEY OF LITERATURE (10)

This one-semester course is designed for students who are interested in choosing their own books of literary merit and increasing their reading stamina in preparation for the demands of AP English Literature and Composition, college, and life. Survey of Literature encourages students to find enjoyment in reading as well as to challenge themselves to read books outside their comfort zones as they increase knowledge and understanding of literary genres and literary formats. The course increases students' ability to analyze characters, setting, structure, point of view, imagery, and metaphorical language. Ultimately, the course encourages students to develop the skills and habits of lifelong readers who choose to read and enjoy books as passionate adults. This course will ensure students meet the Iowa Core grade 9–10 Literacy standards.

SURVEY OF LITERATURE (12)

This one-semester course is designed for students who are interested in choosing their own books of literary merit and increasing their reading stamina in preparation for the demands of AP English Literature and Composition, college, and life. Survey of Literature encourages students to find enjoyment in reading as well as to challenge themselves to read books outside their comfort zones as they increase knowledge and understanding of literary genres and literary formats. The course increases students' ability to analyze characters, setting, structure, point of view, imagery, and metaphorical language. Ultimately, the course encourages students to develop the skills and habits of lifelong readers who choose to read and enjoy books as passionate adults. This course will ensure students meet the Iowa Core grade 11–12 Literacy standards.

WORLD LITERATURE 2 (11-12) – Dual Credit Course

This course will examine the enduring human values which unite different literary traditions from around the world. Readings may include works such as *The Kite Runner* by Khaled Hosseini, *One Hundred Years of Solitude* by Gabriel Garcia Marquez and *Things Fall Apart* by Chinua Achebe.

ENGLISH ELECTIVES

Please note:

- **The NCAA, and many colleges, do *NOT* accept these electives as core English courses and may not meet NCAA and/or college admission requirements.**
- **These English electives do NOT count towards the 8 credits needed to earn an AHS diploma. They are taken in addition to the 8 required English courses.**

ADVANCED JOURNALISM

**Prerequisite: Introduction to Journalism or Multimedia Composition*

Advanced Journalism is a course in motivated composition **for students who have completed Introduction to Journalism or Multimedia Composition**. Student editors assign and edit the news, editorial and feature content of *The WEB* and practice journalistic writing that informs, explains, narrates, persuades, and critiques our world. Students conduct short and extended projects that integrate interviews and web-based research. The final products are news and feature stories, persuasive opinion columns, and critical analyses. The ultimate goal of Advanced Journalism is for students to become independent, critical, and active readers, writers, and digital communicators.

DRAMA

Drama explores the world of theater. Students will study major plays and playwrights and will also become familiar with theater terminology. Students will study the techniques of successful acting and directing through improvisation and scene interpretation. This class will also explore basic elements of stagecraft including set construction, lighting, and sound.

YEARBOOK (SPIRIT)

SPIRIT is the class that produces the school yearbook. Staff members will be expected to write stories, captions, photograph school events, and engage in the year-long advertising campaign. Students will learn the fundamentals of page layout and Photoshop and will be expected to develop and apply these skills through page design and production. As this is a deadline-driven product, students will sometimes need to meet after school and even into the summer to complete required assignments. Applicants should be creative and self-motivated with strong skills in group dynamics.

MATHEMATICS

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Algebra 1AB **or** Algebra 1*	X	X	X	X	Full Year Course
Geometry AB **or** Geometry	X	X	X	X	Full Year Course
Algebra 2			X	X	Full Year Course
Advanced Algebra 2	X	X	X	X	Full Year Course
Computer Science		X	X	X	Either Semester

***These are college credit courses. The final grade will be on the DMACC & Ames High School transcript.**

Dual Credit Courses Earn AHS Credit *and* DMACC College Credit					
COLLEGE CREDIT COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Statistics (MAT157)			X	X	Either Semester
Pre-Calculus (MAT129)			X	X	Full Year Course
AP Calculus (AB) (MAT 211)			X	X	Full Year Course

*****Freshmen may elect to enroll in Algebra 1AB or Algebra 1. It is ***strongly recommended*** that students who have difficulty in math courses in which they may have been enrolled in the past register for Algebra 1AB.

- *A student's career opportunities are often related to his/her level of preparation in mathematics. Every student should become aware of the specific mathematics requirements for his/her occupational interests or for the college he/she plans to attend.*
- *The Ames High School Mathematics Department offers its courses based upon the requirements as prescribed by the Iowa Core Curriculum.*

The graduation requirement in math is six semesters, which include Algebra 2 or equivalent.

- Students need to remember that if they have failed a course that is a prerequisite for another course, it is STRONGLY recommended that the failed course be repeated BEFORE taking the next course in the sequence.
- It is expected that each student will have a **scientific calculator** for the courses: Algebra 1AB, Algebra 1, Geometry AB, Geometry, and Financial Algebra. The mathematics department recommends TI-30 as a science calculator.
- It is also expected that each student has a **graphing calculator** for the courses: Algebra 2, Advanced Algebra 2, Pre-Calculus, Statistics, and AP Calculus.
- The mathematics department recommends the following calculators from Texas-Instruments: TI-84+, TI-84, TI-83+, TI-83.
    - Although graphing calculators of different models or from different companies would be appropriate, lessons will be centered around those from Texas-Instruments and students would need to make generous use of their owner's manual if using another model/brand.

Acceleration in Mathematics

- Students wishing to accelerate should take careful note of the procedures and deadlines as outlined on the page explaining acceleration that is listed in the table of contents of this book.
- All acceleration must go through this process by the date(s) described.
- An acceleration application is **NOT** necessary for students who want to "double up" and take Geometry and Advanced Algebra 2 at the same time.
- The Math Acceleration Options.

****Exception* A student who wishes to enroll in Statistics during the year after taking Algebra 2 or Pre-Calculus may do so at the same time as enrolled in another mathematics class without going through this process.***

Courses usually taken during 1st year of high school

ALGEBRA 1AB

Interpret the structure of expressions, create equations that describe numbers or relationships. Understand solving equations as a process of reasoning and explain the reasoning. Solve equations and inequalities in one variable. Represent and solve equations and inequalities graphically. Understand the concept of a function and use function notation. Interpret functions that arise in applications in terms of the context. Interpret linear models. Scientific calculator required.

ALGEBRA 1

The description of the essential standards of this course are those of Algebra 1AB. These standards will be expanded upon and at times be covered at a faster pace. Students wishing to pursue a program of study/career related to mathematics should enroll in this course. Scientific calculator required.

Courses usually taken during 2nd year of high school

GEOMETRY AB

Prerequisite: Algebra 1AB or Algebra 1

Understand congruence in terms of rigid motions. Prove geometric theorems. Define trigonometric ratios and solve problems involving right triangles. Use coordinates to prove simple geometric theorems algebraically. Apply geometric concepts in modeling situations. Scientific calculator, protractor, compass, ruler required.

GEOMETRY

Prerequisite: Algebra 1AB or Algebra 1

The description of the essential standards of this course are those of Geometry AB. These standards will be expanded upon and at times be covered at a faster pace. Students wishing to pursue a program of study/career related to mathematics should enroll in this course. Scientific calculator, protractor, compass, ruler required.

Courses usually taken during 3rd & 4th years of high school

ALGEBRA 2

Prerequisites: Algebra 1AB or Algebra 1, Geometry AB or Geometry

Extend the properties of exponents to rational exponents. Interpret the structure of expressions. Write expressions in equivalent forms to solve problems. Perform arithmetic operations on polynomials. Understand the relationship between zeros and factors of polynomials. Understand solving equations as a process of reasoning and explain the reasoning. Represent and solve equations and inequalities graphically. Interpret functions that arise in applications in terms of the context. Build a function that models a relationship between two quantities.

ADVANCED ALGEBRA 2-*STRONGLY* *recommended for students who will take Pre-Calculus the following year.*

Prerequisites: Algebra 1AB or Algebra 1, Geometry AB or Geometry

Topics from the Common Core Curriculum will be covered but explored in greater depth and detail than in Algebra 2. These topics shall include, but are not limited to: sequences and series, quadratic functions, fractional exponents, roots, and logarithms. Graphing calculator required.

COMPUTER SCIENCE

Prerequisites: sophomore or higher grade level

Coursework may include history of computers, text output, simple data types, program organization, control structures, class and object methods, encapsulation, inheritance, Boolean logic, arrays, strings, algorithms, file i/o, and intermediate graphics as time permits. Emphasize on problem solving.

STATISTICS – Dual Credit Course

Prerequisites: Algebra 2 or Advanced Algebra 2

This is a college level course and is NOT eligible to be taken on a pass/fail basis or contracted for a grade. **The final grade will be on the DMACC *and* Ames High School transcripts.** Statistics is designed to help students collect, organize, analyze, interpret, and present data. Students also learn to test and interpret hypotheses. The course emphasizes critical thinking, problem solving, and relevant, real-world applications of statistics. Student projects and computer and calculator usage are integrated throughout the course. Graphing calculator required.

PRE-CALCULUS – Dual Credit Course

Prerequisites: Algebra 2 or Advanced Algebra 2

This is a college level course. Only 1st semester can be taken on a pass/fail contract grade basis. **The first semester grade will only go on the Ames High School transcript. The second semester grade will be on both the DMACC and Ames High School transcripts.**

Pre-Calculus is a college preparatory mathematics course. The trigonometry of Geometry and Algebra 2 will be extended. Proofs of identities, graphs of trigonometric functions, triangle solutions, and the use of circular functions as models of "real-world" problems are included. Pre-Calculus is regarded as the "bridge" leading to the study of calculus, and will combine geometry and algebra in the study of the properties of geometric figures. Graphing calculator required.

AP CALCULUS (AB) – Dual Credit Course

Prerequisites: Pre-Calculus

This is a college level course. Only 1st semester can be taken on a pass/fail contract grade basis. **The first semester grade will only go on the Ames High School transcript. The second semester grade will be on both the DMACC and Ames High School transcripts.**

Advanced Placement (AP) Calculus (AB) is designed to prepare students to take the Advanced Placement Examination in Calculus AB. Students selecting this course should have exhibited a strong mastery of Algebra 2, Trigonometry, and Pre-Calculus. They should also have the discipline and desire to spend extra time and effort on this course. Graphing calculator required.

Commonly Asked Mathematics Questions . . . and the Answers

SHOULD GEOMETRY OR SECOND YEAR ALGEBRA BE TAKEN FIRST?

It is recommended that students at Ames High School use the following sequence: Algebra 1, Geometry, and then Algebra 2. If a student wishes to accelerate their mathematics program by taking Geometry and Algebra 2 concurrently, the district's acceleration policy must be followed, and the proper procedure must be adhered to. Please see the table of contents listing for ACCELERATION.

IF I FAIL A COURSE THAT IS A PREREQUISITE FOR ANOTHER COURSE, WHAT DO I DO?

You will need to repeat the course you failed before continuing.

Checking out textbooks for the summer

Texts will no longer be checked out, instead a website for an online version of the text will be given. Notification for this need must occur by **the second week of June. This will only occur for students approved for advancement by examination taking place in August.**

Graphing Calculators

The graphing calculator will be used in **all** Ames High School mathematics courses beginning with Algebra 2/Advanced Algebra 2. The mathematics department recommends that students purchase TI-84+ calculators, as that is the model the district owns. However, students may use any calculator that is approved by the College Board for use on its AP examinations, with the understanding that the student may need to consult their manual to determine correct menus/keystrokes.

Current AHS Mathematics Department Pathways

Students that are going from 8th Grade to 9th Grade

Current Math Class	Math Class To Take As A 9th Grader
8th Grade Math	Algebra 1 or Algebra 1AB
Algebra 1	Geometry or Geometry AB
Geometry	Algebra 2 or Advanced Algebra 2

Students that are going from 9th Grade to 10th Grade

Current Math Class	Math Class To Take As A 10th Grader
Algebra 1 or Algebra 1AB	Geometry or Geometry AB
Geometry	Algebra 2 or Advanced Algebra 2
Geometry AB	Algebra 2
Algebra 2/Advanced Algebra 2	Pre-Calculus or Statistics/Computer Science

Students that are going from 10th Grade to 11th Grade

Current Math Class	Math Class To Take As A 11th Grader
Geometry	Algebra 2 or Advanced Algebra 2
Geometry AB	Algebra 2
Algebra 2/Advanced Algebra 2	Pre-Calculus or Statistics/Computer Science
Pre-Calculus	AP Calculus AB or Statistics/Computer Science
Statistics/Computer Science	Pre-Calculus

Students that are going from 11th Grade to 12th Grade

Current Math Class	Math Class To Take As A 12th Grader
Algebra 2/Advanced Algebra 2	Pre-Calculus or Statistics/Computer Science
Pre-Calculus	AP Calculus AB or Statistics/Computer Science
Statistics/Computer Science	Pre-Calculus
AP Calculus AB	Calculus 2 (DMACC) or Statistics/Computer Science

MUSIC

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Freshman Band	X				Full Year Course
Concert Band		X	X	X	Fall Semester
Percussion Techniques		X			Fall Semester
Concert Band		X	X	X	Spring Semester
Wind Symphony / Symphonic Band*		X	X	X	Spring Semester - Audition
Twirler		X	X	X	1st Quarter Only
Freshman Choir	X				Full Year Course
Concert Choir		X	X	X	Full Year Course - Non-Audition
Concert Chorale*		X	X	X	Full Year Course - Audition
Freshman Orchestra	X				Full Year Course
Symphony Orchestra		X	X	X	Full Year Course
Chamber Orchestra*		X	X	X	Full Year Course - Audition
All Students will be assigned a lesson for Band, Choir and Orchestra *Auditioned course					

The prerequisite for membership in all bands and orchestras is the completion of three years of the Middle School program or demonstration of basic competency/permission of the instructor.

BAND

FRESHMAN BAND (9)

The Freshman Band includes every 9th grade band member. Each student also has a weekly lesson. The Marching Band includes students registered for Freshman Band. The band functions as a marching unit during the first quarter.

PERCUSSION TECHNIQUES

Sophomores will perform on keyboard percussion with the marching band during the fall and also perform as a percussion ensemble at the Holiday Concert. Each student also has a weekly lesson.

WIND SYMPHONY, SYMPHONIC BAND, CONCERT BAND

The 10-12 students are divided into three bands – Wind Symphony, Symphonic Band and Concert Band.

Students will be assigned to the course Wind Symphony / Symphonic Band OR Concert Band in the spring based on their progress and ability. Placement in Wind Symphony or Symphonic Band will be based on an audition in September during the marching band season. The Marching Band includes students registered for Wind Symphony, Symphonic Band and Concert Band. The band functions as a marching unit during the first quarter. Each student also has a weekly lesson.

TWIRLER (10-12)

A feature Twirler is selected in the spring. A student must be able to design routines to music provided by the band director and to show an understanding and utilization of baton fundamentals within their routines.

BAND EXTRACURRICULARS (10-12)

- **Jazz Band:** is open to students interested in the study of jazz, rock and popular music as well as improvisation. Membership is based on auditions and instrumentation needs. Auditions are held in September.
- **Pep Band** is composed of about 65 selected students who play at home basketball games. Membership is based on auditions and instrumentation needs.
- **Solo & Ensemble Festival** is open to band students who want to perform as a soloist or in a small ensemble. The festival is held in early March.

CHOIR

FRESHMAN CHOIR

Freshman chorus is open to all ninth graders. Choral experience and/or auditions are not required. The choir meets daily with each student also having a weekly lesson.

CONCERT CHORALE, CONCERT CHOIR

Concert Chorale is the AHS auditioned large ensemble open to students grades 10-12. Auditions are held during January for the following school year; students new to AHS should see the director for audition information. Concert Choir is open to all 10-12 students and choral experience and/or auditions are not required. Choirs meet daily with each student also having a weekly lesson.

CHOIR EXTRACURRICULARS

- **Madrigal Singers** is an auditioned 28-voice choir selected in the fall. Students must be a member of a major choral ensemble to audition. The Madrigal Singers perform at the annual Madrigal Dinners.
- **Musical** has an auditioned cast and is open to all Ames High School students. Auditions are held in November. The performances are in early February.
- **Solo & Ensemble Festival** is open to choir students who want to perform as a soloist or in a small ensemble. The festival is held in early March.

ORCHESTRA

FRESHMAN ORCHESTRA (9)

The Freshman Orchestra is open to 9th grade students and performs at most concerts. The focus is on tone production, intonation, rhythm, articulation, dynamics and expression. We will expand our foundational music literacy through the study of music theory.

SYMPHONY ORCHESTRA (10-12)

Focuses on development and improvement of advanced technique, musicianship, style, knowledge of music history and theory through the study and performance of advanced student and professional orchestral literature. The Symphony Orchestra performs at all concerts at AHS and also throughout the community.

CHAMBER ORCHESTRA (10-12)

Chamber Orchestra is open to orchestra members in grades 10-12 by audition. Requirements include performing scales at a mastery level as well as mastery level on playing tests. Chamber Orchestra members will learn a large and varied repertoire - performing on concerts as a larger ensemble, as well as breaking off into smaller groups to perform throughout the community.

ORCHESTRA EXTRACURRICULARS (9-12)

- **String Quartet** opportunities are available for advanced players.
- **Solo & Ensemble Festival** is open to orchestra students who want to perform as a soloist or in a small ensemble. The festival is held in early March.
- **AHS Philharmonic** is open to all orchestra members in grades 9-12 orchestra and select members of the band. The AHS Philharmonic performs advanced and professional full orchestra literature from a variety of genres. The AHS Philharmonic will meet from 7:20-8:10 a.m. on Thursday mornings at the end of football season.

PHYSICAL EDUCATION

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Aquatics	X	X	X	X	Fall Semester
Lifeguarding/WSI*		X	X	X	Spring Semester
Unified Physical Education	X	X	X	X	Both Semesters/Full Year
Weights I	X	X	X	X	Either Semester
Weights II**		X	X	X	Either Semester
Outdoor Recreation			X	X	Spring Semester
Team Games/Sports	X	X	X	X	Fall Semester
Lifetime Activities	X	X	X	X	Spring Semester
Innovation Fitness: Individual Performance PE	X	X	X	X	Either Semester

*** Lifeguarding/WSI students must be 15 years or older.**

**** Weights II for 9th grade is only for students who have completed the Weights I course or the 8 week summer lifting program.**

Student Organization Unified Sports
Open to any students enrolled in Physical Education! **See information in the Physical Education descriptions.** **Contact Person: Mrs. Stemsrud**

The graduation requirement in Physical Education is four semesters, which may include any of the courses. Students need to remember that if they have failed a course that is a prerequisite for another course, it is **required** that the failed course be repeated **BEFORE** taking the next course.

Students are required to take **four PE credits.** All of the PE courses can be taken for PE credits. Grades in Physical Education are calculated into the student's grade point average (GPA).

CPR - Cardiopulmonary Resuscitation

CPR training must be taken during the high school years and is required for graduation. If you've taken a certified CPR course during that time outside of Ames High School, take the certificate to your counselor and s/he will make a copy. CPR is also offered during the Lifeguarding and WSI class offerings.

WEIGHTS I

Current Class

This course is an introduction to lifting at the high school level. This class is focused on learning the proper techniques for weight training, core strength, flexibility, and safety as it relates to the weightroom. Students will track their progress and set goals related to weight lifting on improving their own fitness level in the class. The core lifts in this course include parallel squats, hang cleans, and bench press. Weight room safety, warm-up/cool down procedures, lifting technique and safety for all lifts, major muscle identification, and individual goal setting are all important components in this course. In addition, students will monitor and improve their fitness levels by participating in the Teambuildr assessments throughout the semester (regardless of outside academic hours lifting involvement.)

If you are a current athlete in a before or after school lifting program it is highly recommended that you do not enroll in a Weights class. Students should select a different PE course. All 9th graders wanting to take weights and any other students taking weights class at Ames High for the first time MUST take Weights 1, no exceptions. if you are interested in taking weights II in a different semester.

WEIGHTS II

**Prerequisites: Weights I Required , Current Class*

This class is focused on weight training, core strength and flexibility. Students will set goals for improved strength and conditioning, improve their form and function within the weightroom, understand how to put their workout together to make gains in their own individual health and wellness. Students in this class will be expected to participate in teambuilder lifts specific to Weights II class regardless of lifting involvement outside of school academic hours i.e. sports in season/out of season lifting, self directed lifting, club memberships etc. The emphasis in this course is on muscular strength, endurance, flexibility, and safety. The core lifts in this course include parallel squats, hang cleans, and bench press and deadlift. Weight room safety, warm-up/cool down procedures, lifting technique and safety for all lifts, major muscle identification, and individual goal setting are all important components in this course. In addition, students will monitor and improve their fitness levels by participating in the Teambuildr assessments throughout the semester. **If you are a current athlete in a before or after school lifting program it is highly recommended that you do not enroll in a Weights class.** Students should select a different PE course.

UNIFIED PHYSICAL EDUCATION

***Instructor Approval Required*

This combined General Education and Adapted Physical Education class will allow students to improve performance of self and others in recreational and fitness activities. Students will have the opportunity to participate in and make modifications for others in units of recreational activities (bocce, golf) indoor recreational activities (archery, badminton, table tennis, indoor tennis), movement activities (dance, yoga, drumming), fitness activities (muscular strength/endurance, aerobic capacity, flexibility), along with the opportunity to participate in the adapted athletics sports of soccer, floor hockey, basketball, and bowling in the roles of coordinator, coach, official, scorekeeper, and athlete. Students will leave this class with a greater knowledge of how to analyze barriers and modify physical activity patterns appropriately, as needed. Modifications are made for those who qualify for Special Olympics. Potential Activities: fitness testing, adapted softball, golf, tennis, badminton, bocce ball, biking, weight training, goalball, bean bag toss, swimming, unified basketball, unified track and field. Participants will be expected to participate alongside each other and in the Unified sports program. Outside of school hours will occur as well. Students must submit an application, have an interview, and be accepted into the program prior to signing up for the class.

Unified PE Application

Team Game/Sports 602

Students will learn a variety of rules, skills, fundamentals, and strategies in multiple team activities while being active in the sports and games. An emphasis on a variety of roles within sports will be taught: athletic trainer, coach, player, manager, etc. Students will demonstrate a knowledge of careers based in the field of sports and games. Safety and sportsmanship will be emphasized. Activities will include but not limited to: Lacrosse, Field Hockey, Ultimate Games, Non-traditional Games, Rugby, 6 on 6 basketball, Broomball, and Diamond Sports. History and Playing of Past-Time Sports will be looked at and learned as well.

Aquatics 602

Students will gain an awareness of the importance of water safety training and to provide general information on being safe in, on,and around water. Students will work on their coordination and refinement of strokes. Students will participate, assess and improve levels of flexibility, cardiovascular fitness, muscular strength and endurance, and body composition.

LIFETIME ACTIVITIES

This class will focus on a variety of activities that individuals can enjoy throughout their lives. Activities may include golf, disk golf, pickleball, bowling, sand volleyball, badminton, yoga, spikeball, walk/jogging, ping pong, etc. Students will focus on the fundamentals of each activity and where they can enjoy them outside of class. The skill-based lifetime activity course will offer students the opportunity to demonstrate mastery in basic sport skills, knowledge and health of fitness principles-individual fitness pursuits. Students will experience opportunities that promote physical literacy and lifetime wellness. Lifetime activities is a class that prepares you for everyday active life. There will be a variety of activities that will help in this pursuit of lifetime movement. Upon completion of this course, students will be able to value physical activity in everyday life, will understand health-related physical fitness, and demonstrate competency or refine movement skills in designated units.

CPR (Cardiopulmonary Resuscitation) has been mandated by the state and may be included in the curriculum. Activities can include, but not limited to: Pool Rules and Safety/Expectations, Water Injuries, Deck rescues/In water rescues, Introduction to Water Skills, Fundamental Aquatic Skills and Stroke Techniques. Students will participate in a variety of water sports, recreational kayaking and paddle boarding, and activities demonstrating enjoyment of aquatic activities.

LIFEGUARDING/WSI 602

This course will cover all the same materials necessary for certification in Lifeguarding and WSI through the Red Cross. Teacher will hold the necessary certifications to teach the class. Pre-requisites: To enroll in the Lifeguarding course, you must be at least 15 years of age before the last scheduled class session and demonstrate the following skills: swim 300 yards continuously demonstrating breath control and rhythmic breathing, tread water for 2 minutes using only the legs starting in the water, swim 20 yards using front crawl or breaststroke, surface dive 7-10 feet, retrieve a 10-pound object, return to the surface, swim 20 yards back to the starting point with the object and exit the water without using a ladder or steps. Swimming skills will be tested on the first day of class. Skills must be completed in order to continue. No exceptions, failure to complete will result in a drop in class.

Outdoor Recreation 602

**Prerequisites: Junior/Senior*

This is an elective physical education course with a prerequisite of junior/senior status. The purpose of this course is to emphasize various outdoor activities, enhance fitness levels, develop an appreciation for the outdoors, acquire leadership skills and understand the importance of physical activity as it relates to a healthy lifestyle. Participants in this class realize there are certain risks involved in our activities and agree to follow all class safety rules and regulations. Activities and projects may include but are not limited to the following: Golf, rock climbing, orienteering, court sports, archery, fishing, biking, inline skating, hiking, and disc golf. A comprehensive introduction to outdoor activities including hiking, camping, paddling, cooking outdoors, and survival skills. This also may include an optional weekend camping trip for those who have mastered the skills and shown the responsibility and maturity to participate. Other activities may include camping, hiking, boating/canoeing, orienteering, lashing/knots, identifying wild plants and animals, responding to emergency situations, using survival skills, and practicing other skills required to enjoy outdoor experiences. Learn how to manage risks and safety outdoors, develop outdoor leadership skills, and learn to adventure outdoors while leaving no trace.

Innovation Fitness: Individual Performance PE

Innovation Fitness class will aid in creating goals and expectations centered around a healthier lifestyle through choices in lower impact fitness. This program provides opportunities for introductions to fitness skills and knowledge to help develop personal workout plans. Students will work out at a level to improve personal cardio level, improvement in health and well-being. Activities include but are not limited to: Yoga, fitness technology and data tracking, low impact aerobics, Bosu-trainers, Skill Assessment, Jump Roping, Kickboxing, Medicine balls, and Weight Resistance.

HEALTH

Adopting and Maintaining Healthy Behaviors

Vision: The vision of the Ames High School Health Education program is to help students gain knowledge and develop the skills necessary to adopt and maintain healthy behaviors. This course is built on the National Health Education Standards.

There are 8 Standards. Standard one relates to health content. Standards 2-8 are skills to develop a healthy lifestyle:

- Analyzing Influences
- Accessing Valid Information, Products, Services
- Communication Skills
- Decision-making Skills
- Goal-setting Skills
- Self-management Skills
- Advocacy

Units include:

- Introduction to Health and Wellness
- Goal-setting for Personal Health and Wellness
- Making Healthy Physical Activity and Nutrition Decisions
- Managing Healthy Relationships
- Healthy Decisions Regarding Social Media
- Analyzing Influences for a Drug-free Life
- Advocating to Prevent Violence
- Stress Management Goals
- Effective Communication Skills to Promote Sexual Responsibility

Skills for a Healthy Lifestyle

Vision: The vision of the Ames High School Health Education program is to help students gain knowledge and develop the skills necessary to adopt and maintain healthy behaviors. This course is built on the National Health Education Standards.

There are 8 Standards. Standard one relates to health content. Standards 2-8 are skills to develop a healthy lifestyle:

- Analyzing Influences
- Accessing Valid Information, Products, Services.
- Communication Skills
- Decision-making Skills
- Goal-setting Skills
- Self-management Skills
- Advocacy

Units include:

- Understanding Health and Wellness
- Effective Personal Health and Wellness Decisions
- Achieving Physical Activity and Nutrition Goals
- Communication Skills for Healthy Relationships
- Analyzing the Influence of Social Media on Your Health
- Advocating for a Drug-free Life
- Practicing Violence Prevention Behaviors
- Skills for Managing Stress
- Decision Making and Sexual Responsibility

Medical or Religious Exemptions:

When medical needs or religious beliefs conflict with a particular unit, the physical education staff will move the student to a different class and teacher for that unit only. This does not require a schedule change. The student returns to the original physical education class when the unit is completed.

SCIENCE DEPARTMENT

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Earth and Space Science (required)	X				Full Year Course
Biology		X			Full Year Course
Physical Science			X		Full Year Course
Physics			X	X	Full Year Course
Chemistry			X	X	Full Year Course
AP Biology			X*	X	Full Year Course
AP Physics			X*	X	Full Year Course
AP Chemistry			X*	X	Full Year Course
Advanced Physics **(Class of 2026 only)**				X	1 semester course
Advanced Chemistry **(Class of 2026 only)**				X	1 semester course
ELECTIVES - Do not count towards AHS graduation requirements or college admissions.					
Food, Ecosystems, and Community: A Greenhouse Approach			X	X	Semester Course (can take up to 4 semesters)
Science Senior Capstone				X	Either Semester

***Juniors can take an AP course if they have passed the Placement Exam for that course."**

Four years of Science courses are recommended for all Ames High students. Understanding how science works, why natural phenomena behave the way they do, and how to think logically and create explanations using evidence are the foundation of a scientifically literate citizen.

The Ames High science program reflects the Iowa Core in that there are 3 broad scientific disciplines of study: earth and space science, life science, and physical science. Students have the opportunity for foundational coursework in these areas as well as additional study with Advanced Placement Courses, certified by College Board, and a Science Senior Capstone opportunity.

Class of 2026

Any student in the Class of 2026 who took Foundations of Chemistry and Foundations of Physics in 2024-25 will be able to complete the full year of each discipline by taking Advanced Chemistry (1 semester) and/or Advanced Physics (1 semester). No other students will be enrolled in either of these courses and should, instead, choose from the slate of offerings above.

ADVANCED PHYSICS

This is a culminating course taken by seniors after three years of science. This is a continuation of physics topics and would complete a full year of physics.

ADVANCED CHEMISTRY

This is a culminating course taken by seniors after three years of science. This is a continuation of chemistry topics and would complete a full year of chemistry

Class of 2028

AP Focus classes are no longer offered. If you are taking AP Focus 2: Biology in 2024-25, you may proceed on to either the full year Chemistry or Physics course to be prepared for science AP courses as a junior. You may not take AP Biology as it requires chemistry as a prerequisite. For acceleration options, please see below.

EARTH AND SPACE SCIENCE - Required for graduation from Ames High

Earth and Space Science is designed to help you further your knowledge and understanding of the nature of science, with emphasis on Earth's place in our universe, Earth's systems, and the interaction of Earth with human activity. Students will explore environmental issues within Earth's systems, and examine human activities being designed to address those issues. Topics included in the course: Kepler's laws of planetary motion, gravitational theory, watersheds, Earth's Hydrosphere, Geosphere, Biosphere, Atmosphere, Earth's climate system, and natural and human-caused climate change.

BIOLOGY - ***Prerequisite: Earth and Space Science***

This course will help students deepen their understanding of how science works, with a focus on life science. We'll explore how living things survive, grow, and interact with their surroundings, as well as how traits are passed down through generations and how species change over time through natural selection. Students will learn through both in-classroom and field-based experiences allowing students to apply knowledge to real-world problems and phenomena through problem-based projects and research.

PHYSICS - ***Prerequisite: Earth and Space Science; Biology***
Concurrent: AP Biology; AP Chemistry, Senior Science Capstone

Physics is designed to help further student knowledge and understanding of the nature of science, with emphasis on the interactions between matter and energy. Time will be spent in classroom discussion and laboratory work. Topics included in the course: Motion, forces, energy, momentum, electricity and magnetism, waves, and universal gravitation.

CHEMISTRY - ***Prerequisite: Earth and Space Science; Biology***
Concurrent: AP Physics; Senior Science Capstone

Chemistry is designed to help you further your knowledge and understanding of the nature of science, with emphasis on the interactions between matter and energy. Time will be spent in classroom discussion and laboratory work. Topics included in the course: kinetic molecular theory; heat energy and transfer; chemical and physical change; the periodic table; conservation of mass; the mole; stoichiometry; language of chemistry; types of reactions; kinetics; atomic theory; solutions; and acids and bases.

PHYSICAL SCIENCE - ***Prerequisite: Earth and Space Science; Biology***

Physical Science studies physics and chemistry and is designed to help further student knowledge and understanding of the nature of science, with emphasis on conceptually understanding the interactions between matter and energy. Time will be spent in classroom discussion and laboratory work. Topics included in the course: Motion, momentum, forces, energy, electricity and magnetism, universal gravitation, kinetic molecular theory; heat energy and transfer; chemical and physical change; the periodic table; conservation of mass; the mole; stoichiometry; language of chemistry; types of reactions; kinetics; atomic theory; solutions; and acids and bases.

SCIENCE ELECTIVES

These courses do not count towards AHS graduation requirements or college admissions.

FOOD, ECOSYSTEMS, AND COMMUNITY: A GREENHOUSE APPROACH*

Prerequisite: Earth and Space Science; Biology

This semester-long, project-based science course immerses students in hands-on learning in a community greenhouse, focusing on environmental issues like sustainable food production, local ecosystems, and climate resilience. Students will collaborate to design and maintain projects that address local needs such as food security, waste reduction, water conservation, and green space enhancement. Through practical applications, they will learn core concepts in environmental science, plant biology, and resource management. Alongside scientific skills, students will develop abilities in project management, research, and communication, equipping them to make a positive community impact as environmental stewards.

***Can be taken up to 4 semesters with increasing complexity of projects. One section maximum per semester.**

SENIOR SCIENCE CAPSTONE

Prerequisite: Passing grades in Earth/Space Science; Biology; Chemistry, Physics or Physical Science
Concurrent: AP Biology; AP Physics, AP Chemistry; Chemistry; Physics

The Science Senior Capstone is an immersive, hands-on course designed for students who are passionate about applying scientific principles to real-world challenges. This course emphasizes experiential learning through a combination of field trips, collaborative research, and project-based exploration across various scientific disciplines. Throughout the year, students will engage in self-guided projects of their choosing. The capstone offers a unique opportunity for students to explore their scientific interests in depth while honing essential skills in collaboration, communication, and independent investigation.

ADVANCED PLACEMENT (AP) SCIENCE COURSES

AP BIOLOGY- College Level Course

Prerequisite: Earth and Space Science; Biology: Chemistry

Concurrent: Physics; AP Physics; AP Chemistry, Senior Science Capstone

From the College Board's course description: The AP Biology course is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. *Students should have successfully completed high school courses in biology and chemistry.*

AP CHEMISTRY - College Level Course

Prerequisite: Earth and Space Science; Biology; Chemistry

Concurrent: AP Biology; Physics; AP Physics, Senior Science Capstone

From the College Board's course description: AP Chemistry is an introductory college-level chemistry course. Students cultivate their understanding of chemistry through inquiry-based investigations as they explore topics like atomic and molecular structure, chemical reactions, kinetics, equilibrium, and thermodynamics. *Students should have successfully completed a general high school chemistry course and Algebra II.*

AP PHYSICS I - College Level Course

Prerequisite: Earth and Space Science; Biology; Physics; Geometry

Concurrent: Algebra II or above; AP Biology; Chemistry; AP Chemistry; Senior Science Capstone

From College Board's course description: A first-semester introductory college course in algebra-based physics. Students cultivate their understanding of chemistry through inquiry-based investigations as they explore topics like motion, forces, energy, momentum, rotations, oscillations, and fluids.*Students should have successfully completed a general high school physics course and geometry.*

Acceleration Information for Ames High Science

Placement Exams will be available for students who wish to take an AP Science course without taking the prerequisite year-long course in the same content area at Ames High. The Placement Exam will assess the student's readiness for the AP course and will not appear on the student transcript nor count toward science graduation requirements. Acceleration will require a score of 80% or better on the Placement Exam. A student may also take an AP course without the year-long prerequisite if they present evidence of a course taken in the content area outside of Ames High.

SOCIAL STUDIES

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
Honors World Studies	X				Full Year Course
World Studies	X				Full Year Course
AP US History		X			Full Year Course
US History		X			Full Year Course
AP Psychology			X	X	Either Semester
AP European History			X	X	Full Year Course
Western Civilization I			X	X	Fall Semester
Western Civilization II			X	X	Spring Semester
Sociology			X	X	Either Semester
Economics			X	X	Either Semester
Non-Western World			X	X	Either Semester
World Issues			X	X	Either Semester
AP US Government				X	Either Semester
US Government				X	Either Semester
American Society Through Film* (HUM 121)			X	X	Spring Semester

***Two-period block with English and sociology credit, or a social studies elective credit if a sociology credit has already been earned. (Course meets daily)**

WORLD STUDIES

Required Course

This year-long course examines the interconnectedness of geography, history, and economics through the exploration of a particular region's geography, early civilizations, culture, and present day issues.

HONORS WORLD STUDIES

Optional replacement for World Studies

World Regional Studies that provides greater depth and breadth than regular World Studies. Regular homework is part of the class including book assignments, writing assignments, reading, etc.

US HISTORY

Required Course

This year-long course is taught thematically and examines challenges America has faced throughout its history and into present-day. The course covers topics such as migration and the American identity, war and conflict, the fragility of democracy, civil rights and discrimination, and economic trends.

AP US HISTORY-College Level Course

Optional replacement for US History

Advanced Placement (AP) United States History is a survey course of the time period 1491 to the present. This is a **college-level** course designed to develop historical thinking skills and analytical writing skills. The course has a rigorous reading load including the textbook and other related readings and primary sources.

US GOVERNMENT

Required Course

This is a one-semester course that explores the foundations of the United States Government and the underpinnings of the Constitution. The course examines the three branches of government, the role of the media on politics, political parties and elections, and the policy making process.

AP US GOVERNMENT & POLITICS-College Level Course

Optional replacement for U.S. Government

This Advanced Placement (AP) class is a one-semester elective class that will explore the origins of our democratic political systems, political parties and the election process, political ideology, policymakers, and the courts. As this is a **college-level** course, students can expect high-level discussions that explore American political ideals.

AP PSYCHOLOGY-College Level Course

Sociology or AP Psychology is required

This is an Advanced Placement **college-level course** designed to give students a background into 'how' and 'why' we behave the way we do. With the current emphasis on mental health, we hope to grasp a better understanding of disorders and therapies. The course is a fast-paced, lecture and discussion driven class. The students have a short reading assignment most days. Students are also encouraged to participate in the many demonstrations and experiments we conduct throughout the year. We cover a lot of subjects, but don't dig deep into many of them due to time constraints. A great class to introduce human behavior.

SOCIOLOGY

Sociology or AP Psychology is required.

Sociology is the study of social life, social change, and the social causes and consequences of human behavior. The course is discussion based with field study activities.

SOCIAL STUDIES ELECTIVES

AMERICAN SOCIETY THROUGH FILM (11-12)

American Society through Film is a dynamic and interdisciplinary course designed to provide students with dual Ames High credit in both English and Sociology and DMACC credit for HUM121 (America in the Movies). This course delves into the rich tapestry of American society by examining its representation in film from the early 20th century to the present day. Through the lens of cinematic storytelling, students will explore critical sociological themes while analyzing and critiquing films.

ECONOMICS

Economics is the study of how societies use limited resources to satisfy their unlimited wants and needs. This course will cover basic concepts of micro and macroeconomics, including how economic systems affect economic outcomes and increase your awareness and understanding of economic issues.

WORLD ISSUES

The purpose of this course is to develop skills necessary to analyze, understand, and form opinions/policies on a number of current issues, which include: human rights, environmental, and world governance.

WESTERN CIVILIZATIONS I

Western Civilization I is a semester survey course to the present influence of Europe and its history on the rest of the world, focusing the development of Europe from the Greek and Roman traditions to the growth of culture, religious developments, and scientific advancements of the Renaissance age.

WESTERN CIVILIZATIONS II

Western Civilization II is a semester survey course to the present influence of Europe and its history on the rest of the world, including the development of democratic ideals, the development of religious traditions, economic principles, and use of conflict to promote change. The focus will be from the growth of absolute rulers to World War II.

NON-WESTERN WORLD

This course is designed to give a broad, social science overview of: Native America, Africa, Japan, and the Middle East. The course enhances the study by focusing on cultural characteristics in these regions (i.e. symbols, language, literature, food, customs, values, and material objects.)

AP EUROPEAN HISTORY-College Level Course

This Advanced Placement (AP) full-year, college-level course, begins with the Renaissance (1450) and traces major developments in Europe including economic, diplomatic, social and cultural history to the present. It is designed to strengthen historical thinking skills, analysis and evaluation skills, and writing.

WORLD LANGUAGES DEPARTMENT

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
French, German, or Spanish LEVEL 1	X	X	X	X	Full Year Course
French, German, or Spanish LEVEL 2		X	X	X	Full Year Course
French, German, or Spanish LEVEL 3			X	X	Full Year Course
French, German, or Spanish LEVEL 4				X	Full Year Course
Heritage Spanish	X	X	X	X	Full Year Course

FRENCH, GERMAN & SPANISH - LEVEL 1

This year-long course is designed for students with *limited to no understanding of the target language.* A level 1 student acquires structures of basic language patterns, high frequency structures and vocabulary. The initial emphasis is on listening and reading comprehension. Students will be able to understand sentence-level and then paragraph-level speech and text in the target language. They will be able to respond to questions with a word or a simple sentence in the target language. As comprehension expands throughout Level 1, additional language production (writing and speaking) begins to emerge.

FRENCH, GERMAN & SPANISH - LEVEL 2

Prerequisite - Level 1

This year-long course is designed for students with previous successful completion of the level 1 course or with appropriate placement exam results. A level 2 student continues to acquire structure of basic language patterns, high frequency structures and vocabulary. Students will answer a variety of questions to which they have been repeatedly exposed. Listening and reading comprehension continue to be emphasized, but additional writing skills are introduced and the broadening of the student's spontaneous communication is developed.

FRENCH, GERMAN & SPANISH - LEVEL 3

Prerequisite - Level 1 & 2

This year-long course is designed for students with previous successful completion of the level 2 course or with appropriate placement exam results. A level 3 student continues to acquire increasingly complex language presented through high frequency structures and vocabulary. As more structures are introduced and recirculated, students provide information using more spontaneous and complex structures as the level of speaking and writing confidently increases.

FRENCH, GERMAN & SPANISH - LEVEL 4

Prerequisite - Level 1, 2, & 3

This year-long course is designed for students with previous successful completion of the level 3 course. As more structures are introduced and recirculated, students continue to provide information using complete sentences with smooth connections. Students convey complete, comprehensible messages and continue conversations using familiar structures and circumlocution. Students differentiate tenses and refine skills in reading, listening, writing and speaking. Students maneuver among a variety of tenses and structures. They will continue to speak more confidently using the high frequency structures introduced and recirculated in previous courses.

HERITAGE SPANISH

This full-year course is designed for students whose **home language is Spanish**. Students do not need to be fluent Spanish speakers but they should feel comfortable communicating in Spanish. This course is designed to improve students' overall fluency in Spanish with a focus on literacy (reading and writing). The course is also designed to improve students' knowledge of the wide variety of Spanish speaking cultures.

Important Information - World Language Placement Exams

A placement exam does *not* earn credit. *1st and 2nd years of a world language course **may not** be taken on pass/fail or contract level. Some colleges **will not** accept a pass/fail world language course as a fulfillment of their entrance requirement. Colleges and universities have widely differing world language requirements both for entering and for graduating. Students should seek clarification from the institution(s) of their choice. Students who have completed three or four years of language study at Ames High School are strongly encouraged to pursue the Seal of Biliteracy. AHS Graduates have done very well earning college credit through college placement exams as well.* https://sealofbiliteracy.org/

ENGLISH AS A SECOND LANGUAGE (ESL)

Students qualify for the English Learner (EL) program based on the Home Language Survey and placement testing. See the district Lau Plan for more information. A student's English language proficiency level may also affect which other classes are recommended for the student to take.

ESL LITERACY (9-12)

Elective All Year

This course is designed for students with limited formal education and/or emerging literacy in their native language. The goal of the course is to teach awareness of the sounds in the English language, sound and letter correspondence, sight words, and basic reading skills. Students who successfully complete this class will take ESL Beginners.

ESL BEGINNERS (9-12)

Elective All Year

Prerequisite: ESL Literacy or score of emerging on the ELPA2 1 dynamic screener or summative test.

This course is designed for students with emerging English language proficiency. The focus of this class is listening, speaking, and English vocabulary. Practical, student-centered activities focus on various content-based themes such as U.S. history and geography, life science, health and nutrition. Students are expected to actively participate in order to practice biology's good communication and increase English proficiency. Students who successfully complete this class will advance to ESL Intermediate and/or Sheltered English.

ESL INTERMEDIATE (9-12)

Elective All Year

Prerequisite: ESL Beginners or score of progressing on English proficiency test.

This course is for students who have a combination of beginner, early intermediate, or intermediate scores on the screener or the ELPA21 test. This class focuses more on listening and speaking skills. Students who successfully complete this class will advance to Sheltered English.

SHELTERED ENGLISH (ELD) 1 (9-11)

Required All Year

Prerequisite: ESL Intermediate or score of progressing on English proficiency test.

This course is for students who are approaching language proficiency with intermediate or higher scores on the screener or the ELPA21 test. Sheltered English (or English language development) will focus primarily on writing and reading literature in alignment with essential standards for English 9/10. In addition to writing paragraphs and essays, students will also make presentations to the class. Academic vocabulary development focusing on the Academic Word List (AWL) is another important topic. This course may only be taken once unless failed and semester credit/s were not received.

SHELTERED ENGLISH (ELD) 2 (11-12)

Required All Year

Prerequisite: ESL Intermediate or score of progressing on English proficiency test. Note that Sheltered English 1 is not a prerequisite for this course.

This course is for students who are approaching language proficiency with intermediate or higher scores on the screener or the ELPA21 test. Sheltered English (or English language development) will focus primarily on writing and reading literature in alignment with essential standards for English 11/12. In addition to writing paragraphs and essays, students will also make presentations to the class. Academic vocabulary development focusing on the Academic Word List (AWL) is another important topic. This course may be taken once unless failed and semester credit/s not received.

SHELTERED ALGEBRA 1 (9-12)

Required All Year

Sheltered Algebra 1 is an introduction to higher mathematics and provides the language for all mathematics above the level of arithmetic. The class is co-taught by a math teacher and an ESL teacher. The topics covered include interpreting the structure of expressions, creating equations that describe numbers or relationships, understanding solving equations as a process of reasoning and explaining the reasoning, solving equations and inequalities in one variable, representing and solving equations and inequalities graphically, understanding the concept of a function and function notation, interpreting functions that arise in applications in terms of the context, and interpreting linear models. Graphing calculators will be used and students must provide their own calculator. See the Math Class Section for calculator description.

ESL READING (9-12)

Elective All Year

This class focuses exclusively on developing English reading and writing skills. Students will work with both fiction and nonfiction texts to develop reading fluency, academic vocabulary, and reading comprehension. This class can be taken multiple years and meets the requirement of an Additional Instruction reading class.

EXTENDED LEARNING PROGRAM (ELP) DEPARTMENT

COURSE	GRADES				SEMESTER OFFERED
	9	10	11	12	
7596 ELP Independent Study	X	X	X	X	Either semester-ELP Application/Approval

ELP INDEPENDENT STUDY -

All Grades (Approval by ELP Staff Member)

The course offers a self-directed learning experience. The student is given the opportunity to think and conceptualize at different levels. Independent Study is designed to extend and refine knowledge, stimulate curiosity, and assist in active learner-directed project work. The student is given the opportunity to develop skills and investigate areas in-depth on an individual basis.

STORY COUNTY VOCATIONAL COOPERATIVE COURSES

Note: Each provides DMACC college credit and AHS credit

DMACC CAREER ACADEMY- Hunziker Center

Career Academy Alternative Assessment
Students must demonstrate proficiency, using ITED test scores,in math, reading, and/or science or be deemed proficient through an alternative assessment process, to enroll in Career Academy and/or concurrent enrolled courses.

The alternative assessment process will consist of three components:

1. **Academic standing**—All eligible students who are in good academic standing as defined by their home district and high school principal.

2. **Graduation Progress**— All eligible students who are on pace to successfully graduate as defined by their home district and high school principal.

3. A recommendation from their high school principal.

Any student not meeting proficiency requirements through Iowa Assessments scores in math, reading, and/or science, but who meet both academic standards outlined in 1 and 2 above, and who is recommended by their building principal will be eligible to enroll in Career Academy and/or concurrent enrolled courses.

The courses listed are those offered at DMACC's Hunziker Center. These classes provide area high school students with excellent educational opportunities. The AHS guidance counselors and principals handle registration in these courses. *All times and courses are subject to change.*

AUTOMOTIVE MECHANICS TECHNOLOGY

The Automotive Mechanics Technology program is designed to prepare students for employment in the automotive service industry. This technological program allows students to gain experience with shop tools, automotive engines, brakes, suspension and alignment. Twenty-three DMACC credits are available upon completion of all DMACC Career Academy course offerings.
Times Available: Year 1: M-F 7:30-9:30 am or 12:50-2:50 pm
Year 2: M-F 10:00-11:50 am

Courses include:	**DMACC #**	**DMACC credit**
Year 1 (12 credits):		
Intro to Auto Technology I	AUT111	6 credits (1st Sem)
Intro to Auto Technology II	AUT112	6 credits (2nd Sem)
Year 2 (11 credits):		
Auto Electrical I	AUT601	4 credits (1st Sem)
Automotive Engine Repair	AUT163	3 credits (1st Sem)
Auto Electrical II	AUT612	4 credits (2nd Sem)

BUILDING TRADES/FINISH CARPENTRY

This program allows students to engage in experiential learning in the areas of Construction and/or Carpentry. Twenty DMACC credits are available upon completion of all DMACC Career Academy course offerings. Completion of this program as a high school student provides the opportunity to complete the college diploma program in two college semesters.

Transportation to the job site is required.

Times Available: M-F 7:30-9:30 am or 12:50-2:50 pm

Courses include:	**DMACC #**	**DMACC Credit**
Year 1 (11 credits):		
Care/Use of Hand/Power Tools	CON 336	1 credit (1st Sem)
Construction Blueprint Reading	CON 337	1 credit (1st Sem)
Materials/Construction Theory	CON 333	5 credits (1st Sem)
Materials Takeoff	CON 338	1 credit (2nd Sem)
Concrete System & Forming	CON 347	3 credits (2nd Sem)
Year 2 (9 credits):		
Construction Techniques	CON 334	7 credits (2nd Sem)
Construction Drafting & Design	CON 341	2 credits (1st Sem)

BUSINESS ACADEMY

The Business Academy is an exploratory academy for students who have an interest in entering the business profession but are not sure what pathway they want to take. Students are provided a foundation of business courses that will prepare them for entrance into multiple business-related postsecondary opportunities. Six DMACC credits are available upon completion.

Times available: M-F 12:50 - 2:50 p.m. (Fall & Spring)

Courses Include:	**DMACC #**	**DMACC credit**
Introduction to Business	BUS 102	3 credits (1st)
Information Computing	CSC116	3 credits (1st)
Principles of Management	MGT101	3 credits (2nd)
Principles of Marketing	MKT110	3 credits (2nd)

Computer Programming - Virtual

Students are provided a foundation of computer science and programming courses that will prepare them to create business solutions by designing, writing, and executing computer programs.

Twenty-seven total DMACC credits can be earned in this academy (18 the first year and 9 the second year). Students will earn a Computer Languages diploma upon successful completion of all Academy courses and three additional core courses (not offered as part of the academy).

Times available: M-R 10:00 - 11:15 a.m. or 1:00 - 2:15 p.m. (Fall & Spring)

Courses Include:	**DMACC #**	**DMACC credit**
Year 1		
Intro to Programming	CIS125	3 credits (1st)
C#	CIS160	3 credits (1st)
Introduction to HTML and CSS	WDV11	3 credits (2nd)
CIS171	Java	3 credits (2nd)
Year 2		
Intro. to Databases	CIS303	3 credits (1st)
ADV. C#	CIS174	3 credits (1st)
Java II	CIS175	3 credits (2nd)
Database SQL	CIS332	3 credits (2nd)

CRIMINAL JUSTICE

The Criminal Justice program introduces students to the field of criminal justice and a survey of its agencies, as well as an introduction to criminology and juvenile delinquency. This program prepares students to consider a career of service in a variety of areas, and lays the foundation for a college major in criminal justice. Twelve DMACC credits are available upon completion of all DMACC Career Academy course offerings.

Times available: M-F 7:30 -9:30 a.m. or 12:50 - 2:50 p.m.

Courses include:	DMACC #	DMACC credit
Intro to Criminal Justice	CRJ 100	3 credits (1st Sem)
Survey of Criminal Justice	CRJ 107	3 credits (2nd Sem)
Criminal Investigation	CRJ 141	3 credits (1st Sem)
Juvenile Delinquency	CRJ 201	3 credits (2nd S

CULINARY ARTS

Through hands-on experience, students are introduced to the scientific principles used in food preparation, the hospitality industry, and fundamentals of dining and sanitation. Fourteen DMACC credits are available upon completion of all DMACC Career Academy course offerings.

Courses require extended lab time in the evening.

Times Available: M-F 7:30-9:30 am or 12:50-2:50 pm

Courses include:	DMACC #	DMACC credit
Food Preparation I	HCM 143	3 credits (1st Sem)
Food Preparation I Lab	HCM 144	3 credits (1st Sem)
Food Preparation II	HCM 152	2 credits (2nd Sem)
Food Preparation II Lab	HCM 153	2 credits (2ndSem)
Sanitation & Safety	HCM 100	2 credits (2nd Sem)
Nutrition	HCM 231	2 credits (2nd Sem)

CERTIFIED NURSING ASSISTANT (CNA)

This semester-long program will provide students the opportunity to explore careers in healthcare and work toward CNA training/certification. Seven DMACC credits are available upon completion of all DMACC Career Academy course offerings.

****Courses require extended lab time in the evenings and/or weekend.***

Times Available: M-F 7:30-9:30 am or 12:50-2:50 pm either 1st or 2nd semester.

Courses include:	DMACC #	DMACC credit
Morning Section: 7:30 - 9:30 am		
*Nurse Aide 75 Hours	HSC 172	3 credits (1st or 2nd Sem)
Career Exploration Based Course		4 credits
Afternoon Section: 12:50 - 2:50 pm		
*Nurse Aide 75 Hours	HSC 172	3 credits (1st or 2nd Sem)
Career Exploration Based Course		4 credits
CNA Nevada High School Section: 7:30 - 9:30 am		
*Nurse Aide 75 Hours	HSC 172	3 credits (1st or 2nd Sem)
Career Exploration Based Course		4 credits

****Students must pass a criminal background check in order to complete a CNA course.***

TEACHER ACADEMY

The Teacher Academy provides students with an opportunity to explore education-related professions and take part in real-life teaching experiences. Students will spend a total of 120 hours shadowing elementary and secondary teachers during portions of their assigned class time. Courses fulfill Level 1 Field Experience requirements at many four-year colleges.

Times available: M-F 7:30-9:30 am

Courses include:	**DMACC #**	**DMACC credit**
Foundations of Education	EDU 210	3 credits (1st Sem)
Exploring Careers	WBL100	1 credit (1st Sem)
Initial Field Experience	EDU 218	2 credits (2nd Sem)
Electronic Portfolio Dev.	SDV 164	2 credits (2nd Sem)

**Students must pass a criminal background check*

WELDING

Offered at Nevada High School

This program allows students to engage in experiential learning in the area of welding. In addition to a welding skill base, students will explore the greater career field of advanced manufacturing through workplace experience. Ten credits are available upon completion of all DMACC Career Academy course offerings.

Times available, M-F, 7:30 - 9:30 a.m.

Courses Include:	**DMACC #**	**DMACC credit**
Welding Safety/Health: Sense 1	WEL 228	1 credit (1st Sem)
Print Read/System Inter: Sense 1	WEL 233	3 credits (1st Sem)
GMAW Spray Transfer: Sense 1	WEL 245	2 credits (1st Sem)
GMAW Sh Cir Transfer: Sense 1	WEL 244	2 credits (2nd Sem)
GTAW Carbon Steel: Sense 1	WEL 251	2 credits (2nd Sem)

SPECIAL EDUCATION

LEARNING LAB (SPED (9-12)

Repeatable.

This course is a special education elective through which students will learn study skills while receiving support with assignment completion and studying for exams. Enrollment in this class will be an IEP team decision.

Enrollment decision guidelines:

- The student has academic IEP goals (reading, writing, math).
- The student is enrolled in three or more core classes (English, math, science, social studies) in the general education setting.
- The student's IEP details academic accommodations and/or modifications.

MATH LAB (9-12)

Repeatable.

This course is a special education elective focused on specially designed instruction for IEP math goals. Concurrent enrollment in a math course taught in the general education setting is required for enrollment in this course.

Enrollment decision guidelines:

- The student has an IEP math goal.
- The student is enrolled in core math instruction in the general education setting.
- The student's IEP details academic accommodations and/or modifications.

LITERACY LAB (9-12)

Repeatable.

This course is a special education elective focused on specially designed instruction for IEP reading and writing goals. Concurrent enrollment in an English course taught in the general education setting is required for enrollment in this course.

Enrollment decision guidelines:

- The student has an IEP reading or writing goal.
- The student is enrolled in core English language arts instruction in the general education setting.
- The student's IEP details academic accommodations and/or modifications.

SOCIAL SKILLS

This course is available to students with IEP goals in the behavioral domain, and enrollment in the course is an IEP team decision.

Course content will include strategies related 3 to:

1. Emotional regulation
2. Effective communication
3. Solving interpersonal problems
4. Coping skills

Enrollment decision guidelines:

- The student has an IEP goal in the behavior domain.
- The student has a Functional Behavior Assessment (FBA) and Behavior Intervention Plan (BIP). The "Teaching alternative or replacement behaviors and/or skills" section of the student's BIP describes social skills instruction related to emotional regulation, effective communication, solving interpersonal problems, and/or coping skills.

LIFE SKILLS

This course is a special education elective and is designed to prepare students to transition to semi-structured living settings. Enrollment in the course is an IEP team decision.
Course content will include:

1. Navigating the community
2. Personal care and safety
3. Nutrition, food preparation, and food safety
4. Financial literacy

Enrollment decision guidelines:

- The student's IEP addresses the area of living in the goals, services and activities.
- The student participates in alternate assessment.

TECHNOLOGY LITERACY FOR EMPLOYABILITY (9-10)

One Time

This course is a special education elective. Enrollment in the course is an IEP team decision. The purpose of this course is to provide students with opportunities to learn about various digital resources used in schools and current career fields.
Enrollment decision guidelines:

- The student's IEP addresses the area of working in the goals, services and activities

PERSONAL DEVELOPMENT 1 (10-11)

This course is a special education elective. Enrollment in this class will be an IEP team decision.
Course content will include strategies related to:

1. Impulse control
2. Planning and prioritization
3. Flexibility
4. Task initiation
5. Study skills
6. School self-advocacy

Enrollment decision guidelines:

- The student has not previously earned credit for Personal Development 1.
- The student has a behavior goal.
- The student's IEP describes behavior SDI minutes in a special education setting for more than one class period per day.
- The student entered 10th grade with fewer than 8 high school credits.
- The student entered 11th grade with fewer than 17 high school credits.
- The student was tardy for classes other than the first period more than 15 times the previous year.

- The student had more than two office disciplinary referrals in the last year.
- The student's grade reports indicate patterns of missing, incomplete, or late assignments.
- The student's IEP indicates that the student needs instruction and support related to executive functions including impulse control, planning and prioritizing, flexibility, and/or task initiation.
- The student's records indicate a history of depression, anxiety, or attention deficit.

PERSONAL DEVELOPMENT 2 (11-12)

This course is a special education elective. Enrollment in this class will be an IEP team decision. Course content will include strategies related to:

1. Emotional control
2. Self-monitoring
3. Accountability
4. Organization
5. Community/work self-advocacy

Enrollment decision guidelines:

- The student has not previously earned credit for Personal Development 2.
- The student has a behavior goal.
- The student's IEP describes behavior SDI minutes in a special education setting for more than one class period per day.
- The student entered 11th grade with fewer than 24 high school credits.
- The student entered 12th grade with fewer than 32 high school credits.
- The student was tardy for classes other than 1st period more than 15 times/previous year.
- The student had more than two office disciplinary referrals in the last year.
- The student's IEP indicates a need for instruction and support related to executive functions such as controlling emotions, self-monitoring, organization, and/or accountability.
- The student's records indicate a history of depression, anxiety, and/or attention deficit.

CAREER EXPLORATION (9-10)

One Time

This course is a special education elective. Enrollment in the course is an IEP team decision. The purpose of this course is to provide students with opportunities to learn about various job fields and to learn the general skills necessary for employment. Course content will include:

1. Career interest inventories
2. Strength assessments
3. Exploration of various job fields
4. Job-related social skills
5. Resources for finding employment

Enrollment decision guidelines:

- The student's IEP addresses the area of working in the goals, services and activities

EMPLOYABILITY SKILL DEVELOPMENT (11-12)

One Time

This course is a special education elective. Enrollment in the course is an IEP team decision. The purpose of this course is to provide students with opportunities to learn about the hiring process and the skills necessary to successfully enter and stay in the workforce. Course content will include:

1. Completing applications
2. Resume writing
3. Preparing for and practicing interviews
4. Job-specific skills for various fields
5. Resources for maintaining employment

Enrollment decision guidelines:

- The student's IEP addresses the area of working in the goals, services and activities

EXPERIENCED-BASED CAREER SKILL DEVELOPMENT

Grade 12

Enrollment decision guidelines:

- The student's IEP addresses the area of working in the goals, services and activities
- The student/parent has completed a pre-ETS agreement

DYNAMIC LEARNING MATH (2 Periods)

This course is focused strictly on skills related to IEP math goals, authentic math applications for semi-structured living settings, and post-secondary outcomes. Curriculum will be based on the Dynamic Learning Map (DLM). A valid IEP indicating alternate assessment is a prerequisite for enrollment.

Enrollment decision guidelines:

- The student has an IEP math goal
- The student participates in the Iowa Alternate Assessment.
- The student's IEP designates the special education setting for core instruction.
- The activities section of Page F of the student's IEP describes program modifications.

DYNAMIC LEARNING LITERACY (2 Periods)

This course is focused strictly on skills related to IEP literacy goals, authentic literacy applications for semi-structured living settings, and post-secondary outcomes. Curriculum will be based on the Dynamic Learning Map (DLM). A valid IEP indicating alternate assessment is a prerequisite for enrollment.

Enrollment decision guidelines:

- The student has IEP reading and writing goals
- The student participates in the Iowa Alternate Assessment.
- The student's IEP designates the special education setting for core instruction.
- The activities section of Page F of the student's IEP describes program modifications.

DYNAMIC LEARNING SCIENCE

This course is individualized for students based on IEP goals and transition plans. The course focuses strictly on science applications for semi-structured living settings and post-secondary outcomes. A valid IEP indicating alternate assessment is a prerequisite for enrollment.

Enrollment decision guidelines:

- The student has IEP reading, writing and math goals
- The student participates in the Iowa Alternate Assessment.
- The student's IEP designates the special education setting for core instruction.
- The activities section of Page F of the student's IEP describes program modifications.

MODIFIED SOCIAL STUDIES

This course is individualized for students based on IEP goals and transition plans. The course focuses strictly on social studies applications for semi-structured living settings and post-secondary outcomes. A valid IEP indicating alternate assessment is a prerequisite for enrollment.

Enrollment decision guidelines:

- The student has IEP reading, writing and math goals
- The student participates in the Iowa Alternate Assessment.
- The student's IEP designates the special education setting for core instruction.
- The activities section of Page F of the student's IEP describes program modifications.

ESSENTIAL MATH 1,2,3,4

Math aligned with Algebra and Geometry standards, modified to focus on Iowa core essential elements, and adapted to respond to students' individual needs for the pace of instruction. language arts. Students must have an IEP math goal as a prerequisite for enrollment.

Enrollment Decision Guidelines:

- IEP math goal
- IEP designates special education setting for math instruction
- Received core math instruction in the special education setting in middle school
- ISASP math scale scores below:
    - 8th grade 470
    - 9th grade 482
    - 10th grade 508
    - 11th grade 530
- MAP Math ranking below the 21st percentile
- Students who enroll in any Essential Math course will be expected to take math for 4 years.

ESSENTIAL LITERACY 1,2,3,4

Literacy instruction aligned with grade level standards, modified to focus on Iowa core essential elements, and adapted to respond to students' individual needs for the pace of instruction. Students must have an IEP reading and/or writing goal as a prerequisite for enrollment.

Enrollment Decision Guidelines:

- IEP reading and writing goal
- IEP designates special education setting for English language arts
- Received core English language arts instruction in the special education setting at AMS.
- ISASP ELA scale scores below:

- 8th grade 465
- 9th grade 482
- 10th grade 506
- 11th grade 530
- MAP Reading ranking below the 21st percentile

- IEP reading goal meets at least one of the following criteria:
  - Reading rate below 100 words correct per minute
  - Comprehension goal indicating text with a Lexile below 975 (7th grade)
  - Fountas and Pinnell benchmarking indicates A-U

ESSENTIAL SCIENCE OF EARTH SYSTEMS

This course will be offered every three years in a rotation with Adapted Life Systems and Adapted Physical Systems. Course materials and pacing will be adapted to meet the unique learning needs of students. Enrollment in this class will be an IEP team decision. As a student in this course, you will:

1. Ask scientific questions about natural resource origins & define issues with sustainability of these resources.
2. Develop/use models supporting the scientific theory of uniformitarianism & the geologic processes of Earth.
3. Plan and carry out investigations about energy and matter in and of the Earth.
4. Analyze and interpret color, wavelength, and other star data as evidence for the Big Bang theory.
5. Using mathematics and computational thinking to describe the life cycle of the stars.
6. Construct scientific explanations for natural and man-made climate influences and design possible solutions.
7. Make & defend a claim from scientific evidence regarding the formation of the Solar System & Earth.
8. Obtain, evaluate & communicate information regarding interactions between humans & Earth.

Enrollment Decision Guidelines:

- IEP designates special education setting for Science due to ELA or math needs
- Concurrent enrollment in Essential Literacy and Essential Math
- Previous enrollment in Essential Science of Life Systems, Essential Science of Physical Systems, or middle school science in a special education setting.

ESSENTIAL SCIENCE OF LIFE SYSTEMS

This course will be offered every three years in a rotation with Adapted Earth Systems and Enrichment Physical Systems. Course materials and pacing will be adapted to meet the unique learning needs of students. Enrollment in this class will be based on the IEP team decision. As a student in this course, you will:

1. Ask scientific questions about the diversity of life.
2. Develop and use models to explain the reproduction and growth of organisms.
3. Plan and carry out investigations to study how organisms interact with their environment and respond to environmental changes.
4. Analyze and interpret data to establish that matter cycles and energy transfers through biological systems.
5. Use mathematics and computational thinking to explain variation within a population.
6. Construct explanations for heredity and design solutions using genetic models.
7. Make and defend a claim from scientific evidence to support the theory of evolution by natural selection.
8. Obtain, evaluate, and communicate about current biological issues and how it relates to the student's life.

Enrollment Decision Guidelines:

- IEP designates special education setting for Science due to ELA or math needs
- Concurrent enrollment in Essential Literacy and Essential Math
- Previous enrollment in Essential Science of Earth Systems, Essential Science of Physical Systems, or middle school science in a special education setting.

ESSENTIAL SCIENCE OF PHYSICAL SYSTEMS

This course will be offered every three years in a rotation with Adapted Earth Systems and Enrichment Life Systems. Course materials and pacing will be adapted to meet the unique learning needs of students. Enrollment in this class will be based on the IEP team decision. As a student in this course, you will:

1. Ask scientific questions about the Nature of Science: how science is conducted, what scientists do, and how matter and changes in matter are evaluated scientifically.
2. Develop and use models supporting Newton's First Law of Motion (Law of Inertia).
3. Plan and carry out investigations to determine products of reactions.
4. Analyze and interpret force data as evidence for Newton's Third Law of Motion (Action-Reaction).
5. Use math and computational thinking to illustrate atoms and mass are conserved during a chemical reaction.
6. Construct scientific explanations for the force model.
7. Make & defend a claim from scientific evidence regarding changes in matter (chemical vs physical).
8. Obtain, evaluate, and communicate information regarding conservation of energy.

Enrollment Decision Guidelines:

- IEP designates special education setting for Science due to ELA or math needs
- Concurrent enrollment in Essential Literacy and Essential Math
- Previous enrollment in Essential Science of Life Systems, Essential Science of Earth Systems, or middle school science in a special education setting.

ESSENTIAL WORLD STUDIES

This course will be offered every three years in a rotation with Essential U.S. History and Essential Government & Civic Literacy. Course materials and pacing will be adapted to meet the unique learning needs of students. Enrollment in this class will be based on the IEP team decision. As a student in this course, you will focus on the following themes:

1. History & Geography
2. Civilizations
3. World Religions
4. Trade and Exploration
5. Colonization & Imperialism
6. Revolutions
7. Nation-Building & Identity
8. Holocaust & Human Behavior

An introduction to geography, culture, world history, economics & psychology is provided, and lays the foundation for all other social studies courses.

Enrollment Decision Guidelines:

- IEP designates special education setting for Social Studies due to ELA needs
- Concurrent enrollment in Essential Literacy
- Previous enrollment in Essential United States History, Essential Government & Civic Literacy, or middle school Social Studies in a special education setting.

ESSENTIAL US HISTORY

This course will be offered every three years in a rotation with Essential World Studies and Essential Government & Civic Literacy. Course materials and pacing will be adapted to meet the unique learning needs of students. Enrollment in this class will be based on the IEP team decision. United States History focuses on six essential themes in American history:

1. historiography (the study of history),
2. migration and immigration,
3. the role of government,
4. civil rights,
5. protest and rebellion and
6. war and conflict

Each theme is centered around an essential question which culminates in a significant essay at the end of every unit. Each of the themes is explored chronologically from the origins of America through modern day. This approach is designed to allow students to make meaningful connections to the themes across the different time periods of American history.

Enrollment Decision Guidelines:

- IEP designates special education setting for Social Studies due to ELA needs
- Concurrent enrollment in Essential Literacy
- Previous enrollment in Essential World Studies, Essential Government & Civic Literacy, or middle school Social Studies in a special education setting.

ESSENTIAL GOVERNMENT & CIVIC LITERACY

This course will be offered every three years in a rotation with Essential World Studies and Essential U.S. History. Course materials and pacing will be adapted to meet the unique learning needs of students. Enrollment in this class will be based on the IEP team decision.

This course will include the study of national, state and local government. Students explore the origins of our democratic political system, examine the major characteristics of our political system, study the election process, develop an understanding of the three major branches of U. S. government, investigate state governments in our federal system (using Iowa as a model government for study) and study each of the four primary forms of local government (using local area governments as models for study). Students will explore community opportunities for service learning and volunteerism, and about participating in the local political system. Analyzing credibility of sources.

Enrollment Decision Guidelines:

- IEP designates special education setting for Social Studies due to ELA needs
- Concurrent enrollment in Essential Literacy
- Previous enrollment in Essential United States History, Essential World Studies, or middle school Social Studies in a special education setting.

BUILDING YOUR FUTURE

YOUR COURSES COUNT

MINIMUM COURSE REQUIREMENTS FOR ADMISSION				
	IOWA STATE UNIVERSITY	**UNIVERSITY OF IOWA**	**UNIVERSITY OF NORTHERN IOWA**	**OPTIMUM**
ENGLISH	**4** years emphasizing writing, speaking, reading, as well as an understanding and appreciation of literature.	**4** years with an emphasis on the analysis and interpretation of literature, composition and speech.	**4** years including one year of composition, also may include one year of speech, communication or journalism.	**4** years with an emphasis on the communication skills of writing, reading and listening, and the analysis and interpretation of literature. In addition, courses in journalism and media literacy will be valuable. Extracurricular activities in debate, speech contest, newspaper and yearbook will further develop essential competencies.
MATH	**3** years including one year each of algebra, geometry and advanced algebra.	**3** years including two years of algebra and one year of geometry for admission to the College of Liberal Arts and Sciences. **4** years including two years of algebra, one year each of geometry and higher math (trigonometry, analysis, or calculus) for admission to the College of Engineering.	**3** years including the equivalent of algebra, geometry and advanced algebra.	**4** years, one in each year of high school. While advanced courses like calculus and statistics are good, it's more important that you gain a complete understanding of advanced algebra and trigonometry.
NATURAL SCIENCE	**3** years including one year each from any two of the following: biology, chemistry or physics	**3** years including courses in physical science, biology, chemistry, environmental science, and physics for admission to the College of Liberal Arts and Sciences. **3** years with at least one year each in chemistry and physics for admission to the College of Engineering. **Nursing**-3 years, including one year each of biology, chemistry, and physics.	**3** years including courses in general science, biology, chemistry, earth science or physics. Laboratory experience is highly recommended.	**4** years, one in each year of high school. To be really well prepared, take at least one year each of biology, chemistry, and physics. These can be taken in any order and may be taught productively in either a separate or an integrated fashion, depending on your school's offerings.
SOCIAL STUDIES	**2** years for admission to Colleges of Agriculture and Life Sciences, Business, Design, Engineering and Human Sciences. **3** years for admission to the College of Liberal Arts and Sciences.	**3** years with US history and world history recommended for admission to the College of Liberal Arts and Sciences. **2** years with US history and world history recommended for admission to the College of Engineering.	**3** years including courses in anthropology, economics, geography, government, history, psychology or sociology.	**3** years is essential, but four is better. Take at least one year each of US and world history. Additional courses in anthropology, economics, political science, psychology and sociology provide an important understanding of our political, social and economic institutions.
FOREIGN LANGUAGE	**2** years of a single foreign language for admission to the College of Engineering and Liberal Arts and Sciences.	**2** years of a single foreign language are required for admission. For many degrees, the fourth year of proficiency is required for graduation. Nursing-4 years in a single language or two years each in two different languages.	Foreign language courses are not required for admission. However, two years of foreign language in high school with a C- or above in the last course will meet the university graduation requirement.	**4** years of a single foreign language. By taking foreign language during all four years of high school, you'll go beyond the basic skills and begin to use the language and reinforce your fluency.
OTHER COURSES	Specific elective courses are not required for admission.	Specific elective courses are not required for admission.	**2** years of additional courses from the required subject areas, foreign language or the fine arts.	Explore! Courses in the fine arts, performing arts, computers, or technology will help round out your high school experience. Your future field of concentration or career may lie in one of those areas. Follow your interest, talents, and the strengths of your school. Remember to choose courses with high school academic standards.