

## GRADUATION REQUIREMENTS

Twenty-seven units are required for graduation from Grundy Center High School. To be eligible for graduation, a student must have successfully completed the following credits in grades 9-12:

Health ..... 1 unit	Language Arts ..... 4 units
Math ..... 3 units	Physical Education ..... 2 units
Science ..... 3 units	Social Studies ..... 3 units
Vocational ..... 2 units	

.5 unit is awarded for successful completion of an academic course that is one trimester in length, meeting one period per day.

Specific graduation requirements:

American History -----	1 unit
Communication Skills -----	1 unit
English 11 -----	1 unit
English Elective -----	1 unit
Government -----	1 unit
Health -----	1 unit
Language Arts 9 -----	1 unit
Mathematics elective -----	3 units
Physical Education I -----	1 unit
Physical Education II -----	.5 unit
Physical Education III -----	.5 unit
Science elective -----	3 units
Social Studies elective -----	1 unit

All students must successfully complete **one class (.5 Unit) in four of the five** areas prior to graduating. These areas include:

- Agriculture
- Art
- Business
- Family & Consumer Science
- Industrial Technology

High School Grade Classification	
Graduation.....	27 units
Senior.....	20.25 units

Junior.....	13.5 units
Sophomore.....	6.75 units
Freshman.....	0

**SPECIAL DEPARTMENTAL RECOMMENDATIONS & REQUIREMENTS**

**HEALTH**

Students must complete one unit of health. One class, or half a unit, will be taken in a student’s freshman year and another class will be completed in a student’s junior year.

**PHYSICAL EDUCATION**

Students in grades 9 and 10 must take one trimester of Physical Education I (formerly PE 9-10) during both their freshman and sophomore years of high school. Juniors must take one trimester of Physical Education II, (formerly 11<sup>th</sup> PE) during their 3<sup>rd</sup> year of high school. Seniors must take one trimester of Physical Education III, (formerly 12<sup>th</sup> PE) during their fourth year of high school.

**VOCATIONAL**

Two units must be earned in this area in grades 9-12. Students must take and pass one class from four of the five departments within this area. Those departments include Agriculture, Art, Business, Family & Consumer Science and Industrial Technology.

**AGRICULTURE**

Students must be a sophomore to take Natural Resources and Welding. Only juniors and seniors can take Horticulture, Ag Mechanics & Fabrication, Ag Business Management, Survey of the Animal Industry and Livestock Evaluation.

**ART**

Fundamentals of Art is a basic course and must be taken before all other art classes. Only juniors and seniors may take Photography.

**BUSINESS EDUCATION**

Introduction to Business is a basic course and is recommended before Marketing. Accounting classes are available only to sophomores, juniors and seniors.

**FAMILY & CONSUMER SCIENCE**

To enroll in Child Development, Decoration & Design and Clothing, a student must be a sophomore, junior or senior.

## **INDUSTRIAL TECHNOLOGY**

Students enrolled in any courses that take place in the shop, must take and pass with a perfect score the safety test. The test may be taken more than once to achieve that score.

## **LANGUAGE ARTS**

This is one of the core areas and students must earn a total of 4 units in Language Arts. The first 3 years are required courses with the 4<sup>th</sup> year being elective. Freshmen must take Language Arts 9, sophomores must take Communication Skills, and juniors must take English 11. Publications may be taken by sophomores, juniors and seniors and may be taken for credit more than once. Juniors or seniors can take Technical Writing, Media Now, World Literature, Introduction to Literature and Public Speaking. Only seniors can take Composition I and II. World Literature is a prerequisite for Composition I and Intro to Literature. Intro to Literature, Composition I and Composition II are contracted courses with credit given by Hawkeye Community College.

## **MATH**

Students must earn a total of 3 units in this core area. High school math courses taken in middle school do not count towards this requirement. Students must earn a C- or better in all trimesters in order to move on to the next trimester/year of math. Consumer math is the only course that does not have this prerequisite requirement. Only juniors and seniors who have completed Algebra II may take Introduction to Statistics, a college course with credit given by Hawkeye Community College. Calculus I is also a college course that is open to only juniors and seniors.

## **MODERN LANGUAGE**

GCHS has no modern language requirement for graduation, although some 4-year colleges and universities require two years of the same modern language for admission. Community Colleges have no modern language admission requirement. Please check admission and graduation requirements for the colleges/universities you are considering.

## **MUSIC**

No courses are required for graduation.

## **SCIENCE**

Students must earn a total of 3 units in this core area. Freshmen must take either Physical Science or Science I. Sophomores must take either Biology or Science II. Science II students may take the second half of Biology following completion of Science II. Chemistry and Physics students must have completed or be enrolled in Algebra II to take either course. Essentials of Anatomy & Physiology is a contracted

course with Hawkeye Community College granting college credit. Advanced Biology is a prerequisite for that course.

## SOCIAL STUDIES

The last core area, 3 units must be earned in social studies. American History must be taken during the sophomore year and American Government must be taken during the senior year. Sociology is a prerequisite for Social Problems. Psychology is only available to juniors and seniors. Economics is only available to sophomores, juniors and seniors.

## THE POSTSECONDARY ENROLLMENT OPTIONS ACT

The Postsecondary Enrollment Options Act (Chapter 261C, Iowa Code) was enacted in 1987 to promote rigorous academic pursuits and to provide a wider variety of options to high school students by enabling 11<sup>th</sup> and 12<sup>th</sup> grade students to enroll part time in nonsectarian courses in eligible postsecondary institutions of higher learning in Iowa.

In order to be eligible to participate in this program, the student must meet these qualifications:

- 1) Only students enrolled in grades 11 & 12 in public school are eligible, or grades 9 & 10 students who have been identified as Gifted & Talented.
- 2) Students who graduate after 12 trimesters of attendance may not participate in the program after graduation.
- 3) Students who request and are granted early graduation will not be permitted to participate under the Act for the remainder of that regular school year.

### Features of the Act

- 1) Eligible students may enroll in postsecondary courses for secondary credit.
- 2) Students may take courses from the 3 Regents schools, an area community college or an approved accredited private institution.
- 4) Students may need to meet certain entrance requirements prior to acceptance for a specific course. Requirements may include prerequisite courses, test scores, or other evaluative procedure. The course desired by the student

cannot be offered at Grundy Center High School. Grundy Center High School courses may be considered as prerequisites for a college course. You must check with Mrs. Hinderhofer before registering for a college course.

- 5) Students must meet all course requirements in order to receive a final grade for the course.
- 6) The grade for the college course will be placed on the permanent record card and transcripts. High school credit will be given for all college courses successfully completed. Grades for college courses will be included in the high school grade point average and class rank.
- 7) The school will not provide transportation for students who enroll in college courses.
- 8) Grundy Center schools will not pay for college courses taken during the summer semester, however courses may be taken for credit.
- 9) Secondary students who fail to complete and/or pass the course and receive credit for a postsecondary course are responsible for all costs directly related to the course and must reimburse the school district for costs.
- 10) Students enrolled in a PSEO course may have a work period during the school day to complete PSEO coursework.
- 11) Students must follow the post-secondary institution's withdrawal dates. Failure to do so will result in the student reimbursing the school district for tuition & book costs. Students must maintain 6 courses in their schedule.

## COLLEGE COURSES AT GRUNDY CENTER HIGH SCHOOL

Contracted courses can be taken at GCHS to earn both high school and college credit from Hawkeye Community.

COURSE	HAWKEYE #	HAWKEYE CREDITS	GCHS UNITS
Introduction to Literature	LIT 101	3 semester hours	.5
Composition I	ENG 105	3 semester hours	.5
Composition II	ENG 106	3 semester hours	.5
Introduction to Statistics	MAT 156	3 semester hours	.5
Calculus I	MAT 210	4 semester hours	1
Survey of the Animal Industry	AGS 113	3 semester hours	.5
Livestock Evaluation	AGS 305	3 semester hours	.5
Essentials of Anatomy & Physiology	BIO 163	4 semester hours	1

## ADVANCED PLACEMENT COURSES

Students may opt to take an Advanced Placement (AP) course online through the Belin Blank Center at the University of Iowa. These are high school courses taught at an advanced level and taken for high school credit. At the end of each course, students may take the AP cumulative final exam in that subject area. The test costs \$85 and if passed with a certain percentage, can result in college credit. AP courses are included in the student's high school grade point average and are available to juniors and seniors and 9<sup>th</sup> & 10<sup>th</sup> grade Talented and Gifted students. All AP courses are one year (3 trimesters) in length. Deadline for enrollment is typically June 1<sup>st</sup> of the preceding school year. AP courses may not be dropped once a student is enrolled, except for after the first semester.

Students who take online courses must be self-directed as there is not a teacher in the room keeping you on task. Mr. Osterhaus is the AP Mentor and will have access to grades and assignments. He also serves as technical support for submitting assignments and exams.

## COURSE DESCRIPTIONS

### AGRICULTURE

#### AGRICULTURE I

.5 Unit grades 9-10

Ag 1 is an introductory level Ag Class intended for first year Ag Students. No upper classmen will be allowed into the class. Priority will be given to freshman and sophomores. The class is designed to give a general overview of the many aspects of agriculture in the world. Plant production, horticulture, natural resources, animal science, construction, and leadership will all be covered in this class. Special attention will be given to leadership and the FFA as it is an important part of the agriculture program in high school. As well as developing individualized Supervised Agricultural Experience (SAE) programs. Membership in FFA is part of the class.

#### AGRICULTURE BUSINESS

.5 Unit Prerequisites: Agriculture 1 Grades 11-12

This course is designed to give the student an introductory look at the business aspects of agriculture. The topics that will be covered in the class include basic farm management, sales, marketing, and agricultural trends. The futures market will be studied in depth and the use of many modern technologies such as the DTN and simulation games will be used. This class is intended primarily for Jr. and Sr. level students. This class is

articulated with Hawkeye Community College. Agricultural careers in Ag business & SAE projects will also be included. **All students are welcome. This course is recommended for students in the fourth year of the Ag.**

### **AG LEADERSHIP**

.5 Unit Prerequisites: 1.5 units of Ag

Ag Leadership will allow students to develop & explore decision-making, teamwork, & organizational skills which will benefit them throughout their life. Students will work in teams as they gain experience in decision-making, cooperation, & organizational skills. Goal setting, organization, & planning will also be important aspects of the course. Students will learn how to identify leadership tendencies, practice presentation skills, & demonstrate parliamentary procedure. SAE will be part of this class. **All students who have completed 1.5 units of Ag or with instructor approval are welcome. This course is recommended for students in the fourth year of the Ag.**

### **AG MECHANICS & FABRICATION**

.5 Unit Prerequisites: Ag I & Welding Grades 11-12

This course will give students an experience in many of the tools and skills needed in basic mechanical maintenance and fabrication. Maintenance schedules, machine systems, and trouble-shooting will all be studied. The design and layout of agricultural equipment and structures is the focus of the class. The class will have to opportunity to get hands on experience in maintenance and fabrication. This is a Junior / Senior level class.

### **HORTICULTURE GREENHOUSE MANAGEMENT**

.5 Unit Grades 10-12

Summary of Course: Designed for students interested in the art & science of growing plants, shrubs, trees, flowers, fruits, & vegetables. Horticulture will cover a wide variety of topics including greenhouse management including annual, perennial, and vegetable crops & pest management. This class is articulated with Hawkeye Community College. **All students are welcome. This course is recommended for students in the second year of the Ag.**

### **LANDSCAPE & TURF MANAGEMENT**

.5 Unit Grades 10-12

This class will cover all of the major aspects of landscape plant production in Iowa. Topics covered include plant growth, development, production, & management for trees, shrubs, and turf grass. The selection and use of plants in the home and commercial landscape will be a focus. This class will involve landscape drawing, landscape software, and outdoor activities. **All students are welcome. This course is recommended for students in the third year of the Ag.**

### **LIVESTOCK EVALUATION**

.5 units Grades 10-12

This course will concentrate on animal health, animal nutrition, & livestock facility management. Digestive anatomy, feed ingredients, nutritional principals, ruminant & non-ruminant nutrition, health, disease pathogens, diagnosis, and preventative health are some of the items that will be covered. SAE and ag careers is also part of this course. This class is dual credit with Hawkeye Community College. **All students are welcome. This course is recommended for students in the second year of the Ag.**

### **NATURAL RESOURCES**

.5 Unit Grades 9-11

Natural Resources will investigate how our natural resources are linked to agriculture & science. This course is designed to give an in-depth look at Iowa's natural resources including soil, water, wildlife, & renewable energy resources. It will include hands on activities & projects to illustrate the importance of these resources on everyday life. Agricultural careers in natural resources and SAE projects will also be a part of class. **All students are welcome. This would be a good course following AG I.**

## **SURVEY OF THE ANIMAL INDUSTRY**

.5 Unit Grades 11-12

This class will give students an overview into livestock production & all of the facets of the industry. The class is very science oriented & will go into depth in all of the major body systems of livestock common to Iowa. Genetics, reproduction, nutrition, livestock facilities, marketing, processing, & selection will all be covered in animal science. Agricultural careers in animal science & SAE projects will also be included. This is a dual credit course offered with Hawkeye Community College. **All students are welcome. This course is recommended for students in the third year of the Ag.**

## **WELDING**

.5 Unit Grades 10-12

In welding students will have the opportunity to study the concepts of welding & learn the basic in safety, rod selection, temperature selection, welding positions, & practical applications. The class will also cover blueprint reading, & project design. Students will get multiple hours of hands-on practice. After the student has completed all of the required tasks, students may work on a project of their choosing, or they will be given a project to work on.

## ART

### **DIGITAL ART HISTORY**

.5 Unit 1 trimester, Grades 10-12 Prerequisites: Fundamentals of Art

Digital Art History is a course involving an in-depth study of art history using emerging technology to recreate student photographs into fine art in the style of master artists of the past and present. Knowledge about art history will be covered in a variety of ways including basic research into the time periods as well as production during the course of the trimester.

### **DRAWING**

.5 Unit 1 trimester Prerequisites: Fundamentals of Art, Grades 9-12

Drawing is a course involving an in-depth study of the techniques, materials, theory, aesthetics, art history, and appreciation of drawing. Activities, projects, and knowledge about drawing are covered during the course of the trimester. In keeping with this attention on two-dimensional work, students typically work with several media (such as pen & ink, pencil, chalk, oil pastels, and colored pencils) and a multitude of subject matter.

### **FUNDAMENTALS OF ART**

.5 Unit 1 trimester Grades 9-12

Fundamentals of Art is your first exposure to both two & three-dimensional art at the high school level. During The trimester, you will become familiar with the basics of design, visual & aesthetic practice & theory, sound work habits, tools, vocabulary, technology, art history, & materials of art. This is a prerequisite to all other high school art courses.

### **GRAPHIC DESIGN**

.5 Unit 1 trimester Prerequisites: Fundamentals of Art Grades 10-12

Graphic Design is a course involving an in-depth study of the techniques, materials, theory, aesthetics, art history, and appreciation of commercial art. Activities, projects, and knowledge about the commercial art field are covered during the course of the trimester. Assignment completion utilizes current technology and focuses on the creation of a student portfolio of design projects.

### **INDEPENDENT STUDIO**

.5 Unit 1 trimester Prerequisites: Fundamentals of Art, completion of at least two trimester courses in the art department at the senior high level with adequate success and a desire to work toward excellence in a selected medium. Grades 10-12 Independent Studio is conducted with the instructor serving as a mentor, enable students to explore a particular art form in more detail and depth than in other courses. Polishing talent, building confidence for exhibition or portfolio submission are emphasized. Career opportunities may be explored.

### **PAINTING** Prerequisites: Fundamentals of Art

.5 Unit 1 trimester

Grades 10-12

Painting is a course involving an in-depth study of the techniques, materials, theory, aesthetics, art history, and appreciation of painting. Activities, projects, and knowledge about painting are covered during the course of the trimester. In keeping with this attention on two-dimensional work, students typically work with several media (such as watercolor, tempera, and acrylic) and a multitude of subject matter.

### **PHOTOGRAPHY** Prerequisites: Fundamentals of Art

.5 Unit 1 trimester

\$10 Fee

Grades 11-12

Photography courses expose students to the materials, processes, and artistic techniques of taking artistic photographs. Students learn about the operation of a camera, composition, lighting techniques, depth of field, filters, and camera angles. The course utilizes strictly the digital format. As students advance, the instruction regarding the creative process becomes

more refined, & students are encouraged to develop their own artistic style.

**PHOTOGRAPHY II** Prerequisites: Photography, approval of HS Art Teacher

.5 Unit 1 trimester

Grades 11-12

Photography II is a course involving an in-depth study of the techniques, materials, theory, and aesthetics concerning the works of 10 master photographers. Students will use digital cameras to create masterpieces of their own in the style of each photographer being studied and reflect upon the works studied and created.

**3-D ART** Prerequisites: Fundamentals of Art

.5 Unit 1 trimester

Grades 9-12

3-D Art is a course involving an in-depth study of the techniques, materials, theory, aesthetics, art history, & appreciation of sculpture & ceramics. Activities, projects, & knowledge about sculpture & ceramics are covered during the course of the trimester. Students typically work with several media (such as clay, wood, textiles, basket weaving & more), as well as studying various artists through projects done in the style of their work.

## **BUSINESS EDUCATION**

### **ACCOUNTING I**

1 Unit grades 10-12

Accounting courses introduce & then expand upon the fundamental accounting procedures used in small businesses. Typically, the first year covers the full accounting cycle, & incorporates topics such as payroll, taxes, debts, depreciation, ledger & journal techniques, & periodic adjustments. Students apply standard auditing principles to the projects they work on & while preparing budgets & final reports. Calculators, electronic spreadsheets, & computerized accounting programs are used. In advanced courses, elementary principles of partnership & corporate accounting are introduced & explored, as are the managerial uses of control systems & the accounting process.

### **ACCOUNTING II**

.5 Unit each semester Prerequisites: Accounting I grades 11-12

Banking & Finance courses provide students with an overview of the American monetary & banking system, types of financial institutions, & the services & products they offer. Course content may include government regulations; checking, savings, & money market accounts; loans; investments; & negotiable instruments. As the courses provide information about career opportunities, students practice the varying responsibilities of personnel within the banking & finance industries.

### **INTRODUCTION TO BUSINESS**

.5 Unit grades 9-12

Introduction to Business introduces students to the role of business in the lives of individuals, consumers, workers and citizens. Coverage includes business operations, small business management, business fundamentals, marketing, career planning, social responsibility and ethics, basic economics, technology, finance, operations, risk management, consumer decision-making, and insurance. Students learn about real world companies and the careers of the people who work for them or run them. The text is designed for the very first course many business students will take: therefore, it covers a variety of challenging business topics.

### **KEYBOARDING I**

.5 Unit Prerequisites: None grades 9-12

A keyboarding course provides an introduction to the keyboard (letters, numbers, & symbols), basic machine operation & proper keyboarding techniques. As students progress through this course, they will improve their accuracy & their speed. This introductory course will present material/units in composition, proofreading, centering, tables, reports, &

business/personal letters with envelopes. The variety of documents will use problem-solving skills. Keyboarding I will lead into the more advanced class of Keyboarding II.

## **MARKETING**

.5 Unit grades 9-12

The course is designed to enable students to understand and apply marketing, management, and entrepreneurial principles; to make rational economic decisions; and exhibit social responsibility in a global economy. Students learn about the various functions of marketing, (distribution, financing, marketing-information management, pricing, product/service management, promotion, and selling) but also discover how each function fits with the others. The Marketing course takes students step-by-step through the entire process of starting and running a business, the needed leadership skills, and the pitfalls/realities of entrepreneurial challenges.

## **PERSONAL FINANCE**

.5 Unit grades 9-12

Personal finance will focus on the student's role as citizen, student, family member, consumer, and active participant in the business world. The course will inform the student of their various financial responsibilities, and provides opportunities for self-awareness, expression, and satisfaction in a highly technical and competitive society. Students discover new ways to maximize their earning potential, develop strategies for managing their resources, explore skills for the use of credit, and gain insight into the different ways of investing money. The personal focus of this course makes it relevant and meaningful to all; in particular, those just starting down the path to personal finance independence.

## **ENGINEERING**

### **INTRODUCTION TO ENGINEERING DESIGN (IED) PROJECT LEAD THE WAY (PLTW)**

1.0 Unit

grades 9-12

**This information has been copied directly from the PLTW website in an effort to give you the most accurate description of the course and its offerings.**

**Introduction to Engineering Design™**—uses a design development process while enriching problem solving skills; students create and analyze models using specialized computer software.

**Project Lead The Way (PLTW)** offers a dynamic high school program that provides students with real-world learning and hands-on experience. Students interested in engineering, biomechanics, aeronautics, and other applied math and science arenas will discover PLTW is an exciting portal into these industries. Students must be enrolled in Algebra I or a more advanced math course.

### **PRINCIPLES OF ENGINEERING™**

1 Unit Prerequisite: Algebra I

grades 9-12

Part of the Project Lead the Way program, this course explores technology systems and manufacturing processes; addresses the social and political consequences of technological change. Students learn through a combination of activities-based, project-based, and problem-based (APPB) learning. APPB learning not only creates an environment for applying engineering concepts to real problems, but also prepares students to:

- Solve problems
- Participate as part of a team
- Lead teams
- Speak to a public audience
- Conduct research
- Understand real-world impacts
- Analyze data
- Learn outside the classroom

## **FAMILY & CONSUMER SCIENCE**

### **BAKERY**

.5 unit grades 9-12

This course teaches the principles & procedures of food service production, ranging from baked goods, pastry & desserts to main dish items. Emphasis is placed on becoming an efficient, productive worker. Manual & mathematics skills are developed through running the bakery business.

### **CHILD DEVELOPMENT**

.5 Unit grades 10-12

The scope of this course is the study of the human being from conception to age 5. Each age, from birth to 5 years, is divided into physical development, social, emotional & intellectual development & family interaction. Some of the activities include birth film, hospital visit, classroom & outside observation of children to age 5, preschool observation, & outside readings on related topics.

### **CLOTHING & TEXTILES**

.5 unit grades 9-12

This course requires the construction & repair or remodeling of home furnishings or articles of clothing with a conventional sewing machine & a serger. The abilities, interests & needs of the student will be considered in the selection of the projects. A portfolio of construction samples will also be required. There is no trimester test.

### **DECORATING & DESIGN**

.5 unit grades 10-12

This course is designed to help the student analyze housing needs & to provide knowledge useful in making selections for the home. Topics included are house styles, furniture styles, elements & principles of design, furniture arrangement, window treatments, wall treatments, accessories & lighting. Appropriate field trips are part of the course as well as photography & a portfolio project.

### **FOODS I**

.5 Unit grades 9-12

Foods I emphasizes the principles of the preparation of foods. It includes the following general areas: safety & sanitation, basic measuring & recipe terms, & the preparation of meat, poultry, fish, eggs, dairy, fruits, vegetables, salads, casseroles, breads, cakes & cookies. A textbook is used for daily assignments. Food labs are a part of the class 2 or 3 times per week.

### **FOOD SERVICE**

.5 unit grades 10-12

Designed for students who would like to develop their skills in the food service industry. Among the topics covered are large-scale meal planning & preparation, sanitation, food presentation, serving, & exploration of careers within the foods industry. The class will operate a tea room restaurant that is open to the public. Serving will take place once a week, with students rotating through menu planning, marketing, meal preparations, serving, & other restaurant operations. Prerequisite: Foods or Bakery.

### **REALITY 101**

.5 Unit grades 11-12

Learn the realities of life in this course! Topics include financial responsibilities such as budgeting, insurance, checking accounts, loans, credit cards, and personal financial goal setting. You'll learn things adults say they wish they hadn't learned the hard way.

## **FINE ARTS**

## **ACADEMIC DECATHLON**

.5 Unit grades 9-12

The specific course content changes every year based on the Academic Decathlon study guide for that year. The class will emphasize content in the decathlon areas of Art, Literature, Music, Social Science and Science. Students will study in each curricular area and make a series of presentations to the class. Students will also prepare and present a 3 1/2 - 4-minute speech.

**Important: Participation in the regional Academic Decathlon competition is a requirement for this class.**

## **BAND**

.5 Unit pre trimester grades 9-12

Summary of Course: High School Band is a continuing course in the study of instrumental music through participation.

Technical mastery & appreciation are combined with the satisfaction of producing music in an outstanding organization that serves the school & community.

## **CHORUS**

.5 Unit per trimester Grades 9-12

Summary of course: High School Chorus is open to students who wish to explore vocal music & the performing arts at an advanced level. Students are helped to develop knowledge & understanding of music that can lead to future studies, as well as develop skills for a lifetime of musical enjoyment & participation. Many different styles of music are chosen to provide a well-rounded musical education. Constant participation, group or individual lessons and performances are required. Students may also be required to audition for any given performance.

## **MUSIC THEORY**

.5 Unit grades 11-12

Courses in Music Theory teach an understanding of the fundamentals of music, & include one or more of the following topics: composition, arrangement, analysis, aural development, and sight-reading. This course does not require that the student have previous musical experience.

## **MUSICAL THEATRE**

.5 units Must have role in musical

An intense arts course focused on the elements of producing a musical theater production including: acting, singing, stagecraft, costuming and make-up, dance and technical aspects. The final evaluation will be a live performance of a musical.

# **FOREIGN LANGUAGE**

## **FRENCH I**

1 Unit grades 9-11

The students develop language skills in the natural and proper order: listening, speaking, reading, and writing. This includes vocabulary development and discussion of historical, governmental, cultural, and geographical aspects of French-speaking countries. The students create oral dialogues in French, using new vocabulary and grammatical skills.

## **SPANISH I**

1 Unit grades 9-12

Summary of Course: The students develop language skills in the natural and proper order: listening, speaking, reading, and writing. This includes vocabulary development and discussion of historical, governmental, cultural, and geographical aspects of Spanish-speaking countries. The students create oral dialogues in Spanish, using new vocabulary and grammatical skills.

## **SPANISH II**

1 Unit Prerequisites: Spanish I grades 10-12

Summary of Course: The students discuss the language structure of Spanish. The students realize the importance of a complete mastery of verb forms and are provided with reading selections in Spanish. At the end of the second trimester, students are able to receive directions and carry on short, unplanned conversations in Spanish. The students plan, write, and dramatize in Spanish, a fictitious weather report based on a Spanish-speaking country.

### **SPANISH III**

1 Unit Prerequisites: Spanish II grades 11-12

Summary of Course: The Spanish III students compare and contrast troublesome structural areas between Spanish and English. As much discussion as is possible is in Spanish. The class progresses toward total oral communication in Spanish. The students read selected short stories by Spanish and Spanish-American authors. The students continue to develop vocabulary skills. The students: plan, write, and dramatize in Spanish, a real or fictitious commercial at the end of the first trimester.

### **SPANISH IV**

1 Unit Prerequisites: Spanish III grade 12

Summary of Course: The Spanish IV students continue to work on total oral communication in Spanish. They are provided with a more detailed study of speaking, reading, writing, and comprehending the Spanish language. Advanced reading materials help the students to further enjoy Spanish language and literature. The student's plan, write, and illustrate a short children's storybook the first trimester and create a Spanish newspaper at the end of the third trimester.

## **HEALTH & SAFETY**

### **DRIVER'S EDUCATION**

Driver's Education classroom and laboratory course provide students with the knowledge and experience to become safe drivers on American's roadways. Legal obligations and responsibility, rules of the road and traffic procedures, safe driving strategies and practices, and physical and mental factors affecting the driver's capability are all included as topics of this course. Experience in driving a vehicle is an essential component of this course: students will receive their certificate of completing at the end of the course. STUDENTS MUST BE 14 BEFORE THE COURSE BEGINNING IN THE SUMMER.

### **HEALTH I**

.5 Unit grade 9

Summary of Course: This course will provide the student with basic health components necessary to make decisions throughout one's life based on individual needs and relationships with others. The following content areas are included: personal wellness; substance use and non-use; human sexuality/communicable diseases; food and nutrition; emotional/social health; and safety and survival. Expectations: The student is expected to discuss concerns and attitudes dealing with course topics. The student is also expected to successfully complete all assignments and tests

### **HEALTH II**

.5 Units grade 11

This course places strong emphasis on personal responsibility, a commitment to prevention, practical applications of knowledge & behavioral changes. Specific units are: Environmental Health: CPR Training: Food Safety & Health Diet Issues; The Family (choosing healthy relationships and healthy sexuality); Aging and Death; & Health Services and Resources. Besides daily assignments, requirements include a portfolio of outside reading on health issues and an environment project.

### **NURSE AIDE COURSE**

.5 Unit grades 9–12; Offered only when 10 students enroll

This course has been designed to meet the training requirements of the Omnibus Reconciliation Act (OBRA) for aides

working in nursing facilities (NF) and skilled nursing facilities (SNF). Emphasis in the course is on students achieving a basic level of knowledge and demonstrating skills to provide safe, effective resident care. This course includes laboratory and clinical work at local nursing care facility. Upon completion of the Nurse Aide Course, students will receive a completion certificate. These students are then eligible to take the state of Iowa nurse aide competency examination. This exam includes written questions and performance skill testing. Students who take the exam must pay for the cost of the exam.

- Introduction to the Role of the Nurse Aide
- The Working Environment
- Personal Care of the Resident/client
- Nutrition
- Routine Care Procedures
- Residents/clients with Special Problems

## **INDUSTRIAL TECHNOLOGY**

### **ADVANCED CONSTRUCTION**

.5 Unit Prerequisites: Construction grades 10-12

Advanced Construction is one part of a three sequential unit program that assists in providing students with concepts & skill in construction related occupations. Students may earn advance placement in post-secondary institutions (Ellsworth Community College) upon the successful completion of all three sequential units of instruction. The other two units of instruction include Workplace Basics and Construction.

Course Content: Advanced Construction is designed to provide additional experiences in the construction field beyond that which is taught in the Construction course. Students will learn and demonstrate the basics of interior finishing and special framing methods used in the building trades industries. Units in this course include Insulation, Drywall, Wood Flooring, Stair Framing, Cabinetry, Chimneys and Fireplaces, Plumbing, Electrical, and Heating, Ventilating and air-conditioning Systems. The students will participate in as many “hands-on” experiences as it is possible to arrange.

### **ADVANCED WOODWORKING**

.5 Unit Prerequisites: Woods I grades 9-12

This course is a hands-on learning experience in the woods lab & includes learning about different wood materials, process, tools, machines and calculating cost of wood and materials. Students must build one or two major personal projects. A student is expected to have a set of plans or ideas in place for his or her project within the first week of class and begin working on that project by the second or third week of class.

Expectations: All students are expected to sign a safety contract and demonstrate safe use of tools and machines or they will be restricted to hand tools only. Students will take safety test and must make a 100% on each safety test (students will be given the opportunity to retake test). Students are expected to complete all written and test materials that may be assigned.

### **ARCHITECTURAL DRAFTING**

.5 Unit grades 9-12

Architectural Drafting is one part of a three sequential unit program that assists in providing students with concepts and skills in engineering related occupations. Students may earn advance placement in post-secondary institutions upon the successful completion of all three sequential units of instruction. The other two units of instruction include Workplace Basics and Mechanical Drafting

Course Content: Students will cover the area of architectural drafting using manual and computer-aided-drafting techniques. Students will study and create drawings for either a residential or small commercial structure. Drawings to be created include a presentation drawing with site plan, elevations (both exterior and interior), section drawings, detail drawings, standard structural connections, framing plans, floor plans, foundation or basement plans, and appropriate schedules. The training required to gain meaningful employment in the architectural drafting field would be covered as well. Students will in small groups construct a model(s) of one of the plans generated during the fourth quarter.

Expectations: All students are expected to complete all written and test materials that may be assigned. Students will also

learn the concepts related to and issues facing the architectural drafting and design fields. Students will be charged for materials they use during the course.

### **CAD I – Computer Aided Drafting**

.5 Unit

grades 9 -12

This course is recommended for students interested in engineering, architecture, computers, and manufacturing and related careers. Students will become familiar with the drafting methods, develop and practice drafting skills and techniques while using computer aided design (CAD) software. Students will cover areas in basic drafting skills, geometric construction, reading a blue print and computer aided drafting. The class will encourage higher level thinking skills for problem solving. Students will draw basic two-dimensional shapes and move onto more complex three-dimensional objects.

Expectations: Students are expected to complete all written and test materials that may be assigned. Students will demonstrate proper drafting techniques using CAD software as well as on the drafting board.

### **CONSTRUCTION**

.5 Unit

grades 9-12

Construction is one part of a three sequential unit program that assists in providing students with concepts & skills in construction related occupations. Students may earn advance placement in post-secondary institutions (Ellsworth Community College) upon the successful completion of all three sequential units of instruction. The other two units of instruction include Workplace Basics and Advanced Construction. A number of specific competencies will be addressed in each unit of instruction.

Course Content: Construction is designed to acquaint the student with general information dealing with the light construction industries. Students will become familiar with the vocations within the construction industry. Students will also learn and demonstrate the basics of fabrication methods used in the building trades industries. Units in this course include Careers, Building Materials, Tools and Machinery, Safety, Foundations, Framing, and Exterior Finishing. The student will participate in as many “hands-on” experiences as it is possible to arrange. Past activities have included: laying concrete for driveways and sidewalks, laying concrete blocks, framing, sheathing and siding small structures and shingling.

### **EXPLORATIONS IN TECHNOLOGY**

.5 Unit

grades 9-12

Students enrolled in Explorations of Technology will be introduced to the four clusters of technology; communication, construction, manufacturing and energy/power/transportation. Hands on activities might include Rube Goldberg experiments, building solar water heaters, rat trap catapult cars building airplanes with model engines, Magnetic levitation vehicles, building water and solid fuel rockets from scratch, building and testing air domes and many other problem solving activities.

Expectations: All students are expected to sign a safety contract and demonstrate safe use of tools and machines or they will be restricted to hand tools only. Students will take safety test and must make a 100% on each safety test (students will be given the opportunity to retake test). Students are expected to complete all written and test materials that may be assigned. Students will learn to work with other students in a team to solve simple and complex problems. Students will be responsible to write a research paper for each problem solving activity. Students will be charged for materials they use during the course.

### **MANUFACTURING ENTERPRISE**

.5 Unit

grades 9-12

Manufacturing Enterprise was designed to allow the student to get an understanding for the principals and technical of setting up a business. During this course, students will develop a product, mass produce the product and sell the product for profit. All necessary materials and information will be developed to run a new business. Student will also be given roles such as manager, supervisor, sell, advertising, etc. for the business. It is vital that students also understand that the success of this course will be determined upon the dedication and work ethic of those students enrolled in the course. For that reason the instructor may not allow you to take the course if your performance in the Industrial Technology department is poor.

Expectations: Students are expected to sign a safety contract and demonstrate safe use of tools and machines or they will be restricted to hand tools only. Students will take safety test and must make a 100% on each safety test (students will be given the opportunity to retake test). All students are expected to complete all written and test materials that may be assigned.

## **MECHANICAL DRAFTING**

.5 Unit

grades 9-12

Mechanical Drafting is one part of a three sequential unit program that can assist in providing students with concepts and skills in engineering related occupations. Students may earn advance placement in post-secondary institutions (Hawkeye Community College and / or Iowa Valley Community College) upon the successful completion of all three sequential units of instruction. The other two units of instruction include Workplace Basics and Architectural Drafting. A number of specific competencies will be addressed in each unit of instruction.

Course Content: Students will cover areas of drafting including basic drafting skills, geometric construction, drawing specifications, computer-aided-drafting, and mechanical drawings. Students will study and complete drawings called for in the engineering related vocational standards competency list such as orthographic projections, isometric pictorials, oblique pictorials, auxiliary drawings, keyways and keyseats, splines and gears, cams & followers, fasteners and threads, casting drawings, etc. Students will use both manual drafting equipment and the computer along with a CAD program to complete their drawings. Discussion will take place regarding the training required to gain meaningful employment in the engineering field.

## **WOODWORKING I**

5 Unit

grades 9-12

Woodworking I is for those who love to work with and/or would like to learn about working with wood. This course is a hands-on learning experience in the woods lab and includes learning about different species of wood, tools, machines and calculating cost of wood and materials. Students will be assigned a project by the instructor and or must build one or more personal projects. Students will be expected to find a set of plans for his or her project and then build their project using these plans.

Expectations: All students are expected to sign a safety contract & demonstrate safe use of tools and machines or they will be restricted to hand tools only. Students will take safety test and must earn a 100% on each safety test (students will be given the opportunity to retake test). Students are expected to complete all written and test materials that may be assigned.

## **LANGUAGE ARTS**

### **COLLEGE READING**

.5 Unit

grades 11-12; 9<sup>th</sup> & 10<sup>th</sup> on active TAG roster

Summary of Course: This is an English elective designed for college bound high school students. College Reading uses the same grading scale as the "Individualized Reading" course. The grading scale is based on pages read and is set up as follows:

A 2,200 pages    C 1,200 pages

B 1,800 pages

All books read for "College Reading" are books that are generally recognized as classics or are contemporary works of "serious" literature. In special circumstances some outstanding genre works (crime fiction, fantasy, romance, science fiction, westerns etc.) may be allowed. All books must be approved, in advance by Mr. Osterhaus. Students are expected to report to class on time and spend class time reading the assigned work. Mr. Osterhaus will visit with College Reading students on a regular basis for the purpose of discussing the works being read.

### **COMMUNICATION SKILLS**

1 Unit Prerequisite: Language Arts 9

Grade 10

Summary of course: Communication Skills is a required language arts class for sophomores (Grade 10). Students study elements of fiction in short stories, novels, poetry, and plays. They develop writing and research skills: paragraphing, essay writing, journaling, short story writing, and technical writing. Students develop and present formal speeches and

participate in debate. Students continue to hone their revising and editing skills.

**COMPOSITION I** .5 unit (3 HCC semester hours)

Prerequisites: Successful completion of English 11 (1) and World Literature, a 65 on the writing portion of the COMPASS test or a 19 on the English subtest of the ACT, and a 40th percentile ranking on the ITED. grade 12

Composition I develops students' writing skills by emphasizing fluency, organization, the use of supporting details, and an introduction to research techniques. Writing is approached as a recursive process that includes prewriting strategies drafting, & editing. The course helps students define a sense of audience and purpose in their writing.

**COMPOSITION II** .5 unit (3 HCC semester hours)

Prerequisites: Composition I

Grade 12

Composition II students extend the writing principles learned in Composition I to ethical & effective argument & persuasion &

to the longer, researched paper. This course teaches precise and responsible use of research tools and requires critical analysis of reading materials.

**DRAMA**

.5 unit Prerequisites: Language Arts 9

Grades 10-12

The final product for this course will be a play to be presented in November. This course will build upon students' prior knowledge from Language Arts 9. In addition, it will teach students about all aspects of drama such as set design, costume construction, and line memorization. This course will require some time away from school as they perform shows for surrounding communities/schools.

**ENGLISH 11**

1 unit Prerequisites: Lang Arts 9 & Comm. Skills 10

Grade 11

Exploration of each genre's literary elements: determination of theme and intent; and vocabulary and semantics are often included as part of the course content. The major activity in this literature course is the analysis of literary works. Literary conventions and stylistic devices will receive greater emphasis than in previous courses. The course also allows students to experiment with verbal and nonverbal communication, interpersonal and intrapersonal communication, as well as traditional speech forms.

**INTRO TO FILM**

.5 units Prerequisites: Lang Arts 9 & Comm. Skills

Intro to Film is based upon the study of film. Students will be watching films from a variety of genres and will be evaluating those films based upon given criteria such as plot, theme, film techniques, camera shot and movement, cinematography and editing. In the end, students will take the knowledge and write, film, and produce a movie.

**INTRODUCTION TO LITERATURE** .5 Unit (3 HCC semester hours)

Grades 11 & 12

Prerequisites: Successful completion of English 11 (1) and World Literature, This course is designed to introduce students to three genres of literature: short story, poetry, and drama. The course will emphasize understanding both the possibilities and the limitations of various types of literature, willingness to share interpretations, relate awareness of literary structure of his/her analysis of selected literary pieces, and different methods of critical analyses.

**INTRODUCTION TO PUBLIC SPEAKING**

.5 units Prerequisites: Lang Arts 9 & Comm. Skills

Public Speaking enables students, through practice, to develop communication skills for a variety of speaking situations. The course focuses on fundamentals, preparation, and delivery. This class will better prepare and assist students in the public speaking world.

**LANGUAGE ARTS 9**

Grade 9

Ninth Grade Language Arts-1 includes the four aspects of language use: reading, writing, listening, and speaking. Students will be studying several units including: Short Story, The Novel, Non-Fiction, Drama, Parts of Speech, Sentence Structure,

Paragraph Writing, The Essay. This course also builds upon students' prior knowledge of grammar, word usage, mechanics of writing, and vocabulary.

### **TECHNICAL WRITING**

.5 units Prerequisites: Lang Arts 9 & Comm. Skills

Grades 11 & 12

Technical Writing focuses on the basics of business communication. Units will consist of: • Brief Writing • Career Writing • Business Essentials • Proposal Writing

### **WORLD LITERATURE**

.5 Unit

World Literature introduces students to the literature of world authors & teaches skills of critical reading & evaluation.

The development of a greater appreciation and understanding of literature & world cultures is an especially important part of this course. Students continue to develop both oral and written skills as they analyze short stories, plays, mythologies of the world, poems of world authors, and Greek tragedies, with particular attention to theme and style.

## **MATHEMATICS**

### **ALGEBRA I**

1 Unit Prerequisites- success (B- or better) in 8th grade mathematics or (C- or better) in pre-algebra. grades 9-12

Algebra covers a wide range of topics. In addition to writing and solving equations, this course offers introductions in the areas of geometry, trigonometry, probability, statistics & graphing. We extensively use calculators and graphing calculators to enhance, not replace a basic knowledge of arithmetic & problem solving strategies. Included are applications & connections with other areas of study, such as biology, geography, health, art, music, athletics, etc as well as from any number of possible careers & with the history of mathematics in many cultures. Students who take Algebra should have the maturity to complete daily assignments & the organizational skills to take notes & to keep track of notes, assignments, projects, etc. Goal: We want students to view their study of mathematics as worthwhile, interesting and related to most any interest a student might have or career path they might choose. We also want to provide a solid foundation for future courses in mathematics, sciences or other related areas. This class can be taken in a 2 or 3 trimester format.

### **ALGEBRA II**

1 Unit Prerequisites: C- or better in Algebra I grades 9-12

Virtually all students who expect to graduate from high school should take this course. College-bound students should take Advanced Algebra because: two years of algebra are required for admission to some colleges and most college majors; algebra is found on all college-entrance examinations; and algebra is necessary to understand science, statistics, computers, economics, medicine, business, and many other disciplines. Without algebra, doors are open to only a few colleges and a student who has had no algebra has the choice of only a few majors. There are just as many reasons for non-college-bound students to take two years of algebra. Technical schools, such as those for trades, require that students be familiar with formulas, graphs, and trigonometry. Computers abound in the workplace; algebra is the language of programs and it underlies the operations of spreadsheets and many other software packages. There is much work with the symbolism of algebra, solving equations, simplifying expressions and functions. It is assumed that the student is rather familiar with linear equations and inequalities, graphing, simple applications of algebra, linear systems and the quadratic formula. Because the approaches taken are highly integrative, knowledge of the standard content of Euclidean geometry and some familiarity with coordinates & transformations in geometry is also assumed. The earlier work with algebra & geometry is reviewed, but more quickly than is appropriate for a first encounter.

### **CALCULUS**

1 Unit Prerequisites: a B in Pre-Calculus

grades 11-12

Calculus courses are intended for students who have attained pre-calculus objectives, including some combination of Trigonometry, Elementary Functions, Analytic Geometry, and Math Analysis, or Pre-Calculus. They include the study of derivatives, antiderivatives, differentiation, integration, the definite and indefinite integral, and applications of calculus. Review topics: properties of elementary functions and their graphs, vectors and polar coordinates, and concepts

of limits and continuity.

### **CONSUMER MATH**

1 Unit Prerequisites :pre-algebra or alg 1

grades 10-12

This course reinforces general math skills for student who have previously attained them, may extend the general math skills to cover additional math concepts, and use these skills in a variety of consumer applications

### **GEOMETRY**

1 Unit Prerequisites: Success in Algebra I (B- or better if taken as 8<sup>th</sup> grader, C- or better if taken in high school) grades 9-12

Summary of Course: Geometry is the course in which the student develops his/her logical reasoning skills while learning the fundamental principles associated with geometric concepts. The course will require that the student express his/her ideas clearly and in a logical manner. The student will learn to prove geometric theorems and use those theorems to prove other theorems and geometric ideas. Topics studied in this course include: the study of points, lines, planes, angles, and two and three-dimensional figures (triangles, circles, quadrilaterals, etc) associated with geometry. Also the study of transformations associated with translations, rotations, and reflections and proving properties through the use of previously proven theorems. Also applying area, surface area, and volume formulas to various two and three-dimensional figures.

**EXPECTATIONS:** The student is expected to provide his/her own tools of geometry, which include a **COMPASS** and a **PROTRACTOR**

### **MATHEMATICS FOR DECISION MAKING**

.5 unit (3 HCC semester hours) Prerequisites: Algebra I, Geometry, and Compass test or instructor permission. grades 11-12

Introduces selected areas of mathematics in familiar settings and develops student's conceptual and problem solving skills. The course includes a study of mathematical concepts selected from set theory, logic, properties of the real numbers, algebra, probability and statistics. Other topics may be included. Prerequisite: Completion of SC038D or appropriate COMPASS math placement score of equivalent.

### **PRE-ALGEBRA**

1 Unit

Grades 9-12

Summary of Course: Transitional Math is a class that weaves three themes - applied arithmetic, pre-algebra, & pre-geometry - by focusing on arithmetic operations in mathematics & the real world. Variables are used as pattern generalizes, abbreviations in formulas, & unknowns in problems, and are represented on the number line and graphed in the coordinate plane. Basic arithmetic and algebraic skills are connected to corresponding geometry topics. Scientific calculators are recommended because they use an order of operations closer to that found in algebra and have numerous keys that are helpful in understanding concepts at this level. Students who take Transitional Math should have the maturity to do homework everyday or night & the expectation of studying algebra the next year, if successful in this course.

### **PRE-CALCULUS**

1 Unit Prerequisites: Algebra I, Geometry, Algebra II (at least a C- or better)

Grades 11-12

Upon entering the course, students should have a strong background in solving linear and quadratic equations, and linear systems. They should also have studied how to make and read coordinate graphs of linear, quadratic & power functions, & they need to have mastered finding an equation for a line given either the coordinates of two points or a point and the slope of that line. In addition, this course assumes that the student has previously studied exponents, logarithms, triangle trigonometry, and certain geometric transformations (reflections, rotations, translations, and size changes). Some familiarity with a graphing calculator (T-83) is also beneficial. Summary of Course: Functions, Statistics, and Trigonometry integrates statistical and algebraic concepts, and previews calculus in work with functions and intuitive notions of limits. Students in plotting functions, analyzing data, and simulating experiments use computers and sophisticated graphing calculators. Enough trigonometry is available to constitute a standard pre-calculus course in trigonometry and circular functions.

## PHYSICAL EDUCATION

### PHYSICAL EDUCATION I

Grades 9 & 10

In this course, students will learn a variety of concepts such as the health related components of fitness, game strategies/tactics, and affective concepts like communication and sportsmanship. 60% of this course will be devoted to learning and experiences in the following team/dual sports: Bowling, Badminton, Tchoukball, Omnikin, and either Touch Football, Basketball, or Ultimate Frisbee (depending on which trimester the course is taken). 40% of this course will be devoted to learning and experiences in the following fitness activities: Cycling, Jogging, Indoor Rowing, Treadmill, Elliptical, Stationary bike, Dance Dance Revolution, Jump Trainer, Treadwall, Circuit training (using one's body weight), and Strive machine weights.

### PHYSICAL EDUCATION II

Grade 11

The goal of this course is for students to learn a variety of concepts in the areas of exercise programming, nutrition, energy systems, game strategies/tactics, and affective concepts like teamwork and respect. 60% of this course will be devoted to learning and experiences in the following fitness activities: Indoor Rowing, Treadmill, Elliptical, Stationary bike, Dance Dance Revolution, Jump Trainer, Treadwall, Free weight workouts, Core workouts, Plyometrics, Stability ball workouts, Agility drills, and Yoga. 40% of this course will be devoted to learning and experiences in the following team/dual sports: Pickleball, Speedball, and Ultimate Frisbee.

### PHYSICAL EDUCATION III

Grade 12

This course is designed to prepare students to be active in the "real world" as they transition into college or the work force. This class is structured with a health club mentality in which students will create their own workouts and schedules and reflect on their progress. Students will take what they have learned in their previous PE classes and apply it to their own personal health & fitness plan. Students will be required to submit a workout log and HR data files on a weekly basis.

**PERSONAL WELLNESS** PEH 110– *Grades 11-12. PE Department approval.* This is an elective course for which students can receive college credit. This course is designed to expose students to a wide array of physical fitness activities as well as nutritional factors, health risk factors and stress reduction techniques. The focus of this course is to explore wellness in holistic terms, not just in physical fitness terms.

## SCIENCE

### ADVANCED BIOLOGY

.5 Unit Prerequisites: Biology I

grades 11-12

This course is structured for the college bound science student. Scientific principles introduced in Biology I are further developed and applied. It is a more in-depth investigation of the following areas: cell biology, developmental biology, basic anatomy and physiology, and biological issues & problems.

Expectations: Students are expected to read the textbook and other outside readings, become involved in classroom discussions, do all daily assignments, write a term paper and other short reports, successfully complete tests and quizzes, and participate in hands on lab experiments including a dissection of the pig, rat or mouse.

### BIOLOGY I

1 Unit

grades 10-12

Biology is a course devoted to a survey of topics in biology. Topics include cellular structure & activity, heredity & genetics, natural selection & the diversity of life, protein synthesis, specific classification and phylogenic, human biology, ecology, and brief coverage of related topics in chemistry and biochemistry. Lab activities range from theoretical inquiries, to simulations, to actual investigations of biological specimens. Lab work does include dissection and examination of preserved animal tissues and specimens.

Expectations: Students acquire, understand and use the technical vocabulary required for a study of biology. They develop an understanding of the principles of continuity, diversity, and ecology as applied to biological systems. They also develop an ability to read and interpret scientific information in a critical manner. Engaging in critical analyses enables them to draw conclusions from scientific information and make valid generalizations. Laboratory exercises provide opportunities to develop and enhance a variety of manipulative skills associated with science and technology.

### **CHEMISTRY**

1 Unit Prerequisites: Algebra II grades 11-12

Chemistry is recommended for any student planning on attending college. The course includes classroom and lab work on the structure, properties, and reactions of atoms, molecules, and complex chemicals. Writing and balancing chemical equations, stoichiometry problems, work with acids and bases, the gas laws, and organic chemistry are also explored. Expectations: Laboratory exercises provide opportunities to develop and enhance a variety of manipulative skills and thinking strategies associated with chemistry.

### **ENVIRONMENTAL BIOLOGY**

.5 Unit Prerequisite: Biology Grades 11-12

### **ESSENTIALS OF ANATOMY AND PHYSIOLOGY**

1 Unit (4 HCC semester hours) Prerequisites: Adv. Biology, grade 12

Introduction to Anatomy and Physiology is a class designed for students entering allied health fields as well as others who have a minimal background in the biological and physical sciences. The course will provide an introduction to the fundamentals of human anatomy and physiology beginning at the cellular level of organization and progressing through a comprehensive overview of the organ systems and with an emphasis on homeostasis. The lab component of the course will involve dissection of cats to view the similarities in the muscular systems of humans and felines.

### **PHYSICAL SCIENCE**

1 Unit grade 9

Physical Science is a course dealing with the relationship between matter, energy and the physical world. This course will examine physical properties related to natural resources, air and other gases, and water. Other areas of emphasis include, but are not limited to, motion, light, dynamics, and kinematics.

Expectations: The course involves a number of hands-on activities using simple laboratory equipment in order to develop each student's lab skills. Emphasis is placed on demonstrating different scientific principles, which occur, in the student's everyday life and developing of common scientific process skills. Current events in various areas of science are also studied & related to the overall study of physical science.

### **PHYSICS**

1 Unit Prerequisites: Algebra II grades 11-12

Physics is a math and science related course designed mainly for the college-bound science student. Included in the course are units on force, motion, energy, waves, sound, light, and some magnetism and electricity.

Expectations: Laboratory exercises provide opportunities to develop and enhance a variety of manipulative skills and thinking strategies associated with physics.

### **SCIENCE I**

1 Unit grades 9-10

The specific content of Integrated Science courses varies, but emanates from suggestions made by the American Association for the Advancement of Science. This multi-year program of study, draw from the principles of several scientific specialties – earth science, physical science, biology, chemistry, and physics and organize material around thematic units. Common themes include systems, models, energy, patterns, change, and constancy.

### **SCIENCE II**

1 Unit grades 10-12

The second year of this science program draws from the principles of several scientific specialties – earth science, physical science, biology, chemistry, and physics and organize material around thematic units. Common themes include systems, models, energy, patterns, change, and constancy.

## **SOCIAL STUDIES**

### **AMERICAN GOVERNMENT**

1 Unit grade 12

American Government is the study of the American political system, including comparative government, federalism, elections, the executive, legislative, and judicial systems, political parties, state & local government & foreign policy. Special emphasis is placed on citizenship responsibility, decision-making and political behavior in our political system. Large group and small groups are used for films, lectures, small group discussion, guest speakers, and other activities.

### **AMERICAN HISTORY**

1 Unit grade 10

American History looks at the present through the past. The course, which studies the time from the Reconstruction to the present, aims to develop within the student the ability to think critically, utilize resource materials, understand how values influence decisions, consider future alternatives, know and use debate skills, discuss issues and function as a leader within the small group setting, and understand the past record of American History. A textbook is used as the basic source, in conjunction with supplementary materials. Units studied currently include: Reconstruction, Industrialization and the Progressive Era, World War I, The Golden Twenties, The Great Depression, and World War II, Cold War, the 60's, 70's, and modern American History. Discussion skills, simulations, and interaction between students are emphasized.

### **CONTEMPORARY AFFAIRS**

.5 Unit grades 10-12

Contemporary Affairs is divided into two areas of study: (1) Current Affairs and (2) Major Issues Facing the United States and the world. Current Affairs deals with the study of current issues and happenings in society. Some current affairs topics are national affairs, education, sports, business, religion, and the homeless. Among the topics covered are the economy, education, civil rights, social problems (to include: abortion rights, death penalty, and crime), health care, immigration, defense, and world poverty. The television, newspapers, and magazines are used extensively. The students develop critical thinking skills and small group discussion skills and analyze problems from a global perspective.

### **ECONOMICS**

.5 Unit grades 11-12

Economics is a course in the principles of our economic system. This course covers economic decision-making, comparative economics, the law of scarcity, supply and demand, price determination, business finance & investment, money & banking, and monetary and fiscal policy. Special emphasis is placed on applied economics in light of today's economy.

Expectations: Students are expected to become better acquainted with the principles of economics and how our economic system operates.

### **GEOGRAPHY**

.5 Unit grades 9-12

This course examines the world by dividing it into regions and realms. The realms will be studied by looking at cultural and physical similarities. We will also look at many of the physical properties of our world. Identification of physical and political will also be included.

### **LAW & COURTS**

.5 Unit grades 9-12

Law & Courts provides students with instruction in practical law to be used by students in everyday life. The course is

designed to help students develop a more positive attitude as citizens toward the role and function of law in our society do. There is also an attempt to expose students to the many law-related vocational possibilities within the legal system. Units currently studied include: Introduction to Law, Criminal Law, Consumer Law, Family Law, Housing Law and Individual Rights Law. Discussion skills, simulations, and interaction between students are emphasized.

Expectations: The student is expected to become involved in class discussion, relate to law professionals who visit class, learn through the field trips, and gain a basic understanding of the legal system.

## **PSYCHOLOGY**

.5 Unit

grades 11-12

Psychology courses introduce students to the study of individual human behavior. Course content typically includes (but is not limited to) an overview of the field of psychology, social psychology, positive psychology, learning, personality, and abnormal psychology.

## **SOCIAL PROBLEMS**

.5 Unit

grades 11-12

Social Problems looks strongly at state and local government and the individual's role in the local community, county, and state government. Part of the course emphasizes juvenile delinquency. The causes, effects, and results of juvenile problems in American society are examined.

Expectations: Students are expected to have a better understanding of state, county, and city government in the state of Iowa.

## **SOCIOLOGY**

.5 Unit

grades 9-12

Sociology courses introduce students to the study of human behavior in society. These courses provide an overview of sociology, generally including (but not limited to) topics such as social institutions and norms, socialization and social change, and the relationships of individuals and groups in society.

## **WORLD HISTORY**

1 Unit

grades 9-12

Modern World History courses provide an overview of the history of human society in the past few centuries from the Renaissance period, or later, up to the contemporary period exploring political, economic, social, religious, military, scientific, and cultural developments.

## TABLE OF CONTENTS

DEPARTMENT	PAGE
Advanced Placement	5
Agriculture	5
Art	7
Business Education	8
Engineering	9
Family & Consumer Science	9
Fine Arts	10
Foreign Language	11
Health & Safety	11
Industrial Technology	12
Language Arts	15
Math	16
Physical Education	18
Science	19
Social Studies	20

**Grundy Center High  
School**

**Course Planning Manual**

**2009-2011**



**Home of the Spartans**



