COURSE OFFERINGS
AGRICULTURAL EDUCATION

PRINCIPALS OF AGRICULTURAL SCIENCE & TECHNOLOGY

Grade 9 Year

This is an introductory course that presents students with the foundations of agriculture science. Students will develop skills and knowledge in Ag careers, animal science, agriculture mechanics, global issues related to agriculture, and plant science. Learning experiences will include hands-on experience as well as various classroom and laboratory exercises. Students will also learn leadership skills through and introduction to the FFA.

ANIMAL TECHNOLOGY

Grades 10 - 12 Semester

The focus of this course is to develop advanced skills in animal science. The primary units of study will be: 1. Animal Reproduction 2.Genetics 3.Animal Systems and 4.Feeding and Nutrition. Practical experiences will focus on applying basic scientific procedures and practices as well as learning through new developments in the animal industry.

NATURAL RESOURCES

Grades 10 - 12 Semester

This course is a broad and diverse study of the natural resources and their relationship to agriculture. Students are taught the importance of the basic natural resources including soil, air, water, forest, wildlife, etc. Emphasis is placed on developing knowledge and skills needed for the management and conservation of these resources.

AGRISCIENCE

Grades 11 & 12 Semester

This course will look at the diverse area of agriculture, examining the scientific application, processes, and principles on how they relate to agriculture. Areas of study and experimentation will include: methods of scientific investigation, production agriculture, environmental systems, structural systems, agriculture power, and agriculture processing.
AQUACULTURE SCIENCE AND TECHNOLOGY

Grades 11 & 12  Semester

In this class students will identify opportunities in the aquaculture industry; identify aquaculture species and their anatomy; examine principles of production and management; operate a fish hatchery and re-circulating production system; control nutrition, evaluate and maintain water quality; and process and market fish.

HORTICULTURE / LANDSCAPE DESIGN

Grades 11 & 12  Semester

This horticulture course will introduce students to present knowledge and skills in fruit and vegetable production, ornamental, turf, and landscape design. Students will apply knowledge and skills in real life situations for both private and commercial horticultural application. Work in the greenhouse laboratory is included in this course.

PRECISION FARMING SYSTEMS - Concurrent Course

Grades 11 & 12  Semester

This course covers the fundamentals of Global Positioning Systems with an emphasis on agricultural applications. Technical aspects of GPS satellites differential corrections, field navigation and yield mapping will be covered. Students will receive three college credits after successful completion and will be registered through Kirkwood Community College.

INTRODUCTORY HORTICULTURE (Offered every other year opposite production horticulture)

Grades 11 & 12  Semester

This beginning level horticulture course is designed to present knowledge and skills in the home horticulture and floriculture areas. Hands on greenhouse laboratory experiences are provided. Areas of study will include: greenhouse management, plant propagation, indoor plant management, and floriculture with an emphasis on both retail and commercial applications. Students will apply knowledge and skills in real life situations.
PLANT TECHNOLOGY

Grades 11 & 12  Semester

Fundamental agronomic principles are taught in this course. Soil evaluation, alternative agronomic crops, plant nutrition, weed science, and major agronomic plant growth and development. This course offers hands on experience in these topic areas. Problem solving is stressed to develop a working knowledge in this agronomic area of agriculture.

PRODUCTION HORTICULTURE (Offered every other year opposite introductory horticulture)

Grades 11 & 12  Semester

This horticulture course will introduce students to present knowledge and skills in the design and maintenance of home and commercial landscape applications. Students will learn to draft landscape designs on paper as well as utilizing Computer Assisted Design Software. Turf management will also be covered in this course. Students will apply knowledge and skills in real life situations.

AGRICULTURAL BUSINESS MANAGEMENT

Grade 12  Semester

This advanced level course is designed to emphasize agricultural business management. Students will have hands-on experience with computers and other data serving networks. They will manage simulated businesses. Learning opportunities will include credit and money management marketing, planning and decision making. Management principles, record keeping, and occupational/career planning will be stressed.

AGRICULTURE TECHNOLOGY

Grade 12  Semester

This course is designed to introduce and advance student skills in agriculture technology transfer. Learning opportunities will be centered around technological advances in agriculture. Students will learn and practice agriculture applications in computer hardware and software on DOS/Windows based computers, global positioning systems, and other technological advancements related to the field of agriculture.
## Agriculture Program of Study Sequences

<table>
<thead>
<tr>
<th>Horticulture Strand</th>
<th>Agriculture Production Strand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles of Agriculture Science &amp; Technology</td>
<td>Principles of Agriculture Science &amp; Technology</td>
</tr>
<tr>
<td>Introduction to Horticulture</td>
<td>Animal Technology</td>
</tr>
<tr>
<td>Plant Technology</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Production Horticulture</td>
<td>Agriculture Science</td>
</tr>
<tr>
<td>Horticulture /Landscape</td>
<td>Agriculture Business</td>
</tr>
<tr>
<td></td>
<td>Agriculture Technology</td>
</tr>
</tbody>
</table>
ART

INTRODUCTION TO ART

Grades 9 - 11 Year

The best place to develop your creativity and powers of expression is the art room. Let the imaginative side of yourself discover the excitement of the visual arts. Introduction to Art is the beginning course where we explore various drawing and painting mediums and the techniques associated with them. We will also work with 3-dimensional materials.

ART II

Grades 10 - 12 Year Prerequisite: Art I

Art II is a course primarily concerned with the continuation of working with and learning how to manipulate 2-dimensional and 3-dimensional media. Students will start to utilize their own knowledge while working with each material and incorporate their own life experiences within their artwork.

ART III

Grades 11 - 12 Year Prerequisite: Art II

Art III is primarily concerned with encouraging students to develop their own personal imagery and find a voice as an artist. The class is organized to focus on experimentation in as many different media areas as possible. Students will be asked to develop their projects above and beyond the required expectations.

ART IV

Grade 12 Year Prerequisite: Art III

Art IV is an independent project oriented course. The course is designed to offer to the student assistance in pursuing an art career or other art related endeavors. During the year we focus on areas such as portfolio preparation, scholarship awareness, and compositional techniques.

ADVANCED INDEPENDENT ART

Grade 12 Year Teacher recommendation

The ideas and material covered in this class are completely subject to the individual student taking the course. Teacher recommendation is the only way to enter this course.
INTRODUCTION TO BUSINESS

Grades 9 - 12 Semester

This class is an introductory course that presents students with the foundations of various aspects of the business world and his/her role in it. Areas to be covered include the economic system, the nature and form of American business, consumer rights and responsibilities, entrepreneurship and marketing. This course is strongly recommended for those interested in additional business courses.

BUSINESS FOR TEENS

Grades 9 - 12 Semester

This course exposes students to area of personal finance that they will likely encounter as teenagers. The curriculum covers, among other topics: consumer awareness, money management, opening bank accounts, managing a checkbook, managing credit, applying for a job, and basic information about saving and investing. Information will be presented through projects, activities, guest speakers, and multimedia presentations.

COMPUTER BUSINESS APPLICATIONS

Grades 9 - 12 Semester

This course is designed to provide hands-on experience with application software for the personal computer in Windows. Students will explore Microsoft Office by completing individual projects in each of the following programs: Word, Excel, PowerPoint and Publisher.

ENTREPRENEURSHIP

Grades 10-12 Semester

Students in Entrepreneurship will develop an operating plan and organizational structure that will culminate in the development of a comprehensive business plan for a new business idea of their choosing. Components include opportunity recognition, feasibility of the business, strategic business planning, marketing research, finance, and business monitoring. Topics include choosing a business location, advertising and promotion, designing a store layout, marketing research, obtaining finance, competition analysis, and pricing methods. Students will also prepare a presentation based on the submitted business plan in attempt to pitch their idea to the class who will serve as potential investors.
MARKETING

Grades 10-12 Semester

The purpose of this course is to familiarize students with the scope, terminology and procedures of marketing in the modern business world. The student will gain understanding of the various elements of marketing. Selling, product planning, competition, marketing strategy, product, distribution, price, promotion and advertising will be carefully analyzed with frequent reference to the real world examples. Students will create a marketing plan and perform a sales demonstration to company “executives’ for approval.

ACCOUNTING I

Grades 10 - 12 Year

This course gives students a thorough background in the basic accounting procedures used to operate a business and also prepares them for college accounting classes, which are required of all business majors. Students will learn the accounting cycle and use double-entry accounting for a variety of business organizations, including proprietorships, partnerships, and corporations. Students will prepare monthly journals, ledgers, payrolls, and worksheets as well as end-of-fiscal-period financial statements. Both manual and automated accounting procedures are covered. Several projects and business simulations are used during the course to add realism and to give the students practical experience.

ACCOUNTING II

Grade 11 & 12 Year Prerequisite: Accounting I

This course is a continuation of the Accounting I course and will deal with Cycle 3 Accounting, double entry accounting concepts for a corporation as further preparation for college accounting.
DESKTOP PUBLISHING - Concurrent Course

Grades 11 & 12 Semester

This course allows students to create professional-quality documents, such as one-page bulletins or short newsletters, using desktop publishing software. The student will also integrate text, graphic and image files previously created with a variety of application software.

*Desktop Publishing is a Kirkwood Community College Information Systems Management Academy course and students will receive three college credits after successful completion and will be registered through Kirkwood.*

FUNDAMENTALS OF WEB PROGRAMMING - Concurrent Course

Grade 11 & 12 Semester

In this college credit course students will learn the basics of writing Hypertext Markup Language (HTML) to create Web pages that include graphics, links, tables, frames, forms and styles. Students will also learn the basics of Cascading Style Sheets (CSS), JavaScript, and Dynamic HTML on an introductory level. Using project-based learning in the lab students will create Web pages and develop a Website that includes text, tables, graphics, and Web forms.

*Fundamentals of Web Programming is a Kirkwood Community College Information Systems Management Academy course and students will receive three college credits after successful completion and will be registered through Kirkwood.*

INTERMEDIATE COMPUTER BUSINESS APPLICATIONS - Concurrent Course

Grades 11 & 12 Semester Prerequisite: Computer Applications

This course extends students’ basic knowledge of Microsoft Office applications including Word, Excel, Access, and PowerPoint.

*Intermediate Computer Business Applications is a Kirkwood Community College Information Systems Management Academy course and students will receive three college credits after successful completion and will be registered through Kirkwood.*
POWERPOINT MULTIMEDIA - Concurrent Course

Grades 11 & 12 Semester

Develops knowledge of multimedia concepts by studying multimedia software and the hardware components needed to develop and view multimedia productions. Assessment projects are used by students for demonstration of knowledge of multimedia elements (copyright, video, graphics, sound, animation) knowledge of tools (digital camera, video camera, scanner, and knowledge of editing software (sound editing, video editing, graphics editing).

*PowerPoint Multimedia is a Kirkwood Community College Information Systems Management Academy course and students will receive three college credits after successful completion and will be registered through Kirkwood.*

PUBLICATIONS

Grades 11 & 12 Year

This course is an elective, and no English credit will be given.
Prerequisite - students must have consent of the instructor and a recommendation of another teacher.

Publications class is designed to be a workshop for the staff of the yearbook. With guidance from the adviser, students have hands-on learning with desktop publishing as they design yearbook pages. A majority of class time is spent writing, editing and doing layouts. Students learn the fundamentals of design, feature writing and headline writing.

Students are also given the opportunity to learn digital photography. In addition, the class teaches and applies budgeting in the selling of ads and the book to raise money for production costs. Successful completion of Word Processing, Desktop Publishing, and Computer Applications is helpful. Students must commit to covering after school events for photos.

*Applications for staff will be taken in the spring for the following year. Students must commit to a full year on the staff.*
RIGHTWAY DRIVER EDUCATION
(1/2 credit)

Completion on Satisfactory/Fail basis and not figured into the students G.P.A.

Driver Education is designed to make the students aware of not only the techniques for safe driving, but also the responsibility that a driver has when operating a motor vehicle. Each student must receive 30 classroom hours and six behind-the-wheel training.

Each student must have a learner's permit before classes begin.

Students applying for an Iowa Driver's License will need to have their Social Security Card and Birth Certificate. The Driver's License Bureau officials will not accept the Social Security Number alone; the officials must see the Social Security Card.

All school rules, regulations, and codes of conduct shall be in force for the duration of the course.

Students must bring proof of successful completion in order to receive .5 N-L credits.
FAMILY AND CONSUMER SCIENCE

ADULT LIVING

Grades 10 - 12  Semester

This course is designed to help you make the leap from a high school student into the ‘real world’. We will discuss the skills needed in order to succeed in life whether living on your own or with roommates after high school; whether pursuing post high school education, training, or on the job experience.

CHILD DEVELOPMENT I

Grades 10 - 12  Semester

Child Development I studies the physical, social, emotional, and mental development from conception through the first year of life. Students are required to take home the “Real Care” baby for one weekend as part of the class requirements. Topics related to child development are also studied such as: child abuse, parenting options, teen pregnancy, family planning, and nutrition.

CHILD DEVELOPMENT II

Grades 10 - 12  Semester

Prerequisite: Child Development I

Child Development II begins with toddlers and continues through adolescence. The four types of development (physical, mental, emotional, and social) are studied with each age group. Current concerns such as disabilities, early childhood education, and careers are studied throughout the semester.

WORKPLACE READINESS

Grades 10 - 12  Semester

This course is designed to help prepare the student to enter into the ever-changing workplace. There will be a focus on career selection, job seeking skills (including writing resumes, completing applications, and improving interviewing techniques). Job maintenance and enhancement skills such as problem solving techniques, teamwork application situations, and self-management skills will be discussed.
FOREIGN LANGUAGE

It should be noted that some colleges/universities now recommend but may not require foreign language prior to admission. Students are encouraged to check current college catalogs for specific information. In many cases colleges/universities require some foreign language or an intercultural focus class before granting a degree. Contact the counselor or specific colleges/universities for individual and specific requirements.

*SPANISH I

Grades 9 - 12 Year

Spanish I is an introductory course to the Spanish language. We will study vocabulary, grammar, and culture utilizing reading, writing and listening skills. This course requires strong memorization skills as we build a foundation of vocabulary and grammar. Recommended for college-bound students but open to all interested students.

*SPANISH II

Grades 10 - 12 Year Prerequisite-Spanish I

This is an intermediate level course designed to continue acquisition of the Spanish language through vocabulary and grammar. Listening, speaking, reading and writing skills will continue to be developed. Culture will be explored through films and projects.

*SPANISH III

Grades 11 & 12 Year Prerequisite: Spanish I, II

Spanish III is the 3rd level of language instruction that builds on previously learned material and expands into the unexplored areas of grammar and vocabulary. More advanced levels of reading and writing will be undertaken and a consistent oral/listening format in the target language will exist in the classroom. Journal writing, projects, and portfolios will enable the student to explore the culture and language in a variety of ways beyond the textbook format.

*SPANISH IV

Grade 12 Year Prerequisite: Spanish I, II, III

This advanced level foreign language class continues the acquisition of written, oral and listening skills. Advanced grammar concepts will be explored as well as emphasis placed on listening to and orally using these concepts.
HEALTH SCIENCE

HEALTH I

Grade 9 (Required)  Semester

Health I introduces the students to a variety of Health topics and terminology’s. With a great variety of sources for Health information available, the course will help the student to sort out and use reliable information.

The topics covered are: healthy choices, mental health, infectious and noninfectious diseases and disorders, personality and behavior, life cycle, medicines and drugs, first aid and safety, and environmental health. Students will learn to differentiate between healthful and harmful behaviors. Through the facts learned in class, the students will have the skills to promote a healthy lifestyle for themselves.

HEALTH II

Grade 11 (Required)  Semester

A person is composed of physical, mental, emotional, imaginative, intuitive and spiritual parts. Good health behaviors not only prevent illness, but also improve the way one interacts with others and thinks about oneself. This course takes a holistic approach for wellness that emphasizes the decision-making process. Areas of study shall include personal health, food and nutrition, environmental health, safety and survival skills, consumer health, family life, human growth and development, substance abuse, use and non-use, emotional and social health, health resources, and prevention and control of diseases, which includes STD's and AID'S.

PHYSICAL EDUCATION

PHYSICAL EDUCATION

Grades 9 - 12  8 semesters-required by state  (0.5 credit per year)

The goal of Physical Education is to promote fitness in a recreational atmosphere. Students will gain knowledge and skills through a variety of activities. These activities can be used throughout a person's life. A healthy body promotes a healthy mind.

The activities included in the 9-12 Physical Education program are: personal fitness, weight training, golf, flag football, eclipse ball, indoor soccer, Frisbee activities, volleyball, softball, badminton, indoor tennis (pickle ball), Ping-Pong, hockey, roller skating and others. Class is graded on a P/F basis and is not figured into the student's cumulative G.P.A.
INDUSTRIAL TECHNOLOGY

INTRODUCTION TO INDUSTRIAL TECHNOLOGY
(Previously titled Exploring Technology)

Grades 9 - 12  
Prerequisites: None

Class Size Limit: 12  
Semester

This course is a prerequisite for any other Industrial Technology class taken in the North Linn Industrial Technology area.

This class is designed to give students a basic introduction and overview to the topics available within the Industrial Technology Department at North Linn. It would allow students the ability to engage in almost all areas of study offered in the department. These areas include manual drafting, CAD, a 3D drafting program, blue print reading, wood working, metal working, construction, as well as an energy and power unit involving CO2 cars. Students will spend approximately three to four weeks per unit. All units include safety, hands-on work, and a project.

Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.

DRAFTING TECHNOLOGY I

Grades 9 - 12  
Prerequisites: Intro to Industrial Technology (Helpful but not required)

Class Size Limit: 12  
Semester

This course is designed to give students an introduction to manual drafting, Computer Aided Drafting (CAD), as well as a 3D drafting program such as Google Sketch Up. There will be five main units of instruction including orthographic, isometric, architectural, computer aided drafting or CAD, and 3Dimensional drawing.

The manual drawing portion of this class, orthographic and isometric drafting, is merely a review to re-introduce tools used in drafting and drawing types. The remainder of the class will focus on the 2D and 3D drawing program Google Sketch Up. This program will be primarily used to introduce students into the basics concepts of how 3D drawings work, differentiated 2D and CAD programs, and will allow students to construct real life items to scale with ease. The

Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.
CONSTRUCTION MATERIALS PROCESSING
(Previously titled Woods Technology I)

Grades: 9 - 12  
Prerequisites: Intro to Industrial Technology

Class Size Limit: 12  
Semester

This course is designed to give students an introduction to the basic study of wood working and the tools used. Students will be focusing on shop safety, machine operation, and hand tools. Students will also learn about specific types of wood, wood joinery, machinery, equipment, and other wood working terminology.

A required project is made by each student where they will use most of the machines in the woodshop area. Students will learn how to make a set of working drawings, materials list, plan of procedure, and a bill of materials for each project completed.

Students must also make a project using the wood lathe. Students are responsible for the cost of any project. If this may be a problem, be sure to talk to the teacher ahead of time.

Class time permitting, students may choose a second project to build with the instructor’s approval.

Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.

ADVANCED CONSTRUCTION MATERIALS PROCESSING
(Previously titled Woods Technology II)

Grades: 10 - 12  
Prerequisites: Intro to Industrial Technology  
Construction Materials Processing I

Class Size Limit: 12  
Semester

This course is designed for students who show advanced skills in wood working. They may be planning to make a career in the woods or construction area. Students will use their skills to plan, design, and construct an individual project. Students are responsible for the cost of all projects. If this may be a problem, be sure to talk to the teacher ahead of time.

All projects are subject to instructor’s approval and guidelines. Students will re-visit how to make a set of working drawings, materials list, plan of procedure, and a bill of materials for each project completed as well as a 3D drawings. Students are also required to make at least one project using the dovetail jig. Time permitting students may choose a second project to build with the instructor’s approval.

Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.

This class may coexist with Construction Materials Processing.
CONSTRUCTION TECHNOLOGY

Grades: 10 – 12 Prerequisites: Introduction to Industrial Technology

Class Size Limit: 12 Semester

This course is designed to give students an introduction to construction systems in today’s society. Students will be responsible for the construction of group project(s) built throughout the semester. The project(s) will be determined by the needs and wants of the class, community, and school district as well as the experience of the classmates involved.

Examples of the types of projects may include but are not limited to: concrete work including sidewalks or patios, shelters, dog houses, school projects, and portable utility sheds or garden sheds. There will be a wide range of topics from concrete construction, rough framing construction, roofing construction, interior construction, electrical, HVAC, fine finish carpentry, and other topics involved within the construction field.

Should specific projects not be available, students will still have access to a module style of learning. For example, students might be able to learn how to apply roofing materials on a small movable portion of a roof that is in the North Linn shop. Or they may be able to learn how to wire up common household outlets, lights, and switches in a mock wall design.

Most assessments are done in class and are based on work completed, 21st century skills, employability skills, and other skills as determined by the instructor.

METALS TECHNOLOGY I

Grades: 10 - 12 Prerequisites: Intro to Industrial Technology

Class Size Limit: 12 Semester

This course is designed to give students an introduction to the basic studies of metal working and welding. This course also gives an overview of the practical and usable metal working techniques that may be further excelled and used around the house, farm, or on the job.

Basic units to be covered by each student include but not limited to: shop safety, hand tools, sheet metal work, shielded metal arc welding (SMAW or Arc), gas metal arc welding (GMAW or MIG), oxy-acetylene welding (OAW), and oxy-acetylene cutting and plasma cutting.

Time permitting: students may build a small metals project. Students will use their skills to plan, design, and construct a small individual project. Students are responsible for the cost of that project. If this may be a problem, be sure to talk to the teacher ahead of time.

Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.
METALS TECHNOLOGY II

Grades: 10 - 12  
Prerequisites: Intro to Industrial Technology  
Metals Technology I

Class Size Limit: 12  
Semester

This course is designed for students who show advanced skills in metal working. They may be planning to make a career in the metals or manufacturing areas such as a machinist, tool and die maker, pipe fitter, welder, sheet metal worker, factory worker, commercial construction worker, with many other career options available. Students will use their skills to plan, design, and construct an individual project. The student will be responsible for the raw material costs of this project however they have access to all of the Industrial Technology Department tools and equipment. This project may be built so long as it meets instructor’s guidelines.

Students will learn how to make a set of working drawings, materials list, plan of procedure, and a bill of materials for each project completed. As well as design a 3D drawing of what the project will look like.

Students will also be required to complete a welding unit focusing on TIG welding. There are chapters and specific welds to be completed in order to complete the unit. The student will use this to weld mild steel as well as aluminum.

Students will also be required to complete a foundry and metal lathe unit. The students will be responsible for the construction of an aluminum hammer with uses of the foundry and the metal lathe for parts production.

Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.

This class may coexist with the Metals Technology I class.

AUTO MAINTENANCE/SMALL ENGINES TECHNOLOGY

(AM&SE)

Grades 10 - 12  
Prerequisites: Intro to Industrial Technology  
Metals Technology I

Class Size Limit: 12  
Semester

This course is designed for students interested in learning how to maintain and service an automobile. They will learn how to change oil and filter as well as other lubrications, changing tires, spark plugs, winterize, and other common routine maintenance procedures. Other topics that may be discussed include but not limited to electrical systems, power train systems, break systems, and carburetion systems. Students should have access to an automobile to perform these procedures on throughout the semester. This class is a good course for anyone who drives an automobile. (Note: Students not having a car of their own may still take the class, but are responsible for having or getting a vehicle to perform certain tasks on/with for credit.)
Students will also have an opportunity to learn the care, operation, adjustment, and repair of small 2-cycle and/or 4-cycle engines. These small engines are present on all types of equipment from lawn mowers, go-carts, weed eaters, chain saws, four wheelers, dirt bikes, and other small equipment from around the house or farm. Students will be encouraged to have a small engine to work on or re-build during class. If possible a Briggs & Stratton because of the service manuals we have available to us, but students are not limited to this particular brand.

Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.

**Concurrent enrollment courses offered through Kirkwood Community College and North Linn.**

Students who complete the following classes successfully will earn both North Linn credit as well as Kirkwood Community College credit. This is an ideal way to start earning college credit in high school. *Up to 11 credit hours can be earned.*

Below are recommendations from Kirkwood Community College faculty that list what students should have as prerequisites prior to taking any of the concurrent enrollment credit classes. By taking these classes, students are able to receive credit from both North Linn High School and Kirkwood Community College. *(Reminder: These are merely recommendations.)*

*Prerequisite:* junior or senior standing, Construction Materials Processing (*Woods Technology I*), Metals Technology, and Construction Technology. Courses in math and science are highly recommended including Algebra, Geometry and Trigonometry. Other classes such as an applied math class with problem solving are also recommended.

*Students must successfully complete courses in order to receive credit at KCC.*

*Mr. Corkery can help answer any questions about the Kirkwood concurrent enrollment classes.*

**ARCHITECTURAL PLANS AND SPECS** *(Kirkwood Number CON-116 2 Credit Hours)*

Grades 10 - 12

| Prerequisites: Intro to Industrial Technology |
| Construction Materials Processing I |

Class Size Limit: 12

Semester

This is a dual credit course through Kirkwood and North Linn that introduces the skills and methods for reading, understanding, and interpreting construction drawings, blue prints, and technical specifications for residential and commercial buildings. This course will have an online component. Knowledge of a computer will be necessary for all testing and daily classroom activities. Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.
BUILDING CONSTRUCTION SYSTEMS I (Kirkwood Number CON-311 3 Credit Hours)

Grades 11 & 12

Prerequisites: Intro to Industrial Technology
Construction Materials Processing I

Class Size Limit: 12

Semester

This is a dual credit course through Kirkwood and North Linn that introduces the materials, methods, and terminology used in modern construction. The class is classroom based and focuses on general knowledge in a broad range of systems and the coordination requirements between those systems. This course will also have an online component. Knowledge of a computer will be necessary for all testing and daily classroom activities.

Most assessments are done in class and are based on work completed, employability skills, and other skills as determined by the instructor.

RESIDENTIAL CONSTRUCTION LAB (Kirkwood Number CON-190 3 Credit Hours)

Grades 11 & 12

Prerequisites: Intro to Industrial Technology
Construction Materials Processing I
Building Construction Systems I
Architectural Plans & Specs.

Semester

This is a dual credit course through Kirkwood and North Linn taken at the Linn Regional Center that introduces the skills and methods for understanding and interpreting residential construction drawings and technical specifications for residential and commercial buildings. This course the hands on portion not offered in BCS1.

This class is to be taken at the Kirkwood Linn Regional Facility in Hiawatha, Iowa

COMMERCIAL CONSTRUCTION LAB (Kirkwood Number CON-272 3 Credit Hours)

Grades 11 & 12

Prerequisites: Intro to Industrial Technology
Construction Materials Processing I
Building Construction Systems I
Architectural Plans & Specs.

Semester

This is a dual credit course through Kirkwood and North Linn taken at the Linn Regional Center that is designed to give students an introduction to commercial construction in today’s society. Students will be introduced to lab experience in tool and equipment use, and basic commercial construction procedures. The class focuses on safety and foundational elements in a variety of systems. Hands-on lab activities include foundations, floor and wall systems, concrete, masonry, plumbing, HVAC and electrical.

This class is to be taken at the Kirkwood Linn Regional Facility in Hiawatha, Iowa
INDUSTRIAL TECHNOLOGY

Program of Study Sequence

A.C.E. Program of Study- Architecture, Construction and Engineering

Career Academy Sequence:
Introduction to Industrial Technology
Construction Material Processing
Advanced Construction Material Processing
Construction Technology
Architectural Plans and Specs (@NL)
Building Construction Systems (@NL)
Residential Construction Lab (@KCC)
Commercial Construction Lab (@KCC)

Other Available Classes:
Auto. Maintenance and Small Engines
Drafting Technology I
Adv. Construction Material Processing II
Metals Technology I
Metals Technology II
Metals Technology III
ENGLISH 9

Grade 9 (Required) Year

English 9 focuses on reading, writing, speaking, viewing, and listening. The writing and speaking unit includes work on grammar skills and the writing process. Writings include journal entries, essay writing, and personal narrative. Some work on grammar and usage will also be included in the writing skills. Speeches are personal experience and research based. The literature unit includes several essays, biographical excerpts and short stories. Based on their reading levels students also read a novel which could be one of the following: *A Wrinkle in Time, When the Legends Die, or Fried Green Tomatoes*. A class reading of *Romeo and Juliet* will follow research and presentations on the Shakespearean time period. Viewing activities will focus on excerpts from movies and everyday television to build observation and analytical skills. Additionally this class will work on reading and test taking strategies.

READING ENHANCEMENT I

Grades 9-12 Year

This course is an elective credit first semester; however one English credit will be given second semester if both semesters are completed successfully.

Reading Enhancement is a course that teaches and helps students utilize strategies for improving their reading comprehension, vocabulary, and fluency. Strategies are introduced and practiced using a common text but with the goal of students being able to transfer the strategies to their content area class work. Grades are based on weekly reading logs, weekly vocabulary lists, participation in class activities, and book credits earned through the reading of novels chosen by the students.

ITED (Iowa Tests of Educational Development), MAP (Measures of Academic Progress) test data, and COMPASS (College Placement Test) are part of the criteria for admission into this class. Parents of students recommended for this class will receive a notification letter in late spring regarding their child’s enrollment in this class.

ENGLISH 10

Grade 10 (Required) Year

English 10 emphasizes writing and speaking coherently and effectively. The following units will be covered: Vocabulary, a novels unit of *To Kill a Mockingbird*, individual reading and responding to both, literature and modern issues, creative writing, techniques in their own writing, students will learn and practice the fundamentals of public speaking and will organize and present an informative, demonstrative, and persuasive speech.
READING ENHANCEMENT II

Grade 10-12 Year

This course is an elective credit first semester; however one English credit will be given second semester if both semesters are completed successfully.

Students who continue to score below a certain level based on ITED and MAP data will be recommended for admission to year two of the Reading Enhancement program. This class will focus on review of reading strategies learned and practiced in the previous year. However, the goal in this class will be to help students on a more individual basis identify their reading problems and the strategies that will work best for them as they tackle content area reading assignments. Grades are based on weekly reading logs, weekly vocabulary lists, participation in class activities, and book credits earned through the reading of novels chosen by the students.

Iowa Assessments and MAP (Measures of Academic Progress) test data are part of the criteria for admission into this class. Parents of students recommended for this class will receive a notification letter in late spring regarding their child’s enrollment in this class.

*AMERICAN LITERATURE

Grade 11 & 12 Semester

Our course of American Literature consists of a survey of American Literature including Colonial writings going through contemporary writing, such as texts like The Crucible. The main text used is McDougal Littel. Other writings from important periods in American History will be used to supplement the main text. The course includes continuation of vocabulary building, development of literary terms, and some analytical writing.

APPLIED COMMUNICATION

Grades 11 & 12 Semester

The purpose of this course is to develop employability and communication skills. The course will help increase the basic knowledge necessary to succeed in the adult roles. The course will require hands-on activities and projects such as resume’/cover letter building, interviewing, communication through social networking, and developing business through advertisement. The course will help students gain the skills necessary to be successful communicators as employees in the workforce.
BASIC COMPOSITION

Grades 11 & 12 Semester

Students will study and write several types of essays. These will include autobiographical narrative, extended definition, problem solution essay, editorial, book review, and historical research report. The main focus of the writings will be organization and development of ideas and clarity of expression.

Before each writing the class will do in-depth study and analysis of each type of essay. Models will be examined to help determine how each writing should develop.

Incorporated with the writing study will be implementation of the writing process as well as ongoing tutoring on grammar and punctuation skills as needed by individual students. Outlines of ideas will precede each writing. Other skill work will include work as necessary on sentence and paragraph structure, correct word usage, and clear expression of ideas.

COMMUNICATION IN SOCIETY

Grade 11 & 12 Semester

The goal of this course is to increase students’ writing, reading, and communication skills through the use of contemporary literature, a focused research project, debates, and instruction on speech communication.

The course will require engagement with reading, constructive participation and presentation, self-reflection, the practices of research, and appropriate levels of writing competency. Students will also spend time learning the intricacies of preparing, outlining, and delivering a speech.

*CREATIVE WRITING

Grades 11 & 12 Semester

Creative Writing is a course designed to build an environment where noticeable creative language growth occurs. A workshop format is used to help students explore their experiences and the experiences of others. Creative writing in this workshop requires more than mere creativity, it also requires determination, self-discipline and respect for others.

Some of the topics that will be covered in Creative Writing are poetry (limericks, haiku sonnets, free verse and other forms), short stories, fables & children stories, and a feature story. Emphasis on structure, proofreading and revising will help the student with development of style. In class group evaluation is an important follow-up activity. Some of the writing can be completed or at least begun during class time, but revision outside of class will be expected.

This course will help fulfill the college recommendation that a student have at least one year of writing.
*ENGLISH LITERATURE*

Grades 11 & 12 Semester

A chronological survey of English Literature beginning with Anglo-Saxon times up through the Victorian Age including some modem English Literature. The text is "English Literature," by McDougal Littell. The course will include historical material and some outside reading from the periods and other related reading. Content varies slightly with the enrollment. Several of the readings may include *King Arthur*, *Macbeth*, and a novel by an English author.

*EXPOSITORY WRITING I*

Grades 11 & 12 Semester

"B" average in English is required to take this course.

Expository Writing helps students determine when to select specific oral and written forms for real life situations such as academic, business, and personal. A variety of writing forms will be addressed. Students will also have extensive work on grammar and writing mechanics in relation to their writing. Students will be expected to write both in and out of class.

This course will help fulfill the college recommendation that a student have at least one year of writing.

*EXPOSITORY WRITING II*

Grades 11 & 12 Semester Prerequisite: Expository Writing Instructor Approval

Students will broaden their expository writing skills by working on independent projects. With the assistance and approval of the instructor they will be responsible for planning and completing from two to six independent projects during the semester. The number of projects completed will be determined by the depth of the project.

This class is limited to students who have demonstrated consistent high levels of skill in writing and in time management.
*PUBLIC SPEAKING*

Grade 12

(11th grade may register for this course in the spring)

Speech Communications is an introduction to several communication areas including verbal, non-verbal, interpersonal, and listening communication. The class format includes one quarter of lecture/notes/exams over the various kinds of communication. The other quarter of the semester is devoted to public speaking where students will gradually move from simple personal experience speeches to a final persuasive speech.

This is a recommended college prep class. However, this class allows for many abilities and is flexible enough to appeal to both college and non-college bound students. Recommended limit of 15 students

*RESPONDING TO MODERN TOPICS*

Grades 11 & 12

This English course will have students read, write, speak, and listen in response to modern topics. The class activities will include:

A class novel which will allow students to explore the connections between an earlier time and teen issues of today

A non-fiction book done in a literature circle format will have students choose a book and then explore the topics/issues raised. In this unit, students will also explore the areas of group communication and using technology as they develop a multi-media/PowerPoint presentation exploring the author’s purpose/themes and explain the issues discussed and how they might impact young people today.

Students will develop their cultural/global literacy through class and small group discussion of issues in the news. Local and regional newspapers as well as Scholastic’s *Upfront* magazine will be resources for weekly discussions.

Students will explore ‘Epistolary Writing’ and then write/revise/analyze their own epistles in the form of personal and business letters; a letter to the editor; weekly blog posts; and analysis of emails, texts, and social network postings.

Students will be required to post/comment to the class blog.

Students will review/explore/write in the essay genre. Over the course of the semester students will take ideas from the class novel; nonfiction books; blog posts; current event discussions, etc. and develop two major essays. One will be an evaluation essay and the other will be a personal essay.
*WORLD PERSPECTIVES*

Grades 11 & 12  
Semester

World Perspectives is a course designed to familiarize students with the great ideas of a variety of peoples through time. Students will develop a heightened awareness of and an appreciation for other cultures and worldviews, while at the same time, students will discover the similar experiences that people share from nation to nation and from era to era.

Students will be expected to complete several short writing assignments, along with daily homework assignments over the reading. This is a literacy survey course, some of the topics covered will be: world myths and folktales, Chinese/Japanese literature, African literature, Middle East/Ancient literature, Persian/Arabic literature, Indian literature, and a few other genres.

*ADVANCED COMPOSITION*

Grade 12  
Semester

Suggested MAP RIT: 225 or higher.
Course examines and utilizes the writing process for summaries, a variety of essays including comparison, classification, definition, evaluation, a book review, a literary analysis, and, a research paper using MLA & APA formats. Course includes review of sentence and paragraph structure and grammar usage as necessary. There is also a heavy concentration on vocabulary. This is a recommended college prep class.

*ADVANCED PUBLIC SPEAKING*

Grade 12  
Semester

Advanced Public Speaking allows students to explore additional speech activities including family narratives; writing/speaking in another voice, gender, medium; group/panel discussion; expository speaking; individual/group oral interpretation; and possibly debate, broadcasting, or National Issues Forum. A deeper understanding of the public communication process and the ability to approach speaking situations with more confidence are objectives of the course. Recommended limit of 10-12 students.
**MATHEMATICS**

**PRE-ALGEBRA**  
*This class does not meet core requirements for college entrance.*  
Grades 9 - 12 Year  

*MAP RIT: 225 or above.* This class involves basic concepts such as percents, fractions, metrics, volume, and area and progresses toward basic algebraic functions.

**ALGEBRA I**  
Grades 9 - 12 Year  

Algebra I should be a minimum course for most students planning on continuing their education after high school. Student involvement and methods include problem solving, practical applications, computers, calculators, reading, integrated reinforcement, science, and goals aligned with the National Math Standards. Topics covered include fundamental Algebra concepts, linear operations, exponents, graphing, polynomials, systems, quadratic equations, and functions.

**GEOMETRY**  
Grade 10 - 12 Year Prerequisite - Algebra I  

*MAP RIT: 245 or above.* During the course of the year, you will learn and use direct, indirect, deductive and inductive reasoning. You will be learning how to write a variety of proofs, do constructions, work with area, volume, and many other formulas with two-dimensional and three-dimensional objects. Students will need graph paper.

**ALGEBRA II**  
Grades 10 - 12 Year Prerequisite - Geometry  

Algebra I, Geometry, and Algebra II are usually required for College admission. Student involvement and methods include problem solving, practical applications, computers, calculators, reading, integrated reinforcement, science, and goals aligned with the National Math Standards.

Topics include variations, matrices, systems, conic sections, powers and roots, logarithms, polynomials, quadratics, dimensions, and space. It is recommended to purchase a Texas Instrument calculator (TI-84) especially if you plan to take Pre-Calculus and/or Calculus. Suggested MAP RIT: 250 or above.
**PRE-CALCULUS**

Grades 11 & 12  

Pre-Calculus is a study of advanced math topics beyond Algebra. Included are linear, power, rational, exponential, and logarithmic functions, trigonometry, systems of equations, vectors, sequences, series, probability, statistics, and an introduction to calculus.

**STATISTICS & PROBABILITY**

Grades 11 & 12  

This class is the study of basic statistics and probability. Some topics included are: analyzing data, representing data in different types of charts and tables, measures of central tendencies, regression lines and correlations, combinations, permutations, and an intense study of probability.

**AP CALCULUS**

Grades 11 & 12  

This course is a study of advanced math concepts. The main focus of the course will be limits, derivatives, and integrals of elementary functions and their applications. This class is recommended for students planning to take math, science, or engineering in college. At the completion of the class, students will have the opportunity to take the AP Calculus Test for college credit. Graphing calculators will be needed for this class (TI-83 or above is recommended).

**BASIC BUSINESS MATH**

Grades 9-12  

This class does not meet core requirements for college entrance.

Basic Business Math will deal with business skills needed by students in their everyday living. This will include instruction in basic computation, fractions, decimals, percents, budgets, and checking and savings accounts. A calculator will be needed in the class. Enrollment is restricted to students recommended by staff, or students with an IEP.
PERSONAL BUSINESS MATH

Grade 9-12 Year

This class does not meet core requirements for college entrance.

Personal Business Math will emphasize the areas of math dealing with everyday living skills. Some of the areas that will be taught will be the earning of money, budgeting, banking, taxes, the buying of clothing, food, and a car. A calculator will be needed for the class. Enrollment is restricted to students recommended by staff or with an IEP.

GENERAL MATH

This class does not meet core requirements for college entrance.

Grades 9-12 Year

General math will emphasize the very basics of all maths. Addition, subtraction, multiplication and division are included. Learning to do these functions easily and successfully will be taught before anything else. Other areas that may be covered are: whole numbers, fractions and decimals. If appropriate level based on MAP RIT scores and Instructor recommendations.

LINEAR ALGEBRA (BUSINESS MATH)

This class does not meet core requirements for college entrance.

Grades 11 & 12 Year Pre-requisite – Algebra I

This course is designed to teach students to solve everyday personal and business problems. Subject matter consists of: Investments, Expense and Revenue Analysis, Bank Accounts and Interest, Loans and Credit, Transportation Costs, Income and Benefits, Taxes, Costs of Living Independently, Planning for Retirement, and Preparing a Budget. This class uses concepts from Algebra such as solving equations and graphing. Students will frequently make use of a graphing calculator.
INSTRUMENTAL

Grades 9 -12 Year

Band offers many musical activities and experiences during the year. Some of these include Marching Band (performances at all home football games), Concert Band (performances at Winter Concert, Spring Concert, End of Year Concert, State Large Group Festival and any other community events), Jazz Band (performances at concerts and festivals), Pep Band (entertain at all home basketball games and some wrestling meets), and Solo and Ensemble events (for community groups and state contest). Students must be enrolled in Band to participate in these events.

Students will be graded on performances, lessons and participation. This grade is calculated into the student's G.P.A.

VOCAL

Grades 9 - 12 Year

Vocal Music is a yearly course for students to study and perform a wide variety of music, musical styles, and techniques. All who enroll in Vocal Music are eligible to audition for the North-Linn Chamber Singers.

Annual choral activities include: Dorian Festival, Meistersingers, All-State, Solo and Ensemble Contest, Tri-Rivers Conference Music Festival, Mid-Winter Concert, Spring Concert, and Variety Show. All students in the school may audition for a spot in the Variety Show even if they are not enrolled in Vocal Music.

Students in Vocal Music must take weekly voice lessons. Grading will depend upon such factors as performance, attendance, and participation. This grade will be figured into the student's G.P.A.
MUSIC THEORY I

Grades 11 & 12 Year

Prerequisites: 2 years of previous enrollment in either High School Band or Choir, as well as concurrent enrollment in High School Band and/or Choir.

Music Theory is a year-long, independent study for those music students who wish to gain understanding of music theory, history and ear-training. This course begins with a short review of basics, key signatures and note values; then moves to harmonic analysis and composition. The course will be taught much like a first year college music theory course, introducing the student to musicianship, theory, aural skills, and procedures.

Musicianship skills such as melodic and harmonic dictation, sight-singing, and keyboard knowledge are an important part of the course. The student’s ability to read and write music is fundamental to the course, and it is assumed that the student has adequate performance skills in voice or on an instrument.

Students interested in Music Theory I are encouraged to speak with a Band or Choir teacher before signing up.

MUSIC THEORY II

Grade 12 Year

Prerequisite: Successful completion of the Music Theory I course and concurrent enrollment in High School Band and/or Choir

Music Theory II is a year-long, independent study for those music students who wish to gain deeper understanding of music theory, history and ear-training. This course is especially recommended for students interested in pursuing a career in music performance or music education.

Students interested in Music Theory II are encouraged to speak with a Band or Choir teacher before signing up.

At the culmination of the second semester each student will have to write their own 32 measure composition.
SCIENCE

*PHYSICAL SCIENCE

Grade 9 (Required) Year

Physical Science is a required course. This course emphasizes basic concepts of the scientific method, chemistry, physics, and earth science as they apply to life events as well as an introduction and background for upper level physical science coursework. Specific topics covered include: measurement, laws of motion, energy and work, thermal energy, properties of solids, liquids and gases, the composition and classification of matter basic to chemistry, sound and light, electricity, and the formation of the earth and our solar system.

Laboratory work and demonstrations are associated with the above topics. Some basic mathematical calculations relative to course topics are included throughout the year.

*BIOLOGY

Grade 10 (Required) Year

Biology is the study of living things, with an emphasis and appreciation for all life and how living things interrelate.

1st semester: A study of cells and their life activities, including representative, one-celled types and the technology and skills necessary to observe them, occupies the first quarter. Biology has many areas and offers future job opportunities. Botany occupies a large part of this term.

2nd semester: An integrated study of Invertebrates and Vertebrates with the emphasis on the complexity of accomplishing the activities of life, a study of diseases which may occur and an understanding of how we and other Vertebtrates fit into the environment.

ENVIRONMENTAL SCIENCE

Grades 11 & 12 Year Suggested: Biology

This course will cover major environmental issues. Topics will include local plants and animals, ecosystems, endangered species, conservation of natural resources, pollution and population. Consideration will be given to both the history of the environmental movement as well as current topics.
*CHEMISTRY*

Grade 11 & 12          Year

Chemistry reaches into almost every area of our lives. As we increasingly become dependent on technology, more decisions will involve scientific concepts and consequences. Chemistry is a study of the substances in our world, what they are made of and how they act and interact with each other. The purpose of this course is to help students learn the basic concepts of chemistry to prepare them for future technical or college programs which require an understanding of the fundamentals of chemistry.

The First semester topics include matter and energy, properties of matter relative to the periodic table, atomic and molecular structure, common elements, compounds and their formulas. The second semester topics include chemical measurement and calculation, chemical formulas and equations, calculations involving molecular mass, solutions, equilibrium, acid-base concepts, oxidation reduction reactions, qualitative analysis, and an introduction to organic chemistry.

Laboratory work and demonstrations are associated with the above topics.

Passing a year of Algebra I is strongly suggested before taking Chemistry. Carefully check your post high school education course requirements regarding required and recommended science courses.

*HUMAN ANATOMY & PHYSIOLOGY*

Grade 11 & 12          Year

1st semester: Living systems are composed of chemical units which function according to basic principles. Organic compounds such as fats, proteins, carbohydrates, DNA-RNA, living cell, and pH-pH systems are studied. The continuity of life, Genetics/Heredity, is investigated, concentrating on the following concepts: genetic material, genetic traits, laws and principles, genes in human populations, disorders and normal inheritable characteristics.

2nd semester: Anatomy and physiology of man, using vertebrate dissection specimen for lab investigation. Independent work is required of each student in completing lab assignments.

It is strongly recommended that students considering careers in medical related fields should have taken Chemistry prior to this class.
*AP BIOLOGY

Grade 12                     Year

This course is designed to be the equivalent of a college introductory biology course usually taken by biology majors. Three general areas are covered: Molecules and Cells; Heredity and Evolution; and Organisms and Populations. This course has two main goals - to help students develop a conceptual framework for modern biology and to help students gain an appreciation of science as a process.

AP Biology is designed to be taken by students after successful completion of courses in high school biology and chemistry. If students choose they may take the AP exam in May and possibly receive college credit; depending on the institution.

*AP CHEMISTRY

Grade 12                     Year

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. AP Chemistry should meet the objectives of a good college general chemistry course. Students in such a course should attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. The course should contribute to the development of the students’ abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic.

The college course in general chemistry differs qualitatively from the usual first secondary school course in chemistry with respect to the kind of textbook used, the topics covered, the emphasis on chemical calculations and the mathematical formulation of principles, and the kind of laboratory work done by students. Quantitative differences appear in the number of topics treated, the time spent on the course by students, and the nature and the variety of experiments done in the laboratory.

While NL high school science credit is given for completing AP Chemistry, college credit for the course varies by institution and by score on the AP Chemistry exam administered in May. Students are highly encouraged to take the AP exam, but it is not required. The exam is scored on a scale of 1-5. Currently as an example, if you score a 4 or a 5 on the exam, Iowa State University awards 9 credit hours of chemistry- both freshman level introductory chemistry classes for Chemistry majors and their corresponding labs (Chem 177, 177L, 178, and 178L). Some colleges offer a lesser amount of credit for a 3. A score of 1 or 2 is not considered passing.

****The AP Chemistry course is designed to be taken only after the successful completion of a first course in high school chemistry

Prerequisites: Complete chemistry and algebra II. Students should also possess a graphing scientific calculator such as a TI-84 or a TI-nSpire CX. In addition to class time, students should be able to allocate no less than 5 additional hours each week outside of class for individual study time.
A study of physics and its applications is basic and vital to all students, whatever their educational goals. This course also provides students with a background for technical or college programs which require an understanding of the fundamentals of physics while still providing an opportunity for the general education student to learn the basic science principles in this area of physical science. Many lab activities and demonstrations relating to everyday applications of physics supplement the solving of problems related to the various physics topics. The first semester topics include: force and motion, work, power, energy, heat and temperature.

The second semester topics include: wave motion, sound, light, reflection and refraction, electrostatics, direct and alternating current electricity, astrophysics, and selected astronomy topics. Passing a year of Algebra I is strongly suggested before taking this class.
SOCIAL SCIENCES

*GEOGRAPHY 9

Grade 9 (Required) Semester

Geography teaches students about the world in which they live. It focuses on space, resources, and people. In this course students will practice basic map skills. A great deal of emphasis will be placed on teaching basic principles and concepts that will allow students to move to a higher, more concentrated level of Geography study. Geography will also study such things as population distribution, resources of various areas, and their uses, transportation and communication, and the impact of people on their environment. Students will gain exposure to the geographic development of the United States, Canada, and other countries. Students will also learn to use maps and graphs to gain a better understanding of Geography.

*WORLD HISTORY

Grade 10 (Required) Year

The first semester of World History will include the study of pre-history: the River Valley Civilizations; Ancient Greece & the Hellenistic Period; the Roman Empire; the Byzantine Empire; the Middles Ages, the Renaissance and Reformation. Students will write two to three research papers and present these papers to the class and teacher.

The second semester of World History will include the study of the Age of Revolution; American Revolution; French Revolution; the Napoleonic Age; the Enlightenment, the Age of Reason; the Industrial Revolution; the unification of Germany; the unification of Italy; Imperialism; World War I; the Russian Revolution; Fascism; World War II; and the Cold War. Students will write two to three research papers and or projects and present these papers or projects to the class and teacher.

CONTEMPORARY ISSUES

Grades 11 & 12 Semester

Contemporary Issues will focus on current events both nationally and internationally. Students will view various news programs throughout the course while focusing on specific themes throughout the semester. Themes will focus on both national and worldwide trends. Possible themes for discussion are: The American Family, Violence in America, Professional Sports in America, International Relations, The Environment, Issues in the Workplace, Teens and Alcohol, Teens and Drugs, Gambling, Role Models in America and Abroad, Abuse, Teenage Pregnancy, and others. Grading will be determined by student awareness of the issues and news discussed in class, therefore
attendance will be very important to be successful in this class. The course is open to juniors and seniors.
*AMERICAN HISTORY*

Grade 11 (Required) Year

American History will be a discussion and analysis of historical events that took place in the United States from 1865 to present. The course will begin with the reconstruction of the Union following the ending of the Civil War. Other topics/units to be discussed will include:

1. Patriotism and Allegiance to a Country and its Veterans
2. Westward Expansion/The Rise of Industry/An Urban Age 1860 to 1900
3. Imperialism 1967 to 1908
4. World War I Era 1914 to 1920
5. The Decade of Normalcy 1920 to 1929
6. The Great Depression 1928 to 1938
7. World War II Era 1933 to 1945
8. The Cold War 1945 to 195
10. Camelot to Watergate 1960 to 1975
11. Search for Solutions 1976 to 1992
12. Toward a New Century 1992 to present

Emphasis will be placed on the cause and effect of each historical event. An attempt will be made to analyze the significance of each event as it relates to modern day events.

*AMERICAN GOVERNMENT*

Grade 12 (Required) Semester

Government is a required year course for seniors. The major function of the different levels of government is covered. Units dealt with are: The Constitution, The Executive, Legislature, Judicial branches of government, the Democratic Process of elections and voting, State and Local government, financing government, and U.S. Foreign relations. The basics of government and the political processes involved are stressed and each student must show a proficiency of the basics. Keeping up on current affairs in the U.S. and the world are stressed. Each student will write two or three research papers and present these papers to the class and teacher.
*ECONOMICS

Grades 12 (Required)  Semester

Economics is the study of how human beings satisfy or attempt to satisfy, their unlimited want with the ever decreasing supply of available resources. Some of the units covered include: (1) production of goods and services (2) distribution of goods and services (3) price determination (4) income distribution (5) money, credit, and banking (6) Supply and Demand and how they relate to one another. Students will write two or three research papers and present these papers to the class and teacher.

*PSYCHOLOGY

Grade 11 & 12  Semester

In psychology students examine the behavior of human beings in an attempt to better understand human behavior. A study of psychology will provide an appreciation of the ways in which the general methods of science can be applied to problems of behavior. As a consequence of their study of psychology students will be likely to accept the sweeping claims and generalizations about human behaviors that are generally made. Students will learn to recognize that many of the motives they attribute to others are really reflections of their own needs and values. As students progress in their study of psychology, they should emerge with an ever increasing appreciation for dignity and importance of man.

*SOCIOLOGY

Grade 11 & 12  Semester

Sociology is the study of man and his interrelationship with his fellow man. It covers how different societies and peoples interact within the main focus of the American society. Topics dealt with shall include man and his culture, the family system, the political system, economic system, the class system and the merging of all these systems to form what we know as the "Human Society."