

ART DEPARTMENT

ART FUNDAMENTALS (50)

elective

1 credit

9,10, 11, 12

The student will:

- * distinguish the use of line, shape, value, texture, and color in works of art
- * produce line drawings using many different materials
- * demonstrate the perspective system by drawing three dimensional shapes
- * compose art works that stress value and texture
- * mix colors based on the color wheel
- * create paintings in watercolor and tempera

ART SURVEY (51)

elective

1 or 2 credits

10, 11, 12

The student will:

- * realistically draw objects, scenes and people using many kinds of drawing materials
- * create several types of colored watercolor paintings
- * analyze how design is used to change things' appearance
- * create pieces of sculpture using papier-mâché
- * demonstrate several forming methods to produce ceramic pieces
- * construct hand lettering calligraphic alphabets and produce graphic works
- * produce prints utilizing several different graphic processes

2 DIMENSIONAL STUDIO (52)

elective

1 or 2 credits

10, 11, 12

The student will:

- * work with several media including pastel, acrylic paint, watercolor & possibly airbrush & oil paint
- * assemble and prepare painting surfaces and critically choose subject matter
- * complete different types of drawings including still life, scenery and people using a wide array of media and materials
- * produce graphic works employing various printmaking processes including silkscreen, woodblock, linoleum, and monoprint
- * perform basic graphic operations on the computer concentrating on Corel Draw and Corel Paint

3 DIMENSIONAL STUDIO (53)

elective

1 or 2 credits

10, 11, 12

The student will:

- * produce several sculptures utilizing a wide range of materials including plaster, wood, papier-mâché and wire
- * learn about historical trends and identify works of famous sculptors
- * utilize all forming methods including the potter's wheel in producing ceramics
- * create both functional and decorative ceramic artwork
- * develop personal style in decorating & glazing

ART WITH THE COMPUTER (54)

elective

1 credit

10, 11, 12

class limit of 15

The student will:

- * create basic shapes and their value
- * add and manipulate text and symbols to work
- * alter shape and perspective of drawn objects
- * create special effects with created forms
- * change and manipulate existing ClipArt images
- * create both fine art and commercial art using computer

INDEPENDENT STUDY IN ART (57)

elective

1 credit

12

The student will:

- * enter the course with the consent of the instructor only
- * obtain an Independent Study Proposal form from the counseling office
- * choose and work in an area of art he/she desires to pursue in depth
- * devote his/her time to a major project or series of projects
- * devote a minimum of one period a day to his/her art work
- * prepare a course of study for the semester in conjunction with the instructor
- * upon completion of the independent study, prepare a written report and/or summary to be given to the instructor along with the finished products

FOREIGN LANGUAGE DEPARTMENT

FRENCH I (61)

elective

2 credits

9, 10, 11, 12

The student will:

- * demonstrate informal and formal greetings, introductions, and leave taking
- * use novice speaking skills in carrying on conversations about one's self (name, place of residence, appearance, age, health, etc.)
- * describe one's home, family, clothing, food, classroom objects, animals, and places using adjectives as appropriate
- * extend, accept and decline invitations
- * demonstrate knowledge of time (i.e. clock time, days, months, seasons, etc.)
- * demonstrate knowledge of basic weather conditions
- * identify likes and dislikes
- * count to one million
- * speak and write using the present tense and its forms
- * identify French-speaking countries throughout the world
- * identify food associated with French-speaking countries
- * demonstrate knowledge of the French public education system
- * demonstrate knowledge of the French monetary system

FRENCH II (62)

elective

2 credits

10, 11, 12

Prerequisite: French I

The student will:

- * communicate in both present and past tenses, both orally and in writing
- * use possessive, demonstrative, direct object and indirect object pronouns
- * use vocabulary associated with shopping, finding one's way around, discussing leisure activities, dining out and planning and preparing food
- * identify geographic features of France
- * locate French-speaking countries on a map
- * demonstrate the preparation of a food associated with French-speaking countries
- * demonstrate knowledge of the French metro system
- * demonstrate knowledge of selected French artists and their works
- * read and discuss items of French realia
- * explore the causes and results of the French Revolution

FRENCH III (63)

elective

2 credits

11, 12

Prerequisites: French I and II

The student will:

- *communicate in present, past, imperfect and future tenses, both orally and in writing
- *use possessive, demonstrative, direct object, indirect object, relative and reflexive pronouns as well as double object pronouns
- *use inversion in the interrogative
- *use vocabulary associated with family relationships, food and restaurants, daily routine, getting around in a city, sports and fitness, careers and medical/dental
- *use comparisons in describing oneself and others, places and things
- *demonstrate recognition of well-known landmarks in Paris
- *present detailed information on a French-speaking city of his/her choice
- *read and discuss items of French literature

FRENCH IV (64)

elective

2 credits

12

Prerequisites: French I, II and III

The student will:

- *communicate in present, past, imperfect, future, conditional and subjunctive tenses, both orally and in writing
- *contrast the imperfect and the *passé composé*
- *use possessive, demonstrative, direct object, indirect object, relative and reflexive pronouns as well as double object pronouns and the pronouns *lequel* and *celui*
- * use comparisons with adverbs and adjectives
- *use superlative constructions
- *use vocabulary associated with leisure activities, music, entertainment; vacation and travel; transportation; sports, fitness; daily routines; clothing and personal appearance; medical and dental care; hygiene and personal care; professions; food; shopping; homes, rooms and furnishings
- *demonstrate the ability to find one's way around the city of Paris (i.e., public transportation, streets, *arrondissements*)
- *demonstrate the ability to live in Paris for an extended period of time (i.e., rent a place to live, shop for life's necessities, dine in a restaurant, find employment)
- *read and discuss items of French literature

AGRICULTURAL EDUCATION DEPARTMENT

The Agricultural Education program is designed to instruct young women and men in and about agriculture, to investigate careers, and to integrate other curricula as students prepare for their futures.

AGRICULTURAL SCIENCE (230)

elective

2 credits

9, 10

The student will:

- *demonstrate problem solving techniques and proper measurement methods in the laboratory
- *explain entrepreneurship and develop an individual SAE program
- *enter a project in the State Agriscience Fair
- *explore the FFA and what it has to offer
- *complete an activity based curriculum on current animal production practices including selection, genetics, reproduction, digestion/growth, and processing
- *understand additional selected topics current and relevant to agriculture and FFA

This course will fulfill a science credit.

All students taking Agricultural Science must also become FFA members

CROP SCIENCE (231)

elective

2 credits

10 (preferred), 11, 12

PREREQUISITE: Starting 2010-11 School Year for EB Principles of Crop Production

The student will:

- *identify soils, soil management, and prepare for the FFA soil judging contest
- *investigate production and marketing techniques for corn and soybeans
- *understand quality and price factors affecting grain crops
- *determine issues affecting natural resources management
- *continue and improve Supervised Agricultural Experience Program
- *understand additional selected topics current and relevant to agriculture and the FFA

All students taking Crop Science must be or become an FFA member

Early Bird ICCC College Credit Class

PRINCIPLES OF CROP PRODUCTION (235)

elective

1 High School credit, 3 semester hours college credit

11, 12

The student will:

- Demonstrate the anatomy, classification and be able to identify plant types
- Explain crop physiology, soil types, and soil waters
- Apply technological advances to tillage, seeding and plant breeding
- Demonstrate seed and grain quality, weed and insect management, crop disease management, harvesting and storing crops

Early Bird ICCC College Credit Class

FARM BUSINESS MANAGEMENT (232)

elective 1 High School credit, 3 semester hours college credit 11, 12

The student will:

- Use basic management skills and to make decisions
- Chart daily markets for crops and livestock
- Acquire resources needed for proper management
- Learn to make decisions in a team setting to carry out operations in chapter test plot
- Develop and use basic accounting and budgeting principles

HORTICULTURE (233)

elective 1 credit 11, 12

The student will:

- * describe plant make-up and plant propagation
- * gain hands on experience in greenhouse management, landscaping, turf grass management, and fruit production
- * grow plants and prepare them for sale
- * produce flower arrangements using basic techniques
- * prepare for FFA floriculture and nursery landscape contests

SMALL ANIMAL AND PET CARE (234) (Max. 16)

elective 2ND SEMESTER ONLY 1 credit 10, 11, 12

The student will:

- * gain hands on experience working with animals
- * work with a variety of animals including rabbits, chickens, turkeys, horses, cats and dogs
- * determine basic animal science principles
- * explore information about animal behavior, reproduction, growth/development, selection, diseases, handling and training

AGRICULTURAL MECHANICS (236)

elective 1 or 2 credits 10,11,12

The student will:

- * demonstrate problem solving techniques and proper measurement methods in the laboratory and shop
- * demonstrate proper safety using all shop tool
- * perform gas and diesel engine repair and maintenance
- * demonstrate installation of simple electrical circuits
- * perform basic plumbing installation
- * be introduced to the various agricultural machines

ENVIRONMENTAL SCIENCE (137)
Elective 1ST SEMESTER ONLY 1 credit 11, 12

This course will fulfill a science credit

The student will:

- Understand basic and advanced concepts of natural resource management
- Test water quality and maintain acceptable levels of concentration
- Care for and maintain aquaculture ecosystem
- Taxidermy a pheasant
- Understand the roll of economics on natural resources
- Work with various alternative energy sources

INDEPENDENT STUDY IN AGRICULTURE (239)
elective 1 credit 11, 12

The student will:

- * enter the course with the consent of the instructor only
- * obtain an Independent Study Proposal form from the counseling office
- * choose and work in an area of agriculture he/she wishes to really explore and pursue
- * devote his/her time to a major project or series of projects
- * devote a minimum of one period a day to his/her agricultural work
- * prepare a course of study for the semester in conjunction with the instructor
- * upon completion of the independent study, prepare a written report and/or summary to be given to the supervising teacher along with the finished product

INDUSTRIAL TECHNOLOGY DEPARTMENT

The Industrial Technology program is designed to instruct young women and men in and about industrial technology and investigate careers in this area.

EXPLORING TECHNOLOGY (200)

elective

1 credit

9, 10, 11, 12

MAXIMUM ENROLLMENT OF 15

The student will:

- * be introduced to careers related to industry
- * develop hands-on and problem solving skills
- * research and understand the areas of transportation, energy/power communications, and manufacturing/production/construction technology
- * operate and use tools in the lab area safely and successfully
- * construct a super clip, CO2 Dragster, sheet metal box, and a few other projects
- * be introduced to welding

APPLIED WOODS I (201)

elective

1 or 2 credit

9, 10, 11, 12

Prerequisite: Exploring Technology with a C or better or Instructors Approval.

MAXIMUM ENROLLMENT OF 13

The student will:

- * design, manufacture, and finish a working piece of furniture
- * use and maintain equipment and tools in the lab area
- * work on general hands-on and critical thinking skills
- * identify career options in today's industry

APPLIED WOODS II (202)

elective

1 or 2 credit

10,11,12

Prerequisite: Exploring Technology with a C or better or Instructors Approval.

MAXIMUM ENROLLMENT OF 13

The student will:

- *design, manufacture, and construct a functional project
- *have either a door or drawer construction
- *develop skills for independent and critical thinking
- *identify career options in the world of today
- *provide B.O.M. and S.O.P. along with complete set of drawings for their project

Early Bird ICCC College Credit Class

INTRODUCTION TO DRAFTING/CAD (208)

elective

1 High School credit, 3 semester hours college credit

11, 12

Prerequisite: Introduction to Drafting/CAD

MAXIMUM ENROLLMENT OF 12

The student will:

- *be introduced to the use of Computer-Aided Drafting software
- *create and modify drawings.
- *print hard copies.
- *change the drawing environment to meet task requirements.
- *use critical thinking skills.

INTRODUCTION TO DRAFTING/CAD (203)

elective

1 credit

9, 10, 11, 12

MAXIMUM ENROLLMENT OF 12

The student will:

- * know and understand career areas involved in technical design
- * use and maintain traditional and computer aided drafting equipment
- * learn the basics of drafting from multi-view drawing to dimensioning
- * develop skills using Auto CAD software applications
- * use a plotter to print a variety of drawings
- * use critical thinking skills

ADVANCED MECHANICAL/CAD (204)

elective

1 credit

10, 11, 12

Prerequisite: Introduction to Drafting/CAD

MAXIMUM ENROLLMENT OF 12

The student will:

- * advance general skills in computer aided drafting and design
- * complete a variety of engineered drawings that are commonly used in industry
- * produce assembly drawings used in manufacturing
- * complete a number of projects using CAD/CAM software
- * use technical manuals for researching engineering information

ARCHITECTURAL DESIGN/CAD (205)

elective

1 credit

10, 11, 12

Prerequisite: INTRO TO CAD or EB Intro to CAD with a C or better or Instructors approval.

MAXIMUM ENROLLMENT OF 12

The student will:

- * be introduced to career options in architectural design
- * know and understand parts of an architectural drawing
- * develop and use symbols in architectural drawings
- * complete a variety of small drawings using Auto CAD

ENERGY, POWER, AND TRANSPORTATION SYSTEMS (207)

elective

1 credit

10, 11, 12

MAXIMUM ENROLLMENT OF 12

The student will:

- * be introduced to careers in the transportation industry
- * research and understand methods of transportation
- * complete a variety of activities related to energy, power, and transportation systems (wind generators, residential wiring, etc.)
- * rebuild a small engine for the final class project
- * be introduced to welding

LASER MANUFACTURING I (210)
elective **1 credit** **9,10,11, 12**

Prerequisite: INTRO TO CAD with a C or better or Instructors approval.

MAXIMUM ENROLLMENT OF 12

The student will:

- * use a variety of problem solving techniques
- * demonstrate professionalism when dealing with clients
- * be introduced to the basics of lasers and how they work
- * develop skills in high accuracy craftsmanship
- * engrave several different types of material
- * use and meet Deadlines for projects
- * attend at least 2 public events and demonstrate the Versa Laser

LASER MANUFACTURING II (216)
elective **1 or 2 credit** **10,11, 12**

Prerequisite: LASER MANUFACTURING I

MAXIMUM ENROLLMENT OF 12

The student will:

- * be introduced to the record keeping process
- * develop skills in high accuracy craftsmanship
- * use a variety of problem solving techniques
- * use and meet Deadlines for projects
- * attend at least 2 public events and demonstrate the Versa Laser

LASER MANUFACTURING III (217)
elective **1 or 2 credit** **10,11, 12**

Prerequisite: LASER MANUFACTURING I

MAXIMUM ENROLLMENT OF 12

The student will:

- * become familiar with all aspects of how a business is created and functions
- * keep all the financial records up-to-date
- * develop skills in high accuracy craftsmanship
- * use a variety of problem solving techniques
- * use and meet Deadlines for projects
- * attend at least 2 public events and demonstrate the Versa Laser

INDEPENDENT STUDY IN TECHNOLOGY (209)
elective **1 credit** **11, 12**

The student will:

- * enter the course with the consent of the instructor only
- * obtain an Independent Study Proposal form from the counseling office
- * prepare a course of study for the semester in conjunction with the instructor
- * present to the principal a copy of the independent study proposal for approval
- * upon completion of the independent study, prepare a written report and/or summary to be given to the supervising teacher along with the finished product

AGRICULTURAL MECHANICS**(236)****Elective****1 or 2 credits****10,11,12**

The student will:

- * demonstrate problem solving techniques and proper measurement
- * demonstrate proper safety using all shop tools
- * perform gas and diesel engine repair and maintenance
- * demonstrate installation of simple electrical circuits
- * perform basic plumbing installation
- * be introduced to the various agricultural machines

Early Bird ICCC College Credit Class**BUILDING TRADES IA (1st Semester) and/or IB (2nd Semester) (211 and/or 218)****elective****4 High School credits, 2 semester hours college credit****11, 12**

The Building Trades program is designed to instruct young women and men about building construction and about careers in the building trades area. Students will be involved in all aspects of building a new home.

Prerequisite: Exploring Technology or Applied Woods and Architectural Design/CAD or instructor approval

The teacher is an approved instructor with experience in construction. Students will be responsible for providing their own transportation to the building site. **Students must have on file a notarized Transportation Release form, available from the counseling office, before being allowed to attend this class.**

The student will:

- * use hand and power tools safely
- * read plan specifications and codes
- * relate the history of building

Early Bird ICCC College Credit Class**BUILDING TRADES II****(212)****Elective – year long****8 High School credits, 4 semester college credit****12**

This class is the second year of Building Trades and will expand on Building Trades I. They will again be involved with the building of a new home. Students must be in the program for the entire year.

Prerequisite: Building Trades IA and/or IB (1st and/or 2nd Semester).

Students will be responsible for providing their own transportation to the building site. **Students must have on file a notarized Transportation Release form, available from the counseling office, before being allowed to attend this class.**

Early Bird ICCC College Credit Class

AUTOMOTIVE TECHNOLOGY I-II A (1st Semester) and I-II B (2nd Semester) (213 and 220)
elective 4 High School credits, 6 semester hours college credit 11, 12

The class will be taught at Palmer. Students will be responsible for providing their own transportation. **Students must have on file a notarized Transportation Release form, available from the counseling office, before being allowed to attend this class.**

This course is an exploration of automotive engine internal combustion theory and technology. Topics covered will include:

- * engine maintenance and repair
- * engine diagnosis and tune-up
- * automobile service and maintenance
- * tire changing and balancing
- * engine tear-down and overhaul

Early Bird ICCC College Credit Class

AUTOMOTIVE TECHNOLOGY IIIA (1st Semester) and IIIB (2nd Semester) (214 and 221)

elective 6 High School credits, 9 semester hours college credit 12

Prerequisite: Automotive Technology I-II

The class will be taught at Palmer. Students will be responsible for providing their own transportation. **Students must have on file a notarized Transportation Release form, available from the counseling office, before being allowed to attend this class.**

Advanced automotive technology students will cover the following auto systems through extensive study:

- * adjustment and reassembly
- * brake systems
- * suspension and chassis
- * electrical systems

Early Bird ICCC College Credit Class

ELECTRONICS (215)

elective 1 High School credit, 3 semester hours college credit 11, 12

Students must have on file a notarized Transportation Release form, available from the counseling office, before being allowed to attend this class.

The class will be taught at Rockwell City. Students will be responsible for providing their own transportation.

Upon completion of this course, the student will have a background in the principles of electronics with emphasis on sources, magnetism, circuits, and control devices. Other areas to be covered will include the application of electronics in the communications' industry including RCL circuits, solid state principles, lasers, and fiber optics.

This course is designed to give the student a solid foundation in electronic theory which will help them in the fields of automotive technology, computer maintenance, robotics, laser technology, and any other high technology careers which are based on electrical principles.

BUSINESS EDUCATION DEPARTMENT

The business education program is designed to instruct young women and men in and about business and investigate business careers.

INTRODUCTION TO BUSINESS (170)
elective 1 credit 9, 10, 11, 12

The student will:

- * develop career awareness and related skills to enable the student to make viable career choices and become employable in a variety of business careers
- * select and apply the tools of technology as they relate to personal and business decision making
- * demonstrate ability to communicate effectively as writers, listeners, and speakers in social and business settings
- * demonstrate ability utilizing tools needed to understand and make reasoned decisions about economic issues - both personal and societal
- * demonstrate ability using accounting procedures to make decisions about planning, organizing, and allocating resources

COMPUTING AND KEYBOARDING (171) (Max. 18)
required 1 credit 9

The student will:

- * demonstrate ability to manage files through a word processing file manager
- * demonstrate a basic understanding of the hardware, software, and basic computer terminology
- * demonstrate proper keyboarding techniques
- * apply business and written communication skills
- * produce and format common documents
- * demonstrate ability using mathematical formulas to solve business problems for Excel spreadsheets and apply appropriate formatting skills in selected software programs like Powerpoint, Word, and Access

BUSINESS LAW (172)
elective 1 credit 10, 11, 12

The student will:

- * develop career awareness and related skills to enable the student to make viable career choices and become employable in a variety of business careers
- * analyze the relationship between ethics and the law and describe sources of the law, the structure of the court system, different classifications of procedural law, and different classifications of substantive law
- * analyze the relationships among contract law, law of sales, and consumer law
- * analyze the importance of agency law and employment law as they relate to the conduct of business in the national and international marketplace
- * describe the major types of business organizations operating within the socioeconomic arena of the national and international marketplaces
- * explain the legal rules that apply to personal property and real property
- * explain the legal rules that apply to marriage, divorce, and child custody
- * determine the appropriateness of wills in estate planning

COMPUTER APPLICATIONS (173)

elective

1 credit

10, 11, 12

The student will:

- * perform advanced electronic file management
- * explore digital photo editing using advanced techniques from photo editing applications
- * create an advanced spreadsheet that will enable the student to explore the advanced capabilities of spreadsheet applications
- * create an advanced database project that will allow the student to explore the range of database applications
- * author a web site and publish it to the Internet for everyone to see
- * research a current trend technology topic and then create a multi-media presentation incorporating sound, motion video, photos and animation
- * explore the world of digital video authoring and finalize a DVD movie project

WEB DESIGN

(178)

elective

1 credit

10, 11, 12

The student will:

learn to create sophisticated web sites with Macromedia's Dreamweaver - the preferred HTML editor of professional Web designers. Become skilled in designing sites with advanced layouts by using tables, style sheets, images and more. Go from beginner to intermediate as you create a portfolio-building project web site of your own. Students will also use their learned skills to maintain the school's web site by adding content, multimedia, and graphics.

This course presents introductions to many of the basic concepts, issues and techniques related to designing, developing and deploying web sites. During the course, students will learn about web design, HTML, XHTML, basic JavaScript, Dynamic HTML, Applets, and Cascading Style Sheets (CSS).

INDEPENDENT STUDY IN BUSINESS (175)

elective

1 credit

10, 11, 12

The student will:

- * enter the course with the consent of the instructor only
- * obtain an Independent Study Proposal form from the counseling office
- * prepare a course of study for the semester in conjunction with the instructor
- * present to the principal a copy of the independent study proposal for approval
- * upon completion of the independent study, prepare a written report and/or summary to be given to the supervising teacher along with the finished product

Early Bird ICCC College Credit Class

INTRODUCTION TO BUSINESS

(180)

elective

1 High School credit, 3 semester hours college credit

11, 12

The student will

- * understand the structure and environment of business.
- * understand management, the organization of business, and human resource management.
- * understand marketing management of business.
- * understand the accounting and financing functions of a business.

Early Bird ICCC College Credit Class

INTRO TO ACCOUNTING**(181)****elective****1 High School credit, 3 semester hours college credit****11, 12**

The student will:

- * define basic accounting terminology as it relates to the fundamental accounting equation.
- * analyze business transactions and construct accounting entries.
- * define the double-entry framework and use T accounts to analyze transactions.
- * journalize entries and post into accounts.
- * prepare a worksheet, which includes adjustments.
- * complete the accounting cycle—financial statements and closing entries from worksheet.
- * use special journals to record business transactions.
- * reconcile a bank statement and use a petty cash fund.
- * calculate and journalize employee payroll and employer payroll taxes.

Early Bird ICCC College Credit Class**COMPUTERIZED ACCOUNTING (182)****elective****1 High School credit, 3 semester hours college credit****11, 12****Prerequisite: Accounting Essentials**

Peachtree 8.0 for Accounting (1.5 Semester Hours): This course is designed to provide the student experience in handling automated accounting in a number of areas. These include General Ledger, Accounts Receivable, Accounts Payable, Payroll, Depreciation, Inventory and Accounting Statement Analysis. Simulation of business and its activities are processed through the entire accounting cycle culminating in the various accounting reports. The applications will be done on the computer utilizing the software program Peachtree 8.0.

Quickbooks Pro 2001 for Accounting (1.5 Semester Hours): This course is designed to provide the student experience in handling automated accounting in a number of areas. These include General Ledger, Accounts Receivable, Accounts Payable, Payroll, Depreciation, Inventory and Accounting Statement Analysis. Simulation of business and its activities are processed through the entire accounting cycle culminating in the various accounting reports. The applications will be done on a computer utilizing the software program Quickbooks Pro 2001.

Early Bird ICCC College Credit Class

INTRODUCTION TO COMPUTER (183)

elective

1 High School credit, 3 semester hours college credit

11, 12

WORD: This course is an introductory word processing course. Students will learn the basic features of Word 2000, including saving documents as web pages.

EXCEL: This is an introductory spreadsheet course. The students will learn the basic features of electronic spreadsheet software including how to create, change, save, and print worksheets.

POWERPOINT: This is an introductory electronic presentation course. Students will create presentation materials to use as visual aids when giving a presentation to a group.

ACCESS: This course is an introductory database course. The students will learn the basic features of database management software including how to use the computer to collect, locate, update, and report information.

Early Bird ICCC College Credit Class

OFFICE ADMINISTRATION I/JOB SEEKING SKILLS (185)

elective

1 High School credit, 1 semester hour college credit

11, 12

This course provides instruction to enable students to acquire those skills needed to seek employment. Students practice proper interviewing techniques, write letters of application, prepare resumes, and study sources of information relating to job availability.

The student will:

- *develop the competence and confidence for a wide variety of office positions
- *develop positive interviewing techniques, cover letter, resume, application and thank you letter
- *implement word processing software in the production of error-free business correspondence and documents
- * enter numeric data and complete business transactions on the 10-key calculator
- *demonstrate a solid foundation of skills and knowledge upon which to build a rewarding career
- *use and maintain a Records Management System
- *demonstrate Personal Management Techniques
- *develop on-the-job training skills

All students must take health while in high school. It is advised that students take health during their freshman or sophomore year. There is one health class that covers the following topics.

HEALTH (31)
required /elective 1 credit 9, 10

The student will:

- *analyze skills and decisions necessary to develop and maintain high quality physical, mental and emotional health and wellness
- * identify mental health issues and ways to cope with stress and other problems
- * examine the effect of positive relationships on the individual and develop techniques to strengthen these relationships
- * identify life cycle changes and issues from birth to death
- * examine community and environmental health from the personal level
- * evaluate consumer health options

- *analyze skills and decisions necessary to develop and maintain high quality physical, mental and emotional health and wellness
- * explain the need for a life-long fitness plan and how to develop one
- * analyze and plan for the dietary needs of students, including those with eating disorders or special circumstances
- * identify strategies to avoid the problems of substance abuse and to find alternate activities
- * describe and practice procedures for prevention and control of disease
- * practice ways to handle emergency situations

INDEPENDENT STUDY IN HEALTH (33)
elective 1 credit 10, 11, 12

The student will:

- * enter the course with the consent of the instructor only
- * obtain an Independent Study Proposal form from the counseling office
- * prepare a course of study for the semester in conjunction with the instructor
- * present to the principal a copy of the independent study proposal for approval
- * upon completion of the independent study, prepare a written report and/or summary to be given to the supervising teacher along with the finished product

Early Bird ICCC College Credit Class

INTRODUCTION TO HEALTHCARE (37)
elective 1 credit

11, 12

This class is a dual credit course for 2 semester hours of credit with ICCC.

Students will have a basic introduction to the healthcare delivery system, professionalism, legal and ethical responsibilities of the healthcare worker. The communication process will be introduced as well as an understanding of patient's needs and behavior. Aspects of patient care will be discussed involving safety, infection control, transfer techniques and vital signs.

Early Bird ICCC College Credit Class

MEDICAL TERMINOLOGY (38)
elective 1 credit

11, 12

Strongly Recommended: Human Anatomy and Physiology

This class is a dual credit course for 2 semester hours of credit with ICCC.

The student will study terminology of the systems of the human body. The emphasis will be on recognition and functional vocabulary related to the medical science. Definitions, standard abbreviations, pronunciation, and correct spelling will be included.

FAMILY AND CONSUMER SCIENCE DEPARTMENT

Family and Consumer Sciences Education empowers individuals and families across the life span to manage the challenges of living and working in a diverse global society. Our unique focus is on families, work, and their relationships.

FCS FOUNDATIONS (formerly Life Management) (156)

Elective

1 credit

9, 10, 11, 12

MAXIMUM ENROLLMENT OF 16

Offered both fall and spring semesters

This course is designed to empower students to take action for their own wellbeing in life—in the family, the workplace, and the community. Topics including personal development, decision-making, problem solving, critical thinking, leadership, teamwork, relationships, communication, career development, workplace readiness, financial literacy, nutrition and wellness, consumer responsibility, and management of clothing, housing, recreational and food needs are reinforced in this course. 21st Century Skills of civic, financial, health, and technology literacy and employability skills are introduced and practiced. This course is designed to provide a foundation for future enrollment in other Family and Consumer Science classes.

The student will:

- Analyze factors that influence human growth and development
- Demonstrate respectful and caring relationships in the family, workplace and community
- Evaluate the significance of family and its effects on the well-being of individuals and society
- Integrate multiple life roles and responsibilities in family, work and community settings
- Evaluate management practices related to human, economic and environmental resources

FOOD FUNDAMENTALS (150)

Elective

1 credit

9, 10, 11, 12

MAXIMUM ENROLLMENT OF 16

Recommended: FCS Foundations

Offered both fall and spring semesters

This course examines the nutritional needs of the individual and families throughout the life cycle, explores nutritional tools and guidelines, kitchen and meal management, food preparation techniques, consumer skills, and career exploration in the food and nutrition industries.

The student will:

- Evaluate the nutritional needs of individuals and families in relation to health and wellness across the life span.
- Evaluate various dietary guidelines in planning to meet nutrition and wellness needs.
- Demonstrate food safety and sanitation procedures.
- Demonstrate industry standards in selecting, using, and maintaining food production and food service equipment.
- Demonstrate food preparation methods and techniques for all menu categories to produce a variety of food products
- Demonstrate menu planning principles and techniques based on standardized recipes
- Analyze career paths within the food production and food services industries.

ADVANCED FOODS (151)

Elective

2 credits

10, 11, 12

Requirement: Food Fundamentals**Recommended: FCS Foundations****6th and 7th periods – offered both fall and spring semesters****MAXIMUM ENROLLMENT OF 16**

This 2 period class will introduce students to the many aspects of professional food preparation and service including menu planning, menu testing, costing, purchasing supplies, sanitation, advertising techniques, accounting principles, customer service, leadership, communication, time management, cooperation, organization and other employability skills. It will provide an opportunity to gain job experience working in MNW's student-run restaurant, the Autumn or Springtime Grill.

The student will:

- Analyze career paths within the food production and food services industries
- Evaluate factors that affect food safety, from production through consumption
- Demonstrate food safety and sanitation procedures.
- Demonstrate menu planning principles and techniques based on standardized recipes to meet customer needs.
- Demonstrate industry standards in selecting, using, and maintaining food production and food service equipment.
- Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs.
- Demonstrate implementation of food service management and leadership functions
- Demonstrate the concept of internal and external customer service.

Early Bird ICCC College Credit Class**INTRODUCTION TO HOSPITALITY (157)**

Elective

1 credit

11, 12

This class is a dual credit course for 3 semester hours of credit with ICCC.**Recommended: FCS Foundations, Food Fundamentals****MAXIMUM ENROLLMENT OF 16**

This ICCC dual credit course will take a detailed look at restaurant and institutional food service operations, hotel and motel management, travel, tourism and international hospitality. Students will evaluate career opportunities and learn the level of quality and service necessary in this fast-growing, ever-changing industry.

The student will:

- Describe the scope of the hospitality industry.
- Discuss each major segment of the industry, including tourism, lodging, and foodservice.
- Identify major companies in the hospitality industry as well as major industry associations.
- Identify the major sources of information (publications, journals) for the hospitality industry.
- Describe and discuss current issues relative to the hospitality industry.
- Describe and discuss management of hospitality operations.
- Analyze career paths within the hospitality, tourism, and recreation industries.

INDEPENDENT STUDY IN THE FOOD SERVICE INDUSTRY (159)
Elective 1 or 2 credits 11, 12

Required: Food Fundamentals, Advanced Foods

Strongly recommended: FCS Foundations, Introduction to Hospitality
6th and/or 7th periods Offered both fall and spring semesters

MAXIMUM ENROLLMENT TOTAL OF 16 INCLUDING ADVANCED FOODS NUMBERS

This is the culminating class in the Hospitality and Tourism career pathway at MNW is for juniors and seniors who are interested in further career exploration in the culinary arts, food service and/or hospitality fields. The course is a supervised independent study class that provides job shadowing experiences, field trips, career exploration, projects and presentations, as well as some management responsibilities in the Springtime or Autumn Grill. The class can be taken 6th or 7th period for 1 credit or 6th and 7th periods for 2 credits. Skills in management, decision making, problem solving, critical thinking, leadership, teamwork, interpersonal relationships, technology, consumer responsibility, workplace readiness, civic involvement, and communication are reinforced in this course.

CHILD DEVELOPMENT (153)
Elective 1 credit 9, 10, 11, 12

This course will give students basic knowledge of child development from prenatal development through adolescence. It will allow students to explore the impact of parenting and care giving, and analyze factors that promote growth and development. Students will have the opportunity to plan and conduct learning activities, to interact with and to observe young children. The class is designed for students interested in a career working with children or in future parenting. The student will:

- Analyze physical and emotional factors related to beginning the parenting process.
- Evaluate the effects of parenting roles and responsibilities on strengthening the well-being of individuals and families
- Analyze strategies that promote growth and development across the life span
- Demonstrate a safe and healthy learning environment for children.
- Analyze career paths within early childhood, education, and services.
- Integrate knowledge, skills, and practices required for careers in early childhood, education, and services

DESIGN: CLOTHING AND HOUSING (155)
Elective 1 credit 9, 10, 11, 12

MAXIMUM ENROLLMENT OF 16

This class explores two areas –Textiles and Apparel, and Housing, Interiors and Furnishings. Nine weeks will be spent on each industry. This class is based on real-world projects and will explore skills needed for, and careers available in both industries.

Projects in textiles and apparel may include: historical costume research, making musical banners, creating craft/apparel projects, repairing school uniforms, altering costumes, as well as being involved in service projects. In this quarter, the student will:

- Explore the history of textiles and apparel
- Evaluate fiber and textile materials
- Demonstrate skills needed to produce, alter or repair fashion, apparel and textile products
- Practice apparel and textile design skills
- Analyze career paths within textile, apparel, and design industries.

Projects in housing, interiors and furnishings may include: making an architectural styles scrapbook, measuring and creating scaled drawings, creating interior design sample boards, using real estate agencies to locate suitable housing for clients, creating power point presentations, and being involved in the interior design process in the building trades house. In this quarter, the student will:

- Analyze influences on architectural and furniture design and development.
- Demonstrate computer-aided drafting design, blueprint reading, and space planning skills required for the housing, interiors, and furnishings industry
- Evaluate the use of housing and interior furnishings and products in meeting specific design needs
- Evaluate client's needs, goals, and resources in creating design plans for housing, interiors, and furnishings
- Apply design knowledge, skills, processes and theories, and oral, written and visual presentation skills to communicate design ideas.
- Analyze career paths within the housing, interiors, and furnishings industry

LANGUAGE ARTS DEPARTMENT

LANGUAGE ARTS I (70) **2 credits** **9**
required

The students will:

- * read and critically analyze novels, classic plays and short stories
- * compose stories and journal entries throughout the school year
- * compose a variety of essay forms
- * practice effective research techniques for writing
- * reinforce grammar

LANGUAGE ARTS II (71) **2 credits** **10**
required

The students will:

- * use an expanded vocabulary
- * interpret and respond to fiction, both orally and in writing
- * compose responses to various genres, demonstrating accurate and organized thinking and writing skills
- * take part in a comprehensive approach to grammar review

LANGUAGE ARTS III (72) **2 credits** **11**
required

The students will:

- * apply advanced research techniques in the creation of a National History Day project.
- * utilize appropriate research formatting in writing an NHD research paper.
- * practice reading, writing, listening and speaking skills when participating in small groups
- * actively pursue increased vocabulary development
- * analyze elements of literature in all genres of American literature, including literary works describing the African American, Native American, Hispanic American and feminine experience in America
- * compare and contrast various perspectives within classic American literature
- * evaluate the ideas of American poets, short story writers, novelists, playwrights and film directors and relate these themes to the students' own lives and educational experiences
- * parallel the evolution of American literature with events in American History while discussing its impact

AP ENGLISH LANGUAGE AND COMPOSITION (73) **2 credits** **11, 12**
elective

This class fulfills the college admission composition requirement

Recommended 3.00 GPA or instructor's approval

The student will:

- * write in-class AP multiple choice and essay practice exams
- * write formal essays of narration, exposition, analysis, cause and effect, definition, comparison and contrast, figurative language, description, persuasion and argument, and appeal to emotion
- * analyze writer's techniques and styles of writing
- * read a variety of formal essays by twentieth century authors
- * use small-groups to analyze / evaluate writer's skills / techniques

SPEECH (74)**10, 11, 12**

elective

1 credit**Prerequisite: Language Arts I**

The student will:

- * analyze the importance of understanding both intrapersonal and interpersonal communication skills
- * employ the relationship of both verbal and non-verbal skills in the communication process
- * demonstrate a model of an effective communication process
- * research, document and organize information for an informative speech, a persuasive speech, a “how to” speech and a special occasion speech
- * demonstrate appropriate skills in presenting an oral interpretive piece to an audience

MASS MEDIA COMMUNICATIONS (76)

elective

2 credits**10,11,12****Recommended prerequisite: Language Arts I**

NOTE: This is a full year course. Students may repeat the course each year; however, only two of the required English credits are awarded the first year. Credits for subsequent years will be elective credits.

The students will:

- * be responsible for the production of the annual school yearbook and the monthly newsletter to the school district entitled “Cougar Tracks”
- * incorporate the use of desktop publishing and other word processing skills
- * design and construct page layouts for publication
- * operate all types of cameras for use in publication and demonstrate all applications necessary to prepare photos for publication
- * demonstrate competence in the general skills and strategies of the writing process (i.e. use correct spelling and standard grammar in all writing situations, use a variety of prewriting strategies, revise written materials as necessary before publication, etc)
- * construct and distribute various business communications as necessary for the production of the publications
- * study and demonstrate professional ethics of journalism, both in the interview process and the writing process
- * examine careers in the field of desktop publishing

READING ENRICHMENT (82)

Required if qualifies

2 credits**9, 10, 11, 12**

This is a year long requirement based on a students performance on the Reading Comprehension part of the ITED test designed to improve the students overall reading comprehension.

The student will learn strategies and practice skills which increase reading comprehension. Skills include predicting, visualizing, summarizing, expanding vocabulary and drawing inferences. Independent reading is a critical component of the course.

ENGLISH LITERATURE (77) 11,12
elective 1 credit

The student will:

- * read and critically analyze classic English writing, novels, plays, poems, and essays
- * evaluate gender roles and class structure in a classic English novel
- * analyze theme, symbol, and characters in Shakespearean plays
- * read, study, and research authors and their short stories and record these responses in journal form
- * write a synopsis of a classic essay
- * compose literary analysis essays, demonstrating accurate, meaningful, and organized writing and thinking skills
- * compare and contrast the evolution of various literary eras and movements as they relate to the history or the period(s)

LANGUAGE AND LITERATURE SURVEY (78) 11, 12
elective 1 credit

The students will:

- * recognize the elements of literature in a variety of genres
- * examine genres of fiction and nonfiction
- * use correct spelling and standard grammar in formal, as well as, creative writing
- * develop vocabulary
- * identify and set goals to improve individual weaknesses in writing

INDEPENDENT STUDY IN LANGUAGE ARTS (79) 10, 11, 12
elective 1 credit

The student will:

- * enter the course with the consent of the instructor only
- * obtain an Independent Study Proposal form from the counseling office
- * prepare a course of study for the semester in conjunction with the instructor
- * present to the principal a copy of the independent study proposal for approval
- * upon completion of the independent study, prepare a written report and/or summary to be given to the supervising teacher along with the finished product

Early Bird ICCC College Credit Class

COMPOSITION I (80) 11, 12
elective 1 High School credit/ 3 Semester College credits

MAXIMUM ENROLLMENT OF 25

This course focuses on the process of writing expressive and informative prose. It introduces library research skills and critical thinking skills.

Early Bird ICCC College Credit Class

COMPOSITION II (81) 11, 12
elective 1 High School credit/3 Semester College credits

MAXIMUM ENROLLMENT OF 25

This course is a continuation of ENG-101 (English I) with advanced work in library research techniques. The major focus is on persuasive and argumentative writing with an emphasis on critical thinking skills. Prerequisite: English I with a "C" grade or better.

MATHEMATICS DEPARTMENT

MATH APPLICATIONS LEVEL I – Red Section (111)

elective

2 credits

9, 10, 11, 12

The student will study and learn the following topics:

Number patterns and algebra, Statistics and graphs, Adding and subtracting decimals, multiplying and dividing decimals, fractions and decimals, adding and subtracting fractions, multiplying and dividing fractions,

Algebra: integers, solving equations, ratio, proportion, and percent, probability, measurement

Geometry: angles and polygons, measuring area and volume

The next sequential course would be Math Applications Level II Blue Section or Pre-Algebra.

MATH APPLICATIONS LEVEL II – Blue Section (121)

elective

2 credits

9, 10, 11, 12

The student will study and learn the following topics:

Decimal patterns and algebra, statistics: analyzing data, algebra: integers, algebra: linear equations and functions, fractions-decimals-percents, applying fractions, ratios and proportions, applying percents, probability, statistics and matrices, algebra: more equations and inequalities, algebra: linear functions and algebra: non linear functions and polynomials.

The next sequential course would be Pre-Algebra or Algebra I.

MATH APPLICATIONS LEVEL III – Green Section (122)

elective

2 credits

9, 10, 11, 12

PREREQUISITE: Need to have at least Algebra I at a C or higher or Instructor approval.

The student will learn and study the following topics:

Algebra; integers, algebra: rational numbers, algebra: real numbers and the Pythagorean theorem, proportions-algebra-geometry, percents, geometry: measuring area and volume, probability, statistics and matrices, algebra: more equations and inequalities, algebra: linear functions, and algebra: nonlinear functions and polynomials.

The next sequential course would be Geometry or Algebra II.

PRE-ALGEBRA

(112)

elective

2 credits

9, 10, 11, 12

The student will:

- *perform operations on integers
- *solve one-step equations and inequalities
- *perform operations on decimals
- *evaluate problems with exponents
- *perform operations with fractions
- *solve proportions
- *solve two-step equations and inequalities
- *graph lines

ALGEBRA I (113)**elective****2 credits****9, 10, 11, 12**

The student will:

- * know and apply the field properties of mathematics
- * use rational numbers, equations, and inequalities
- * use polynomials, factoring, and rational expressions
- * use functions, graphs of linear equations, systems of open sentences
- * use radical expressions and quadratics

ALGEBRA II (114)**elective****2 credits****10, 11, 12****Prerequisite: Algebra I****Recommended Prerequisite: Advanced Geometry**

The student will:

- * solve linear and quadratic equations
- * manipulate polynomials
- * simplify irrational and complex numbers
- * solve problems involving triangles and other planar figures
- * apply ratios and proportions in problem-solving
- * evaluate logarithmic and exponential functions
- * work with probability and statistics
- * apply trigonometric relationships

BASIC GEOMETRY (115)**elective****2 credits****10, 11, 12****Prerequisite: Algebra I**

The student will:

- * apply logic and problem-solving skills to any problem
- * solve problems involving triangles
- * use a compass and straight edge to draw figures
- * find the area and perimeter of planar figures
- * solve problems involving ratio and proportion and draw items to scale
- * use similarity to compare figures
- * relate lengths and angles in right triangles using trigonometry
- * work with other students to do group experiments and activities
- * learn basic trigonometry functions

GEOMETRY (116)
Elective 2 credits 9, 10, 11, 12
Prerequisite: Algebra I

The student will:

- * use deductive reasoning to write two-column proofs
- * understand and use parallel line relationships
- * recognize and apply congruent triangles
- * classify and use polygons
- * use similar figures to develop proportions
- * apply basic right triangle trigonometry
- * know and use the Pythagorean Theorem and special right triangles
- * apply relationships of angles, arcs, and segments of circles
- * calculate area and volume of a variety of figures

PRE-CALCULUS (117)
elective 2 credits 11, 12
Prerequisites: Advanced Geometry and Algebra II

The student will:

- * use linear relations, functions, and graphs
- * solve systems of equations and inequalities
- * predict the behaviors of polynomial functions and other equations
- * apply trigonometric functions, graphs, and identities
- * use vectors, parametric equations, polar coordinates, and complex numbers

CALCULUS (118)
elective 2 credits 12
Prerequisite: Pre-Calculus

The student will:

- * use function and trigonometric functions to solve problems
- * understand limits and their properties
- * use and apply differentiation to related problems
- * use and apply integration to related problems
- * work with conics and polar coordinates in solving problems

INDEPENDENT STUDY IN MATHEMATICS (119)
elective 1 credit 10, 11, 12

The student will:

- * enter the course with the consent of the instructor only
- * obtain an Independent Study Proposal form from the counseling office
- * prepare a course of study for the semester in conjunction with the instructor
- * present to the principal a copy of the independent study proposal for approval
- * upon completion of the independent study, prepare a written report and/or summer to be given to the supervising teacher along with the finished product

SCIENCE DEPARTMENT

AGRICULTURAL SCIENCE (230) **2 credits** **9**
elective

The student will:

- *demonstrate problem solving techniques and proper measurement methods in the laboratory
- *explain entrepreneurship and develop an individual SAE program
- *enter a project in the State Agriscience Fair
- *explore the FFA and what it has to offer
- *complete an activity based curriculum on current animal production practices including selection, genetics, reproduction, digestion/growth, and processing
- **understand additional selected topics current and relevant to agriculture and FFA*

This course will fulfill a science credit.

All students taking Agricultural Science must also become FFA members

GENERAL SCIENCE (130) **2 credits** **9**
elective

The students will:

- * demonstrate problem solving techniques and proper measurement methods in the laboratory
- * explain force, motion, acceleration, momentum and how they affect our everyday lives
- * describe matter and energy and the relationship to the environment
- * describe types of machines and mechanical advantage
- * describes the structure of matter and the relationship of chemical reactions
- * study of the earth and its relationship to the universe
- * understand and cellular and genetic basis of life
- * examine the diversity of life on earth

PHYSICAL SCIENCE (131) **2 credits** **9**
elective

The student will:

- * demonstrate problem solving techniques and proper measurement methods in the laboratory
- * explain force, motion, acceleration, momentum and how they affect our everyday lives
- * describe matter and energy and its relationship to the environment
- * analyze elements and compounds and how they react in nature

BIOLOGY (132) **2 credits** **10**
elective

The student will:

- * apply the scientific method to solve problems
- * design and test hypotheses
- * analyze local and global environmental issues
- * learn proper use of a microscope in observing specimens
- * understand the cellular and genetic basis of life
- * discuss possible implications of current events in biology, such as cloning, genetic engineering, and advancements in health and medicine
- * examine the diversity of life on earth, through discussion and dissection of specimen

CHEMISTRY (133)

elective

2 credits

11, 12

Prerequisite: Algebra I with 2 years of science

Students must have a scientific calculator

The student will:

- * analyze theories of atomic structures and chemical bonding of elements and compounds
- * discuss chemical and physical elements and compounds and how they react in nature
- * learn how to properly identify elements and compounds and to balance formulas and equations
- * discover organic compounds and how they relate to today's society
- * demonstrate proper laboratory techniques in a laboratory setting
- * demonstrate problem-solving techniques and proper measurement methods in a laboratory

PHYSICS (134)

elective

2 credits

11, 12

Prerequisite: Algebra II with 2 years of science

Students must have a scientific calculator

The student will:

- * integrate the concepts of motion, force and vectors into society
- * assess how heat, light and sound affect our everyday world
- * discuss the role electricity and nuclear energy play in our world
- * demonstrate proper laboratory techniques in a laboratory setting
- * demonstrate problem solving techniques and proper measurement methods in a laboratory

HUMAN ANATOMY AND PHYSIOLOGY (135)

elective

2 credits

11, 12

Prerequisite: Biology Must have earned a C grade or better (or instructor's approval).

The student will:

- * describe the structure and function of various systems of the human body, including the skin, skeletal, muscular, nervous, special senses, circulatory, digestive, respiratory, urinary, and reproductive systems
- * demonstrate proper laboratory techniques when analyzing the structure and function of body tissues
- * dissect individual organs, such as the eye and heart, as well as a full mammalian specimen, such as a cat or a fetal pig
- * research and report on body systems and diseases related to the system
- * research careers related to the health care system, and discuss current advancements in the medical field

APPLIED PHYSICS (136)
elective 2 credits 10, 11, 12
Prerequisite: Algebra I or Applied Math I and II and Physical Science or Physical Science in Agriculture

The student will:

- * demonstrate practical principles of physical science as they apply to the use of modern equipment
- * examine complex systems
- * compare mechanical, fluid, electrical and thermal subsystems
- * utilize mathematics associated with technological principles
- * study force transformers, work, resistance, power, rate, energy, force
- * design, build and race an electric vehicle in an official Electrathon event

ENVIRONMENTAL SCIENCE (137)
elective 1 credit 10, 11, 12

The student will:

- * discuss issues affecting natural resources
- * explore the ecosystems of Iowa
- * do nutrient testing of area waterways
- * examine the forestry issue
- * understand wildlife management practices
- * participate in taxidermy of a pheasant **This class fulfills a science credit.**

Early Bird ICCC College Credit Class

INTRODUCTION TO BIOTECHNOLOGY (138)
elective 1 High School credit/ 3 Semester Credits ICCC 11, 12

Prerequisites: 2 semesters high school Biology/ 1 semester of high school Chemistry or concurrent enrollment. Must be in the 75 percentile on most recent Science ITED score AND at least a B- in Biology.

Course Description: An introduction to the field of biotechnology, designed to familiarize students with research techniques commonplace within the biotechnology community. The course introduces fundamental knowledge and laboratory skills with apply to this rapidly growing discipline

The laboratory of the course reinforces ideas discussed in lecture and offers hands-on experience that covers the fundamental science and applications of biotechnology.

INDEPENDENT STUDY IN SCIENCE (139)
elective 1 credit 10, 11, 12

The student will:

- * enter the course with the consent of the instructor only
- * obtain an Independent Study Proposal form from the counseling office
- * prepare a course of study for the semester in conjunction with the instructor
- * present to the principal a copy of the independent study proposal for approval
- * upon completion of the independent study, prepare a written report and/or summary to be given to the supervising teacher along with the finished product

SOCIAL STUDIES DEPARTMENT

WORLD GEOGRAPHY required	(90) 1 credit	9
The student will:		
<ul style="list-style-type: none">* list the countries of North and South America, Europe, Asia, Africa and Australia* locate the countries on the map along with the capitals* locate the cities, mountains, rivers and other major geographic areas* compare land topography* examine climate in relation to longitude and latitude* differentiate cultures of the world* draw and explain the functioning of the many kinds of maps* determine reasons for weather and climate* explore the natural resources and economies of the regions* learn about the physical make-up of the earth		
WORLD HISTORY required	(91) 2 credits	10
The student will:		
<ul style="list-style-type: none">* investigate the political, social, cultural, religious and economic development of the world* link past civilizations to present day ones* relate the importance of a nation's religion, economics and culture to its existence* trace the growth of industry and relate it to the many economic aspects involved in industrial growth* evaluate similarities in the rise and fall of the world powers from the Greeks to the Romans, through Germany, Russia and the United States* compare time periods and civilizations for similarities and differences* study extensively the wars of the 20th and 21st Century* cover and compare the major Revolutions of the World		
AMERICAN HISTORY required	(92) 2 credits	11
The student will:		
<ul style="list-style-type: none">* uncover America's growth and change through the Industrial Revolution and Immigration* trace the U.S. to its role as a world power* examine historical events such as the Great Depression, The Cold War, the Great Society, Watergate, etc.* explore the growth and excitement of the U.S. from the 1920's to the 21st century		

AMERICAN GOVERNMENT**(93)****required****1 credit****12**

The student will:

- * explain the basic principles of American Government
- * describe the seven parts of the Constitution and its amendments
- * formulate good citizenship principles for personal use
- * participate in voting procedures in the United States
- * compare civil rights and freedoms in the United States with other countries
- * contribute as a member of the United States political community
- * learn about the three branches of government and their functions
- * learn about specific cultural responses to current social/political problems
- * examine the Constitution, Declaration of Independence and other important government documents

CURRENT ISSUES I**(94)****elective****1 credit****9, 10, 11, 12**

The student will:

- Use a multitude of media resources to study all aspects of the news
- Formulate opinions and express views on current social, educational and environmental issues
- Research political, social, moral, educational, economic, and geographical issues of the past, present, and future.
- Follow a series of general news stories on a variety of topics throughout the semester
- This semester includes in- depth study projects which includes: human rights, Middle East conflicts, and creating current “live” newscast.

CURRENT ISSUES II**(96)****Elective****1 credit****9, 10, 11, 12**

The student will:

- Use a multitude of media resources to study all aspects of the news
- Formulate opinions and express views on current social, educational, and environmental issues
- Research political, social, moral, educational, economic, and geographical issues of the past, present, and future.
- Follow a series of general news stories on a variety of topics throughout the semester
- This semester includes in-depth study and projects that relates to globalization.

ECONOMICS (95)
elective 1 credit 11, 12

The student will:

- * appraise the characteristics of a free-enterprise market economy
- * evaluate the laws of supply and demand and how they determine prices
- * compare and contrast various forms for business organizations
- * read the stock quotations and experiment with buying and selling stocks
- * explain measurement of the national economy and economic fluctuations
- * describe international trade and ways in which balance of trade and monetary exchange affect global economics
- * evaluate ways to manage and protect personal income

Early Bird ICCC College Credit Class

INTRODUCTION TO PSYCHOLOGY (97)
elective 1 High School credit/ 3 College Credits 11, 12

MAXIMUM ENROLLMENT OF 25

This course includes the tools for the study of psychology, basic psychological processes, personality and social behavior, contemporary knowledge of motives, intelligence, learning and emphasis on the language of modern psychology

Early Bird ICCC College Credit Class

INTRODUCTION TO SOCIOLOGY (98)
elective 1 High School credit/ 3 College Credits 11, 12

MAXIMUM ENROLLMENT OF 25

This course is a concise study of human behavior from the perspective of Sociologists. It will examine the ways in which social interaction, social processes, and social institutions comprise our sociological imagination. The course will also explore the ways that personality, status, role, class, gender, age, race, and ethnicity affect human interaction and institutions.

INDEPENDENT STUDY IN SOCIAL STUDIES (99)
elective 1 credit 10, 11, 12

The student will:

- * enter the course with the consent of the instructor only
- * obtain an Independent Study Proposal form from the counseling office
- * prepare a course of study for the semester in conjunction with the instructor
- * present to the principal a copy of the independent study proposal for approval
- * upon completion of the independent study, prepare a written report and/or summary to be given to the supervising teacher along with the finished product

SPECIAL PROGRAMS

ENRICHMENT EDUCATION (TAG) (10)

9, 10, 11, 12

1 credit

elective

Prerequisite: Identification as a TAG student

This class provides identified TAG students the opportunity to choose activities throughout the school year which will challenge them academically and meet their intellectual needs. Students may choose from the following academic opportunities:

- | | |
|----------------------------|---|
| *College Exploration | *Science Fair |
| *College Portfolio Writing | *Scholarship Searches/Application Writing |
| *Career Exploration | *Iowa Student Political Awareness Club |
| *Young Scholars Program | *ACT/SAT Study Groups |
| *Know Your Constitution | *Road Less Traveled Career Conference |
| *Academic Decathlon | *Service Learning |
| *We The People | |
| *National History Day | |

EXPLORING ELEMENTARY EDUCATION (15)

elective

1 or 2 credits

10, 11, 12

The student will:

- * develop awareness and related skills needed to work with elementary aged students by working a semester in an assigned classroom at the elementary school.
- * work as an aide in the classroom with duties assigned by the homeroom teacher which could be: bulletin board work, reading to classroom, working with students one on one or in groups, correcting papers, or other duties as assigned.
- * gain awareness of elementary career options.

MUSIC EDUCATION DEPARTMENT

BAND (40)

elective

2 credits

9, 10, 11, 12

Credits earned in band will be included in the student's GPA

The student will:

- * Band is a year-long course
- * produce a good characteristic sound on his/her instrument
- * demonstrate proper techniques of sitting, standing, hand position, and proper breathing
- * use terms for dynamics, tempos, and styles
- * perform the scales that form the basis of musical composition
- * recognize different styles and types of music as well as music from different cultures
- * develop an understanding of, and an appreciation for, all types of music

CONCERT CHOIR (42)

Elective

2 credits

9, 10, 11, 12

Credits earned in Concert Choir will be included in the student's GPA

Year course open to grades 9-10 who are not placed in the treble clef choir. Students will build on their knowledge of music theory, music history, and sight singing. Members of the ensemble will study musical styles from various historical periods, diverse cultures, and sing in a variety of languages. Music is chosen as appropriate to match the developmental level of each performing group. Participants will perform at school concerts at least once each quarter and State Large Group Festival. Participants will also have the opportunity to perform at State Solo/ Small ensemble Festival. Students should strive to have voice lessons either outside the school or with the choir director, after, or during school. Lessons given with the choir director will have no additional charge. The basics of posture, breathing, and vocal production are stressed along with basic music reading skills.

The following units will be covered *in each choir* during the course of the school year:

The student will:

- use correct singing posture
- use proper breathing technique
- work towards supporting a pleasing tone
- strive to produce accurate pitch
- sing both melody and harmony
- use Solfege in sight training, ear training
- produce a clear enunciation of consonants in text
- work towards correct vowel formation for different time periods in history and language
- use critical listening skills
- research history as it relates to the music being studied in class
- observe cultural differences of composers and how it relates to singing style

MUSIC THEORY I (43)

elective

1 credit

10, 11, 12

This class is designed to help build an understanding for the basic building blocks of music. The class will use basic piano skills to develop a structure for music. No music background needed.

MUSIC THEORY II (44)

elective

1 credit

11, 12

Prerequisite: Music Theory I

This is a continuation of Music Theory I. This is a great class if you are planning to study music after high school. We take a quick review of Music Theory I. By the end of the course you will have written your own work and have it performed.

- *7th chords and inversions

- *Chord progressions

- *Cadences

- *Non chord tones

- *Melody writing

- *Non chord tones

- *Counter melody

- *Figured bass

- *Transposition

Extra-curricular opportunities: Solo & Ensemble Festival, Madrigal, School Musical

Quantum Select Vocal Ensemble Grades: 9-12

Prerequisite: Audition

This is a select group of mixed voices for those students who have a desire to pursue more advanced levels of ensemble performance. This study course will examine fundamental techniques and principles of integrating dance, voice, music, and acting into a performance show choir ensemble. Training in voice, jazz movement, character interpretation and personality presentation is covered. It includes the performance of all styles of music, from pop and show choir to jazz choir.

Concentration is on skill development in the small ensemble style with different combinations of voicing. Public performances will be scheduled at frequent intervals throughout the year. This performance group will be expected to perform at State Show Choir Festival in January of each year. Membership is open to students by audition only. Quantum meets each week on Wednesday morning before school at 7:00 AM, and other times outside of the school day as schedules allow and performance demands. Quantum will start the next year two weeks before school starts with a show choir camp. Members may expect to incur some expense towards clothing and personal effects.

Chamber Choir Grades 9-12

Prerequisite: Audition

Chamber choir is an audition-only, advanced level, choral music performing group for students with proficiency in basic reading and vocal skills. A mixed small ensemble (ca. 8-16) that performs a variety of choral literature suitable for a small ensemble. Singers must be in Concert Choir to audition for Chamber Choir. This course emphasizes the development of advanced skills in the following areas: advanced reading skills, advanced vocal techniques, advanced rhythm skills, advanced music theory, and development of an advanced choral repertoire. This group meets once per week outside the normal school day, or as member's schedules allow. This course concentrates on the performance aspect of music. The students are expected to perform independently, understanding styles and master a cappella singing. The music ranges from medium to advanced difficulty. Members will be expected to participate in All-State Auditions.

Jazz Choir

Prerequisite: Audition

This choir will study a truly American art form - Jazz - from the roots of Jazz in the late 1890's through the present day. Various octavos on Jazz styles will include the Blues, Piano Styles, Dixieland, Swing, Bebop, Cool, Free, and Rock Fusion. Listening to styles of Jazz will be an important emphasis of this performing group. Public performances will be scheduled at frequent intervals throughout the year. This performance group will be expected to perform at State Jazz Choir Festival in January of each year.

The student will

- * learn the "language of Jazz" through spoken or sung syllables and written symbols
- * learn the various scales and other devices used to create improvised solos
- * learn about a variety of composition techniques
- * understand the contribution of the Afro-American culture to Jazz music
- * understand the contribution of women to the Jazz movement
- * learn to differentiate between various types and styles of Jazz
- * enhance their knowledge and appreciation for all types of music
- * learn how to create their own personal solos
- * listen to and evaluate other performers through video-taping and recording
- * learn to recognize various rhythm patterns associated with all types of music
- * develop a knowledge of chords and chord progressions used in Jazz music

PHYSICAL EDUCATION DEPARTMENT

PHYSICAL EDUCATION 9/10 (20) or PHYSICAL EDUCATION 11/12 (21)
required 1 credit every year

MAXIMUM ENROLLMENT OF 25

Physical education is a valuable part of the total educational process because it contributes to the development of the whole individual. Physical education offers mental preparation and considerable social interaction.

The student will:

- * assess physical development and well-being
- * develop skills and physical abilities
- * develop leisure-time activities
- * examine personal, social and cultural values
- * develop an appreciation for personal fitness

Activities:

- | | |
|-----------------------|----------------------------|
| * Archery | * Matt Ball |
| * Basketball | * Pickle Ball |
| * Lacrosse | * Ping Pong |
| * C.P.R. | * Volleyball |
| * Flag Football | * Weight Training |
| * Floor Hockey | * Wiffle Ball |
| * Frisbee Golf | * Cross Country Skiing |
| * Bowling | * Body Composition Testing |
| * Winter Survival Kit | |

ZERO HOUR PHYSICAL EDUCATION (22) 10, 11, 12
MAXIMUM ENROLLMENT OF 30

Zero hour physical education was developed to meet the needs of the student who is taking a heavy class load. The class itself is focused on individual wellness programs, personal safety, and other health issues along with physical fitness and goal setting.

Zero hour physical education students are responsible for their own transportation to off-campus physical education activities.

The zero hour physical education class meets from 7:00-8:00 one day a week, currently on Thursday, for the full year.

WEIGHT TRAINING / LEADERSHIP (23)

Elective 1 credit 10, 11, 12

This is an elective course but it does not replace the 4 semesters of required Physical Education without permission of the Physical Education Teacher and the High School Principal. This class would be limited to 27 students with preference by seniority.

The student will

- * be required to lift the MNW 3 –Day Lifting Program.
- * maintain records of individual lifting program.
- * develop/present/study different aspects of leadership and it affects.
- * develop an appreciation for the benefits of strength training and leadership.

Course Offerings 2009-2010

<u>Number</u>	<u>Title</u>	<u>Grade Level</u>	<u>Credits</u>	<u>Page</u>
Art Department				
50	Art Fundamentals	9, 10, 11, 12	1	1
51	Art Survey	10, 11, 12	1 or 2	1
52	2 Dimensional Studio	10, 11, 12	1 or 2	1
53	3 Dimensional Studio	10, 11, 12	1 or 2	1
54	Art with Computer	10, 11, 12	1	2
57	Independent Study in Art	12	1	2
Foreign Language Department				
61	French I	9, 10, 11, 12	2	3
62	French II	10, 11, 12	2	3
63	French III	11, 12	2	4
64	French IV	12	2	4
Agricultural Education Department				
230	Agricultural Science	9	2	5
231	Crop Science	10(preferred) 11, 12	2	5
235 <i>Early Bird</i>	Principles of Crop Production	11, 12	1 (3 hr ICC)	5
232 <i>Early Bird</i>	Farm Business Management	11, 12	1 (3 hr ICC)	6
233	Horticulture	11, 12	1	6
234	Small Animal and Pet Care	10, 11, 12	1	6
236	Agricultural Mechanics	10, 11, 12	1 or 2	6
137	Environmental Science	11, 12	1	7
239	Independent Study in Agriculture	11, 12	1	7
Industrial Technology Department				
200	Exploring Technology	9, 10, 11, 12	1	
8				
201	Applied Woods I	9, 10, 11, 12	1 or 2	8
202	Applied Woods II	10, 11, 12	1 or 2	8
208 <i>Early Bird</i>	Introduction to Drafting/CAD	11, 12	1 (3 hr	
ICCC) 8				
203	Introduction to Drafting/CAD	9, 10, 11, 12	1	
9				
204	Advanced Mechanical/CAD	10, 11, 12	1	9
205	Architectural Design/CAD	10, 11, 12	1	9
207	Energy, Power, Transportation	10, 11, 12	1	9
210	Laser Manufacturing I	9, 10, 11, 12	1	
10				
216	Laser Manufacturing II	10, 11, 12	1 or 2	10
217	Laser Manufacturing III	10, 11, 12	1 or 2	10
209	Independent Study in Technology	11, 12	1	10
236	Agricultural Mechanics	10, 11, 12	1 or 2	11
211/218 <i>Early Bird</i>	Building Trades IA and/or IB	11, 12	4 (2 hr ICC)	11
212 <i>Early Bird</i>	Building Trades II	12	8 (4 hr ICC)	11
213/220 <i>Early Bird</i>	Auto Tech I-IIA and I-IIB	11, 12	4 (6 hr ICC)	12

214/221 <i>Early Bird</i>	Auto Tech III A and IIIB	12	6 (9 hr ICCC)	12
215 <i>Early Bird</i>	Electronics	11, 12	1 (3 hr ICCC)	12

<u>Number</u>	<u>Title</u>	<u>Grade Level</u>	<u>Credits</u>	<u>Page</u>
Business Education Department				
170	Introduction to Business	9, 10, 11, 12	1	13
171	Computing and Keyboarding	9	1	13
172	Business Law	10, 11, 12	1	13
173	Computer Applications	10, 11, 12	1	14
178	Web Design	10, 11, 12	1	14
175	Independent Study in Business	10, 11, 12	1	14
180 <i>Early Bird</i>	Introduction to Business	11, 12	1 (3 hr ICC)	14
181 <i>Early Bird</i>	Introduction to Accounting	11, 12	1 (3 hr ICC)	15
182 <i>Early Bird</i>	Computerized Accounting	11, 12	1 (3 hr ICC)	15
183 <i>Early Bird</i>	Intro to Computer	11, 12	1 (3 hr ICC)	16
185 <i>Early Bird</i>	Office Admin I/Job Seeking Skills	11, 12	1 (1 hr ICC)	16
Health Department				
31	Health I	9, 10	1	17
33	Independent Study in Health	10, 11, 12	1	17
37 <i>Early Bird</i>	Intro to Healthcare	11, 12	1 (2 hr ICC)	18
38 <i>Early Bird</i>	Medical Terminology	11, 12	1 (2 hr ICC)	18
Family and Consumer Science Department				
156	FCS Foundations	9, 10, 11, 12	1	19
150	Food Fundamentals	9, 10, 11, 12	1	19
151	Advanced Foods	10, 11, 12	2	20
157 <i>Early Bird</i>	Intro to Hospitality	11, 12	1 (3 hr ICC)	20
159	Ind. St. in Food Service Industry	11, 12	1 or 2	21
153	Child Development	9, 10, 11, 12	1	21
155	Design: Clothing & Housing	9, 10, 11, 12	1	21
Language Arts Department				
70	Language Arts I	9	2	23
71	Language Arts II	10	2	23
72	Language Arts III	11	2	23
73	AP English Language and Comp	11, 12	2	23
74	Speech	10, 11, 12	1	24
76	Mass Media Communications	10, 11, 12	2	24
82	Reading Enrichment	9, 10, 11, 12	2	24
77	English Literature	11, 12	1	25
78	Language and Literature Survey	11, 12	1	25
79	Independent Study in Lang. Arts	10, 11, 12	1	25
80 <i>Early Bird</i>	Composition I	11, 12	1 (3 hr ICC)	25
81 <i>Early Bird</i>	Composition II	11, 12	1 (3 hr ICC)	25

<u>Number</u>	<u>Title</u>	<u>Grade Level</u>	<u>Credits</u>	<u>Page</u>
Mathematics Department				
111	Math Applications I-Red	9, 10, 11, 12	2	26
121	Math Applications II-Blue	9, 10, 11, 12	2	26
122	Math Applications III-Green	9, 10, 11, 12	2	26
112	Pre-Algebra	9, 10, 11, 12	2	26
113	Algebra I	9, 10, 11, 12	2	27
114	Algebra II	10, 11, 12	2	27
115	Basic Geometry	10, 11, 12	2	27
116	Geometry	9, 10, 11, 12	2	28
117	Pre Calculus	11, 12	2	28
118	Calculus	12	2	28
119	Independent Study in Math	10, 11, 12	1	28
Science Department				
230	Agricultural Science	9	2	29
130	General Science	9	2	29
131	Physical Science	9	2	29
132	Biology	10	2	29
133	Chemistry	11, 12	2	30
134	Physics	11, 12	2	30
135	Human Anatomy and Physiology	11, 12	2	30
136	Applied Physics	10, 11, 12	2	31
137	Environmental Science	10, 11, 12	1	31
138 <i>Early Bird</i>	Intro to Biotechnology	11, 12	1 (3 hr ICCC)	31
139	Independent Study in Science	10, 11, 12	1	31
Social Studies Department				
90	World Geography	9	1	32
91	World History	10	2	32
92	American History	11	2	32
93	American Government	12	1	33
94	Current Issues	9, 10, 11, 12	1	33
96	Current Issues II	9, 10, 11, 12	1	33
95	Economics	11, 12	1	34
97 <i>Early Bird</i>	Introduction to Psychology	11, 12	1 (3 hr ICCC)	34
98 <i>Early Bird</i>	Introduction to Sociology	11, 12	1 (3 hr ICCC)	34
99	Independent Study in Soc. Studies	10, 11, 12	1	34
Special Programs				
10	Enrichment Education (TAG)	9, 10, 11, 12	1	35
15	Exploring Elementary Education	10, 11, 12	1 or 2	35

<u>Number</u>	<u>Title</u>	<u>Grade Level</u>	<u>Credits</u>	<u>Page</u>
Music Education Department				
40	Band	9, 10, 11, 12	2	36
42	Concert Choir	9, 10, 11, 12	2	36
43	Music Theory I	10, 11, 12	1	37
44	Music Theory II	11, 12	1	37
	Extra-curricular Opportunities	9, 10, 11, 12		38
Physical Education Department				
20	Physical Education 9/10	9, 10	1	39
21	Physical Education 11/12	11, 12	1	39
22	Zero Hour Physical Education	10, 11, 12	1	39
23	Weight Training/Leadership	10, 11, 12	1	39