

CAREER PATHWAYS / SAMPLE CAREERS



Arts & Communications

Programs of study are related to the performing, visual, literary, and media arts. These programs include, but are not limited to, creative writing, film production, journalism, education, radio and television broadcasting, advertising and public relations.

Compositor Artist Actor
Floral Designer Camera Operator Advertising Designer

Fashion Model Commercial Artist Fashion Model
Hair Stylist Fashion Designer Commercial Artist
Musician/Composer Graphic Designer Editor

Sign Painter Jeweler Journalist
Photographer Language Interpreter Musical Therapist

TV Production Director



Health Services

Programs of study are related to the promotion of health, as well as the treatment of injuries, conditions, and disease. These programs include, but are not limited to, medicine, dentistry, nursing, therapy, rehabilitation, nutrition, fitness, and hygiene.

Clinical Assistant Emergency Medical Tech.
Dental Assistant Industrial Hygienist Chiropractor
Dietary Aide Licensed Practical Nurse
Home Health Aide Medical Technician Nuclear Medical Tech.
Medical Office Clerk Occupational Therapy Asst.
Discrept Technician Nurse

Nurses Aide Pharmacy Technician Pharmacist
Orderly Physical Therapy Asst. Physical Therapist



Business, Management Marketing & Technology

Programs of study are related to the business environment. These may include, but are not limited to, entrepreneurship, sales, marketing hospitality and tourism, computer information systems, fiancé, accounting, office administration, personnel, economics and management.

Bank Teller Administrator Assistant Accountant
Bookkeeper Building manager Actuary

Data Entry Clerk Chef Administrative Secretary
Food Service Worker Court Reporter Budget Analyst

Insurance Agent Estimator Loan Officer
Retail Salesperson Financial Manager Marketing/Public Relations Director

Secretarial Support Staffer Real Estate Manager



Human Services

Programs of study are related to the economic, political and social systems. These programs include, but are not limited to, education, law and legal studies, law enforcement, child and family services, religion, and social services.

Beauty Consultant Civil Service Worker Anthropologist Child Care Giver Cosmetologist/Manager Coach Corrections Officer Crime Laboratory Tech. Criminologist Fire Fighter Culinary Arts/Hospitality Worker Lawyer Fitness Consultant Legal Assistant Psychologist Flight Attendant Police Officer Social Worker Food Service Worker Security Administrator Sociologist

Teacher



Engineering/Manufacturing & Industrial Technology

Programs of study are related to technologies necessary to design, develop, install, or maintain physical systems. These programs include, but are not limited to, engineering and related technologies, architecture, drafting, mechanics and repair, manufacturing technology, precision and construction.

Auto Body Technician Auto Repair Technician Architect Bldg. Construction Tech. Automotive Engineer Carpenter Climate Control Mech. Chemical Technician Chemical Engineer Computer-Aided Designer Computer Analyst Custodian Heating/Air-Conditioner Worker Computer Programmer Machine Tool Setter Construction Foreman Roofer Industrial Electronics Technician Security Sys. Installer Mechanical Engineer Pipe Fitter



Natural Resources & Agriscience

Mental Health Aide

Programs of study are related to the environmental and natural resources. These programs include, but are not limited to, agriculture, earth science, environmental sciences, fisheries management, forestry, horticulture, and wildlife management.

ITE management.

Animal Caretaker Farm Manager Agricultural Engineer Park Ranger
Farm Worker Forestry Technician Botanist
Florist Golf Course Manager Conversation Officer
Fruit & Veg. Farmer Horticulturist Farm Manager



Arts & Communications

SAMPLE CAREERS **High School Diploma**

Artist Painter Comedian Dancer Paste-Up Artist

Associates Degree/Apprenticeship

Choreographer Commercial Artist Drafter Engraver **Fashion Designer** Photographer

Theatre Technician Web Page Designer

Four-Year Degree & Beyond

Advertising Agent

Architect Teacher Interior Designer Writer/Editor

DHS Career Pathway Related Classes 9th Grade Art I, Beginning Painting & Art I, Beginning Painting & Drawing

Drafting I, Computer Applications

10th Grade-Advanced Painting & Drawing

12th Grade 3-D Design, Independent Art, Website

Design, Drafting II, III, Independent Drafting

Publications, Foreign Language

Business, Management Marketing & Technology

SAMPLE CAREERS



High School Diploma

Accounting Clerk
Bank Teller
Retail Clerk
Ticket Agent
Word Processor

Associates Degree/Apprenticeship

Assistant Buyer
Claims Representative
Court Reporter
Insurance Agent
Systems Programmer
Restaurant Manager
Web Page Designer

Four-Year Degree & Beyond

Account Executive
Accountant
Advertising Agent
Bank Manager
Computer Systems Analyst
Purchasing Agent
Statistician
Economist
Stockbroker

DHS Career Pathway Related Classes

9th Grade Art I, Beginning Painting & Drawing

Drafting I, Computer Applications

10th Grade- Intro to Business, Accounting I 12th Grade Accounting II, Ind. Accounting

Website Design, Word Processing, Business Management, Business Law,

Personal Finance, Publications Foreign Language, Algebra II Computer Programming,

Statistics, Calculus, Psychology, Sociology

Health Sciences

SAMPLE CAREERS



High School Diploma

Admitting Clerk
Dietary Aide
Dental Assistant
Vet Aide
Lab Assistant
Nurse Aide

Associates Degree/Apprenticeship

Dietary Technician Respiratory Tech Mortician Ultrasound Tech Dental Hygienist Registered Nurse Medical Assistant

Four-Year Degree & Beyond

Biomedical Engineer
Dentist
Physical Therapist
Veterinarian
Ophthalmologist
Chiropractor

DHS Career Pathway Related Classes

9th Grade Art I, Beginning Painting & Drawing

Biology, Intro to Computers

Algebra, Health

10th Grade- Intro to Business, Chemistry

12th Grade Geometry, Anatomy

Word Processing, Foreign Language,

Algebra II, Foreign Language,

Pre-calculus, Physics, Calculus, Statistics, Psychology, Sociology, Advanced Chemistry

Human Services

SAMPLE CAREERS

High School Diploma

Cashier Chef

Child Care Worker

Courier

Court Administrator

Postal Worker

Teacher Aide

Associates Degree/Apprenticeship

Bus Driver

Cosmetologist

Driving Instructor

Firefighter

Flight Attendant

Insurance Agent

Real Estate Agent

Security Guard

Four-Year Degree & Beyond

Anthropologist

Athletic Trainer

Clergy

Historian

Librarian

Lobbyist

Psychologist

School Counselor

Teacher

Urban Planner



Engineering/Manufacturing & Industrial Technology



SAMPLE CAREERS

High School Diploma

Roofer Upholsterer Sales Representative

Associates Degree/Apprenticeship

Welder
Aircraft Mechanic
Plumber
Electrician
Tool & Die Maker
Surveyor

Four-Year Degree & Beyond

Architect
Building Contractor
Civil Engineer
Computer Engineer
Marine Architect
Materials Engineer
Robotics Engineer

DHS Career Pathway Related Classes

9th Grade Basic Building Trades, Drafting I

Art I

10th Grade Drafting II, Electronics, Wood Tech, Programming,

Foreign Language, Blueprint Reading

11th Grade Arch Design, Building Construction, Drafting III, Physics

Advanced Math Classes, Advanced Science

12th Grade Dual Enrollment, Ind. Drafting, Ind. Woods,

Advanced Science and Math Classes.

Word Processing, Art Classes

Natural Resources & Agriscience

SAMPLE CAREERS



High School Diploma

Animal Caretaker
Farm Equip Operator
Field Inspector
Landscaper
Pest Controller
Turf Grass Manager

Associates Degree/Apprenticeship

Chemical Tech
Firefighter
Forestry Tech
Taxidermist
Water Plant Operator

Four-Year Degree & Beyond

Biologist
Botanist
Public Relations
Seed Producer
Implement Sales
Forester
Mining Engineer

DHS Career Pathway Related Classes

9th Grade Botany, Biology, Art, Foreign Language,

Basic Building Trades

10th Grade Zoology, Chemistry, Woods,

Programming, Drafting, Intro to Business,

Accounting

11th Grade Agribusiness, Accounting II, Business

Law, Business Management, Website Design

12th Grade Advanced Chemistry, Anatomy, Physics, Advanced

Math Classes, Publications

Course List

ART & MUSIC

+Art I - (9-12)

Beginning Painting & Drawing- (9-12)

Advanced Drawing & Painting- (9-12)

Three-D Design- (9-12) Independent Art -(12)

+High School Band - (9-12)

+High School Choir - (9-12)

+Ceramics - (9-12)

BUSINESS EDUCATION

Introduction to Business- (9-12) *Accounting I- (10-12)

*Accounting II- (10-12)

*Independent Accounting- (11-12)

Business Management- (10-12)

Business Law- (10-12)

*Personal Finance - (11-12)

Word Processing – (9-12)

COMPUTER SCIENCE

Computer Applications (9-12)

Website Design- (9-12)

Website Design II - (9-12)

Multimedia- (11-12)

ENGLISH

English 9 - (9)

English 10 - (10)

English 11-(11)

English 12 - (12)

AP English (12) Student Publications (10 - 12)

FOREIGN LANGUAGE

Spanish 1- (9-12)

Spanish 2- (10-12)

Spanish 3- (11-12)

Spanish 4- (12)

Spanish 5- (12)

Japanese 1- (9-12) IVN

Japanese 2- (10-12) IVN

Japanese 3- (10-12) IVN Japanese 4- (10-13) IVN

INDUSTRIAL TECHNOLOGY

Simple Machines- (9-12)

+Engineering Graphics A- (9-12)

+Engineering Graphics B -(9-12) + *Drafting/CAD II- (10-12)

+ *Drafting/CAD III- (11-12) + *Independent Drafting- (11-12)

+ Wood Technology - (10-12)

+ *Building Construction- (11-12)

*Advanced Woodworking- (11-12)

*Independent Woodworking- (12)

MATHEMATICS

Algebra I- (9-12) Algebra II- (9-12)

Geometry- (9-12)

*Precalculus- (10-12)

*Trigonometry- (10-12)

*AP Calculus AB- (11-12)

PHYSICAL EDUCATION

Basic Physical Education (9-10)

Adv PE- (10-12)

Team Sports- (10-12)

Lifeguarding- (10-12)

Powerlifting- (10-12) Health- (9-12)

SCIENCE

Physical Science-(9-10)

Biology- (9-12)

Intro to Chemistry- (10-12)

Chemistry - (10-12) Anatomy & Physiology- (11-12)

Intro to Physics - (10-12)

Physics - (11-12)

Botany- (9-10) Zoology - (9-10)

Agribusiness - (11-12)

AP Biology-(10-12)

SOCIAL STUDIES

American Government- (11-12)

World History- (9-10)

American History-(9-10)

Contemporary American History- (11-12)

AP American History- (11-12)

Economics- (11-12)

Psychology (10-12) Sociology (10-12)

SPECIALIZED AREAS OF STUDY

ACT Prep- (10-12)

Nurse Aide- (11-12)

Auto Body Repair- (11-12)

Cosmetology- (11-12)

Dual Enrollment (11-12)

+ - may be used as Visual, Performing and Applied Arts credit.

^{*-} may be used as senior year math course

ART AND MUSIC

Art I (One Trimester)

(9-12)

Students will focus on the design principles and elements while exploring drawing, design, painting and sculpture. Successful completion of this course with at least a C average is a prerequisite for all other art courses. Knowledge of famous artists and time periods will also be addressed.

Beginning Painting & Drawing (One Trimester)

(9-12)

Prerequisite: C+ or above average in Art I. This course is an introduction of design including line, shape and perspective. Then we will examine how light creates highlights and shadows on objects and the gradation of value. Knowledge of famous artists and time periods will also be addressed.

Advanced Drawing & Painting (One Trimester)

(9-12)

Prerequisite: C+ or above in Art I and Beginning Painting and Drawing. Students will use the foundation skills from previous art courses to explore landscapes, the human figure and abstract creations in watercolors and acrylics. Knowledge of famous artists and time periods will also be addressed.

3-Dimensional Design (One Trimester)

(9-12)

Prerequisite: C+ or above in Art I. Students will focus on the design elements and principles while exploring paper, wire, metal, plaster and clay. This course includes basic potter's wheel instruction. Knowledge of famous artists and time periods will also be addressed.

Independent Art Study (Three Trimesters)

(12)

Seniors only with permission of the art teacher. Prerequisite: as many art courses as possible. This course is for the serious senior art student who has taken as many previous art courses as possible and intends to continue art after graduation. A portfolio of art work will be prepared for scholarship application, participation in area art competitions will be required. A one-man art show will be given at the end of their study.

Ceramics (One Trimester)

(9-12)

Prerequisite: Art I recommended, but not necessary. This course is intended for those studying ceramics for the first time and is a comprehensive introduction to the craft of clay working. Students will work on the following clay building methods: coil, slab, drape mold and the potter's wheel. They will begin to develop a personal style of working with clay and become knowledgeable about clay, glazes and the firing process. Knowledge of famous artists and time periods will also be addressed.

High School Band (Three Trimesters)

(9-12)

High School Band is an elective subject for experienced instrumental music students. Students will rehearse as an ensemble, receiving instruction on techniques and concepts of musical performances. High standards of achievement in the areas of performance, musical knowledge, responsibility, self-discipline teamwork and leadership are emphasized and developed. Students will perform in marching and concert activities, such as home football games, basketball games, parades, concerts, festivals and competitions during and after school hours. All rehearsals and performances are mandatory. Band is an all year class. Students will not be allowed to drop between trimesters without having a conference with the principal, band director and parent.

High School Choir (Three Trimesters)

(9-12)

This course is an elective for singers who would like to perform with a group and develop music skills. Choir is for the entire year. Choir students are expected to have a serious interest in choral music and new members must meet with the director for a vocal assessment before joining. In the choir, students will develop their singing voices and will learn to use good choral tone. They will study and perform a variety of musical styles and will practice skills in sight singing and music reading. Students are required to participate in a fall, winter and spring concert and a performance at the MSVMA Choral Festival. There will also be performances during the school day and at least one field trip. Students are graded on their participation, effort and behavior during rehearsals and performances and on their ability to work as a team, develop their skills and learn their music.

BUSINESS EDUCATION

Introduction to Business (One Trimester)

(9-12)

Intro to Business is a one trimester class that covers the basic concepts of business such as business operations and management, technology, marketing, consumer law, budgeting and money management, credit banking and checking accounts, investing, career planning, taxation, economics and business mathematics.

Word Processing (One Trimester)

(9-12)

Word Processing is a one trimester class that involves the mastery of the basic information cycle of word processing. Concepts covered include formatting and editing tools, tables and columns, graphics, desktop publishing and advanced Power Point topics. This course is intended for the college bound or business student. Software used in this course includes Microsoft Word, Power Point and Publisher. Prerequisite: Computer Applications.

Accounting I (A) (One Trimester)

(10-12)

Accounting I (A) is a one trimester course which gives students a background in basic accounting procedures used in business. Students will be introduced to different areas of accounting such as Management Consulting, Forensic Accounting, Financial Planning, Auditing and Tax Services and Technology Services. Computerized accounting software will be used to prepare financial information. As part of the course, students will play the board game Monopoly and prepare financial information based upon the games played. ***When taken as a senior, this course qualifies towards the senior math requirement necessary for graduation***

Accounting I (B) (One Trimester)

(10-12)

Accounting is a one trimester course and a continuation of Accounting I (A). Students will learn how to calculate and prepare payroll checks and forms, state and federal payroll tax returns and individual tax returns. Accounting for inventory and retail companies will also be covered. Computerized accounting software and spreadsheet applications will be used as part of this class. Students will learn how to analyze financial statements and how investors use financial information to make investment decisions. Prerequisite: Accounting I (A). ***When taken as a senior, this course qualifies towards the senior math requirement necessary for graduation***

Accounting 2A and 2B (Two Trimesters)

(10-12)

Independent Accounting will provide students with the opportunity to acquire knowledge of accounting systems design and financial statement analysis for management decision making purposes. Real life business cases, Excel spreadsheets and Access databases will be integrated into the course. Topics to be covered include: accounting framework and concepts, control systems and cost accounting.

Personal Finance (One Trimester)

(11-12)

This course is designed to help students in the management of money and personal finances. Topics covered include financial planning, money management strategies including budgets, banking, stocks and bonds, mutual funds, retirement planning, tax preparation and planning, long and short term investing styles and insurance. Prerequisite: Introduction to Computers and two years of mathematics.

When taken as a senior, this course qualifies towards the senior math requirement necessary for graduation

Business Management (One Trimester)

(10-12)

Business Management is a one trimester course designed for students who are interested in pursuing a business related profession. Areas of study include business related careers, the basic functions of business management including developing a business plan, securing financing, setting up the legal entity, following federal and state laws and regulations, using technology to develop computer information systems, interpreting financial information for business purposes, factors of production, business models, marketing, human resource management, leadership and management styles and business ethics.

Business Law (One Trimester)

(10-12)

Business Law is a one trimester course designed to introduce students to the applications of law governing business while focusing on the relationship of business law to the Uniform Commercial Code. Areas of study include sources of law, structure of court systems, citizenship, criminal vs. civil law, consumer protection, family law, contracts, business regulations, credit and bankruptcy, real estate and personal property, agency, incorporation, insurance, commercial paper, employment law, Internet law, wills and estates. Case studies are used to reinforce studies of areas.

COMPUTER SCIENCE

Computer Applications (Two Trimester) (9-12)

This course is designed to familiarize students with computer information systems. This course reinforces computer concepts with hands-on labs. Areas of basic study include:

- Computer hardware
- Computer applications
- Internet and web
- E-mail
- File management
- Computer networks
- Digital media
- Computer ethics
- Computer security

Tech-Prep credit through Monroe County Community College is offered.

Word Processing

See Business Education section.

Website Design (One Trimester)

(9-12)

This is a challenging course designed for serious students who have an interest in computers and web design. Topics covered include:

- Website planning
- Website design
- Website architecture
- Cascading style sheets
- Dynamic pages
- Website management
- Inserting flash, shockwave, sound and video

Prerequisites: Good discipline record. Completed Algebra I and received a "B. Completed Introduction to Computers and received a "B". Exceptions can be made by the instructor.

Website Design II (One Trimester)

(9-12)

This is an advanced course designed for serious students who have an interest in computers and web design. Topics covered in depth include:

- Website planning
- Website design
- Website architecture
- Cascading style sheets
- Dynamic pages
- Website management
- Inserting flash, shockwave, sound and video

Prerequisites: Good discipline record. Completed Algebra I and received a "B. Completed Introduction to Computers and received a "B". Exceptions can be made by the instructor.

Multimedia (Three Trimesters)

(11-12)

This is a three trimester class for seniors only. Emphasizing multimedia software and the skills needed to enhance their uses. This class includes, but is not limited to, video editing, image editing, animation, webpage design, desktop publishing, broadcasting and video, presentation software, etc. Instructor may waive one or more requirements. Each class is limited to 6 students (due to the limited number of editing machines). Prerequisite: Good discipline record. Must have completed Intro to Computers, Advanced Applications and Website Design with a "B" or better. The instructor may waive one or more of these requirements.

ENGLISH

English 9 (Two Trimesters)

(9)

The students will become discriminating readers and writers who recognize plot, setting, characters, voice, point of view and themes. They will read novels, plays and short stories, as well as write essays and poetry. They will recognize how speech skills can help them and will deliver a speech to the class. The students should also develop solid listening skills. They will work on developing library skills and research strategies and will research and write on major paper. They will also improve their vocabulary and word usage skills through vocabulary and spelling units.

English 10 (Two Trimesters)

(10)

English 10 is a course designed to improve students' composition skills, reading comprehension and grammar. This class will focus on improving writing skills in the areas of content, organization, voice, mechanics and style through a variety of written assignments which include various essays, position/reaction papers and journals. This course will include the study of literature, vocabulary, poetry and plays. Students will read to interpret meaning, symbolism, themes and other literary devices in a variety of works throughout this course.

English 11 (Two Trimesters)

(11)

Students will read and interpret a wide variety of American literature from the course text and selected novels. Students will work toward developing their reading skills, learning to critically analyze, synthesize and evaluate works of American literature and will demonstrate an ability to respond through writing short papers with their individualized, critically supported points of view. They will also learn to identify the characteristics of an author's style. In addition, students will concentrate on the writing process, from grammar and vocabulary to examining paragraph structure, write descriptive, personal narrative and several types of expository essays based on a variety of reading selections. Students will write a persuasive/argumentative research paper using MLA format and proper documentation.

English 12 (Two Trimesters)

(12)

Students will read to develop an insight into the philosophies of life in different periods and different cultures. They will understand and analyze drama, poetry, fiction and non-fiction, reading to recognize the writer's style, intent and time period. Students will be comfortable using the library for research or leisure reading. They will polish their writing skills, presenting papers with correct documentation and editing and a final emphasis will be placed on vocabulary and spelling skills.

Advanced Placement English 12 (Three Trimesters)

(12)

This class is for the serious student of English language and literature or one who wishes to greatly strengthen current skills in preparation for further education. This course involves an intensive and rigorous approach to various literature. Students will also complete three novels or plays independently, during the course of the year. Students will be required to complete a summer reading list and projects associated with these by the first day of school. Students will study various other literary works, including poetry and short stories. Students will focus on improving their writing skills through literary analysis papers, practice Advanced Placement exam essays, impromptu and creative writing and style analysis. The aim of this course is not simply to prepare the student for the AP examination, but to increase the student's awareness of a plethora of literature and to refine his/her writing abilities.

Student Publications (Three Trimesters)

(10-12)

This is a workshop class in which the high school yearbook and school newspaper will be produced and distributed. This class is designed to teach students the process and procedures involved with creating, printing, and distributing a school newspaper and yearbook. Students will be responsible for writing journalistic copy, taking photos, completing layouts as well as selling advertising for production of the yearbook and/or school newspaper. Because of publication costs, students will be held responsible for advertising sales. Exact dollar amounts will depend on the number of students in the class. Students will be organized in staff positions with understood jobs and responsibilities. Those positions will be applied for and special consideration will be given to those with a greater interest in one area over another. It is often necessary to put extra time into this class outside of school, as will be expected by the instructor, for completing deadlines and taking photos. Assignments will vary. Students working on the yearbook during the third trimester may have to work at school to complete pages after the school year has ended. An "I" grade will be given until the yearbook assignment is complete. Failure to comply with this policy will result in a failing grade for the trimester. Students will be required to sign and have parent signatures for a yearbook class contract. The goal of this class is to produce a quality yearbook publication at Dundee High School in a professional and timely manner. Prerequisite: "C+" average in English AND student must have application submitted and instructor approval.

FOREIGN LANGUAGE

Spanish I (Two Trimesters)

(9-12)

This beginning course includes the development of basic reading, writing, speaking and listening skills. Students will also learn about the culture and geography of Spanish speaking countries. Prerequisite: "C" average in English or permission of instructor.

Spanish II (Two Trimesters)

(10-12)

Spanish II involves a review and a more intensive study of all grammatical items and cultural information. Strong emphasis will be placed on reading and speaking in Spanish. Students will be required to write short essays in Spanish and research projects will be assigned. Prerequisite: "C" average in Spanish I or permission of instructor.

Spanish III (Two Trimesters)

(11-12)

Spanish III involves an intense review of all grammatical items as well as the memorization of all verb tenses in Spanish. Strong emphasis will be placed on speaking and writing and students will be required to read short stories and essays in Spanish. Latino culture and history is also incorporated in the curriculum. Prerequisite: "B" average in Spanish I and II.

Spanish IV Independent Spanish (Two Trimesters)

(12)

This is an advanced Spanish class intended to prepare you for college. Strong emphasis will be placed on the grammatical structures, reading and writing. Students will be required to read short stories and essays in Spanish. Latin-American culture and history is also incorporated into the curriculum. Prerequisite: "B+" average in Spanish III and permission of instructor.

Japanese I (Three Trimesters)

(9-12)

Take advantage of an opportunity to discover Japanese language and culture for yourself. Forget what you may know about foreign languages or about English. This language takes a completely different approach to communication. As we learn, we'll investigate many aspects of Japanese culture. From *ukiyo-e* to *umeboshi*, Japanese culture will intrigue you. Students will be introduced to basic conversation patterns and to the two Japanese syllabries, *hiragana* and *katakana*, as well as a few basic ideographs, *kanji*. The course will meet in the Distance Learning Lab at Dundee High School and will cover the four basic language skills in a culturally contextualized format.

Japanese II (Three Trimesters)

(10-12)

A continuation of Japanese I. This class will be taught over the IVN network. It will continue to teach the four basic language skills in a culturally contextualized format. Students will increase their mastery of the syllabries, while adding additional kanji to their knowledge base, and increasing their understanding of Japanese vocabulary, grammar, and culture.

Japanese III (Three Trimesters)

A continuation of Japanese II. This class will be taught over the IVN network. It will continue to teach the four basic language skills in a culturally contextualized format. Students will expand their vocabulary, grammar, and understanding of Japanese culture.

Japanese IV (Three Trimesters)

A continuation of Japanese III. This class will be taught over the IVN network. It will continue to teach the four basic language skills in a culturally contextualized format. Students will expand their vocabulary, grammar, and understanding of Japanese culture. Focus will be placed on reading authentic texts, increasing speaking proficiency, and the class will be conducted entirely in Japanese.

INDUSTRIAL TECHNOLOGY

(9-12)

Simple Machines (One Trimester)

The areas of study covered will include: Engineered "AC Dragster" design. The River Raisin Bridge & Tower Design challenge. Build Medieval Siege Engines (Trebuchets, Mangonels, Onagers and Catapults) and overtake Mr. Jabe's Castle Dundee. Finally each student will take part in a JUNK BOX WARS – 'CRAZY CONTEST'.

Engineering Design I (A), formerly Drafting I (One Trimester) (9-12)

This is a beginning Drafting/CAD class where you will learn mechanical drawing skills using our manual drafting desks and equipment in a lab setting. You will also be introduced to the CAD software and draw extensively with the computer graphics stations. Drawings covered will include single view, geometric construction, multi-view and auxiliary drawing. After successfully completing Engineering Graphics & Design and Drafting II, you will obtain four college credits at Monroe County Community College in the Drafting/Design area. This course is a prerequisite to Drafting/CAD II.

Engineering Design I (B), formerly Drafting I (One Trimester) (9-12)

This is a beginning Drafting/CAD class where you will learn mechanical drawing skills using our manual drafting desks and equipment in a lab setting. You will also be introduced to the CAD software and draw extensively with the computer graphics stations. Drawings covered will include multi-view drawings, dimensioning, sections and pictorials. After successfully completing Engineering Graphics & Design and Drafting II you will obtain four college credits at Monroe County Community College in the Drafting/Design area. This course is a prerequisite to Drafting/CAD II.

Drafting/CAD II (A & B)

(10-12)

This course is an extension of Drafting/CAD I in that it covers some of the same topics in more depth and also includes areas not covered, such as cams and gears, architectural drawing, technical illustration and pattern development. This course also deals with more challenging machine drawings in which you can apply the basic techniques you learned in Drafting/CAD I. AutoCAD and manual drafting will be used throughout the course. After successfully completing this course you will be given four college credits at Monroe Community College in the Drafting/Design area. Prerequisite: "C" average in Drafting/CAD I.

Drafting/CAD III (A & B)

(11-12)

Drafting/CAD III is a study of the basic principles and techniques of architectural plans, which includes all areas from basic drawing techniques to a finished set of house plans. Design is emphasized as part of the course. You will design and draw a complete set of house plans with all necessary detail drawings. You may also make an architectural model and presentation drawing as part of your class work. You will be required to collect and organize a file with construction materials and processes to help in planning a home. Maximum use will be made of the architectural software. Prerequisite: "C" average in Drafting/CAD I & II.

Independent Drafting/CAD (All Year)

(11-12)

Independent Drafting/CAD is designed for the serious drafting student who has the maturity and skill developed to work independently. This course is for the student who plans a career related to drafting and wishes to advance in a specific area or areas of Drafting/CAD and pursue that area in greater depth than otherwise possible. Prerequisite: "B" or better in Drafting/CAD I, II, III and permission of instructor.

Wood Technology (Two Trimesters)

(10-12)

Wood Technology is a lab-oriented course designed to acquaint the student with standard woodworking methods in a hands-on manner. The proper and safe use of woodworking tools will be demonstrated to and practiced by the students while in the course. The proper use of wood and wood byproducts as a building material, as well as their advantages and limitations will be presented. The major areas of woodworking presented will be box, case, and leg and rail construction with each student building a project in each of those areas. Lathe turning will also be a woodworking skill that will be presented and practiced by each student. Prerequisite: Basic Woodworking and Building Construction.

Building Construction (Two Trimesters)

(11-12)

Building Construction is a hands-on course designed to familiarize students and with many facts of the building trades. Information and experiences will be provided in the following areas: Estimating, light framing, forms and concrete, masonry, siding, roofing, window and door installation, scaffolding and ladder set up. Prerequisite: Wood Technology.***When taken as a senior, this course qualifies towards the senior math requirement necessary for graduation***

Advanced Woodworking (Two Trimester)

(11-12)

Cabinet and furniture making techniques will be presented to enhance the student's understanding of woodworking methods. Those methods will be developed into skill by student application when designing and building individual projects. Tool and equipment maintenance will also be presented to and practiced by each student. Prerequisite: Wood Tech.

When taken as a senior, this course qualifies towards the senior math requirement necessary for graduation

Independent Woodworking (Three Trimesters)

(12)

Independent Woodworking is designed to provide an opportunity for self motivated students to increase their woodworking skill and understanding. This lab-oriented course will combine detailed planning and advanced woodworking methods. There is no limit to the learning opportunities for students who want to be challenged. Prerequisite: "B+" or better in Advanced Woodworking.

When taken as a senior, this course qualifies towards the senior math requirement necessary for graduation

MATHEMATICS

Algebra I (Two Trimesters)

(9-12)

This course will introduce students to a variety of algebraic equations and functions. It will focus on methods for solving linear, quadratic and exponential equations and will explore properties of these and other functions. Students will learn the tools of algebra needed to simplify expressions and to solve equations and inequalities. **This course is required for all students.**

Algebra II (Two Trimesters)

(9-12)

This course will continue the study of algebraic functions. More emphasis will be placed on quadratic equations, rational functions, radical functions and exponential and logarithmic functions. Students will also study probabilities and statistics. **This course is required for the Class of 2011 and beyond.**

Geometry (Two Trimesters)

(9-12)

This course covers two main areas, spatial relationships and logical thinking. Students will work with plane and solid figures and the relationship within and between them. Logical and systematical techniques for finding and proving these relationships will be studied. This course is required for the Class of 2011 and beyond.

Pre-Calculus (One Trimester)

(10-12)

This course focuses on the algebra of functions, which plays a central role in Calculus. Functions are explored from algebraic, graphical and numerical perspectives. This

course solidifies the mathematical skills needed for Calculus. **This course is** recommended for students who plan to continue their education past high school, particularly in the areas of science and engineering. Prerequisite: Algebra I, Algebra II, Geometry, C average in math or permission of instructor.

Trigonometry (One Trimester)

(10-12)

This course explores trigonometric functions from an algebraic, graphical and numerical perspective. This course lays the trigonometric foundation needed for future coursework in mathematics and science. This course solidifies the mathematical skills needed for Calculus. This course is recommended for students who plan to continue their education past high school. Prerequisite: Algebra I, Algebra II, Geometry, C average in math or permission of instructor.

AP Calculus AB (Three Trimesters)

(11-12)

This course is recommended for students planning careers in math or science related fields including engineering, manufacturing and business. Students should have a working knowledge of algebra, geometry and trigonometry. The class will focus on single variable calculus and will include such topics as limits and their properties, differentiation and integration. The syllabus for this course has been approved by the College Board. Students taking this class will have the opportunity to take the College Board AP Exam. Prerequisite: Pre-Calculus and Trigonometry.

PHYSICAL EDUCATION

Basic Physical Education (Two Trimesters)

(9 or 10)

This is a basic physical education class that is available to all students, boys and girls. It can be taken in either 9th or 10th grade. The class will emphasize youth physical fitness, major team sports and individual sports. Co-educational activities will be offered at various intervals throughout the year. Separation of sexes will be made for contact sports and for activities here there is a high skill level difference for boys and girls. You will be graded on class participation, individual skill performance, team performance and written tests covering rules and strategy. You must provide your own uniform, meeting school criteria and be responsible for your own personal hygiene (showering).

Advanced Physical Education (One Trimester)

(10-12)

Advanced Physical Education and Weightlifting will be offered as a progressive credit class. The class is open to 10th, 11th and 12th grade students who have successfully completed the required freshman physical education class. A student may earn maximum of 3 credits toward graduation, earning ½ credit per trimester. Once a student fails a trimester or drops out of the class, they may not re-enter without permission of the Physical Education Department. The class will focus on weightlifting, sports conditioning, and lifetime sports activities. Students will be divided into groups and lift weights on alternate days. Athletes may engage in an alternative weight program on days of an athletic contest and will still be required to dress for class. Students electing this class must provide their own uniform, which must meet school

criteria and must be responsible for their own personal hygiene. Prerequisite: Must have passed 9th grade PE with a "C" or better.

Health (One Trimester)

(9 - 12)

This is a comprehensive health curriculum dealing with health concerns of today. Topics covered will include sexuality and reproduction education. Sexually transmitted disease, substance use and abuse, identifying sex roles, wellness, stress management, emotional and mental health, disease prevention and control, nutrition and dietary fads.

Team Sports (One Trimester)

(10-12)

This course is open to 10th, 11th and 12th grade students who have successfully completed the required freshman physical education class. Students should be interested in participating in team sports in a tournament setting, i.e., football, basketball, volleyball. Focus will be on the rules, skills and strategies that enable participation, individual skill performance, team performance and written tests covering rules and strategies. Students must provide their own uniform meeting school criteria and be responsible for their own personal hygiene. Once a student fails the trimester or drops out they may not reenter without the permission of the PE Department. Prerequisite: "C" or better in 9th grade PE.

Lifeguarding/Endurance Swimming (One Trimester)

(10-12)

Students should be interested in mastering swim strokes, attaining endurance and strength in swimming and obtaining lifesaving and CPR certification. Students must be prepared to swim everyday! This is a higher level physical education course and will be physically demanding. Students must provide their own bathing suit and are responsible for their own personal hygiene. Once a student fails or drops a semester or drops a class, they may not reenter without permission of the PE Department. Prerequisite: YOU MUST BE ABLE TO SWIM and "B" or better in 9th grade PE.

Powerlifting & Fitness (One Trimester)

(10-12)

This class is designed for the athlete or individual interested in intense fitness and weight training. The focus will be on power lifting, strength development and cardiovascular training. To gain benefits from a class of this nature, it requires very intense student participation. Students will not simply be participating, but will be pushing their body to its maximum potential. Students must provide their own uniform meeting school criteria and be responsible for their own hygiene. Once a student falls a trimester or drops the class, they may not reenter without permission of the PE Department. Prerequisite: Permission of PE Department and "B" or better in 9th grade PE.

SCIENCE

Physical Science (One Trimester)

(9-10)

Students will be introduced to basic earth science concepts. Topics studied will be geology, soil structure, weather and astronomy. Labs will be done which clarify these concepts. This is a required class.

Biology (Two Trimesters)

(9-12)

This course is designed to acquaint students with an overview of main topics in Biology. The course will cover a development of biological principles from simple levels of organization to complex levels. You will be required to take part in labs and hand in formal laboratory reports. Topics will be studied from all major branches of Biology. This is a required class. **This course is a graduation requirement.**

Intro to Chemistry (One Trimester)

(9-12)

This class is designed to acquaint students with basic chemistry principles. Topics covered will be metrics, formula writing, atomic particles and basic laboratory techniques.

Intro to Physics (One Trimester)

(9-12)

Students will be introduced to basic physics concepts. Students will study measurement, motion, heat and electricity. Students will use mathematical skills to describe physical phenomena.

Chemistry I (Two Trimesters)

(10-12)

This course is suitable for students seeking a basic understanding of chemistry as well as those students who will pursue chemistry in college. Principles are developed in considerable detail from an elementary point of view. Lab procedures and techniques will enhance basic chemical principles and establish methods for organizing data in a logical manner. Many chemical principles are mathematical in origin. Because of this, students should expect to spend a considerable amount of time working math problems. Prerequisite: "B" in Biology and "B" in Algebra I or permission of the instructor.

Anatomy & Physiology (Two Trimesters)

(11-12)

This class is offered for the student seeking an advanced level science class. The main focus will be on the physiology perspective with emphasis on anatomy. Topics covered will be biochemistry, cellular biology, tissue studies and all body systems. Digestive system, circulatory system, respiratory system, skeletal system, muscular system, nervous system, among others will be of major focus. Prerequisites: "B" in Biology I, "C" in Chemistry I.

Advanced Chemistry (Two Trimesters)

(11-12)

Advanced Chemistry is designed as a on year course for students with a scientific or medically oriented career goal. You will develop and use advanced problem solving skills. Topics of study will include: organic chemistry, biochemistry, nuclear chemistry, quantitative analysis, environmental chemistry, electro-chemistry, as well as in-depth into various chemical principles and current chemical issues. Laboratory techniques will also be enhanced. Prerequisite: "C" or better in Chemistry.

Advanced Chemistry Lab (One Trimester)

(11-12)

This lab class is offered to students desiring to pursue a science career. Topics include comprehensive units in qualitative analysis, quantitative analysis and labs using PALMS. Prerequisite: One trimester of Chemistry or Advanced Chemistry.

Physics (Two Trimesters)

(11-12)

The study of such concepts as motion, heat, energy and electricity through problems and several hands-on activities. Great emphasis is placed on mastering basic Physics concepts through labs. Several projects such as the egg drop, thermal containers, mouse trap cars, toothpick bridges and hot air balloons are used to make abstract physics concepts concrete. Prerequisite: Algebra I, Geometry and Advanced Algebra.

Botany (Three Trimesters)

(9-10)

An agricultural approach to the science of plants and specific forms of plant production. Instruction will cover all aspects of plant growth including soils, pesticides, forestry, landscaping, crops and hydroponics. This vocational class will allow students lab time in the greenhouse to practice classroom skills. This course has been designed to prepare students for work in plant science related occupations through class experience and work assignments. Students in Botany will receive instruction about the FFA (related student organization) and be urged to join.

Zoology (Three Trimesters)

(9-10)

A full year course centered on the production of farm animals (cattle, sheep, swine, horses, poultry). This class covers all aspects of livestock production from birth through marketing. Topics include breeds, feeding, skills, genetics, handling and financing. Labs and hands-on training will be experienced.

<u>Agribusiness (Three Trimesters)</u>

(11-12)

This is an introductory course that surveys a variety of topics important for a person pursuing an agriculture related career. Among the topics covered include: marketing of agriculture projects, sale and application of fertilizers, herbicides and pesticides, conservation practices and soil and water management. Some after school activities will be required.

AP Biology (Three Trimesters)

(10-12)

This course is designed to challenge students with a college level Biology curriculum. This course is recommended for students planning careers in a science related field. Students should have a working knowledge and have received at least a "B" in Biology. The syllabus for this course has been approved by the College Board. Students taking this class will have the opportunity to take the College Board AP Exam. Prerequisite: Biology, Chemistry,

SOCIAL STUDIES

World History A (One Trimester)

(9-10)

This class is the first part of World History and Geography and we will study the rise and fall of the three great empires of Egypt, Greece and Rome as well as a detailed study of Europe in medieval times. We will explore all areas of life during each time period. The focus of part A will be Eras 1-4 of World History and Geography. Moreover, we will study the impact these empires had/have on the world and the influence they have on the social and economic development of the United States. **This course is a graduation requirement.**

World History B (One Trimester)

(9-10)

This class is the second part of World History and Geography and we will study post medieval Europe to the present day world. We will explore all areas of life during each time period. The focus of part B will be Eras 5-9 of World History and Geography. Moreover, we will study the impact these eras had/have on the world and the influence they have on the social and economic development of the United States. **This course is a graduation requirement.**

American History (Two Trimesters)

(10-12)

This course introduces students to the broad themes of American History as is outlined in the standards and benchmarks of the plan for the statewide assessment of social studies. Students will investigate the interrelated problems of a democratic republic, economic growth, political and social institutions and how they affect cultural stability. The role of the United States in the world arena will be examined as it relates to national security and the promotion of the general welfare. Students develop an understanding of their historical heritage and apply the ideals of that heritage in making prudent decisions for themselves and the problems facing modern America. **This course is a graduation requirement.**

American Government (One Trimester)

(11-12)

Government is a required course and can be taken by students in their junior or senior year. Students will gain a better understanding of the operation and functions of the United States Government. Areas will include the role, qualification and responsibility of the three branches of government at the State and Federal level. How the checks and balances in our representative democracy compares to the different governments of the world. Emphasis will also be placed on understanding the core democratic values along with the Declaration of Independence and the Constitution. **This course is a graduation requirement.**

Economics (One Trimester)

(11-12)

This course introduces students to the basic principles of economics. The problem of scarcity is examined as it relates to individual choices, business choices, the interplay between economics and government, systems of economics and trade in an increasingly global economy. Students investigate environment, economic stability and prosperity, population growth and the distribution of wealth. They learn how to work with economic data and to interpret graphs and charts. Students develop and understanding of their economic rights and responsibilities which enable them to make prudent decisions for themselves and society. This course is a graduation requirement for the Class of 2011.

Contemporary American History (One Trimester)

(11-12)

The focus of this class will be on the latter part of American history, American topics and American events of the 20th century and the beginnings of the 21st century. The first part of the class will be discussion on presidents, policy and history from President Nixon forward. The second part of the class will focus heavily on the events of today and the connection that America has with them. The intent of the course is to provide you with the basic background and foundational information to help you understand the world that we live in today. It is a global world in which we live. You will understand our part in it. It will examine various social, political, economic, religious and cultural events in different countries and regions in order to better comprehend multiple perspectives on the world today. There will be a major focus on studying current events (their origins and causes) and trying to come up with solutions or predicting outcomes to those events. Prerequisite: Must have taken and passed American History A and B.

AP American History (Three Trimesters)

(11-12)

AP American History is a year long, three trimester course designed to cover the United States history from the American Revolution to the present. The class will be taught in a progressive order hitting such topics as Twain's Gilded Age, Theodore Roosevelt's Progressive America, WWI, The roaring twenties, the Civil Rights Era, FDR and the New Deal and WWII. Other topics will include Vietnam, Nixon and Watergate, as well as modern political events (which is just the tip of the iceberg). The AP American History differs from the traditional American History class by the amount, speed and depth in which material is covered. There is also a much greater emphasis on critical thinking and writing skills. Therefore, additional reading and formal writing is required of

students. Focus is also on evaluation of material through both discussion and free response and document-based written essays. Students that choose to enter this class must also purchase class assigned novels, which will be decided at a later date by the teacher. NOTE: this class is for the serious, college-bound student. Students will have the opportunity to prepare and take the AP exam in American History. Prerequisite: Two letters of recommendation (forms can be obtained by the instructor) and a one page, typed essay on why you want to enter the AP American History class.

Psychology (One Trimester)

(10-12)

This course provides a basic introduction into the world of psychology. Students will identify the goals of psychology and become familiar with the contemporary perspectives of psychology. Areas of psychology that will be studied in this class include personality, memory, intelligence, dreams and psychological disorders. This class will also cover social interaction and human behavior, with a goal of understanding why humans feel and act in certain manners in various situations.

Sociology (One Trimester)

(10-12)

This course is designed to provide students with the basic understanding of how societies are formed and how they function. Sociology is the study of group relationships and integrates all disciplines of a social movement. This course addresses values, norms, culture, socialization, social stratification and social institutions. This course may also include consideration of social problems such a crime, poverty, prejudice and discrimination, collective behavior and social movements.

SPECIALIZED AREAS OF STUDY

ACT Preparation (One Trimester)

(11th grade 2nd tri)

This class is designed to make students aware of and comfortable with the features and format of the ACT college entrance exam. Students will learn test taking strategies and time management skills. All students will take the equivalent of a least four full length sample ACT exams during the course of this class and record their progress. They will review all of the math formulas, English grammar rules, scientific methods and models and reading comprehension strategies using past ACT exams as practice. Students will be graded on attendance, participation and completion of exams and some practice material. National Test Dates: October, December, February, April, June. The Michigan Merit Exam (ACT) will be held March.

ISD Nurse Aide Training (Three Trimesters)

(11-12)

Students earn ½ credit toward high school graduation and a certificate for employment after successful completion of this training course. Students attend classroom and clinical training in nurse aide care. Parents must sign a parental consent form and must agree to ensure that the student has transportation to and from clinical sites. A TB test

is required. Course work and clinical begin after school. The locations will be announced.

Cosmetology (Three Trimesters)

(11-12)

Juniors and/or Seniors may apply to the Michigan College of Beauty in Monroe, Michigan for the purpose of becoming a licensed cosmetologist. Students will attend Michigan College of Beauty in the afternoons and on Saturdays. Each year, students can earn three credits toward graduation for participation in this program. The Michigan College of Beauty encourages interested students to begin this program in their junior year.

Limited spots are available for Dundee High School students. Students will elect the cosmetology program on their course selection forms and then must interview at the Michigan College of Beauty. The Michigan College of Beauty makes all final selections for participation in the program.