

Stillman Valley
High School



Course Guide
2012-2013

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CLASSES OFFERED AT SVHS

Agriculture

Introduction to Agriculture Industry
Basic Horticultural Science
Biological Science App. in Ag./Plant
Biological Science App. in Ag./Animal
Agriculture Mechanics & Technology 1&2
Greenhouse Production and Floral Design
Landscaping & Turfgrass Management
Horticulture Production & Management
Agricultural Business Management 1&2
Agricultural Metal Fabrication
Supervised Ag Experience 1
Supervised Ag Experience 2

Art

Art 1
Art 2
Art 3
Art 4
AP Studio Art

Business & Information Technology

Business Basics
Principles of Technology
Consumer Education
Marketing I
Basic Keyboarding
Introduction to Computers
Information & Software Systems 1, 2, 3 & 4
CISCO Networking Academy 1, 2, 3 & 4
Accounting 1
Accounting 2
Introduction to Web Design
Principles of Multimedia
Business Management & Entrepreneurship
Computer Programming
Web Page Design and Development

English

English 1
Advanced English 1
English 2
Advanced English 2
American Literature
College Preparatory American Literature
Senior English
Advanced Placement English 4
Speech Communication
Film and Literature
Student Publication I
Student Publication II
Contemporary Literature

Foreign Language

French 1
French 2
French 3
French 4
Spanish 1
Spanish 2
Spanish 3
Spanish 4

Family & Consumer Science

Introduction to Family & Consumer
Sciences Careers
Nutrition and Culinary Arts I
Nutrition and Culinary Arts II
Child Development
Care and Learning Services Occupations
(CEO1)
Textiles and Design I
Textiles and Design II
Interior Design: Res, Comm & Public Space
Family and Career Relationships
Parenting
Family Resource Management & Planning

CLASSES OFFERED AT SVHS (cont.)**Industrial Arts**

Introduction to Industrial Arts
 Computer Aided Drafting (CAD) 1, 2
 CAD III 3D Architectural Drafting and Animation
 CAD IV Advanced 3D Architectural Drafting
 Introduction to Construction 1
 Introduction to Construction 2
 Construction 3
 Construction 4
 Woodworking I
 Woodworking II
 Woodworking III
 Woodworking IV
 Welding 1/2
 Welding 3/4

Math

Algebra IAB
 Algebra 1
 Algebra 2
 Geometry
 Pre Calculus
 Finite Mathematics with Trigonometry
 Statistics
 Calculus 1

Music

Symphonic Band
 Concert Band
 Girls Concert Choir
 Boys Chorale
 Acappella Choir
 Music History & Theory 1 & 2

Physical Education

Physical Education
 Strength and Conditioning
 Health
 Driver Education

Science

Earth Science
 Biology
 Chemistry
 Practical Chemistry
 The Changing Earth
 Space Science
 Anatomy
 Physics
 Advanced Placement Biology
 Advanced Placement Chemistry

Social Science

Renaissance World,
 Modern World
 Ancient Civilizations
 U.S. History 1, 2 & 3
 A.P. U.S. History 1
 A.P. U.S. History
 American Government
 Sociology

RVC Courses**Regional Programs**

Automotive Service Technology
 Certified Manufacturing Assistant
 Cisco Networking
 EMT
 Fire Science
 Graphic Communications
 Health Occupations
 Pre-Engineering
 Web Design
 Welding Technology

Special

Classroom Aid

AGRICULTURE

We offer two Agriculture Career Pathways. The first one is Agricultural Business & Management (01.0100). Courses included in this program are Introduction to the Agriculture Industry, Supervised Agriculture Experience I, Agricultural Business Management, Agricultural Mechanics and Technology, Biological Science Applications in Agriculture Plant/Animal Science, and Supervised Agricultural Experience II. The second pathway is Horticulture (01.0600). Courses included in this program are Introduction to the Agriculture Industry, Basic Horticultural Science, Supervised Agricultural Experience I, Greenhouse Production and Floral Design, Landscaping and Turf Management, Horticultural Production and Management, and Supervised Agricultural Experience II.

Career Pathways in Agricultural Education

Orientation Level Classes

9th & 10th Grade

Agricultural Business & Management

Introduction to the Agriculture Industry
Supervised Agricultural Experience I

Horticulture

Introduction to the Agriculture Industry
Basic Horticultural Science
Supervised Agricultural Experience I

Preparation Level Courses

11th & 12th Grade

Agricultural Business & Management

Agricultural Business Management (Dual Credit)
Agricultural Mechanics & Technology (Dual Credit)
Biological Science Applications in Agriculture
Plant/Animal Science (Dual Credit)
Supervised Agriculture Experience II

Horticulture

Greenhouse Production & Floral Design
Landscaping & Turf Management
Horticultural Production & Management
Supervised Agricultural Experience II

Introduction to the Agricultural Industry

Grade 9-10

1 Year

1 Credit

This orientation course provides an opportunity for students to learn how the agricultural industry is organized; its major components; the economic influence of agriculture at state, national and international levels; and the scope and types of job opportunities in the agricultural field. Basic concepts in animal science, plant science, soil science, horticulture, natural resources, agribusiness management, agricultural mechanics, agricultural biotechnology, food science technology, environmental science and aquacultural science and technology will be presented. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Supervised Agricultural Experience I

Grade 9-10

1 Year

½ Credit

This experience program is for students in 9th and 10th grades. Students receiving credit in this area must be enrolled in an agriculture class all year. Students will have a minimum of one approved project or acceptable plans for a project. Supervised study, project record book, training plans, training agreements, report writing, and instructor project visitation and supervision are essentials of this SAE. Course work and evaluation will be implemented in each agriculture course.

Supervised Agricultural Experience II

Grade 11-12

1 Year

½ Credit

Prerequisite: Supervised Agricultural Experience I or Instructor Approval

This experience program is for the 11th and 12th grade agriculture students. The opportunities and responsibilities are similar to those of SAE I with one exception that the experiences are conducted at a more advanced level of skill training. The projects should be expanded as the student progresses through the agricultural program. Course work and evaluation will be implemented in each agriculture course.

Basic Horticultural Science

Grade 9,10

1 Year

1 Credit

This course is designed to develop knowledge and skills in the following areas: using soil and other plant growing media; identifying horticultural plants; propagating horticultural plants; basics of growing horticultural plants in greenhouse and nursery settings; constructing, maintaining and using plant-growing structures; operating, repairing and maintaining equipment used in the horticultural field. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

This course counts toward science graduation credit

This course is offered as an articulated course through Kishwaukee Community College when taken with Biological Science Applications in Agriculture Plant Science

Agricultural Business Management I & II

Grade 11-12

1 Year

1 Credit

This course will develop students' understanding of the agricultural industry relating to the United States and World marketplace. Instructional units include: marketing and trading of agricultural products, international agriculture, imports and exports, agricultural law, taxes, governmental regulations and policies, and advanced computerized record keeping. Student skills will be enhanced in math, reading comprehension, and writing through agribusiness applications. Employability skills will be developed with resume writing and interviewing techniques to gain employment. Post-secondary education will be explored at agricultural colleges and universities. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

This course fulfills Consumer Education graduation requirements.

This course is offered as a Dual Credit course through Highland Community College.

Agricultural Mechanics & Technology I & II

Grade 11-12

1 Year

1 Credit

This course will concentrate on expanding student's knowledge and experiences with agricultural mechanics technologies utilized in the agricultural industry. Units of instruction included are: design, construction, fabrication, maintenance, welding, electricity/electronics, internal combustion engines, hydraulics, and employability skills. Careers of agricultural construction engineer, electrician, plumber, welder, equipment designer, parts manager, safety inspector, welder, and other related occupations will be examined. Improving workplace and computer skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

This course is offered as Dual Credit through Highland Community College

Agricultural Metal Fabrication

Grade Level: 11 & 12

Length of Course: Year

Credit: 1 Unit

Course Description: This course will emphasize the development of basic welding and metalworking skills necessary to succeed in agricultural careers in the agricultural metal fabrication industry. Topics of instruction include: metal identification and properties, metal preparation, use of oxy-acetylene torch, plasma cutting and cutting operations, arc welding, MIG welding, TIG welding, and project design and construction. Improving workplace and computer skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

This Course is a Dual Credit Course through Highland Community College.

It aligns with Introduction to Welding(WELD130) 3credits.

Biological Science Applications in Agriculture Plant Science

Grade 11-12 1 Semester ½ Credit

Prerequisite: "C" or better in Biology or Instructor Approval

This course is designed to reinforce and extend students understanding of science by associating basic scientific principles and concepts with relevant applications in agriculture. Students will examine major phases of plant growth and management in agriculture and the specific biological science concepts that govern management decisions. Topics of study are in the areas of **initiating** plant growth – germination, plant sensory mechanisms, enzyme action, absorption, and **managing** plant growth – photosynthesis, respiration, translocation, metabolism, and growth regulation. The course will be valuable preparation for further education and will increase the relevance of science through the applied setting of agriculture by enhancing literacy in science and the scientific process. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

(Fulfills Lab Science University Entrance Requirement)

This course counts toward science graduation credit.

This course is offered as an articulated course through Kishwaukee Community College when taken with Basic Horticulture Science

Biological Science Applications in Agriculture Animal Science

Grade 11-12 1 Semester ½ Credit

Prerequisite: "C" or better in Biology or Instructor Approval

This course is designed to reinforce and extend students understanding of science by associating scientific principles and concepts with relevant applications in agriculture. Students will examine major phases of animal agriculture and specific biological science concepts that govern management decisions in the animal industry. Topics of study are in the areas of **growth and development of animals** – embryology, ethology, nutrition, immunity systems, and **processing animal products** – preservation, fermentation, and pasteurization. The course will be valuable preparation for further education and will increase the relevance of science through the applied setting of agriculture by enhancing literacy in science and the scientific process. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

(Fulfills Lab Science University Entrance Requirement)

This course counts toward science graduation credit

This course is offered as Dual Credit through Highland Community College

Greenhouse Production & Floral Design

Grade 11 – 12 1 Year 1 Credit

***This course is offered on even numbered graduation years**

This course focuses on the greenhouse management, floral design and related segments of the horticulture industry. Major units of study include floriculture plant identification, greenhouse structures, and the culture of greenhouse crops. Also included are care and handling of cut flowers, principles of art applied to floral design, and the mechanics of floral design. Agribusiness units will be introduced in merchandising, advertising, sales, and operating a retail floral business. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

This course counts toward science graduation credit.

This course is offered as an articulated course through Kishwaukee Community College when taken with Landscaping and Turf Management & Horticultural Production and Management

Landscaping & Turf Management

Grade 11 – 12 1 Year 1 Credit

***This course is offered on odd numbered graduation years**

This advanced course focuses on the landscape, nursery, and turf segments of the horticulture industry. Units of student include: identifying landscape plants, designing landscape plans, hardscape construction techniques, and installing landscape plants. Also included are nursery production, turfgrass production, small engine repair, and maintenance of existing landscapes. Agribusiness units will cover calculating prices for work, managing a horticulture business, advertising, and sales. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

This course counts toward science graduation credit

This course is offered as an articulated course through Kishwaukee Community College when taken with Greenhouse Production and Floral Design & Horticultural Production and Management.

Horticultural Production & Management (Adv Hort)

Grade 11 – 12 1 Year 1 Credit

Prerequisite: "C" or better in Greenhouse Production & Floral Design or Landscape & Turf Management. Basic Horticultural Science or Instructor Approval

This advanced course offers instruction in both the floriculture and landscape areas of horticulture. Units of study include plant identification, greenhouse management, culture of greenhouse crops, care and handling of cut flowers, and floral design. Also included are landscape design, installation, and maintenance; horticulture mechanics; nursery management; and turf production. Agribusiness units will cover operating a horticultural business, pricing work, advertising, and sales. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, *career exploration and reinforcement of academic concepts.*

This course counts toward science graduation credit

This course is offered as a Dual Credit course through Highland Community College This course is offered as an articulated course through Kishwaukee Community College when taken with Greenhouse Production and Floral Design & Landscaping and Turf Management.

ART

Art 1

Grade 9-10-11-12 1 year 1 credit

Art 1 is an introductory level course that emphasizes the production of art. The course will introduce students to methods and techniques associated with drawing, painting, sculpture, ceramics, printmaking, and other art media. Students will gain knowledge about the elements of art, which include line, shape, form, value, color, space, and texture. The course will also explore influential people in art history and issues that pertain to aesthetic theory.

Art 2

Grade 10-11-12 1 year 1 credit

Prerequisite: **Satisfactory completion of Art 1*

A continuation of Art 1, Art 2 exposes students to more advanced media methods and techniques. The course will expand student knowledge of drawing, painting, sculpture, ceramics, printmaking, and other art media. Students will be introduced to the principles of design, which includes unity, variety, emphasis, rhythm, movement, balance, pattern, and proportion. The course will also explore influential people in art history, methods of art criticism, and careers in art.

Art 3

Grade 11-12 1 year 1 credit

Prerequisite: **Satisfactory completion of Art 2*

Art 3 is an advanced level course that will focus on producing large media. Students will use a variety of technical skills and methods to produce individual projects. Projects will emphasize developing individual problem solving skills and design process. The students will gain knowledge in both western and non-western art.

Art 4

Grade 12 1 year 1 credit

Prerequisite: **Satisfactory completion of Art 3*

Art 4 is an advanced level course that allows students to explore their own interests in creating artwork. Students will work individually with the instructor to develop their own body of art work. Students will organize and put on individual exhibitions at the conclusion of their senior year. The course will introduce students to the steps of creating an artist packet and staging an art exhibition.

AP Studio Art

Grade 12 1 year 1 credit

AP Studio Art is a yearlong course focused on developing a high quality portfolio for submission to the College Board for consideration of college credit. The course promotes a sustained investigation of all three areas of portfolio development – Quality, Breadth, and concentration. Students are challenged to develop mastery in idea, development, composition, and technical skills in either Drawing, 2D Design, or 3 D Design

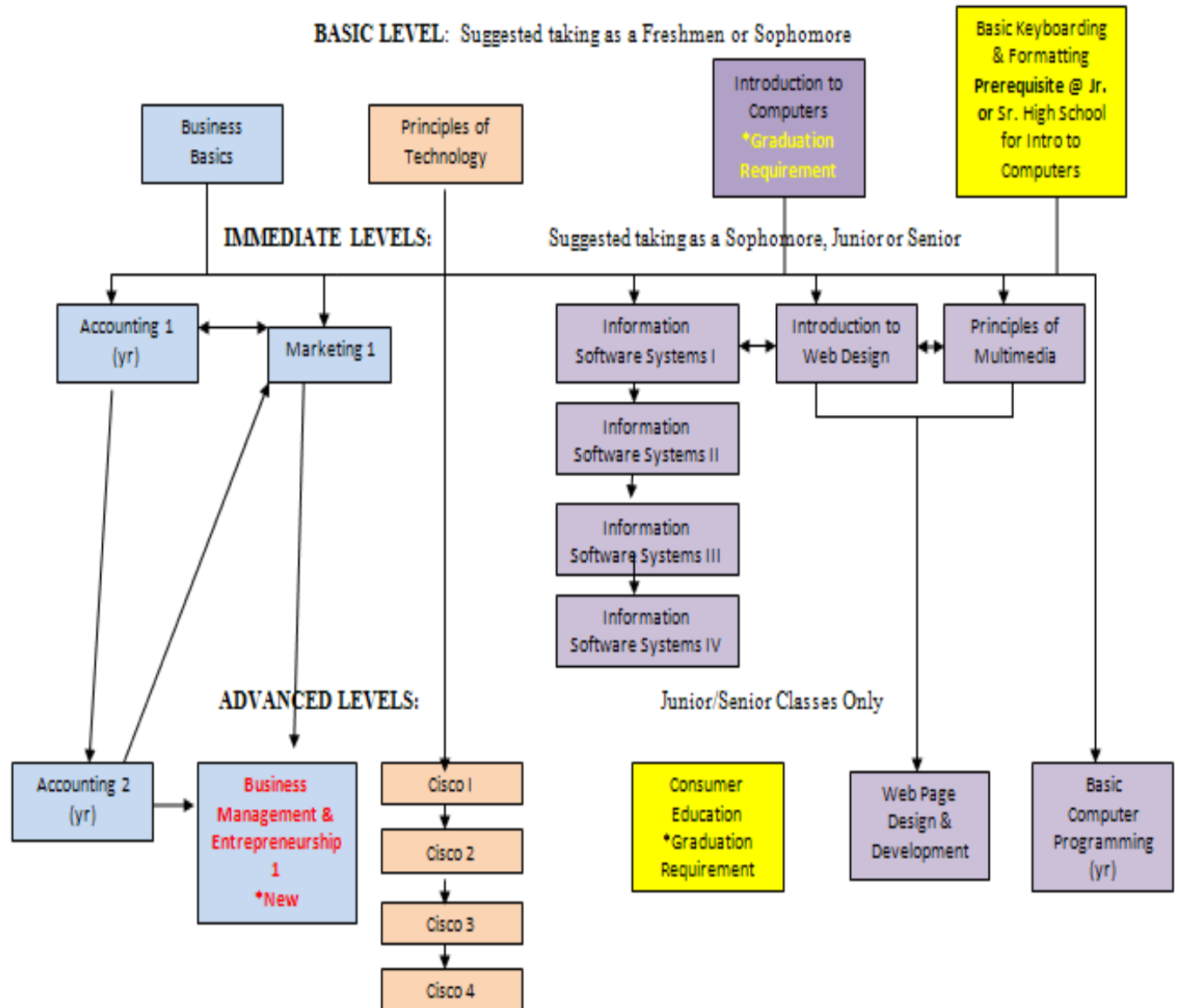
Special Note – Art Kit

A set of art supplies is required for Art 1, Art 2, Art 3 and Art4. The school offers an Art Kit at registration for your convenience. The kits are purchased in bulk and are much cheaper than buying the supplies at a local art store. A list of supplies will be handed out at the beginning of the school year to those students who do not wish to purchase the art kit.

BUSINESS & INFORMATION TECHNOLOGY

SVHS Business & Technology Course Suggestions Designed to Feed into Specific Programs

The diagram below is suggestions for students who are considering taking advanced level classes in Technology or Business.



Business Basics

Grade 9-10 1 semester ½ credit

This course is designed to increase the student's opportunities to succeed in work after graduation or continue their education at a community college or university. Students are introduced to the American economy and the role that business plays in the economic well-being of America. Topics included are business-government relations, forms of business ownership, finance, management, stock markets, marketing and economic concepts. It is highly recommended that each student have a working knowledge of Microsoft Office.

Basic Keyboarding & Formatting

Grade 9-10 1 semester ½ credit

This class is for those who **did not** have Keyboarding in Junior High

This course is planned to introduce the basic skills in keyboarding techniques for typewriter style keyboards and ten-key numeric keypads including computers. Major emphasis in class is placed on keyboarding techniques, proofreading and correcting errors in documents that will be used in other classes and the future.

Introduction to Computers*

Grade 9-10 1 semester ½ credit

Prerequisite: Jr. High Keyboarding and/or Basic Keyboarding

This course is designed to increase the student's opportunities to succeed in work after graduations or continue their education at a community college or university. Students will learn to use computers as tools in conjunction with related software and operating systems. Topics include computer concepts/components, understanding Windows and the Web/Internet, and introduces the Microsoft Office Suite of software as well as Windows Movie Makers and Internet Safety.

Course required for Graduation*Principles of Technology**

Grade 9, 10 ½ year ½ credit

Principles of Technology consists of 6 (semester) or 12 (year) two week modules including 4 stroke engines, computer animation, 3D modeling, landscape design, CAD, computer networking, graphic design, CNC milling, video editing, electronics, digital manufacturing, digital photography, and vinyl sign making. Each course will cover the resources, technological processes, industrial applications, technological impact and occupations encompassed by that system in our changing complex society. This six (twelve) course set provides the orientation needed to industrial occupation programs. In addition to the modules students will do research projects to explore the goals of past, future and evolution of technology.

General Goal: To initiate awareness in the student to explore technology and its role in modern society.

Specific Goals Explored:

- 1) Technology – What is this all about?
- 2) The Evolution of technology – How did we get here and why?
- 3) Technology Today – What is it doing for me now?
- 4) Technology Tomorrow – What do I have to look forward to?
- 5) Technology Careers – What career can technology offer me?

Information & Software Systems I

Grade 10-11-12 1 semester ½ credit

This intermediate course is designed to increase the student's opportunities to succeed in work after graduations or continue their education at a community college or university. Students will learn to make decisions in producing professional business documents (i.e.: business letters, memorandums, etc.) as well as utilizes other computer software tools. Students will also learn to design posters, business flyers and certificates as well as learn to create vector graphics for use in logos and other types of designs. The software programs used in this course are Microsoft Word 2007 and Excel 2007, Level 1. Students successfully completing the course may select to sit for Microsoft Office Specialist* (MOS) Core Certification

*Microsoft Office Specialist (MOS) – Contact Class Teacher for MOS Testing procedures and requirements.

Information & Software Systems II

Grade 10-11-12 1 semester ½ credit

Prerequisite: Information & Software Systems I or consent of the instructor

This intermediate computer course is designed to increase the student's opportunities to succeed in work after graduation or continue their education at a community college or university. Students will learn to create professional slideshows, including inserting videos and music into a slideshow presentation. Students will also create tables, queries and forms in the database, Access 2007. The software programs used in this course are Microsoft Power Point 2007, Access 2007. Students successfully completing the course may select to sit for Microsoft Office Specialist* (MOS) Core Certification

*Microsoft Office Specialist (MOS) – Contact Class Teacher for MOS Testing procedures and requirements

Advanced Information & Software Systems III

Grade 10-11-12 1 semester ½ credit

Prerequisite: Information and Software Systems II or consent of the teacher

This computer course is an advanced course that deals with various high-level software skills, including advanced knowledge of Microsoft Word 2007 and Excel 2007, level 2 & 3. Students will develop a portfolio of work involving desktop publishing skills that are aligned with the MOS Expert Certification. Students successfully completing the course may select to sit for MOS Expert Certification in Microsoft Word & Excel.

*Microsoft Office Specialist (MOS) – Contact Class Teacher for MOS Testing procedures and requirements

Advanced Information & Software Systems IV

Grade 10-11-12 1 semester ½ credit

Prerequisite: Information and Software Systems III or consent of the instructor

This computer course is an advanced course that deals with various high-level software skills, including advanced knowledge of Microsoft **Access 2007** and **Microsoft PowerPoint 2007**. Students will also focus on detailed work in Windows Movie Maker and digital camera work. Students will develop a portfolio of work involving desktop publishing skills that are aligned with the MOS Expert Certification.. Students successfully completing the course may select to sit for MOS Expert Certification in Microsoft Excel and PowerPoint Core certification.

*Microsoft Office Specialist (MOS) – Contact Class Teacher for MOS Testing procedures and requirements

Introduction to Web Design

Grade 10, 11, 12

1 Semester

½ credit

Introduction to Web Design is a skill-level course designed to prepare students to plan, design, create and maintain web pages and sites. Students will learn the fundamentals of web page design using HTML, and Dreamweaver, and graphics editing. Students will learn to create pages, add hyperlinks, make tables and frames, create forms, integrate images, and set styles.

Principles of Multimedia

Grade 10, 11, 12

1 Semester

½ credit

This course will include instruction with image editing programs designed to manipulate scanned images, computer graphics, and original artwork. Instruction will include creating graphical headers, interactive menus and buttons, and visually appealing backgrounds. Students will use hardware and software to capture, edit, create, and compress audio and video clips. Additionally, students will learn how to produce pod cast, and VCDs and DVDs.

Computer Programming

Grade 11, 12

1 year

1 credit

Prerequisites: Computer experience and interest in Computer Programming.

This course is designed to introduce the student to object oriented programming using Alice.. Students will write platform-independent object-oriented code for conventional, Internet-and Intranet-based applets and applications. Topics covered include graphical user interface (GUI) development; multimedia (images, animation, and audio); graphics strings, exception and security, and application portability.

Web Page Design and Development

Grade 11, 12

1 Semester

½ credit

Prerequisite: Introduction to Web Design & Principles of Multi-Media

Web Design & Development is a skilled-level course for students who have completed Introduction to Web Design and Principles of Multi-Media. Instruction will include using multimedia authoring applications and programming tools to create web sites that combine text, hyperlinks, images, video and sound as well as expanded practice in HTML coding. Students will also be exposed to professional web design guidelines and standards in order to create professional business websites.

Accounting 1

Grade 10-11-12 1 year 1 credit
Prerequisite: Algebra I or consent of instructor

This is a skill level course valuable to all students pursuing business, marketing and management programs. This course provides planned learning experiences and activities to develop abilities necessary for keeping, summarizing, and analyzing financial records.

In addition to stressing fundamental concepts of terminology of accounting, instruction will provide initial understanding of the preparation of financial reports, operation of business machines, computer applications, development of proper work habits and employability skills, and exploration of the career opportunities

Accounting 2

Grade 11-12 1 year 1 credit
Prerequisite: Accounting 1

A skill level course that builds upon the foundation established in Accounting 1. This course helps students develop a deeper knowledge of the principles of accounting with more emphasis being placed on financial statements and accounting records as they apply to partnerships and corporations.

The students will become familiar with such specialized fields of accounting as cost accounting, tax accounting and payroll accounting. In addition, skills are developed in the entry, retrieval and statistical analysis of business data using computers for accounting business applications. This course provides a strong foundation for college-bound students who plan to major in business and marketing occupations, as well as those who wish vocational preparation.

Marketing I

Grade 10, 11, 12 1 semester ½ credit

Marketing I will be a focus on the marketing world. It will include topics such as introduction to sales, promotions, distribution of goods, stock handling, pricing and product planning. Students will also be exposed to the concepts of productivity and its effect on cost and profit as well as working with a business/marketing plan. Job opportunities in the marketing field will also be explored. Additional topics include the 4 P's, economics in advertising, food marketing, and sports and entertainment marketing.

Business Management & Entrepreneurship 1

Grades: 11, 12 1 semester ½ credit

Business Management & Entrepreneurship 1 prepares individuals to perform functions and tasks associated with owning and operating a business. Components of business ownership covered will include purchasing, marketing functions, effective selling, distribution, product service planning, customer service, risk management and loss prevention, financing, and personnel management, culminating in a small business plan. Students will apply these principals in a "hands on" development and operation of a small business of their choosing

Consumer Education

Grades: 11, 12

1 semester ½ credit

This course is designed to help students better understand basic economic concepts in order to make better informed consumer decisions and better manage their money. It also shows how each person, by being a more effective decision maker, can influence our private enterprise system as a consumer, producer, and citizen. Topics covered include: consumer spending, credit, banking, budgeting, insurance, taxes, careers, automobiles, housing investing, and the U.S., economy.

CISCO Networking Academy

CISCO Networking is a two-year, junior/senior program.

- **Tech Prep** – Optional. After the junior year, students are encouraged, but not required, to enroll in Tech Prep paid work-based learning. This would start during the summer between the student's junior and senior year and continue during the senior year. Work-based learning will allow the student to earn maximum RVC credit.
- **Certification** – CISCO Networking Associate Certificate after last course.

Information Technology courses utilize the CISCO Networking Academy program, which is designed to teach students the skills needed to design, build and maintain small-to-medium-size networks. The Academy program provides students with the opportunity to enter the workforce with industry certification and/or further their education and training in the computer networking field.

CISCO Networking Academy I

Grade 11

1 semester

The introductory course in the CISCO Networking Academy provides relevant preparation for the information technology field. The fundamentals of networking, protocols, IP addresses and concepts leading to cabling installation will be covered.

CISCO Networking Academy II

Grade 11

1 semester

Prerequisite: CISCO Networking Academy I

The second class in the Academy will cover routing theory and router technologies. Students participate in router configuration exercises and will be introduced to LAN switching. By the end of the class, students will have the skills necessary to gain internship opportunities in the information technology sector.

Information Technology Tech Prep Summer Internship

Grade 12

Summer

Prerequisites: CISCO Networking Academy I and II

This paid internship provides students with the chance to apply what they have learned in the classroom into “real life” situations and to experience a variety of industry settings. It is aligned with the CISCO competencies and, along with the senior year internship, allows the student to be eligible for maximum RVC credit.

Information Technology Tech Prep School Year Internship

Grade 12

School year

Prerequisites: CISCO Networking Academy I and II

This paid internship provides students with the chance to apply what they have learned in the classroom into “real life” situations and to experience a variety of industry settings. It is aligned with the CISCO competencies and, along with the senior year internship, allows the student to be eligible for maximum RVC credit.

CISCO Networking Academy III

Grade 12

1 semester

Prerequisite: C or better in CISCO Networking Academy II

Advanced routing and switching will be covered in the third course in the CISCO training sequence. During this course, students will configure routers and switches using network management techniques to find and fix network problems.

CISCO Networking Academy IV

Grade 12

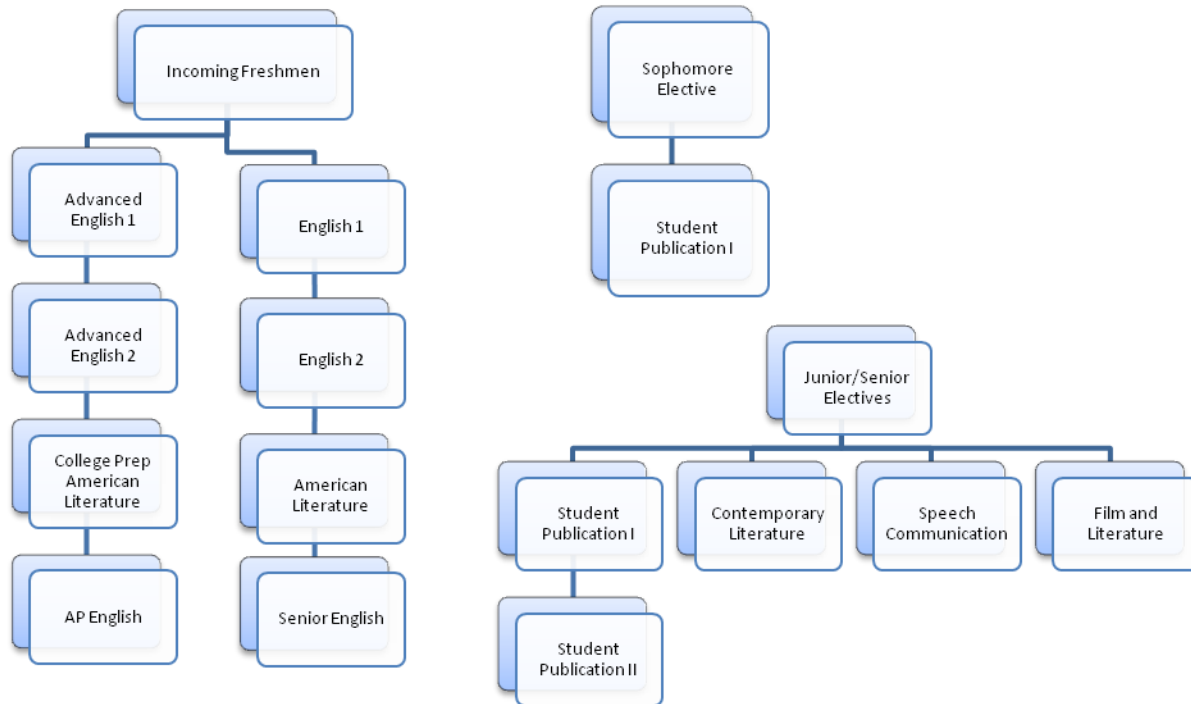
1 semester

Prerequisite: C or better in CISCO Networking Academy III

In the fourth class of the Academy sequence, project-based learning will take place. Students will complete advanced projects in network design and management. Completion of these tasks and 280 hours of instruction in the four CISCO courses will prepare students for the industry certification exam required to achieve the CISCO Networking Associate certificate. The student will also be positioned for the additional schooling required for more advanced certifications.

ENGLISH

SVHS English Course Options



English 1**

Grade 9 1 year 1 credit

English 1 is designed to develop proficiency in language skills, including basic grammar, composition, reading and vocabulary. Lessons spread throughout the year will focus on usage, basic sentence structure, sentence combining and paragraph development. Vocabulary will emphasize not only the meaning of new words, but also learning to use the words properly. Literature study will include units on the short story, novel and drama.

****Required for Graduation unless enrolled in Advanced English I**

Advanced English 1**

Grade 9 1 year 1 credit

Prerequisite: Recommendation of Jr. High School English Teacher

Advanced English 1 is designed to increase proficiency in the communication skills of reading, writing, speaking and critical thinking. These skills are developed through a variety of activities in the areas of literature, grammar usage, writing and vocabulary study. Special projects are used to give students an opportunity to apply and enhance their communication skills.

English - 18

****Required for Graduation unless enrolled in English I**

English 2**

Grade 10 1 year 1 credit

English 2 is a required course for sophomores. The course is designed to increase proficiency in reading, writing, speaking, listening, and critical thinking skills. These communication skills are developed through a variety of activities in the areas of literature, grammar, and writing. The short story, the non-fiction essay, the novel, and Shakespearean drama are studied. Personal and public writing are given attention throughout the course.

****Required for Graduation unless enrolled in Advanced English II**

Advanced English 2**

Grade 10 1 year 1 credit

Prerequisite: English 1 teacher recommendation

This college bound course is designed to increase proficiency in the communication skills: reading, writing, speaking, listening, and critical thinking. These are developed through a variety of activities in the area of literature, grammar, and writing. Writing, both personal and public, is a crucial focus of this course. Students in the course are expected to be highly motivated and independent workers.

****Required for Graduation unless enrolled in English II**

American Literature**

Grade 11 1 year 1 credit

In this course, primary attention will be placed upon examining American literature, both critically and appreciatively. Emphasis will be placed upon expanding writing skills, paragraph building, oral communication, and understanding different perspectives.

****Required for Graduation unless enrolled in College Preparatory American Literature**

College Preparatory American Literature**

Grade 11 1 year 1 credit

Prerequisite: Adv. English 1, 2 or instructor permission

In this course, primary attention will be placed upon examining American literature from a variety of perspectives and critical viewpoints. Emphasis will be placed upon expanding grammar and writing skills, oral communication, an argumentative/persuasive research paper, and developing vocabulary for the college bound student.

****Required for Graduation unless enrolled in American Literature**

Senior English

Grade 12 1 year 1 credit

English 4 is designed for students who may not be prepared for the level of difficulty of Advanced Placement English. The course is based on a study of world and British literature. A research paper will be required, grammar will be reviewed, and improvement of writing and communication skills will be emphasized.

Advanced Placement English

Grade 12 1 year 1 credit

Prerequisite: College Prep. American Lit. or teacher recommendation

This course is designed for highly motivated students who will be attending a college or university. Goals of the course will be increasing proficiency in critical thinking, using close reading and analysis of major works of English and world literature. The class will involve a considerable amount of reading and writing. A primary emphasis of the class will be preparation for the College Board Advanced Placement Test in English, which students will have the option of taking for possible college credit or advanced placement their freshman year of college.

Speech Communication

Grade 11-12 1 semester ½ credit

This class is intended to give an understanding of types of communication and to improve the student's spoken presentation. The first quarter of the course will be devoted to studying proper speech presentation and to giving speeches. The second quarter will include the study of advertising as persuasive speech and the study of drama. Students will be involved in planning and recording a humorous duet acting piece.

Film and Literature

Grade 11-12 1 semester ½ credit

Prerequisite: American Lit or concurrent enrollment in American Lit

This course is intended to provide the student with a series of learning situations in which they can explore both visual and audio-visual works. The course will include several diverse units: the Western, War, Comedy, Romance, Horror and Detectives. The exploration of each unit will be guided with the use of novels, short fiction, essays, and one or more films. Each unit will be evaluated with questions, quizzes, tests, and comparison and/or contrast papers involving a film and the written works. This course is intended to provide ½ credit toward the English requirement.

Student Publication I

Grade 10-11-12 *½ year .5 credit

Prerequisite: **none*Course **prepares students for Student Publication II*

This course teaches students basic publication skills: interviewing, reporting, copywriting, headline writing, proofreading, editing, photography, caption writing, and page design. Student work may be submitted to The Cardinal yearbook, the school's website, and/or local newspapers. Grading is based on tests; story and photography assignments; and the observation of daily work habits and teamwork. After school assignments and work sessions may be required.

Student Publication II

**Grade 11-12 1 year 1 credit*

*Prerequisite: Satisfactory Completion of Student Publications or Instructor Approval
Course is repeatable for elective credit*

This course is designed to produce the Stillman Valley High School yearbook, The Cardinal, using a web-based publishing program. Students will have the opportunity to build on publication skills learned in Student Publication I and will be involved in every level of the process: theme development, page design, photography, reporting, copywriting, editing, proofreading, advertising, marketing and sales. Grading is based on tests; story assignments and pages completed according to deadline; and the observation of daily work habits and teamwork. After school assignments and work sessions may be required.

Contemporary Literature

Grade 11-12 1 semester ½ credit

Contemporary Literature focuses on the reading and analysis of literature since the 1950's. The course emphasizes how contemporary issues are explored in literature. Students are expected to read four novels from multiple genres and to develop a sense of how particular genres are used today to represent ideas and events. Students explore issues of interpretation and theme through creative, reader response and analytical writing, group discussions, and oral presentation. Oral and written projects are designed to elicit a more thought provoking reaction and critical analysis of the literature, while developing the individual's communication skills.

FOREIGN LANGUAGE

French 1

Grade 9-10-11-12 1 year 1 credit
Prerequisite: "C" average or above in previous years English

The goal of this course is to develop the student's basic knowledge of the French language in the areas of speaking, listening, reading, and writing. Textbooks, workbooks, movies, CD's and other audio-visual materials are used to achieve this goal.

French 2

Grade 10-11-12 1 year 1 credit
Prerequisite: **Satisfactory completion of French 1*

French 2 continues by reviewing material from French 1 and then expanding on the development of these skills through culturally oriented material. Vocabulary is carefully introduced, reinforced, and integrated to promote language proficiency. Grammar structures are presented in such a way as to promote comprehension and to encourage active participation. Listening and speaking skills are integrated into the program by the use of comprehension and conversation exercises.

French 3

Grade 11-12 1 year 1 credit
Prerequisite: **Satisfactory completion of French 2*

We cultivate the listening and speaking skills and stress the importance of proper pronunciation and dictation. Listening comprehension exercises and pronunciation drills are provided, and abundant opportunity for oral practice is offered throughout the course. We explore selected readings on French life and literature and students are involved in many group and individual projects, reports and demonstrations throughout the year.

French 4

Grade 12 1 year 1 credit
Prerequisite: **Satisfactory completion of French 3*

French 4 continues the balanced skills approach of the lower levels. Reading is emphasized. Students read about the history of France from the time of Gaul up to the present. Oral discrimination exercises emphasize listening; all are paired with some kind of activity in the workbook.

FOREIGN LANGUAGE

Spanish 1

Grade 9-10-11-12 1 year 1 credit
Prerequisite: "C" average or above in previous year's English

The purpose of this course is to teach the student basic everyday vocabulary and grammatical skills necessary to begin to speak, read, write and understand Spanish. Students will be engaged in a variety of speaking and listening activities, but the most emphasis will be placed on producing the language; i.e. writing and speaking.

Spanish 2

Grade 10-11-12 1 year 1 credit
Prerequisite: Satisfactory completion of Spanish 1

Second year Spanish continues to build on vocabulary and the grammatical skills learned in Spanish 1. Students are introduced to more complex sentence structures and grammatical concepts. The students are required to do more independent writing assignments and projects outside of class related to a specific grammar concept and/or cultural topic.

Spanish 3

Grade 11-12 1 year 1 credit
Prerequisite: Satisfactory completion of Spanish 2

Third year Spanish continues emphasizing the structure and formation of the language, with more advanced concepts being introduced and applied. A heavier emphasis is placed on cultural aspects and independent projects.

Spanish 4

Grade 12 1 year 1 credit
Prerequisite: Satisfactory completion of Spanish 3

Spanish 4 continues with language production and comprehension skills throughout the year. The focus is to maintain and strengthen skills learned in the previous three years. The application of these skills in independent projects, writings, or other appropriate scenarios will be heavily practiced. The "Destinos" video series is utilized throughout the year for listening comprehension. Class will be conducted almost entirely in Spanish.

FAMILY & CONSUMER SCIENCES (HOME ECONOMICS)

Introduction to Family and Consumer Sciences Careers

Grade 9-10 1 Year Credit 1.00 (22201A001)

This course introduces students to the field of family and consumer sciences and the many career opportunities available in this broad field. The course includes theory and laboratory experiences in the following content areas: Nutrition and culinary arts; textiles and design; family, career, and community leadership development; resource management; human development and life-long learning; facility design, care, and management; and interpersonal relationships and life management skills. (Cost for this class is for projects. There are 3 projects per year. Cost per project can range from \$5.00-25.00+ depending on fabric and other project supply choices.)

Child Development

Grades 10-12 1 Semester Credit .5 (19052A001)

Child Development addresses the knowledge, skills, attitudes, and behaviors associated with supporting and promoting optimal growth and development of infants and children. The focus is on research based nurturing and parenting practices and skills, including brain development research, that support positive development of children. Students will explore opportunities in human services and education related careers and develop a career portfolio.

Care and Learning Services Occupations (CEO1)

Grades 11-12 1 Year Credit 1.0 (19054A001)

This course provides students with information and practical experiences needed for the development of competencies related to child, daycare and education services occupations. Laboratory experiences, either in a school based or work site learning facility, are included throughout the class. Students meet standards in developing programs and assisting with children's and/or adult's activities. Classroom study includes the philosophy and management of care centers and the state and local regulations governing care-giving operations. The main learning experiences will involve actual work with children/adults simulating those found in business and industry, as well as preparation for developing and facilitating these activities.

Textiles and Design I (Clothing 1 + 2)

Grades 10-12 1 Year Credit: 1.00 (19201A001)

This course is designed to provide basic knowledge and understanding of the design, development, and production of textile products. Through hands-on and project based learning experiences students will discover fiber characteristics, fabric construction methods, elements of science and design in textiles and apparel, and basic construction skills used in interior furnishings and apparel industries. This course emphasizes awareness and investigation of careers and industry trends in textiles. (Cost for this class is for sewing projects. There are 6-7 projects per year. Cost per project can range from \$15.00-75.00+ depending on fabric and other project supply choices.)

Textiles and Design II (CFASO)

Grades 11-12

1 Year

Credit 1.00

(19203A001)

This project-based course focuses on the implementation and recognition of design principles in selecting, constructing, altering, and remodeling textile products. Project management skills, including efficient use of time, materials, technique, and tools are incorporated throughout the course. Topics include: engineered fabric constructions; fiber and textile trends; color theory; principles of design; fabric finishes; industry construction techniques; use of industry tools, equipment, and terminology; knowledge of resources and vendors; research and evaluation of textile products for special needs populations; impacts of technology; construction, alteration and re-design skills; and simple flat pattern design and recognition. **Prerequisite: Textiles and Design I** (Cost for this class is for sewing projects. There are 6-7 projects per year. Cost per project can range from \$15.00-75.00+ depending on fabric and other project supply)

Nutrition and Culinary Arts I (Foods 1)

Grades 10-12

1 Semester

Credit .5

(16054A001)

This course includes classroom and laboratory experiences needed to develop a knowledge and understanding of culinary principles and nutrition for people of all ages. Course content encompasses: food service and preparation management using the decision-making process; meeting basic needs by applying nutrition concepts; meeting health, safety, and sanitation requirements; maximizing resources when planning/preparing/preserving/serving food; applying hospitality skills; analyzing nutritional needs in relation to change; and careers in nutrition and culinary arts, including entrepreneurship investigation. (Cost for this class is for open labs. 2-3 open labs given per semester. Cost per lab can range from \$5.00-10.00 depending on food selected.)

Sophomores get preference for Food and Nutrition Science 1 & 2

Nutrition and Culinary Arts II (Foods 2)

Grades 10-12

1 Semester

Credit .5

(16054A002)

Nutrition and Culinary Arts II provides principles of application into the hospitality industry, including nutrition, culinary, and entrepreneurial opportunities. Course content includes the following: selection, purchase, preparation, and conservation of food, dietary needs and trends, regional & international cuisine, safety and sanitation, and careers in food service industries. All of these concepts can be interpreted through laboratory experiences.

Prerequisite: Nutrition and Culinary Arts 1 (Cost for this class is for open labs. 2-3 open labs given per semester. Cost per lab can range from \$5.00-10.00 depending on food selected.)

Parenting

Grades 11-12

1 Semester

Credit .5

(22204A001)

This course helps students understand the responsibilities, satisfactions and stresses of parenthood. Course content

includes the following: managing and organizing parenting by applying decision-making and goal-setting skills; applying the basic principles of the parenting process; practicing health and safety standards as related to parenting; providing experiences which encourage parents and children to maximize resources; encouraging human relations skills in children/adolescents; community resource agencies and services; and evaluating impact on parenting of family and career changes.

Family and Career Relationships (Adult Living)

Grades 11-12

1 Semester

Credit .5

(22207A001)

This course is designed to focus on the knowledge, attitudes, and behaviors needed to participate in positive, caring, and respectful relationships in the family, community, and workplace. This project – based course uses communication, leadership and management methods to develop knowledge and behaviors necessary for individuals to become independent, contributing, and responsible participants in family, community, and career settings. Emphasis is placed on the development of techniques and strategies to assist individuals in responding to situations presented in family relationships and the workplace. The course content includes: managing responsibilities, satisfactions and stresses of work and family life; analyzing personal standards, needs, aptitudes and goals; roles and responsibilities of living independently and as a family member; demonstrating goal-setting and decision-making skills; identifying and utilizing community resources; and developing effective relationships to promote communication with others. The course provides students content to identify resources that will assist them in managing life situations.

Interior Design: Residential, Commercial, + Public Space (Living Envir.)

Grades 10-12

1 Semester

Credit .5

(22211A001)

This course provides basic knowledge and skills needed to select, acquire, furnish, maintain, and manage residential and commercial environments to meet the needs of the users/occupants. The course includes the application of the interior design elements and principles; selection and care of furnishings, equipment and accessories in relation to socio –economic factors, trends, personal tastes and characteristics, as well as physical and psychological needs; safety, sanitation, and efficiency factors in interior design; and evaluating use and care of textiles. This project based course investigates a variety of related career opportunities, including entrepreneurship. Emphasis is placed on the application of project management skills.

Family Resource Management + Planning

Grades 11-12

1 Semester

Credit .5

(22210A001)

This course focuses on the identification and management of personal and family resources to meet the needs, values, and wants of individuals and families throughout the life cycle. The course utilizes a variety of project -based experiences and service learning opportunities to gain knowledge and expertise in understanding and applying management skills, with consideration to diverse social, economic, technological, environmental, and cultural characteristics of individuals and families. Topics include: consumer rights and responsibilities in the marketplace; financial responsibility and decision making; planning and money management; credit and debt; risk management and insurance; saving and investment; homeownership; state and federal taxes; electronic banking; and current issues in the economy.

This course meets the content requirements (installment purchasing, budgeting, comparison or prices and an understanding of the roles of consumers interacting with agriculture, business labor unions and government in formulating and achieving the goals of the mixed free enterprise system) for consumer education instruction as required by the School Code of Illinois (Section 27-12.1).

INDUSTRIAL TECHNOLOGY

Introduction to Industrial Arts

Grade 9 (10-11 with instructor approval) 1 year 1 credit

This course will give students an introductory “hands on” approach to all the areas of the Industrial Technology department. The class is designed to create and design project based activities. This is a full year course, to give each student a basic knowledge and skill set in each area of following areas:

- Woodworking – This is covered over an 18 week period so all areas of the wood fabrication facility are covered. Students will be designing and constructing 2-3 woodworking projects that they will be to take home when completed.
- Construction/Metals – Students will develop basic carpentry skills related to wall construction, drywall and electrical projects. All activities are project based. A mini welding/metals unit will be included.
- CAD (Computer Aided Drafting) – Students will create and design various 2D and 3D drawings and animations. Using AutoCad and Google Sketch-Up programs on the latest computer technology.

Computer Aided Drafting (CAD) 1

Grade 10-11-12 1 semester ½ credit

Students will be introduced to 2D and 3D drafting, using the latest computer technology available. Students will be concentrating on mechanical and architectural drawings. Following industry standards and covering areas of planning, designing, preparing layout and detailed drawings. Students will use the following computer programs. AutoCad (latest version), Google Sketch-Up, 3D studio-max (animation).

Computer Aided Drafting (CAD) 2

Grade 10-11-12 1 semester ½ credit

Students will continue to build on the foundation of CAD 1. This will reinforce those concepts and skills already covered. Additional areas introduced are assembly drawings, sections, and a more advanced approach regarding 2D and 3D drafting. Students will be performing layouts, detailed drawings and animations, in regards to Architectural drafting and design. Students will also be creating animation renderings. The 3D computer animations created in class are basic examples of what one sees when watching a movie or cartoon created by computer animation. AutoCad (latest version), Google Sketch-Up, 3D studio max (animation) and AutoDesk Revit will be used.

CAD III 3D architectural Drafting and Animation

Grade: 11-12 (Repeat with approval)

Length of Course: 1 semester

Prerequisite: CAD II (or instructor approval)

½ Credit

The course is designed for the student with an interest in 3D Drafting, Animation, Architecture, and design. The course provides real-world examples that designers, illustrators, drafters and architects use. Students also have the opportunity to work on architectural design projects that require residential planning. Students will also work with 3D software to create three dimensional drawings and presentations. AutoCad (latest version) Google Sketch-Up, 3D Studio Max (animation) are used.

CAD IV Advanced 3D Architectural Drafting and Animation

Grade: 11-12 (Repeat with approval)

Length of Course: 1 semester

Prerequisite: CAD III (or instructor approval)

½ Credit

This course is designed for the student with an interest in advanced 3D Drafting and design. This course continues the areas covered in CAD 3 and will further develop the students' knowledge and drafting skills. Real world examples that designers, illustrators and architects face will be the student projects throughout the semester. Students will work on architectural design and artistic renderings. AutoCad (latest version) Google Sketch-Up, 3D Studio Max (animation) are used predominantly in this course

Introduction to Construction 1

Grade: 10-11-12 1 semester

½ Credit

Prerequisite: None

This course will introduce students to the basic skills necessary for construction occupations. Hands-on activities will focus on building construction, safety and power equipment use. Students will obtain real world experience in the construction field. Skills attained will be in the areas of rough framing, installing roof components, estimations, exterior installations, maintain and installation of electrical components. Students will be working outside on a school "job-site" in order to have a highly realistic and beneficial experience in the construction field.

Introduction to Construction 2

Grade: 10-11-12 1 semester ½ credit

Prerequisite: Construction 1 (or instructor approval)

This course will build upon Construction I and include wall and floor layout, basic roofing and small building construction. Duty areas include: applying safety practices, estimating, installing rough framing, installing roof components, and installing exterior finishes. In addition, the employability skills in the following duty are covered: employment opportunities, employment capabilities, appropriate work behavior, maintaining a safe and healthy environment, communication on the job etc. Students will be working outside on a school "job-site" in order to have a highly realistic and beneficial experience in the construction field.

Woodworking I

Grade 10-11-12 1 semester ½ credit

This course provides learning experiences common to most occupations in the woodworking industry. Students will design, layout and construct furniture of their choice. Examples of projects include but are not limited to coffee table, poker tables, dressers, cabinets etc. Students will become knowledgeable of shop safety, tool and machine usage, material selection and housekeeping procedures. This course is designed to develop, construct and finish high quality furniture. Emphasis is placed on quality of workmanship and safety.

Woodworking II

Grade 10-11-12 1 semester ½ credit Prerequisite: Woodworking I

By allowing students to become more knowledgeable in planning and assembling wood products, this course develops skills through safe use of tools and equipment. Review of safety principles and practices is an essential transition into planning layouts. Students will further develop their woodworking skills from the previous level class. Students will also focus on designing and constructing high quality furniture.

Woodworking IIIGrade 11-12 1 semester ½ credit Prerequisite: Woodworking II
(Can be taken again with instructor approval)

This course allows the student to put the experience gained in woodworking 1-2 into practice by planning, designing and constructing wood products at a more advanced level. Again, safety principles and practices are emphasized along with designing cabinetry. In addition staining techniques and application, types experienced in involved in woodworking II. This course can be repeated. Students will develop highly skilled an advanced furniture projects. Course content also includes advanced machine set-up and operation; offer student the opportunity to specialize in specific areas of woodworking.

Woodworking IVGrade 11-12 1 semester ½ credit Prerequisite: Woodworking III
(Can be taken again with instructor approval)

This course allows the student to put the experience gained in woodworking 1-3 into advance practice of planning, designing and constructing extremely high quality furniture/wood products. Safety is again a key principle. Students will develop, design and create custom millwork projects. This course can be repeated. Students will develop highly skilled an advanced furniture projects. Course content also includes advanced machine set-up and operation; offer student the opportunity to specialize in specific areas of woodworking.

Construction 3

Grade: 11-12 1 semester ½ credit Prerequisite: Construction 2 (or instructor approval)

In Construction III, students apply skills related to construction 2 at a more advanced level. Students will estimate materials, install rough framing, roof components, interior finishes and exterior finishing, while maintaining existing and new electrical components. Students at this level will be given a role as a job foreman. They will be group leaders when working with students from construction 1 level. Students will be working outside on a school "job-site" in order to have a highly realistic and beneficial experience in the construction field.

Construction 4

Grade 11-12 1 semester ½ credit Prerequisite: Construction 3 (or instructor approval)

Construction IV provides reinforcement for all skills which the student has mastered in the previous construction courses. Students will estimate materials, install rough framing, roof components, interior finishes and exterior finishing, while maintaining existing and new electrical components. Students at this level will be given a role as a job foreman. They will be group leaders when working with students from construction 1 level. Students will be working outside on a school "job-site" in order to have a highly realistic and beneficial experience in the construction field.

Welding 1/2

Grade 10-11-12 1 semester ½ credit
Prerequisite: Introduction to Industrial Arts (or instructor approval)

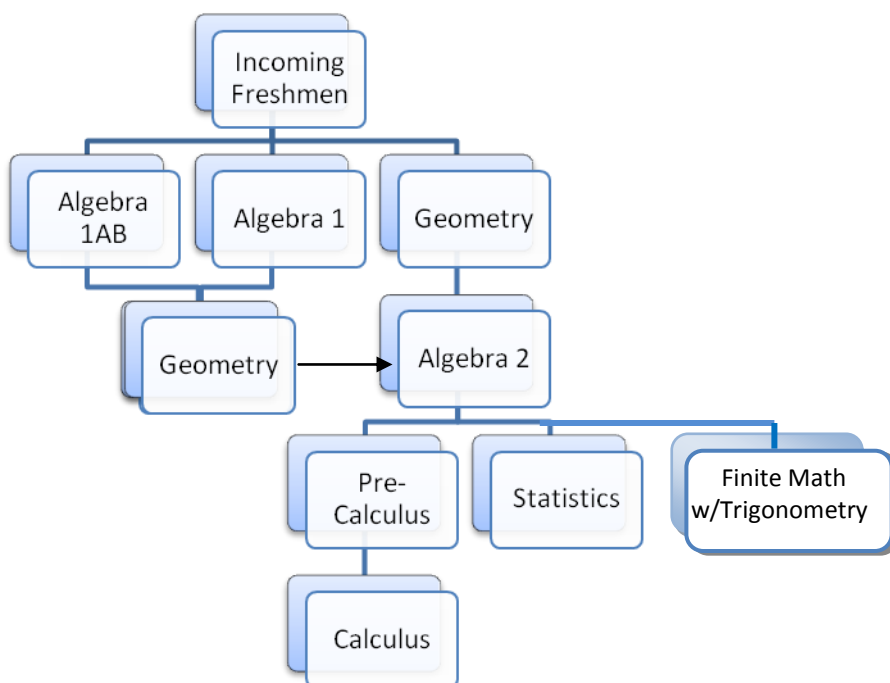
This course provides experience in oxyacetylene and shielded metal arc welding. Ferrous material will be joined by these two processes. Students will be introduced to basic skills relating to shop safety, and set-up and operation of equipment. They will also begin to develop specific skills needed to weld in the flat and horizontal welding positions. In this course, student learning experiences will build on earlier skill development in oxyacetylene and shielded metal arc welding in the flat and horizontal position. In addition, students begin to develop basic skills in the vertical and overhead welding positions and in thermal cutting methods.

Welding 3/4

Grade 10-11-12 1 semester ½ credit
Prerequisite: Welding 2 (or instructor approval)

Student learning experiences will build on earlier skill development in oxyacetylene and shielded metal arc welding. The student will develop in depth knowledge and demonstrate advance skills in these processes welding in the flat, horizontal, vertical and overhead welding positions and in thermal cutting methods. In addition, the student will begin to develop skills in gas metals arc welding (MIG). Basic shop math and measurement will be emphasized. In this course the student learning experience will build on earlier skill development in oxyacetylene and shielded metal arc welding. Students will develop additional skills in these processes in the flat, horizontal, vertical and overhead welding positions, along with thermal cutting methods. The student will increase knowledge and achieve skills that were attained in the previous course. Students will also begin to develop job skills in gas tungsten arc welding (GTAN)(TIG). Basic shop math and measurement will be emphasized.

MATH
SVHS Math Course Options



Placement for Grade 9 math will be made by the student and parents based on recommendation of the eighth grade math teacher and achievement test scores.

Algebra 1AB

Grade 9 1 year 1 math credit, 1 elective credit

This course is a **double blocked** course that meets every day. It is designed to introduce students to the concept of working and solving for unknown quantities. Major emphasis is placed on numerical exercises and translating verbal or English statements to mathematical statements. The major units of study will be basic operations with variables, integers and properties, linear equations, formulas, modeling, polynomials and factoring, and an introduction to quadratic equations.

Algebra 1

Grade 9-10 1 year 1 credit
Prerequisite: Consent of the instructor

This course is designed to introduce students to the concept of working and solving for unknown quantities. Major emphasis is placed on numerical exercises translating of verbal or English statements to mathematical statements. The major units of study will be basic operations with variables, integers and properties, linear equations, formulas and word problems, polynomials and factoring, introduction to quadratic equations, and fractions.

Geometry

Grade 9-10-11-12 1 year 1 credit

Prerequisite: PASS both semesters of Algebra 1 or both semesters of Algebra 1B or the consent of the instructor

This course will acquaint the student with the fundamentals of Geometry such as parallel lines, triangles, and co-ordinate Geometry. The goals are to develop student skills and abilities in investigating, reasoning, and justifying. The major units of study will be transformations, angles, trigonometry, quadrilaterals, circles, areas and volumes.

Algebra 2

Grade 10-11-12 1 year 1 credit

Prerequisite: PASS Algebra 1 or 1AB and Geometry or consent of the instructor

This course is designed to strengthen the concepts of Algebra 1 as well as explore more advanced concepts. The major units of study are probability and statistics, trigonometry, matrices and systems of equations, quadratic functions, polynomial functions, roots and radicals, logarithmic and exponential functions, and rational functions.

Finite Mathematics with Trigonometry

Grades 11-12 1 year 1 credit

Prerequisite: Pass Algebra 2

This course is designed to strengthen concepts of Algebra 2 and explore more real-world applications of mathematics. The major units of study will include personal finance, statistics, geometry, trigonometry, business applications, problem solving, and critical thinking. This is a college-preparatory course intended for students who may not require Calculus in their intended field of study.

Pre Calculus

Grade 11-12 1 year 1 credit

Prerequisite: PASS Algebra 2 and Geometry (strongly recommended "C" or better in both) or consent of the instructor

This course is designed to prepare students for College Mathematics, Calculus, and advanced mathematics in related sciences. This course will require students to unify the concepts learned in geometry and previous algebra courses, and become better problem solvers. The major units of study include functions, modeling, advanced graphing techniques, trigonometry, analytic geometry, exponential and logarithmic functions, conic sections, sequences and series, and polar coordinates.

Statistics*

Grade 11-12 1 Semester (Fall) 1 credit

Prerequisite: Algebra 2 with a C or better *RVC requires an ACT math score 18 and reading score 19 or meet RVC Accuplacer Requirements

This course is a college course offered through Rock Valley College. Statistics is intended primarily for students planning on future majors in life science or social science, or others interested in elementary statistics. Topics included are measures of central tendency and variability, graphical presentation of data, normal and binomial distributions, t- and chi-square distributions, sampling, hypothesis testing and correlation.

Calculus

Grade 12 1 year 1 credit

Strongly recommended "B-" or better in Pre Calculus RVC requires an ACT math score 26 and reading score 19 or meet RVC Accuplacer Requirements

This course is a college course offered through Rock Valley College. Calculus includes an introduction to differential and integral calculus with the study of limits and applications of the derivative and integral. Some emphasis will also be placed on improving mathematical writing skills and various problem solving strategies.

MUSIC

Symphonic and Concert Bands will perform together for marching and pep performance. Everything else will be separate.

Symphonic Band

Grade 9-10-11-12 1 year 1 credit

Prerequisite: Audition

Students are placed into Symphonic Band by audition only. If Juniors and Seniors would like to participate, they are no longer automatically placed in Symphonic Band, they must audition. Anyone, including freshman, is eligible to audition for Symphonic Band. Auditions are held both semesters, and students can change from concert to symphonic band in the second semester if they pass the audition. Symphonic Band will be playing more advanced music on a higher grade level and will be expected to be proficient at a higher level on their instruments. They are also expected to practice their instrument 1 hour per week outside of class. Students are encouraged to learn a second instrument and participate in the Concert Band if it fits in their schedule.

A wide variety of music is performed, from the classics to contemporary "pop" music. The band plays at all home regular season and playoff football games, a fall concert, a Christmas concert, some girls and boy's basketball games, a February concert combined with the junior high bands, organizational and small ensemble contest in April, a spring concert, Graduation, Baccalaureate and additional performances. In addition to preparing for performances, we will be going into much more depth about the details about music theory and how music works. From the large concert organization a jazz band and musical pit band are selected. Students are responsible for returning school owned instruments in original condition. Students must dry clean their uniform at the end of the marching season.

Concert Band

Grade 9-10-11-12 1 year 1 credit

Students who do not make Symphonic Band or choose not to audition will be placed in Concert Band. Concert band will be playing music on a medium difficulty level, but always a level that is challenging to the individuals in the group.

A wide variety of music is performed, from the classics to contemporary "pop" music. The band plays at all home regular season and playoff football games, a fall concert, a Christmas concert, some girls and boy's basketball games, a February concert combined with the junior high bands, organizational and small ensemble contest in April, a spring concert, and additional performances. From the large concert organization a jazz band and musical pit band are selected. Students are responsible for returning school owned instruments in original condition. Students must dry clean their uniform at the end of the marching season.

Girls Concert Choir

Grade 9-10-11-12 1 year 1 credit

Concert Choir is an ensemble designed for the beginning female singers. Students will explore the fundamentals of vocal technique, music theory, sight reading skills and challenges with the female changing voice. Two concerts per semester are required.

Boys Chorale

Grade 9-10-11-12 1 year 1 credit

Prerequisite: Must audition

Chorale is an ensemble designed for beginning male singers. Students will explore the fundamentals of vocal technique, music theory, sight reading skills and issues specific to the male changing voice. Two concerts per semester is required.

Acappella Choir

Grade 10-11-12 1 year 1 credit

Prerequisite: Must audition

Acappella Choir is an ensemble for students who have completed on year of either Chorale or Concert Choir. Students are selected to this ensemble by audition only. Concentration will be placed on upper level literature and reading skills, as well as vocal production. Two concerts per semester are required.

Music History and Theory I

Grade 10-11-12 1 semester ½ credit

Prerequisite: 1 year of High School music course completion or instructor approval

Music history 1 offers a comprehensive discussion of the musical style and sociological aspects of the Medieval, Renaissance and Baroque periods. In addition, the lives, individual styles and representative works of many composers are examined in detail. Students are encouraged to listen for basic forms and elements of music. Music theory will cover rhythmic notation, pitch notation and the keyboard

Music History and Theory II

Grade 10-11-12 1 semester ½ credit

Prerequisite: Music History and Theory I

Music history 2 offers a comprehensive look at perceptive listening, musical elements, form and stylistic facets within the Classical, Romantic and Twentieth Century periods including exploration of music from non-western cultures. Music theory covers compound meters, minor scales, modes, form, triads and inversions, 7th chords and harmonic analysis

PHYSICAL EDUCATION, DRIVER EDUCATION, HEALTH EDUCATION

Physical Education

Grade 9-10-11-12 1 year 1 credit

Students participate in a variety of activities including: flag football, ultimate Frisbee, soccer, softball, tennis, golf, archery, badminton, pickle ball, strength training, basketball, volleyball, speedball, aerobics and floor hockey. This course enables the students to improve their skill level in a variety of sports and introduces the students to a wide range of physical activities and sports. Included in P.E. will be pre and post-physical fitness testing as well as written and/or skill testing.

Strength & Conditioning

Grade 10-11-12 1 year 1 credit

Strength & Conditioning focuses on components of health related fitness, which include cardiovascular endurance, flexibility, body composition, and muscular strength and endurance. Students will be able to list and describe component parts of health-related fitness and exercises/activities that contribute to the improvement and maintenance of their health-related fitness. This course is aimed at any student focused on health related fitness that may not be the focus of traditional sport/game oriented physical education curricula.

Driver Education

Grade 9-10 1 semester ½ credit

Prerequisite: State law requires having earned 4 credits before enrollment.

Driver Education is a course mandated by the State of Illinois for all residents who wish to acquire a Driver's License prior to the age of 18. A person must complete at least 30 hours of classroom work within the length of time that each individual course is offered. Therefore regular class attendance is mandatory. Course work will include work on the physical, mental, and social aspects of driving as well as dealing with emergency situations, adverse driving conditions, economic factors in car ownership, and application of traffic law. The course also includes behind the wheel training where students may acquire skills and confidence in handling a car in different situations. Students taking Driver Education will also take Career Education.

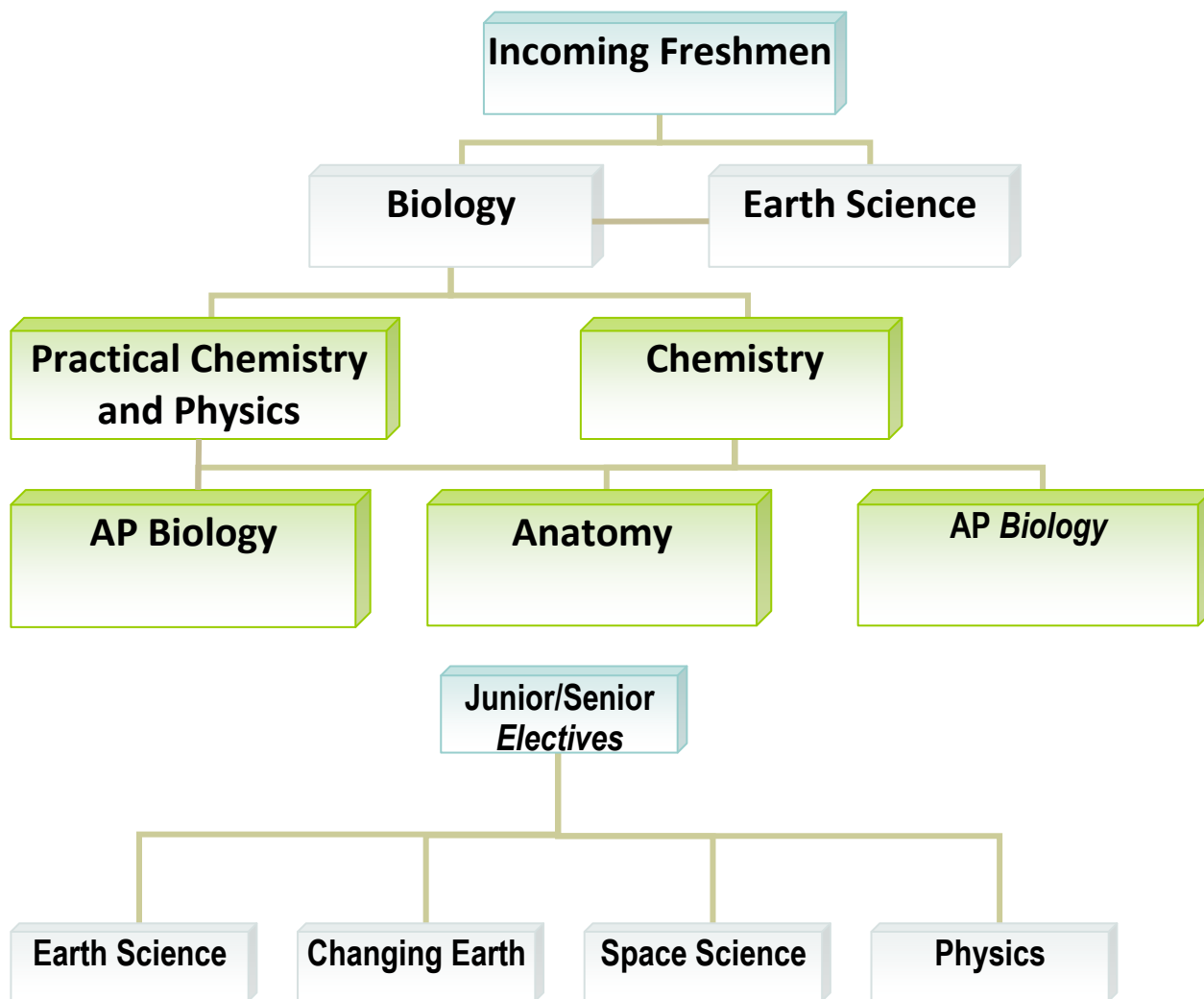
Health

Grade 9 1 semester ½ credit

The class is designed to help students make responsible decisions and learn skills necessary to become autonomous adults. Students are encouraged to assume responsibility now for their own health and to be aware of how the choices they make today will affect their health in the future. Topics covered include; healthy choices & behavior, stress management, nutrition, substance abuse, lifestyle diseases, sexuality and responsibility (abstinence based), body systems, fitness and emergency measures.

SCIENCE

Stillman Valley High School Science Course Options



Earth Science Grade 9,10,11,12 1 year 1 credit

The study of earth science involves a variety of topics including geology, meteorology, oceanography and astronomy. Topics discussed will include minerals and rocks, plate tectonics, earthquakes, volcanoes, geologic time, weather, water, and outer space. Laboratory and field exercises will be used to investigate the Earth. This class also includes a variety of projects and presentations based on earth science topics. Basic laboratory skills will be emphasized.

Biology

Grade 9 (With Instructor Consent),10,11 1 year 1 credit

This course is designed to give you an introduction to many of the topics within this subject area. Topics include, Ecology, Cellular Biology, Genetics and Plant and Animal Structure. Dissection will be used to supplement learning during discussion of various animals. Vocabulary is essential for success in this course. A research assignment will also be completed in the second semester.

Chemistry

Grade Level: 10-11-12 1 year 1 credit

Prerequisite: **Satisfactory completion of Biology and Algebra 1**

This course deals with matter and energy as well as the changes that can take place through chemical interaction. The emphasis will be on understanding the core topics of theoretical chemistry with a strong emphasis on the mathematical expression of chemical concepts. Laboratory work is a significant part of the course. Students enrolling in this course will find themselves adequately prepared for their first year of college chemistry.

Practical Chemistry and Physics

Grade Level: 11-12 1 year 1 credit Prerequisite: **Satisfactory completion of Biology**

This course deals with matter and energy as well as the changes it undergoes. The emphasis will be on understanding the core topics of chemistry and physics with limited mathematical expression of these concepts. This course is not designed as a preparatory course for college chemistry or physics, but provides insight for the everyday practical and industrial applications of these physical sciences. This course does not fulfill the prerequisite for AP Chemistry, Anatomy or AP Biology.

The Changing Earth

Grade Level: 11-12 1 semester .5 credit

This course includes the study of topics dealing with earth history, climate change, earth's surface processes, surface and groundwater, pollution and environmental issues. This class will involve a great deal of reading and writing. A research project will be required.

Space Science

Grade Level: 11-12 1 semester .5 credit

This course involves the study of astronomy with topics including historical astronomy, properties of stars and galaxies, the sun and earth's place in the universe, and current research of the universe. This class will involve a great deal of reading and writing. A research project will be required.

Anatomy

Grade 12 1 year 1 credit

Prerequisite: **Satisfactory completion of Biology and Chemistry (or with instructor consent)**

This course is designed to provide an in depth look at how the body is organized structurally and functionally. Extensive terminology is necessary to succeed in this course. Two dissections will be utilized to supplement learning and understanding. A research assignment will be completed in second semester.

Physics

Grade 11-12 1 year 1 credit

Prerequisite: **Satisfactory completion of Algebra 1 and 2**Co requisite: **Pre Calculus**

This course is for the student going on to college and majoring in a science related field. Good math and science skills are essential. The course will cover the basic concepts of classical physics including motion, electricity, gravity, magnetism, torque, kinetic molecular theory, waves, energy and light. There will be a strong laboratory emphasis and a great deal of work done outside of class.

Advanced Placement Biology

Grade 11-12 1 year 1 credit

Prerequisite: **Satisfactory completion of Biology and Chemistry**

A.P. Biology is designed for college-bound students to increase concepts dealing with laboratory procedures, microbiology, biochemistry, genetics, plant and animal physiology and classification of organisms.

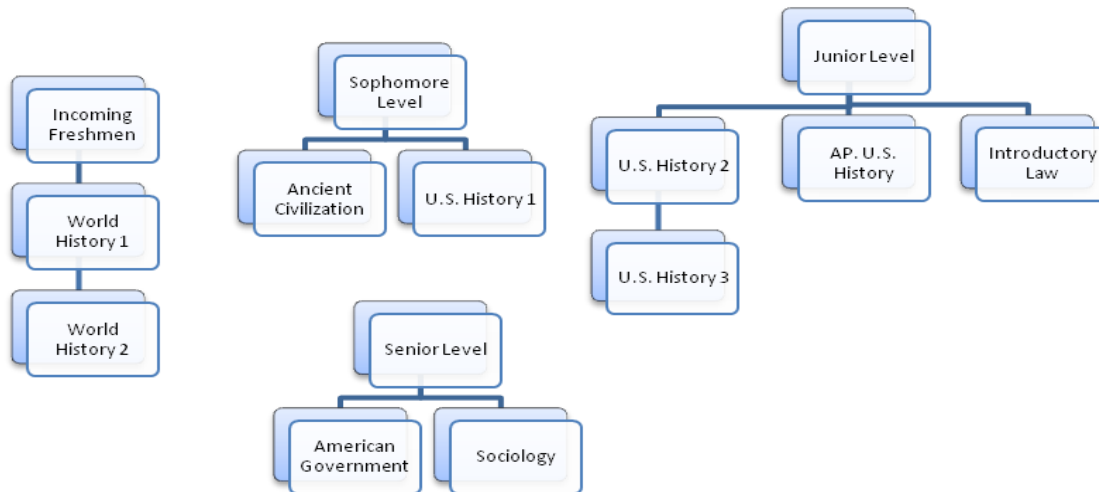
Advanced Placement Chemistry

Grade 12 1 year 1 credit

Prerequisite: **Satisfactory completion of Practical chemistry & physics and enrollment or completion of PreCalculus. Physics is helpful but not required.**

This course is for college bound students interested in pursuing a science related career. There will be in-depth coverage of concepts introduced in first year Chemistry along with new units on thermodynamics, quantum mechanics, acid/base equilibrium, solubility and organic chemistry. Laboratory experiments are more detailed and student directed. A strong math background is essential.

SOCIAL SCIENCES
SVHS Social Science Course Options



Renaissance World History **Age of Monarchy & Emergence of the Modern Nation-State, 1400-1870**
 Grade 9 1 semester ½ credit

This course traces the events of World History, beginning with the Renaissance through the Industrial Age. Students will be required to study the Renaissance exploration; Reformation; Rise of Strong Monarchs; French Revolution; and Industrial Age.

Modern World History **The Contemporary World, 1870-2002**
 Grade 9 1 semester ½ credit

This course traces the events of World History, beginning with the Unification of New Nations in Europe through the globalization and terrorism. Students will be required to study Imperialism; World War I; Great Depression; World War II; Cold War; the end of colonialism and Rapid Changes in the Modern World.

Ancient Civilizations **The Origins & Growth of Human Civilizations, Prehistory-1500**
 Grade 10 1 semester ½ credit

This course traces the events of World History, beginning with prehistory through the Middle Ages in Europe. Students will be required to study the early river civilizations of: Egypt, Mesopotamia, India, China; Greece; Rome; and Middle Ages in Europe.

U.S. History 1 Establishment of the American Nation 1400 - 1865

Grade 10 1 semester ½ credit

This course traces the early development of the United States, beginning with the Age of Exploration through the Civil War. Students will be required to study the establishment of the thirteen colonies; the American Revolution; Constitution; War of 1812; Westward expansion, sectionalism and events leading to the Civil War.

U.S. History 2 The Union Divides, Rebuilds and Expands 1865 - 1940

Grade 11 1 semester ½ credit

This course will trace U.S. History from the termination of the Civil War to the brink of World War II. The students will review events which divided the nation; the Reconstruction of the South; the closing of the frontier, urbanization, and industrialization of the U.S.; World War I; the stock market crash; and efforts to end the depression.

U.S. History 3 Recent America, 1930-2002

Grade 11 1 semester ½ credit

This course will survey the 20th century domestic and international events of the American experience. Students will examine World Wars I and II; the Cold War, and America as a geopolitical power. Students will be introduced to a variety of social and political issues, which have shaped American life and culture during the years 1950 through the present. Students will also study current issues in today's society and America's changing international role.

Advanced Placement U. S. History 1

Grade 10 1 semester ½ credit

This is required as the entry course for the Advanced Placement United States History program. This elective course may be taken in place of the required U.S. History 1 course. AP U.S. 1 will establish the foundations requisite for the undergraduate level rigor and expectation of the junior year AP component. Course emphasis will be upon developing the students' writing abilities and skills of critical thinking and historical interpretation. The course's content will begin in the Pre-Columbian Era, move through the Colonial Period, the Early Federal Period and conclude in the 1840's prior to the Era of Sectional Crisis.

Advanced Placement U. S. History

Grade 11-12 1 year 1 credit

The advanced placement program in United States History is designed to provide students with the analytic skills and factual knowledge to deal critically with the problems and materials in U.S. History. The course prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year university introductory courses. A prime objective of this course will be to prepare students to take the College Board Advanced Placement Exam for possible college credit or advanced placement. Students can also earn college credit with this course from Rock Valley College with placement testing and payment of tuition. Students who successfully complete this course will satisfy the 3 semester U.S. History graduation requirement. Students will, however, still be required to complete the 3 credit social studies requirement.

American Government

Grade 12 1 semester ½ credit

This course examines the origins and nature of the American political system and incorporates the graduation requirement for the U.S. Constitution examination. Part of the study will involve examining other systems, such as that of the former Soviet Union, as a basis of comparison with the system that exists in the United States today.

Sociology

Grade 12 1 semester ½ credit

This course is a study of the structure and workings of human society. The course covers cultures, norms, human interaction, social stratification, institutions, and social change.

SPECIAL PROGRAMS

Classroom Aid

Grade 11-12 1 semester ¼ credit
Prerequisite: Teacher request

At teacher request, a student may be given the opportunity to serve as an assigned classroom aid during a class period for which they have no other assigned classes. Duties could include helping with individual instruction during in-class work time, helping the teacher with lab setup or doing typing, duplicating or other clerical tasks. The teacher will evaluate the performance of the teacher aid and determine the amount of credit to be awarded. The maximum amount will be ¼ credit per semester. Grading will be on a pass/fail basis.

ROCK VALLEY COLLEGE COOP COURSES

These courses can be taken for both Stillman Valley High School credit and Rock Valley College credit. Students wishing RVC credit must take and pass the RVC assessment test and pay RVC tuition and fees.

Calculus with Analytic Geometry I (MTH 135-SVHS)

Grade 11-12 1 year 1 credit

Offered concurrently as Advanced Placement Calculus AB

Elements of Statistics (MTH 220-SVHS)

Grade 11-12 1 semester ½ credit

Offered concurrently as Statistics

Web Page Design & Development (WEB 101-SVHS)

Grade 11-12 1 semester ½ credit

CISCO 1, 2, 3, 4

Grade 11-12 1 semester ½ credit

Agriculture Department Articulated Courses through Kishwaukee Community College

Basic Horticulture Science & Biological Science Applications in Agriculture Plant Science

are articulated as: **HOR 105 Botany for Horticulture – 3 credits)**

Greenhouse Production and Floral Design & Horticultural Production and Management (Adv. Hort)

are articulated as: **HOR 103 Horticulture Science – 3 credits)**

Greenhouse Production and Floral Design & Horticultural Production and Management (Adv. Hort)

Landscaping and Turf Management are articulated as: **HOR 112 Greenhouse Management 1 – 3 credits)**

Kishwaukee College agrees to award college course credit in the applicable college curriculum leading to an Associate of Applied Science Degree or Certificate of Completion in the Horticulture Department. This credit will be granted to students who have successfully completed approved courses conducted through Stillman Valley High School. Specific conditions for awarding credit are listed above, and on the Stillman Valley High School Articulation Agreement.

Agriculture Department Dual Credit Courses through Highland Community College

These courses can be taken for both Stillman Valley High School credit and Highland Community College credit. Students will receive HCC credit after completion of the corresponding SVHS class. There is no charge for tuition or fees from HCC or Stillman Valley High School. If students wish to attend HCC, they must take the placement test prior to enrolling full-time. After completion of the classes, students will have a valid college transcript through HCC.

Agriculture Business Management	(Agocc 222-SVHS) (3hrs.)
Agriculture Mechanics and Technology	(Agoc 129-SVHS) (3hrs.)
Biological Science Applications in Agriculture Animal Science	(Agri 182-SVHS) (3hrs.)
Biological Science Applications in Agriculture Plant Science	(AGRI 286-SVHS) (4hrs.)
Horticulture Production and Management	(AGRI 188-SVHS) (3hrs.)
Agricultural Medical Fabrication	(WELD130) (3hrs.)



Business Administration

COURSE DESCRIPTIONS

The following **Advanced Office** courses are offered for sophomores, juniors and seniors. Check with your high school counselor for course locations, times, and registration procedures. Enrollment is limited.

Advanced Office 1

Open to: Sophomores, Juniors and Seniors

Advanced Office 1 is designed to advance word processing and presentation skills in the first semester. Students will learn advanced skills in Word and Powerpoint 2007 including concepts of information processing and professional presentations that are required by both college and business. Second semester the Advanced Office student will learn the complexities of using spreadsheets. Students will learn advanced skills in Excel 2007 including graphing, formulas and functions with specific emphasis on integrating all three applications into professional business reports. Students successfully completing this course may elect to sit for the Microsoft Office User Specialist* (MOUS) Core Certification in Word, Powerpoint and Excel.

Prerequisites: Entry Level Office Applications Course

Advanced Office 2

Open to: Juniors and Seniors

Advanced Office 2 is a one semester course that continues the students' study of Office applications focusing on Access. Students will study how to update databases, create queries and design customized reports utilizing Access 2007. Students successfully completing this course may select to sit for Microsoft Office User Specialists* (MCAS) Core Certification in Access.

Prerequisites: Advanced Office 1



Automotive Technology

COURSE DESCRIPTIONS

The following **Automotive Technology** courses are offered for juniors and seniors and can lead to certificates. Check with your high school counselor for course locations, times, and registration procedures. Courses are offered at RVC and local High Schools. Enrollment is limited.

Introduction to Brake and Chassis Systems

Open to: Juniors and Seniors

The Introduction to Brake and Chassis Systems course offers the student an introduction to automotive brake and steering/suspension systems. Theory and operation of these systems is covered. Students will complete basic service procedures on brake and steering/suspension systems to prepare them for initial employment in the automotive service industry and further training in the Automotive Service Technology program. Safety in the use of automotive tools, equipment and chemicals is also covered.

Credit: 3 semester hours

RVC#: ATM 105

Introduction to Automotive Electrical Systems and Powertrains

Open to: Juniors and Seniors

The Introduction to Automotive Electrical Systems and Powertrains course offers the student an introduction to automotive electrical and engine/transmission systems. Theory and operation of these systems is covered. Students will complete basic service procedures on electrical and engine/transmission systems to prepare them for initial employment in the automotive service industry and further training in the Automotive Service Technology program. Safety in the use of automotive tools, equipment and chemicals is also covered.

Credit: 3 semester hours

RVC#: ATM 106

Engine Diagnosis and Repair

Open to: Juniors and Seniors

The Engine Diagnosis and Repair course provides basic information on gasoline engine theory, construction, systems, and diagnosis. This information will be applied to mechanical testing and repair procedures for the entire engine. The school provides late model engines for disassembly and reassembly.

Credit: 6 semester hours

RVC#: ATM 140

Brakes

Open to: Seniors

The Brakes course continues the student's studies of automotive brake systems. This course covers in depth diagnosis, service, and repair procedures of base brake systems and anti-lock brake systems. Live work will be performed on customer vehicles in a real-world shop environment.

Prerequisite: ATM 105, ATM 106

Credit: 4 semester hours

RVC#: ATM 114

Automotive Electrical Fundamentals

Open to: Seniors

Automotive Electronic Fundamentals is a continuation of Introduction to Automotive Electrical Systems and Powertrains. This class will emphasize electrical and electronic theory and analysis and introduce students to solid-state electronic components and systems. Students will determine circuit types and analyze both mathematically and with a digital multimeter.

Prerequisite: ATM 105, ATM 106

Credits: 4 semester hours

RVC#: ATM 107

Steering and Suspension

Open to: Juniors and Seniors

The Steering and Suspension course continues the student's studies of automotive steering and suspension systems. This course covers in-depth diagnosis, service, and repair procedures of steering and suspension systems, and electronic suspension and steering. Live work will be performed on customer vehicles in a real-world shop environment.

Prerequisite: ATM 105, ATM 106

Credit: 4 semester hours

RVC#: ATM 221

For the listed course(s), students may be eligible to receive Rock Valley College dual or articulated credit. For dual or articulated credit requirements, students should contact their high school counselor or the First Year Experience/ High School Connections office.

CAREER COLLEGE courses are taken for College credit and can lead to a certificate.



Cisco Networking

COURSE DESCRIPTIONS

The following **Cisco Networking** courses are offered for juniors and seniors. In the two-year high school Cisco Networking program, students will take four Cisco Networking Academy courses and may earn a Cisco Certified Networking Associate (CCNA). Check with your high school counselor for course locations, times, and registration procedures. Enrollment is limited.

A+ Part 1

Open to: Sophomores, Juniors and Seniors

This course provides core knowledge in the latest hardware and software technologies, information security skills, safety and environmental issues, and soft skills for career development in the IT industry. This curriculum is provided online and aligns with the new Comp TIA A+ Essentials exam.

Prerequisites: Computer experience and interest in Computer Networking.

A+ Part 2

Open to: Sophomores, Juniors and Seniors

This course explores advanced computer concepts in greater depth and provides opportunities for students to participate in hands on labs in advanced installation of computers, peripheral devices, networks, and computer security. This curriculum is provided online and aligns with the new Comp TIA A+

Cisco Networking I

Open to: Juniors and Seniors

Networking Fundamentals is the first of four courses in the Cisco Networking Academy program. Topics include in this course are networking standards, networking terminology, protocols, safety, cabling, routers, and addressing. Decision-making and problem-solving techniques are applied to solve network problems. Additional instruction is provided in maintenance and use of software, tools, and equipment.

Prerequisites: Computer experience and interest in Computer Networking.

Cisco Networking II

Open to: Juniors and Seniors

Router Theory and Technologies is the second course of four courses in the Cisco Networking Academy program. Topics included in this course are safety, standards, TCP/IP, routing, and administration. Decision-making and problem-solving techniques are applied to solve network problems.

Cisco Networking III

Open to: Seniors

Advance Routing and Switching is the third course of four courses in the Cisco Networking Academy program. Topics included in this course are advanced router configuration, LAN switching, network management, and advanced network design. LAN segmentation and fast Ethernet will also be covered.

Prerequisites: Successful completion of *Cisco Networking II*.

Cisco Networking IV

Open to: Seniors

WAN Networking Design is the fourth course of four courses in the Cisco Networking Academy program. Topics included in this course are advanced network design projects and advanced network management projects. ISDN and PPP are some of the other topics included in this class.

For the listed course(s), students may be eligible to receive Rock Valley College dual or articulated credit. For dual or articulated credit requirements, students should contact their high school counselor or the HS CONNECTIONS office.



Emergency Medical Technician

COURSE DESCRIPTION

The following **Fire Science** courses are offered for seniors only and can lead to a certificate as an Emergency Medical Technician. Check with RVC's First Year Experience/High School Connections office for course locations, times, and registration procedures. Courses are offered at RVC.

Emergency Medical Technician/EMT Basic

Open to: Seniors

Emergency Medical Technician/EMT Basic covers emergency care, handling, and extrication of the critically ill and injured. Topics covered include control of hemorrhage, treatment of shock, fractures, soft tissue injuries, burn victims, poisoning, emergency childbirth, packing and transportation of the sick and injured.

Credit: 9 semester hours

RVC#: FRE 223



Engineering

COURSE DESCRIPTIONS

The following **Engineering Project Lead the Way** courses are offered for freshmen, sophomores, juniors, and seniors. Check with your high school counselor for course locations, times, and registration procedures. Enrollment is limited.

Introduction to Engineering Design

Open to: Freshmen, Sophomores, Juniors,
Seniors

Introduction to Engineering Design is a course that teaches problem solving skills using a design development process. Students use computer software to produce, analyze, and evaluate models of project solutions. They study the design concepts of form and function, and then use state-of-the-art technology to translate conceptual design into reproducible products. Students will be engaged in team work and apply adaptive design concepts in developing sketches, featured parts & assemblies, and map property calculations will be used to evaluate parametric models. Additionally a portfolio will be demonstrated with an understanding of cost analysis, quality control, marketing, and staffing.

Prerequisites: Interest in Engineering.

Principles of Engineering

Open to: Freshmen, Sophomores, Juniors,
Seniors

Principles of Engineering is a broad based course designed to help students understand the field of engineering and engineering technology and its career possibilities. Students participate in the design, development, construction, and testing of several projects. The projects are designed to develop the student's skills in planning and design and problem solving. Projects include a marble sorter, ballistics launcher, simple machine, bridge, and materials testing. Student's learning is enhanced through the use of programming, modeling, static engineering, and materials testing software. Math and science concepts and methods are introduced and reinforced. Students will also do research projects using the internet and other sources. Microsoft Word, Excel, and PowerPoint are introduced in order for the student to complete assignments and present his/her work.

Prerequisites: Interest in Engineering.

Digital Electronics

Open to: Sophomores, Juniors Seniors

Digital Electronics introduces students to applied digital logic, a key element of careers in engineering and engineering technology. This course explores the smart circuits found in watches, calculators, video games and computers. Students use industry standard computer software in testing and analyzing digital circuitry. They design circuits to solve problems, export their designs to a printer circuit auto routing program that generates printed circuit boards and use appropriate components to build their designs. Students use mathematics and science in solving world engineering problems. This course covers several topics including: analog and digital fundamentals, number systems and binary addition, logic gates and functions, Boolean algebra and circuit

design, decoders, multiplexers and de-multiplexers.

Prerequisites: Completed *Principles of Engineering* or *Introduction to Engineering Design*

Civil Engineering and Architecture

Open to: Juniors, and Seniors

Civil Engineering and Architecture provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state of the art 3D software, Revit, to document projects, solve real world problems, and communicate solutions to their peers and members of the professional community through hands-on projects and activities. This course covers topics including the roles of civil engineers and architects, project planning, site planning, building design, and project documentation and presentation.

Prerequisites: Completion of two of three *Principles of Engineering*, *Introduction to Engineering Design*, and *Digital Electronics* sequence.

Computer Integrated Manufacturing

Open to: Juniors, and Seniors

Computer Integrated Manufacturing (CIM) is a course that applies principles of prototyping, robotics, and automation. It builds on the solid modeling skills developed in IED. You will use computer-controlled rapid prototyping and CNC equipment to solve problems by constructing models of their three dimensional designs. You'll also be introduced to the fundamentals of robotics and how this equipment is used in an automated manufacturing environment. You'll evaluate your design solutions using various techniques and modifications before you produce the prototype.

Prerequisites: Completion of two of three *Principles of Engineering*, *Introduction to Engineering Design*, and *Digital Electronics* sequence.

Engineering Design & Development

Open to: Juniors, and Seniors

Engineering Design and Development is a capstone course designed for students wishing to continue their pre-engineering experiences in the Project Lead the Way curriculum. Students will use mathematical analysis, scientific inquiry and engineering design, as appropriate to pose questions, seek answers, and develop an individual project. Emphasis is placed on demonstrations, discussions, and hands-on projects. Supplies needed for the course will cost approximately \$25.00.

Prerequisites: Completion of any two of the following courses: *Principles of Engineering*, *Introduction to Engineering Design*, *Digital Electronics*, *Civil Engineering and Architecture*, *Computer Integrated Manufacturing*. One must be *Principles of Engineering* or *Introduction to Engineering Design*.

For Principles of Engineering and/or Introduction to Engineering Design students may be eligible to receive Rock Valley College dual or articulated credit. For dual or articulated credit requirements, students should contact their high school counselor or the HS CONNECTIONS office.



Fire Science

COURSE DESCRIPTIONS

The following **Fire Science** courses are offered for juniors and seniors and can lead to certificates in **Fire Protection and Tactics** and **Fire Tactics and Equipment**. Check with your high school counselor for course locations, times, and registration procedures. Courses are offered at RVC. Enrollment is limited.

Introduction to Fire Protection

Seniors

Open to: Juniors and

Introduction to Fire Protection provides an overview to fire protection, career opportunities in fire protection, and related fields, philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service, fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics.

Credit: 3 semester hours

RVC#: FRE 101

Fire Apparatus Engineer

Seniors

Open to: Juniors and

Fire Apparatus Engineer provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems.

Credit: 3 semester hours

RVC#: FRE 102

Prerequisite: 101 & 216

Tactics and Strategy I

Seniors

Open to: Juniors and

Tactics and Strategy I is designed for fire service personnel who may be responsible for one or two companies at emergency incidents. Company officer leadership, incident safety, pre-fire planning, building construction, firefighting tactics, engine company and truck company operations.

Credit: 3 semester hours

RVC#: FRE 216

Tactics and Strategy II

Seniors

Open to: Juniors and

Tactics and Strategy II is designed for fire service personnel who may be responsible for one or two companies at emergency incidents. Company officer leadership, incident safety, pre-fire planning, building construction, firefighting tactics, engine company and truck company operations.

Credit: 3 semester hours

RVC#: FRE 217



Manufacturing Engineering Technology

COURSE DESCRIPTIONS

The following courses are offered for juniors and seniors and can lead to certificates in **National Institute for Metalworking Skills (NIMS)** and **Certified Manufacturing Associate (CMA)**. Check with your high school counselor for course location, times, and admission procedures.

The program has special requirements and requires admission to Rock Valley College. One year of high school Algebra and a 2.0 or higher grade point average on a 4.0 scale are required.

CNC Machine Setup/Operation - MET 120

Open to: Juniors &
Seniors

CNC Machine setup/Operation studies the setup and operations of computer numerical control (CNC) machine tools. The course is designed to provide knowledge on the latest CNC machines using turning centers and machining centers in the CIM Laboratory. Lecture and laboratory projects emphasize practical problems, demonstrations, and student operations of CNC equipment. The *FAST-TRACK* curriculum will be utilized in this course.

Credit: 2 semester hours

Fundamentals of CNC Programming (Manual) - MET 121

Open to: Juniors &
Seniors

Fundamentals of CNC Programming (Manual) is a study of the fundamentals of computer numerical control programming for machine tools within the manufacturing environment. Emphasis is on application, operation of a CNC program, tooling and machines. Students will write programs and verify those using machine or computer graphics. The *FAST-TRACK* curriculum will be utilized in this course.

Credit: 2 semester hours

Introductory CAD and Blueprint Reading - MET 100

Open to: Juniors &
Seniors

Introductory Drafting and Blue Print Reading is designed for the student without recent high school or industrial drafting experience. The basic concepts required to create and interpret industrial drawings are presented and practiced. This course provides fundamental print reading principles with emphasis on symbols and other pertinent data.

Prerequisite: MET 120, MET 121.

Credit: 3 semester hours

Manufacturing Processes I - MET 110

Open to: Juniors &
Seniors

Manufacturing Processes I provides an introduction to machining processes including milling, turning, grinding, drilling, and cutoff operations. Laboratory activities include the fundamentals of machine set up and operations, tooling, precision measurement, process safety, care and maintenance.

Prerequisite: MET 120, MET 121.

Credit: 3 semester hours

Metrology - MET 106

Open to: Juniors &
Seniors

Metrology introduces the science of measurement for engineering technicians, machinists, and technical personnel through basic measurement principles, selection, operation, and application of English and Metric measuring instruments. Lecture and lab exercises cover basic dimensional metrology, measuring instruments, gauging, high-amplification comparators, surface plates, angular instruments, sine bar, pneumatic gauging, and CMM systems. Related topics introduce data analysis, variable versus attribute, MSA, calibration systems, and modern standards for quality systems and metrology.

Prerequisite: MET 120, MET 121.

Credit: 3 semester hours

During the spring semester of their senior year, students may apply for the College's ***Career Advancement Program (CAP)***. CAP is a two-year paid cooperative education partnership with area employers. CAP students receive an Associate in Applied Science at the end of two years.

CAREER COLLEGE courses are taken for College credit and can lead to a certificate.



Nursing Aide

COURSE DESCRIPTION

The following course is offered for juniors and seniors and can lead to a certificate as a **Certified Nursing Assistant** (CNA). Check with your high school counselor for course location, times, and admission procedures. The CNA program has special requirements. The CNA program at Rock Valley College requires admission to the college. Enrollment is limited.

Nursing Aide - NAD 101

Open to: Seniors

Nursing Aide provides an introduction to the principles of patient care. Emphasis is placed on communication and technical skills necessary to function as an important member of the nursing team. Students are given opportunities to develop nursing assistant skills in a variety of laboratory and clinical settings. Attendance at all classroom and clinical sessions is mandatory. (Approved by the Illinois Department of Public Health.) **

Credit: 7 semester hours

Medical Science

Open to: Juniors &
Seniors

This course is designed for juniors and/or seniors interested in a health care career. The student spends 2 hours per day, five days a week, at Rockford Health System, learning a core of knowledge and skills needed for many health care fields. Students will have the opportunity to shadow various health care professionals such as physical therapists, nurses and x-ray technicians. Students will have the opportunity to obtain Illinois Nurse Assistant Certification approved by the Illinois Department of Public Health. In addition, safety, assessment (temperature, pulse, respiration and blood pressure), patient transport, personal care techniques and other general health care skills are addressed.

Prerequisite: Completed Algebra 1, Biology and English with a grade of "C" or better.

Students completing NAD 101 *Nursing Aide* or Medical Science with a grade of C or higher are eligible to sit for the Illinois Certification exam as a Nursing Assistant (CNA). Cost of the exam is \$60.

CAREER COLLEGE courses are taken for College credit, but **NAD 101 will not transfer to another college.



Welding Technology

COURSE DESCRIPTIONS

The following **Welding Technology** courses are offered for juniors and seniors. Check with your high school counselor for course locations, times, and registration procedures. Courses are offered at RVC and local High Schools. Enrollment is limited.

Basic Gas and Electric Welding

Open to: Juniors, Seniors

Basic Gas and Electric Welding concentrates on oxygen acetylene, SMAW, and gas metal arc welding on mild steel. An emphasis is placed on techniques and safety. Students may receive dual Kishwaukee College credit for WT 116 *Basic Gas and Electric Welding*.

Prerequisites: Interest in manufacturing welding and/or related field.

Introduction to Welding - WLD 100

Open to: Juniors, Seniors

Introduction to Welding: This course is designed for beginning welders. It covers the basic theory and provides hands-on lab practice of Shielded Metal Arc Welding (Stick), Gas Metal Arc Welding (MIG), Gas Tungsten Arc Welding (TIG), Oxyfuel (Gas) welding and cutting processes. Special emphasis is placed on welding shop and process safety. This course prepares the student to enter the welding skills courses.

Credit 3 semester hours

Arc Welding: Flat - WLD 153

Open to: Juniors, Seniors

Arc Welding: Flat covers electric welding on plate in the flat position. Safety rules and equipment usage are emphasized. An introduction to oxygen acetylene cutting is covered.

Credit: 3 semester hours

Arc Welding Horizontal WLD 155

Open to: Juniors, Seniors

Arc Welding: Horizontal covers electric welding on plate in the horizontal position. Safety rules and equipment usage will be emphasized. Oxygen acetylene burning will also be covered.

Credit: 3 semester hours

Prerequisites: WLD 153 *Arc Welding Flat*

M.I.G. Welding WLD - 157

Open to: Juniors, Seniors

M.I.G. Welding covers M.I.G. (wire) welding in all positions on plate. Safety rules and equipment will be emphasized.

Credit: 3 semester hours

Advanced Industrial Welding

Open to: Juniors, Seniors

Advanced Industrial Welding offers training in shielded metal arc welding, gas metal arc welding, and multiple pass welding in all positions on mild steel. Emphasis is placed on efficient production welding. Students may receive dual Kishwaukee College credit for WT 218 *Advanced Industrial Welding*.

Prerequisites: *Basic Gas and Electric Welding*

For the listed course(s), students may be eligible to receive Rock Valley College dual or articulated credit. For dual or articulated credit requirements, students should contact their high school counselor or the First Year Experience & High School Connections office.

CAREER COLLEGE courses are taken for College credit and can lead to a certificate.

SVHS GRADUATION REQUIREMENTS

<u>Subject Area</u>	<u>Credit Requirement</u>	<u>Comments</u>
English	4 credits	
Mathematics	3 credits	
Science	3 credits	
Social Science	3 credits	Required 1 ½ credits of U.S. History and ½ credit of American Government
Computer	1 credit	Must include Intro. to Computers
*Physical Education	1 credits	See below for additional info.
Health	½ credit	State Requirement
Consumer Education (½ credit of Resource Mgmt or 1 credit of Ag Mgmt fulfills this requirement)	½ credit	State Requirement
Fine Arts/Vocational	2 credits	
Required Credits	18	
Elective Credits	10	
Total Credits	28	

REQUIRED CLASSES

Health	0.5 credit
Introduction to Computers	0.5
U.S. History	1.5
Government	0.5
Consumer Ed or Resource Mgmt or	0.5
Ag Mgmt	1.0
Physical Education	1.0

The state of Illinois **requires Physical Education every semester including Junior and Senior year. However, students **may be waived** from PE class: per school code 105 ILCS 5/27-6 (involvement in an IHSA sport); medical waiver; or by carrying a full academic load (no Teacher's aide or study hall) during their junior or senior year.*

RECOMMENDED MINIMUMS FOR COLLEGE

SUBJECT	CREDIT REQUIREMENT	COMMENTS
English	4	Emphasizing written and oral communications and literature. Colleges recommend 4 years of English. This high school has a 4 year graduation requirement in English. Some colleges will not accept "speech" or "media" classes as English requirements. Classes such as <u>Speech Communication</u> , <u>Student Publications</u> , <u>Contemporary Literature</u> , and <u>Film and Literature</u> are recommended as college prep electives. <i>College-bound students should take these English Electives in addition to regular English courses, but not in place of them.</i>
Social Studies	3	Emphasizing history and government. U.S. History and American Government are required. World History is strongly recommended as one of the remaining social studies electives.
Mathematics	3	Introductory through advanced Algebra, Geometry, Trigonometry
Science	3	Laboratory sciences
Foreign Language	2	Should be of the same language. Music or Art are not replacements for foreign language.

**** IF YOU HAVE ANY QUESTIONS REGARDING THESE MINIMUMS,
CONTACT AN ADMISSIONS COUNSELOR REGARDING SPECIFIC PROGRAM
REQUIREMENTS AT THE COLLEGE OF YOUR CHOICE. ****