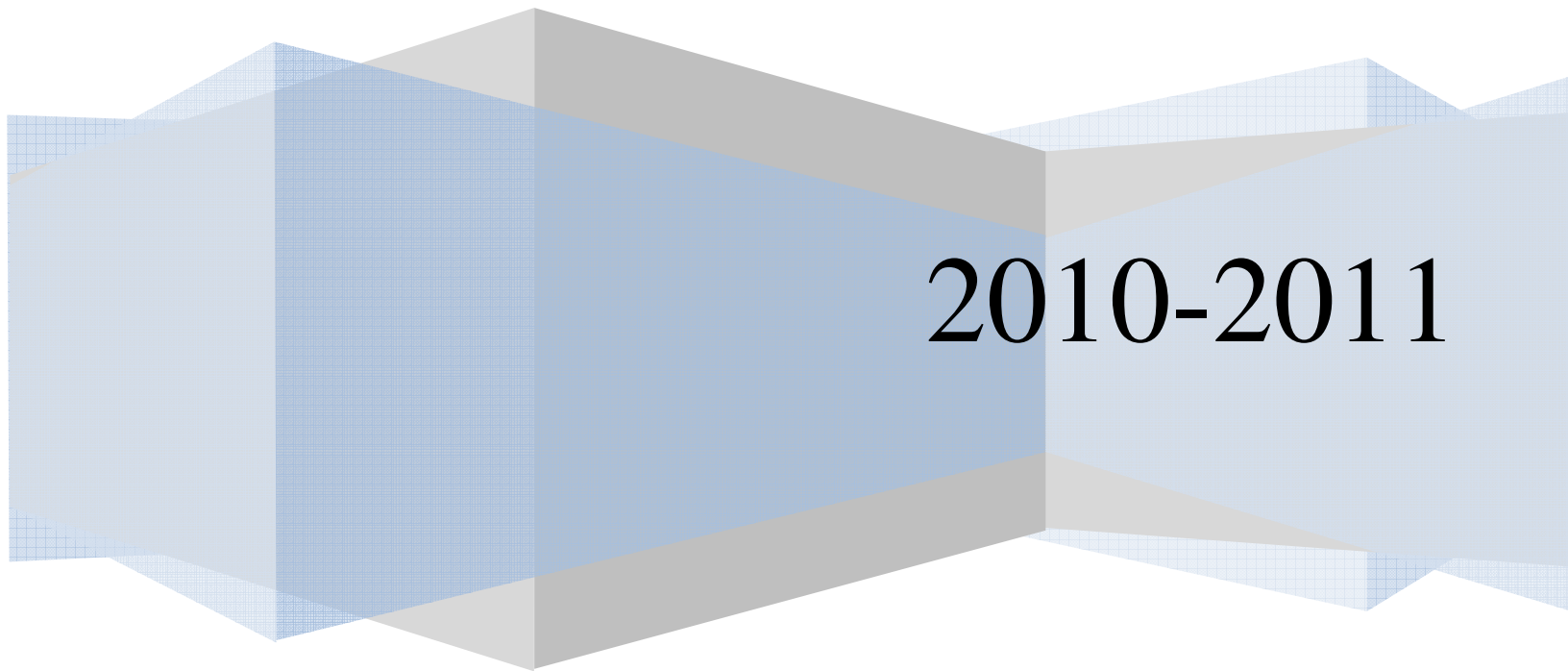


BYRON HIGH SCHOOL

**COURSE
DESCRIPTION GUIDE**



2010-2011

BYRON HIGH SCHOOL **COURSE DESCRIPTION GUIDE** **TABLE OF CONTENTS**

Graduation Requirements, Information on Grades.....	2
Testing.....	3
Rock Valley Courses.....	4
Pathways to Success and Career College.....	5
Career & Technical Education.....	6-25
Agriculture Program.....	6-7
Business Program.....	8-9
Career Education Program.....	10
Computer Technology Program.....	11-12
Consumer & Family Sciences Program.....	13-14
Health Occupations Program.....	15
Production Technology Programs.....	16-25
Automotive Technology Program.....	17-18
Drafting & Architecture Program.....	19-20
Pre-Engineering Program.....	21-22
Manufacturing Program.....	23
Building Trades Program.....	24
Welding Program.....	25
English Program.....	26-28
Foreign Language Program.....	29-30
Health & Physical Education Program.....	31
Mathematics Program.....	32-34
Science Program.....	35-37
Social Studies Program.....	38-39
Special Education Program.....	40
Visual & Performing Arts Program.....	41-42
Index.....	43-46

INFORMATION ON GRADES HONORS COURSES

English

English 3 - Honors
Composition 2
AP English
Humanities

Foreign Language

French 3
French 4
Spanish 3
Spanish 4

Science

Anatomy/Physiology 1
Anatomy/Physiology 2
AP Biology
AP Chemistry
Physics

Social Studies

AP US History

Mathematics

Pre-Calculus
Pre-Calculus Accelerated
AP Calculus 1 & 2
Calculus

BYRON HIGH SCHOOL GRADUATION REQUIREMENTS 2010-2011 25 Credits Plus Physical Education

- 4 years of Physical Education
- 3 years of English ****(to include English 1, English 2, English 3)
- 3 years of Social Studies (Civics, U.S. History, *Comparative Government)
- 2 years of Career Education **(Consumer Education, Technology Seminar 1 & 2)
- 3 years of Mathematics ***(to include Algebra & Geometry)
- 2 years of Science (must have Biology and Chemistry (A, or B))
- 1 year of Fine Arts or Foreign Language
- 1/2 year of Health

Electives to make up the remainder of credits

- Complete 2.5 hours of Community Service each year of high school for a total of 10 hours over four years. Banking hours is not an option. Requirements for Community Service are:
 - Must be charitable and non-profit in nature.
 - Must be done outside the home.
 - Must result in a tangible benefit to others.
 - Must be validated as complete by non-parent adult.

*Fulfills constitution tests requirement.

**Illinois Consumer Education Proficiency Test is available to test out of this course, but 2 years of Career Education must still be completed.

***Starting with the Class of 2010, 2 of those 3 years must be Algebra and Geometry.

****Starting with the Class of 2012, they will need 4 years of English.

Recommended Minimum Requirements for Most State Universities and Private Colleges

- 4 years of English
- 3 years of Social Studies
- 3 years of Mathematics
- 3 years of Science
- 2 years of Foreign Language or Fine Arts

Each University or College is different. Please consult a Counselor or College.

TESTING

The following are the tests which are directly involved in educational, vocational, and personal planning at Byron High School. Students will be notified when test results become available and can be picked up in the Guidance Office.

PSAT/NMSQT

The Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test (PSAT/NMSQT) is offered to students across the United States each October. It is given at Byron High School. The test is recommended for college-bound juniors (although it is not a required admissions test). It is also the initial way to enter the National Merit Scholarship Qualifying competition. There is a fee for this test.

ACT

The ACT (American College Testing) Assessment is an achievement assessment required by most colleges. As part of the Prairie State Achievement Exams (PSAE), all juniors will take the ACT during the spring at Byron High School at no cost. ACT test taken on Day 1 of the PSAE will be valid for college entrance requirements BUT WILL NOT MEET THE NCAA GUIDELINES FOR ATHLETES. The ACT tests are also given on Saturdays in September, October, December, February, April, and June. December and April exams are typically given at Byron High School. There is a fee for this test.

SAT I / SAT II

The SAT is a college entrance exam. The test is traditionally taken by students who plan to attend a four-year university on the east or west coast. The SAT I focuses on verbal and mathematical reasoning abilities. The SAT II covers specific subject areas and is not usually necessary to gain admittance into most universities. It is not offered here at Byron High School but registration packets, which include a list of all offered centers and dates, can be obtained in the Counseling Office or by going to www.collegeboard.com. There is a fee for this test.

ASVAB

The Armed Services Vocational Aptitude Battery (ASVAB) is used to assist with making decisions regarding future career opportunities. It is offered during the school year and there is no fee for this test. You do not have to be interested in the military to take this test.

PSAE

The Prairie State Achievement Exam (PSAE) is the State test that all students must take in order to graduate. The first day will consist of students taking the ACT, a college entrance exam. The second day will consist of state developed tests. Testing will be given to all Juniors in the Spring. There is no cost for testing and results will be a part of each student's Permanent Transcript Record.

Illinois Consumer Education Proficiency Test

This test is offered to any student who would like to try and test out of the Consumer Education Class requirement. Any student who passes will not have to take the Consumer Education class that is required for graduation. This test is administered once in the fall and once in the spring and is offered to students who have NOT taken or are NOT currently enrolled in the class. A student can take this test only one time per school year. There is no fee for this test.

ROCK VALLEY COLLEGE DUAL CREDIT

Dual credit courses provide opportunities for partnerships between secondary and post-secondary education institutions by offering college level courses that serve to expand curricular offerings. Byron High School students have the opportunity to enroll in college-credit courses through the following delivery options:

Dual Credit at Byron High School – Course Offerings:

RVC English 101	1 semester	½ Credit high school English	3 college credits
RVC Statistics	2 semesters	1 Credit high school Math	3 college credits

Students receive both high school and college credit for the RVC approved high school courses offered. These courses follow additional and specific criteria qualifying them as college level courses and are offered by high school teachers whose credentials qualify them to instruct at the college level. Both courses have identical content and expectations of college level courses. Completion of these courses becomes part of your permanent college transcript. (Please see department listings for additional information on these courses and qualification requirements). **Students are required to pay \$69 to receive college credit.**

Dual Credit at Rock Valley College

Students receive both high school and college credit for an approved college level course successfully completed at RVC. The college level course is offered by RVC with BHS rewarding corresponding high school credit. This opportunity is available to seniors only. Completion of these courses becomes part of your permanent college transcript. Course offerings at RVC vary and will be shared as the course schedule becomes available. **Students are required to pay for tuition, books, and fees.** Additional conditions and terms are as follows:

1. Students must submit an application to the counseling office if interested in taking a dual credit course.
2. Students must qualify either through ACT scores or with the Accuplacer test at RVC.
3. An RVC class cannot be taken for dual credit if it is offered at Byron High School. For example, Psychology is offered at BHS. If a student chooses to take Psychology at RVC, the student will receive credit from RVC but not BHS. This is considered ***dual enrollment***.
4. All classes need to be approved by a Guidance Counselor.
5. RVC courses are not subject to Honors status. The highest letter grade attainable is an A (4.0).
6. Transportation is provided and dictated by the current bus route. The bus only provides transportation to the Stenstrom Center.
7. Students must complete a full schedule complete with BHS classes when registering for courses. Once students have completed the application and placement process, students will meet with their respective counselor to drop an appropriate BHS class.
8. Students are ***not*** able to withdraw from a Rock Valley Course after the beginning of the first day of each Byron High School semester.

PATHWAYS TO SUCCESS AND CAREER COLLEGE

In addition to the traditional course offerings at BHS, there are a number of opportunities available for Juniors and Seniors which are offered off-campus. The one and two-year programs are designed to train students in specific areas that then shorten the length of training necessary after graduation.

Pathways to Success...all of these programs offer dual-credit or an articulated credit, making it possible for high school students to earn college credits. Students attend classes at the designated site.

CISCO NETWORKING	4 semesters	Stillman Valley High School
WELDING	4 semesters	Oregon High School

Career College...located on RVC campuses, this program provides coursework that leads to certificate completion for dual-credit in several CTE areas. The certificates can provide credentialing for local and national employers, thereby validating the student's experience and expertise. The Career Certificate programs are listed below.

CERTIFIED NURSING ASSISTANT	1 semester	8 credit hours
CERTIFIED MANUFACTURING ASSOCIATE	4 semesters	13 credit hours
WELDING	4 semesters	12 credit hours

To find the Pathways to Success and Career College programs that are listed throughout the Course Description Guide look for PS and CC in the course title. Each of these programs requires an application and acceptance into the program. There is a specific application(s), testing requirements, and a deadline that is unique to the student's area of interest. Contact Ms. Shelton for more information about these programs.

AGRICULTURE PROGRAM

Basic Agricultural Science 1 (CEANCI #10501)

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

This orientation course builds on basic skills and knowledge gained in the Introduction to the Agricultural Industry course. Major units of instruction include agricultural research, soil science, advanced plant science, biotechnology, and advanced animal science. First semester's primary focus will be in beginning and applied plant sciences. Applied science and math skills and concepts will be stressed throughout the course as they relate to each area. 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.

Basic Agricultural Science 2 (CEANCI #10501)

Grade: 9, 10, 11, 12 Prerequisite: Basic Agricultural Science 1
Length of Course: 1 Semester ½ Credit Career Education

This orientation course builds on basic skills and knowledge gained in the Introduction to the Agricultural Industry course. Major units of instruction include agricultural research, soil science, advanced plant science, biotechnology, and advanced animal science. Second semester's primary focus will be in beginning and applied animal sciences. Applied science and math skills and concepts will be stressed throughout the course as they relate to each area. 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.

Animal Science - Biological Science Applications (CEANCI #10508)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education or Elective Applied Science

This course is designed to reinforce and extend the understanding of students by associating basic scientific principles and concepts with relevant applications in animal studies. Experiments and laboratory exercises will be used to teach concepts of scientific applications of animal growth and development, animal genetics, reproduction, and the processing of animal products.

Plant Science - Biological Science Applications (CEANCI #10507)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education or Elective Applied Science

Plant Science is a continuation of the Ag sequence. Students continue to focus on scientific applications that include exploring, designing, and conducting research in Ag, using scientific measurement, the effects of pollution on plant growth, plant reproduction, initiating and managing growth, plant responses and effects of herbicides, and agriculture structural and power systems.

Environmental Science (CEANCI #16008)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 2 Semesters 1 Credit Career Education or Elective Applied Science

This course examines the relationship of Agriculture and the environment. The impact of plant and animal production practices on the environment and the adoption of practices leading to improved air, land, and water quality are investigated. Areas of emphasis include types of ecosystems, management of waste, chemical use, soil conservation, land uses and regulations, and water/air quality. Encouraging students to be conscious and concerned about the environment and recognizing the need to conserve the environment and its resources will be a theme throughout.

Horticultural Production and Management 1 (CEANCI #16007)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

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, and nursery management. Agribusiness units will cover operating a horticultural business, pricing work, advertising, and sales.

Horticultural Production and Management 2 (CEANCI #16007)

Grade: 10, 11, 12 Prerequisite: Horticultural Production and Management 1
Length of Course: 1 Semester ½ Credit Career Education

This course is a continuation of studies offered in Horticulture Production and Management 1. Advanced concepts in landscape design and nursery management are studied. Agribusiness units will cover advanced pricing, advertising, and sales.

Landscaping and Turf Management (CEANCI #16005)

Grade: 11, 12 Prerequisite: Horticultural Production & Management 1 or
concurrently enrolled in Horticulture 1
Length of Course: 2 Semesters 1 Credit Career Education

This advanced course focuses on the landscape, nursery, and turf segments of the horticulture industry. Units of study include: Identifying landscape plants, 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 workplace skills will be a focus.

BUSINESS PROGRAM

Business Basics (CEANCI #30001)

Grades: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

Business Basics is an entry-level keyboarding and business curriculum course for all students. Emphasis is placed on using state of the art technology and software that will provide the students with basic concepts and skills required for entry into the data processing field as well as other business career areas. Skills and concepts taught would include keyboarding technique and proofreading, business correspondence layout, business ethics, forms of business ownership, finance, management, marketing, and economic concepts.

Accounting (CEANCI #20501)

Grades: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

Accounting is a skill-level course that is valuable to students who are interested in pursuing a business career in finance, accounting, marketing, or management. This course will provide activities that will develop the necessary skills to keep, summarize, and analyze financial records according to the rules of business. Students will also learn about careers in accounting, computer applications, development of proper work habits, employability skills, and ethical issues that presently face the American market.

Advanced Accounting (CEANCI #20501)

Grades: 10, 11, 12 Prerequisite: Accounting
Length of Course: 1 Semester ½ Credit Career Education

Advanced Accounting builds directly on the skills learned in Accounting. Students will develop a deeper knowledge of the principles of accounting with more emphasis placed on financial statements and accounting records as they apply to partnerships and corporations. This course provides a strong foundation for college-bound students who plan to major in a business program and pursue a business-oriented career.

Marketing (CEANCI #33001)

Grades: 10, 11, 12 Prerequisite: Business Basics
Length of Course: 1 Semester ½ Credit Career Education

The marketing course is designed for the student who is interested in business and who would like to pursue a career in the field of marketing. Students will have the opportunity to fully develop the 4 P's of Marketing – product, price, place and promotion. Highlights of the course include real market research and creating advertising of various forms including commercials.

Management (CEANCI #40003)

Grades: 10, 11, 12 Prerequisite: Business Basics
Length of Course: 1 Semester ½ Credit Career Education

The management course is designed for the student who is interested in business and who would like to pursue a career in the field of management. Students will learn about the functions of management and participate in activities that simulate a business environment. By using decision making skills, students will be able to solve real world work issues. This course will touch upon the topics of steps in manufacturing, distributing, and selling products.

Advanced Office 1 (CEANCI #30007)

Grades: 10, 11, 12 Prerequisite: Technology Seminar 1 & 2
Length of Course: 1 Semester ½ Credit Career Education

Advanced Office 1 is designed to advance word processing acquired in Technology Seminar 1 & 2. Software instruction begins with Word 2007 Level 1 including concepts of information processing required by business and college. Students successfully completing this course may elect to sit for Microsoft Certified Application Specialist* (MCAS) Core Certification.

*Microsoft Certified Application Specialist (MCAS) – Contact instructor for MCAS testing procedures and requirements.

Advanced Office 2 (CEANCI #30008)

Grades: 10, 11, 12 Prerequisite: Technology Seminar 1 & 2
Length of Course: 1 Semester ½ Credit Career Education

Advanced Office 2 is designed to advance skills acquired in Technology Seminar 1 & 2. Software instruction begins with Excel 2007 Level 1 involving the utilization of functions, ranges, and formulas in spreadsheets. Tables, text, and data will be integrated into reports and charts. Students successfully completing this course may select to sit for Microsoft Certified Application Specialist* (MCAS) Core Certification.

*Microsoft User Excel Specialist (MCAS) – Contact instructor for MCAS testing procedures and requirements.

Advanced Office 3 (CEANCI #24001)

Grades: 10, 11, 12 Prerequisite: Technology Seminar 1 & 2
Length of Course: 1 Semester ½ Credit Career Education

Advanced Office 3 is designed to advance skills acquired in Technology Seminar 1 & 2. Software instruction begins with PowerPoint 2007 Level 1 involving the creation of slideshows, speaker notes, and handouts. Students will continue instruction with Access 2007 Level 1 with the creation and updating of databases as well as using queries to create customized reports. Students successfully completing this course are highly encouraged to test for Microsoft Certified Application Specialist* (MCAS) Core Certification in PowerPoint and Access.

*MCAS Expert – Contact instructor for MCAS testing procedures and requirements.

Advanced Office 4 (CEANCI #24002)

Grades: 10, 11, 12 Prerequisite: Technology Seminar 1 & 2
Length of Course: 1 Semester ½ Credit Career Education

Advanced Office 4 is designed for students wishing to pursue Microsoft Excel Level 2 & 3, MCAS Expert Certification in Word, Excel, PowerPoint, or Access. Students will work with the instructor to develop specific course goals based upon the student's career and educational goals after graduating from high school.

CAREER EDUCATION PROGRAM

Work Education and Exploration (CEANCI #90003)

Grade: 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Career Education Credit

Work Education and Exploration is a course designed to prepare students for the world of work in a two-fold manner; education on the work force, and the exploration of 16 Career Clusters. Students will develop work place skills and attitudes through instruction in school and on the job. Students will also learn about applying for employment, communicating on the job, ethics, and professionalism. Through various testing procedures students will be able to identify their interests, values, skills, and the role this individual portfolio will play in their choice of career. Each student will be given the opportunity to explore careers in the job site portion of the course.

Beauty School/Cosmetology

Grade: 11, 12 Prerequisite: Prior Approval
Length of Course: 2 to 4 Semesters Variable Credit Career Education

Students who wish to enter the career of cosmetology may enroll at an accredited beauty school approved in advance by the Byron School District Administration. The course of study will involve the prescribed curriculum used by all accredited schools of cosmetology. Student hours are from 8:30 a.m. to 12:30 p.m. Monday through Friday. Students must provide their own transportation and will be responsible for the entire cost of the program. See a counselor for more information.

Fire Cadets

Grade: 11, 12 Prerequisite: Application and Acceptance to Program
Length of Course: 4 Semesters 1-2 Credits Career Education per year

Students at BHS have the opportunity to join a unique two-year training program at the Byron Fire Station. Students accepted into this program join the fire crew, go on calls, attend training sessions, and work at the station during the school day. This program is run separately from the normal registration process; check with the counselor for information about the application process.

COMPUTER TECHNOLOGY PROGRAM

Technology Seminar 1 (CEANCI #30002)

Grade: 9 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education – Required

This course is an orientation-level course designed to develop awareness and understanding of application software and equipment used by employees to perform tasks in business, marketing, and management. Students will gain a working knowledge and use current practices in industry applications. Fundamentals in Word, Excel, Access, Powerpoint, hand-held computing devices, and keyboarding will be stressed. Ethical considerations that arise in using information, processing equipment, and gaining access to available databases will be discussed.

Technology Seminar 2 (CEANCI #30002)

Grade: 9 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education - Required

This course is the student's chance to become acquainted with various hardware and software available to Byron High School students that can be used in the classroom and in today's working world. Students complete ten modules during the course of a semester. Modules currently used in the lab are Microsoft Office, Computer Animation, TurboCAD, Desktop Publishing, Multimedia, TV Broadcasting, Robotics, and CNC Production.

Introduction to Computer Programming (CEANCI #52125)

Grade: 10, 11, 12 Prerequisite: Technology Seminar 1 & 2
Length of Course: 1 Semester ½ Credit Career Education

Introduction to Computer Programming is one of two skill-level courses designed to develop computer-programming skills through the use of various languages. Students will have the opportunity to work with Visual Basic, JAVA, HTML, C++, and other object oriented languages. Instruction will include basic programming tools that are common to these programming languages. Students will be exposed to the fundamentals of system analysis and design and the systems development life cycle.

Advanced Computer Programming (CEANCI #52126)

Grade: 11, 12 Prerequisite: Introduction to Computer Programming
Length of Course: 1 Semester ½ Credit Career Education

Advanced Computer Programming is the most advanced programming course that allows a student to choose their language of choice from the introductory course of programming. Students will work with highly developed programming techniques to write, compile, run, test, debug, and modify programs and applications that solve real world problems. Problem examples may include tracking inventory, scheduling facilities, accessing information, and performing calculations.

Multimedia (CEANCI #30011)

Grade: 11, 12 Prerequisite: Technology Seminar 1 & 2
Length of Course: 1 Semester ½ Credit Career Education

Multimedia offers students an opportunity to become involved in more sophisticated programs used in business and technology. Students will be involved in the creation of web pages, digital photography, digital imaging, virtual reality, non-linear video editing, 3-D animation, and computer animation.

Computer Operations & Design 1 (CEANCI #30018)

Grade: 10, 11, 12 Prerequisite: Technology Seminar 1 & 2
Length of Course: 1 Semester ½ Credit Career Education

In this course, during the Fall semester, you will begin learning the most important basics of Adobe Photoshop CS2 and Macromedia Dreamweaver, which are two industry standard web development tools used in web site creation.

Computer Operations & Design 2 (CEANCI #30019)

Grade: 10, 11, 12 Prerequisite: Computer Operations & Design 1
Length of Course: 1 Semester ½ Credit Career Education

During the Spring semester, you will be learning advanced techniques in Adobe Photoshop CS2; in addition you will receive introductory instruction in Macromedia Flash and Fireworks, which are two industry leading web development tools used to design, develop, and maintain websites.

Cisco Networking 1 (PS at Stillman) (CEANCI #52121)

Grades: 11, 12 Prerequisite: Pathways to Success acceptance
Length of Course: 1 Semester ½ Credit Career Education

Networking fundamentals is the first of four courses in the Cisco Networking Academy Program. Topics included 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. Students can take the course for high school and RVC dual credit – see guidance counselor to discuss these possible options.

Cisco Networking 2 (PS at Stillman) (CEANCI #52122)

Grades: 11, 12 Prerequisite: Cisco Networking 1
Length of Course: 1 Semester ½ Credit Career Education

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. Students can take the course for high school and RVC dual credit – see guidance counselor to discuss these possible options.

Cisco Networking 3 (PS at Stillman) (CEANCI #52123)

Grades: 12 Prerequisite: Cisco Networking 2
Length of Course: 1 Semester ½ Credit Career Education

Advance routing and switching is the third 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. Students can take the course for high school and RVC dual credit – see guidance counselor to discuss these possible options.

Cisco Networking 4 (PS at Stillman) (CEANCI #52124)

Grades: 12 Prerequisite: Cisco Networking 3
Length of Course: 1 Semester ½ Credit Career Education

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. Students can take the course for high school and RVC dual credit – see guidance counselor to discuss these possible options.

CONSUMER & FAMILY SCIENCES PROGRAM

Consumer Education

Grade: 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education - Required

This course is designed to provide students with the practical knowledge necessary to be competent consumers in today's marketplace. Students in this course are provided with the skills, information, and an understanding of the broad topic of money and how it can and will impact their lives. Students learn to identify, organize, plan, and allocate resources available to them in the marketplace. Integral parts of this course include budgeting, investments, consumer rights, and career exploration. This course is a required career education course for graduation that meets the state requirements for consumer education.

Child Development (CEANCI #61001)

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

Students will have the opportunity to study the development of a child from conception to age six with emphasis on physical, social, emotional, and intellectual development at each stage. It includes a study of parenting skills and the observation of preschool children by conducting a playgroup.

Parenting (CEANCI #60501)

Not offered year 2010-2011

Grade: 10, 11, 12 Prerequisite: Child Development
Length of Course: 1 Semester ½ Credit Career Education

Parenting focuses on helping students understand the responsibilities, satisfactions, and stresses of parenthood. Many types of parenting situations are examined. Course content includes managing and organizing parenting by making good decisions, practicing health and safety standards, encouraging human relation skills, and evaluating the impact of a changing society on the role of parents.

Adult Living (CEANCI #60503)

Grade: 10, 11, 12 Prerequisite: Child Development
Length of Course: 1 Semester ½ Credit Career Education

Adult Living is designed to assist students in achieving life satisfaction through responsible participation as adults in the home, community, and workplace. Emphasis is placed on making good decisions, setting goals, assuming roles and responsibilities, using good health practices, and coping.

Living Environment (CEANCI #60505)

Not offered year 2010-2011

Grade: 10, 11, 12 Prerequisite: Child Development
Length of Course: 1 Semester ½ Credit Career Education

The Living Environment course provides students with the basic knowledge and skills needed to select, acquire, maintain, and manage a living environment. The course includes topics like locating and managing housing, goals, home management choices, and career patterns and their impact on the living environment.

Foods 1 (CEANCI #64003)

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

This course includes basic classroom and lab experiences in basic food service principles and nutrition for people of all ages. Included in this course will be investigation in areas such as etiquette, table setting, nutrition, and microwave cooking.

Foods 2 (CEANCI #64005)

Grade: 9, 10, 11, 12
Length of Course: 1 Semester

Prerequisite: Foods 1
½ Credit Career Education

This course focuses on selection and preparation for special circumstances and dietary needs. Laboratory sessions are devoted to preparation of foods with specific characteristics. Topics covered in this class include careers in foods and nutrition, nutrition over the lifespan, food customs and foreign food cookery, casseroles, yeast breads, pies, and pastries. This course provides an introduction to commercial food service, preparation, and management.

Child Care 1 (CEANCI #61003)

Grade: 10, 11, 12
Length of Course: 1 Semester

Prerequisite: Child Development
½ Credit Career Education

This course is designed for students who are interested in a career in child and day care operations. Students will learn about childhood development, explore the various recreational activities suitable for children at different ages, discuss discipline techniques, plan age appropriate creative learning activities, prepare nutritional snacks, develop lesson plans, and become aware of the functions and practices of a day care center. Students will be provided the opportunity to operate a play school.

Child Care 2 (CEANCI #61005)

Grade: 10, 11, 12
Length of Course: 1 Semester

Prerequisite: Child Care 1
½ Credit Career Education

This course is designed to provide students interested in a career in child and day care operations. Broad areas of emphasis include: The physical, mental, and emotional development of children, careers in the child care area, educational and creative activities for children in math, science, art, pre-reading, and language and an introduction to the principles of educating children. Additionally, the class will run a play school for seven weeks which includes planning curriculum, activities, and snacks for preschool aged children and supervision of the Child Care 1 class as they teach their activities.

HEALTH OCCUPATIONS PROGRAM

Nurse's Aide – NAD101 (CC at RVC Stenstrom Center)

Grades: 12 Prerequisite: Pathways to Success acceptance
Length of Course: 1 Semester ½ Credit Career Education/6 credit hours

Nursing Aide provides an introduction to the principles of patient care. Emphasis is placed on communications and technical skills necessary to function as an important member of the nursing team. Students are given opportunities to develop their skills in a variety of classroom and clinical settings. (Approved by the Illinois Department of Public Health.) Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

Introduction to Health Care Careers – HLT101 (CC at RVC Stenstrom Center)

Grades: 12 Prerequisite: Pathways to Success acceptance
Length of Course: 1 Semester ½ Credit Career Education/2 credit hours

This course introduces the students to the field of health care and health care careers. Topics include health, illness, lifestyles and common illnesses, human response to illness and the needs of clients who are experiencing illness, health care delivery systems and issues for health care systems and care providers, and employment and careers. Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

PRODUCTION TECHNOLOGY PROGRAMS

Industrial Survey (CEANCI #80001)

Grade: 9, 10 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

The Industrial Survey course is the first stepping-stone for a student who wants to find out about the variety of industrial opportunities in our Technology Center. Key areas of instruction include manufacturing, construction, transportation, communication, and energy. Each component will cover the resources, technical processes, industrial applications, technological impact, and occupations encompassed by that system. Some topics covered will be management, mass production, corporate structures, tools and equipment, material handling, computers usage in transportation, drafting, electronic fundamentals, nuclear power, conservation, and new and emerging energy technologies.

AUTOMOTIVE TECHNOLOGY PROGRAM

Auto 1 – Introduction to Brakes & Chassis Systems (CEANCI #75003)

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

Students will study automotive suspension/steering, brake systems, and vehicle service. Safety in the use of automotive hand tools, equipment, and chemicals is also covered. Students will complete automotive industry theory and performance tasks for initial employment in the automotive service field or further training at a post-secondary school. **This class is only available in the fall semester.**

Auto 2 – Introduction to Electrical Systems & Engine Performance (CEANCI #75004)

Grade: 9, 10, 11, 12 Prerequisite: Auto 1
Length of Course: 1 Semester ½ Credit Career Education

Students will study basic engine repair, electrical/electronic systems, engine performance, and vehicle service. Safety in the use of automotive hand tools, equipment, and chemicals/oils is also covered. Students will complete automotive industry theory and performance tasks for initial employment in the automotive service field or further training at a post-secondary school. **This class is only available in the spring semester.**

Introduction to Internal Combustion Engines (CEANCI #75001)

Formerly Small Engines

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

This is an entry level course featuring the reciprocating piston engine. Content includes the study of different operational cycles with emphasis on the gasoline fueled, spark ignited Otto Cycle (four -cycle) engine. Major units of study include the design and operation of internal engine components as well as secondary systems such as Fuel/Induction, Cooling (air & liquid), Lubrication, and Ignition systems. Classroom instruction is supported by various practical activities highlighting the tearing-down and assembly of a multi-cylinder automotive type engine.

Auto 3 – Auto Electrical Fundamentals (CEANCI #75005)

Grade: 10, 11, 12 Prerequisite: Auto 2
Length of Course: 1 Semester ½ Credit Career Education

Students will identify and interpret electrical system problems and determine necessary action. Methods and procedures in researching applicable vehicle and service information on electrical systems operations are covered. Students will be introduced to the diagnosis and repair of starting systems, charging systems, driver information systems, and electrical/electronic systems. Electrical testing equipment and special hand tools will be covered. Electrical components will be removed and installed on a variety of vehicles. Safety in the use of tools and equipment is also covered. **This class is only available in the fall semester.**

Auto 4 – Brakes (CEANCI #75006)

Grade: 10, 11, 12 Prerequisite: Auto 3
Length of Course: 1 Semester ½ Credit Career Education

Students will identify and interpret brake system problems and determine necessary action. Diagnosis and repair of hydraulic systems, drum brakes, disc brakes, wheel bearings, parking brakes, and power assist units will be covered. Antilock brakes and traction controls will also be covered. Students will repair brakes and components on a variety of vehicles and use special tools and equipment. Safety in the use of tools/equipment and chemical and fluids are also covered. **This class is only available in the spring semester.**

Auto 5 – Auto Electrical /Electrical Systems (CEANCI #75007)

Grade: 11, 12 Prerequisite: Auto 4
Length of Course: 1 Semester ½ Credit Career Education

Diagnosis and repair of horn and wiper systems, electrical accessories, and motor drive systems are covered. Students will apply knowledge learned in previous electrical courses and work on additional vehicles to repair electrical systems. Electrical systems associated with engine performance will be covered. Engine performance includes computerized engine controls, ignition systems, and electrical wiring. Safety in the use of tools and equipment is also covered. **This class is only available in the fall semester.**

Auto 6 – Engine Performance (CEANCI #75008)

Grade: 11, 12 Prerequisite: Auto 5
Length of Course: 1 Semester ½ Credit Career Education

Students will be introduced to general engine diagnosis, computerized engine controls, ignition systems, fuel/air induction/exhaust systems, emissions controls, and engine related services. Special tools and testing equipment will be introduced and students will have the electrical courses and be introduced to diagnosing electronic circuit systems, module communication errors, and anti-theft systems. Safety is stressed in the use of tools and equipment and working on vehicles. **This class is only available in the spring semester.**

Automotive Cooperative/Apprenticeship Education (CEANCI #90003)

Grade: 12 Prerequisite: Stated below
Length of Course: 2 Semesters Variable Credit Career Education

Cooperative/Apprenticeship Education is a two-semester course for high school seniors. Students work part-time in an approved automotive work site under the direction of an ASE Certified Technician. Knowledge and skills learned in high school automotive classes will be reinforced and additional instruction in engine performance, suspension, and steering will be covered. Students will keep a course portfolio and are required to follow a training plan. The training plan lists the NATEF Tasks to be covered on the job and student responsibilities/requirements.

Prerequisite: With automotive instructor approval. Completion of all prior automotive courses or concurrent enrollment in advanced automotive courses: Advanced Electrical Systems (CEANCI #75007)/Engine Performance (CEANCI #75008). Students must have a valid driver's license, complete a program application, and be interviewed by teacher/employer.

DRAFTING & ARCHITECTURE PROGRAM

Introduction to Engineering Design 1 (I.E.D. – PLTW) (CEANCI #81503)

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

This introductory course is for the student who has a general interest in drafting, engineering, architecture, manufacturing, and/or construction that leads to the Drafting or Engineering programs offered at BHS. Typical areas covered include planning and organizing activities, preparing sketches, performing basic layouts, and detailing drawings using CAD & 3D Solid Modeling software. Students will also spend time developing problem-solving skills utilized in the design development process. Models of product solutions are created, analyzed, and communicated using solid model computer design software.

Introduction to Engineering Design 2 (I.E.D. – PLTW) (CEANCI #81504)

Grade: 9, 10, 11, 12 Prerequisite: I.E.D. 1
Length of Course: 1 Semester ½ Credit Career Education

Introduction to Engineering Design 2 is a course that teaches problem-solving skills using an engineering design development process. Models of the product solutions are created, analyzed, and communicated using solid modeling computer design software. The course includes measuring, manual orthographic & isometric drawing, and 3-dimensional drawing visualization. I.E.D. 2 is a problem-based learning course where students maintain a comprehensive portfolio of their design work throughout the semester.

Computer Aided Drafting & Design 1 (CADD 1) (CEANCI #81503)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

This course is for the student who has an interest in Drafting, Engineering, Manufacturing, Architecture, and/or Construction. This course will further develop the students' knowledge and drafting skills in a variety of drafting fields. The student will develop 2D technical drawings with the addition of detail, auxiliary, sections, assembly drawings, and developments. Other areas of drafting covered include architectural, 3D (Solid modeling), typography, and developing graphical engineering solutions.

Computer Aided Drafting & Design 2 (CADD 2) (CEANCI #81504)

Grade: 10, 11, 12 Prerequisite: CADD 1
Length of Course: 1 Semester ½ Credit Career Education

This 2nd year course is for the student who has an interest in Drafting, Engineering, Manufacturing, Architecture, and/or Construction. This 2nd semester course continues the areas covered in CADD 1 and will further develop the students' knowledge and drafting skills in a variety of drafting fields. The student will develop 2D technical drawings with the addition of detail, auxiliary, sections, assembly drawings, and developments. Other areas of drafting covered include architectural, 3D (Solid modeling), typography, and developing graphical engineering solutions.

Architectural Drafting 1 (CEANCI #81505)

Grade: 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

This course is designed for the student with an interest in Drafting, Engineering, Manufacturing, Architecture, and/or Construction. This course is designed with real-world examples that confront designers, illustrators, drafters, and architects. Students also have the opportunity to work on architectural design projects that require geometric constructions and residential planning.

Architectural Drafting 2 (CEANCI #81506)

Grade: 11, 12 Prerequisite: Architectural Drafting 1
Length of Course: 1 Semester ½ Credit Career Education

This course is designed for the student with an interest in Drafting, Engineering, Manufacturing, Architecture, and/or Construction. This 2nd semester course continues the areas covered in Architectural Drafting 1 and will further develop the students' knowledge and drafting skills. This course is designed with real-world examples that confront designers, illustrators, drafters, and architects. Students also have the opportunity to work on architectural design projects that require geometric constructions and residential planning

PRE-ENGINEERING PROGRAM

Introduction to Engineering Design 1 (I.E.D.—PLTW) (CEANCI #81503)

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

This introductory course is for the student who has a general interest in drafting, engineering, architecture, manufacturing, and/or construction that leads to the Drafting or Engineering programs offered at BHS. Typical areas covered include planning and organizing activities, preparing sketches, performing basic layouts, and detailing drawings using CAD & 3D Solid Modeling software. Students will also spend time developing problem-solving skills utilized in the design development process. Models of product solutions are created, analyzed, and communicated using solid model computer design software.

Introduction to Engineering Design 2 (I.E.D.—PLTW) (CEANCI #81504)

Grade: 9, 10, 11, 12 Prerequisite: I.E.D. 1
Length of Course: 1 Semester ½ Credit Career Education

Introduction to Engineering Design 2 is a course that teaches problem-solving skills using an engineering design development process. Models of the product solutions are created, analyzed, and communicated using solid modeling computer design software. The course includes measuring, manual orthographic & isometric drawing, and 3-dimensional drawing visualization. I.E.D. 2 is a problem-based learning course where students maintain a comprehensive portfolio of their design work throughout the semester.

Principles of Engineering (P.O.E. – PLTW) (CEANCI #81501/81502)

Grade: 9, 10, 11, 12 Prerequisite: Algebra 1 or concurrently enrolled in Algebra 1
Length of Course: 2 Semesters 1 Credit Career Education

This course helps students understand the field of engineering/engineering technology. Exploring various technology systems and manufacturing processes help students learn how engineers and technicians use math, science, and technology in an engineering problem solving process to benefit people. The course also includes concerns about social and political consequence of technological change.

Civil Engineering 1 (CEANCI #81507)

Grade: 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

This hands on course further covers Drafting/CAD commands and allowing students to increase the practical experience necessary for development of job-related skills in the field of drafting. Advanced techniques in architecture involving tablet customization, schedule management, 3D techniques, and multi-story buildings are a few areas of focus. Real-world examples as experienced in the work place are simulated.

Civil Engineering 2 (CEANCI #81508)

Grade: 11, 12 Prerequisite: Civil Engineering 1
Length of Course: 1 Semester ½ Credit Career Education

This course covers the use of 3D solid models for rendering and illustrations. Students are able to work with the latest in technology and software applying skills in the areas of detailed drawings, performing presentation techniques, using reproduction techniques, architectural drawings, and structural and mechanical drawings.

Civil Engineering & Architecture 1 (C.E.A. – PLTW) (CEANCI #81505)

Grade:	11, 12	Prerequisite:	None
Length of Course:	1 Semester		½ Credit Career Education

This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the inter-relationship and dependence of both fields on each other. Students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities. This course will further cover Drafting/CAD commands and allow students to increase the practical experience necessary for job related skills in the field. Advanced techniques including tablet customization, schedule management, 3D techniques, and multistory buildings are a few areas of focus.

Civil Engineering & Architecture 2 (C.E.A. – PLTW) (CEANCI #81506)

Grade:	11, 12	Prerequisite:	C.E.A. 1
Length of Course:	1 Semester		½ Credit Career Education

This course is a continuation of the fall semester Civil Engineering & Architecture course. Topics covered include the role of civil engineers and architects, project planning, site planning, building design, and project documentation and presentation. Students are able to work with latest technology and software to create detailed drawings, reproduction techniques, structural, and mechanical drawings. The primary function of all five modules in 3D concepts, viewing, commands, construction techniques, wire framing, lighting, and rendering scenes using 3D modeling.

Digital Electronics (D.E. – PLTW) (CEANCI #72005)

Grade:	10, 11, 12	Prerequisite:	None
Length of Course:	2 Semesters		1 Credit Career Education

This course centers on applied logic that encompasses the application of electronic circuits and devices. Computer simulation software is used to design and test digital circuitry prior to the actual construction of circuits and devices.

Engineering Design and Development (E.D.D. – PLTW)

Grade:	11, 12	Prerequisite:	2 of the 3 (D.E., I.E.D., or P.O.E.)
Length of Course:	2 Semesters		1 Credit Career Education

This course is an engineering research course in which students work in teams to research, design and construct a solution to an open-ended engineering problem. Students apply principles developed in the four preceding courses and are guided by a community mentor. They must present progress reports, submit a final written report, and defend their solutions to a panel of outside reviewers at the end of the school year.

Computer Integrated Manufacturing (C.I.M. – PLTW) (Winnebago)

Grade:	11, 12	Prerequisite:	I.E.D., plus concurrent with college prep math
Length of Course:	2 Semesters		1 Credit Career Education

This is a 1-year course building upon the solid-modeling and three-dimensional skills students develop in I.E.D. Students develop understanding and abilities in manufacturing process skills and apply them to make components from 3-D solid models generated in CAD software. Students learn Computer Numerical Control (CNC), machining fundamentals for program writing, machine setup, and operation. Robotic automation programming is learned through simulation and actual small robotic devices. Students will use computer simulation as well as hands-on operation of robots, manual mills, CNC mills, and Fischertechnik.

MANUFACTURING PROGRAM

CNC Machine Setup/Operations – MET120 (CC at RVC Main Campus)

Grades: 12 Prerequisite: Pathways to Success acceptance
Length of Course: 1 Semester ½ Credit Career Education/2 credit hours

**Taken in combination with Fundamentals of CNC & CAD Blueprint Reading.

This course 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. Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

Fundamentals of CNC Programming – MET121 (CC at RVC Main Campus)

Grades: 12 Prerequisite: Pathways to Success acceptance
Length of Course: 1 Semester ½ Credit Career Education/2 credit hours

**Taken in combination with CNC Machine Setup & CAD Blueprint Reading

This course 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 them using machine or computer graphics. Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

Introductory CAD and Blueprint Reading – MET100 (CC at RVC Main Campus)

Grades: 12 Prerequisite: Pathways to Success acceptance
Length of Course: 1 Semester ½ Credit Career Education/3 credit hours

**Taken in combination with CNC Machine Setup & CAD Blueprint Reading

This course has been designed for the high school student without recent industrial drafting experience. The basic concepts required to create and interpret industrial drawings are presented and practiced. This course provides the fundamental information required to interpret drawings for the required dimensions and tolerances, shape descriptions, machine operations, notes, symbols, and other pertinent data. Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

Manufacturing Processes 1 – MET110 (CC at RVC Main Campus)

Grades: 12 Prerequisite: Consent of Instructor
Length of Course: 1 Semester ½ Credit Career Education/3 credit hours

**Taken in combination with Metrology 1

Manufacturing Processes 1 provides an introduction to machining processes including milling, turning, grinding, drilling, and cutoff operations. Laboratory activities include the fundamentals of machine operations, tooling, precision measurements, process safety, care, and maintenance. This course is offered at a regional training center in partnership with RVC. Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

Metrology 1 – MET106 (CC at RVC Main Campus)

Grades: 12 Prerequisite: Consent of Instructor
Length of Course: 1 Semester ½ Credit Career Education/3 credit hours

Metrology 1 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, gaging, high-amplification, comparators, surface plates, angular instruments, sine bar, pneumatic gaging, and CMM systems. Related topics introduce data analysis, variable versus attribute, MSA, calibration systems, and modern standards for quality systems and metrology. Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

BUILDING TRADES PROGRAM

Woodworking

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

Students will be introduced to principles of woodworking. Each student will learn how to safely use common woodworking tools. Also covered in the class will be the steps associated with the design, layout, and planning of their project. The students will be required to complete three wood projects during the semester.

Production Technology (CEANCI #70501)

Grade: 9, 10 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

This course is designed to foster an awareness and understanding of manufacturing and construction technology. Through a variety of learning activities, students are exposed to many career opportunities in the production field. Experiences in manufacturing include product design, materials and processes, tools and equipment including computers, safety procedures, corporate structure, management, research and development, production planning, mass production, marketing, and servicing. In construction, students will be exposed to site preparation, foundations, building structures, installing utilities, and finishing and servicing structures.

Introduction to Construction Trades (CEANCI #70505)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education

Construction Trades is a vocational training course designed to educate the student about the construction field and provide entry-level skills for the construction trades. Theory and practical application of many of the construction trades are covered. Practical application is provided by project work and on construction sites when available. Students work individually, in small groups, and in large groups.

Construction Trades 2 (CEANCI #70506)

Grade: 10, 11, 12 Prerequisite: Intro. to Construction Trades
Length of Course: 1 Semester ½ Credit Career Education

The Construction Trades 2 course provides practical hands-on experiences related to the erection, installation, and maintenance of residential buildings and related fixtures. Activities will allow students to become knowledgeable of fundamental principles and methods to develop technical skills related to masonry, carpentry, and finish work. Instruction will include a continuation of safety practices, foundation layout methods, building concepts and procedures, local, state, and national codes, cost estimating, and blueprint reading.

WELDING PROGRAM

Basic Gas and Electric Welding (PS at Oregon)

Grades: 11, 12 Prerequisite: Pathways to Success acceptance
Length of Course: 2 Semesters 1 Credit Career Education

Basic Gas and Electric Welding concentrates on oxygen acetylene, SMAW, and gas metal arc welding on mild steel. An emphasis is placed on technologies and safety. Students may receive dual Kishwaukee College credit for WT116 Basic Gas and Electric Welding

Advanced Industrial Welding (PS at Oregon)

Grades: 12 Prerequisite: Basic Gas & Electric Welding
Length of Course: 2 Semesters 1 Credit Career Education

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 WT218 Advanced Industrial Welding.

Fundamentals of Welding Theory – WLD100 (CC at RVC Stenstrom Center)

Grades: 11, 12 Prerequisite: Pathways to Success acceptance
Length of Course: 1 Semester 1/2 Credit Career Education/3 credit hours

Fundamentals of Welding Theory introduces students to high tech welding through theory and hands on lab. Special emphasis is placed on welding and cutting safety as well as welding terms. Basic blueprint reading, metallurgy, welding codes, and symbols are also covered.

Arc Welding:Flat – WLD153 (CC at RVC Stenstrom Center) (CEANCI #76012)

Grades: 11, 12 Prerequisite: Pathways to Success acceptance
Length of Course: 1 Semester 1/2 Credit Career Education/3 credit hours

Arc Welding covers electric welding on plate in the flat position. Safety rules and equipment usage are emphasized. An introduction to oxygen acetylene cutting is covered. Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

Arc Welding:Horizontal – WLD155 (CC at RVC Stenstrom Center) (CEANCI #76013)

Grades: 11, 12 Prerequisite: Consent of Instructor
Length of Course: 1 Semester 1/2 Credit Career Education/3 credit hours

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. Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

M.I.G. Welding – WLD157 (CC at RVC Stenstrom Center) (CEANCI #76014)

Grades: 12 Prerequisite: Consent of Instructor
Length of Course: 1 Semester 1/2 Credit Career Education/3 credit hours

M.I.G. Welding covers M.I.G. (wire) welding in all positions on plate. Safety rules and equipment usage will be emphasized. Rock Valley College courses are taken for college credit requiring college admissions and testing; students also receive high school credit.

ENGLISH PROGRAM

English 1

Grade: 9 Prerequisite: None
Length of course: 2 Semesters 1 Credit English - Required

English 1 has been designed to introduce students to literature study skills. In this course, the students will review many of the essential terms for effective literature study. As the course progresses, the students will be expected to apply these terms to works of literature. Students will be exposed to a variety of literary genres including the novel, short story, and poetry. Students will also develop basic writing skills for real life situations and increase oral communication skills.

English 2

Grade: 10 Prerequisite: English 1
Length of Course: 2 Semesters 1 Credit English - Required

English 2 is divided into one semester of Oral Communication and one semester of English Survey. In the first semester (Oral Communications) emphasis is placed on public speaking and communication skills. Students will use research techniques and communication skills to make numerous classroom presentations. The second semester is English Survey with emphasis placed on exposure to major literary genres: the short story, the novel, non-fiction, poetry, and Shakespeare.

English 3

Grade: 11 Prerequisite: English 2
Length of Course: 2 Semesters 1 Credit English - Required

English 3 is a survey course that covers major American writers, periods, forms, and works in American Literature from the colonial period to modern times. A research paper is required. Students may be expected to complete one book report. Skills attained will help to prepare for sections of the ACT and PSAT tests, as well as writing/literature classes.

English 3 Honors

Grade: 11
Length of Course: 2 Semesters

Honors Course

Prerequisite: English 2 (at least a B-), or Instructor approval
1 Credit English

English 3 is a course that studies the culture of America as seen through history and literature. Writing, reading, discussion, and group projects are heavily emphasized, as well as having an open mind and willingness to share opinions. Students must be prepared for a consistent workload that requires them to analyze and debate. Skills attained will help to prepare for sections of the ACT and PSAT tests, as well as college entrance essays and writing/literature classes. This class moves at a faster pace and deals with more complex pieces of literature.

Composition 1

Grade: 9, 10, 11 Prerequisite: None
Length of Course: 1 Semester ½ Credit English

An introduction course in writing where the focus is on basic development that builds on previous English skills. Students are expected to write papers 2-5 pages in length. A strong emphasis is placed on the revision process and conferencing.

Composition 2

Grade: 11, 12 Prerequisite: English 2 and Fundamentals of Writing/Composition 1
Length of Course: 1 Semester ½ Credit English

This course will focus on writing analyses of literature and preparing defensive arguments for a variety of purposes. This class is focused for the college-bound student. Students will be required to write papers 4-7 pages in length.

Creative Writing

Grade: 10, 11, 12 Prerequisite: English 1 and Fundamentals of Writing/Composition 1
Length of Course: 1 Semester ½ Credit English

This writing-intensive course will help students hone their writing skills by focusing them on descriptive details, internal and external dialogue, points of view, and theme. Students will learn how to take their writing from its earliest stages to its final product – a work of art that has undergone several drafts and peer revisions. By the end of the course, students will be able to produce short works of fiction that are ready for publication.

Theatre Arts

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit English

This acting-intensive course will supply students with the skills they need to perform as any character on stage. Students will also be supplied with a history of theatre and how a show evolves from the script to the final show. By the end of the course, students will be able to analyze a character in a play, block out the character's actions onstage, and perform as that character in front of an audience.

Advanced Theatre Arts

Grade: 10, 11, 12 Prerequisite: Theatre Arts
Length of Course: 1 Semester ½ Credit English

This course is a continuation of Theatre Arts. Advanced Theatre Arts is a writing-intensive course that asks students to write multiple scripts and monologues for both the stage and the movie screen. Students will have the chance to put both their writing skills and their acting skills to use by directing and producing scripts for both theatre and cinema.

Mythology

Grade: 11, 12 Prerequisite: English 2
Length of Course: 1 Semester ½ Credit English

Within the broad study of mythology, students will focus on the Greek, Roman, Celtic, Arthurian, Norse and modern myths with the goal of understanding the far-reaching purposes and creation principles of myths. While intensive reading and writing are required, students will also participate in various group projects over the culture and history of various myths. Two films are incorporated into the course as tools for understanding how ancient myths have carried into the entertainment and literature of today's world.

Science Fiction and Fantasy Reading

Grade: 11, 12 Prerequisite: English 2
Length of Course: 1 Semester ½ Credit English

This course is a literature-based course that explores the genres of Science Fiction and Fantasy. The course is designed to expose upper level students to a variety of genres and to enhance analytical skills. Although the course will incorporate a variety of texts, the primary focus will be on full-length novels.

RVC English 101

Grade: 12 Prerequisite: English 3; and an ACT Reading and English score of 19 or above
Length of Course: 1 Semester ½ Credit English

RVC English 101 is a Rock Valley College English course. Students who successfully complete the class will receive 3 credits at Rock Valley College. English 101 teaches students to write effectively at the college level. Emphasizing writing as a process, this course requires students to write one or more essays of each type: Exploratory, expository, and persuasive. Necessary attention is devoted to English grammar and usage. Students are required to write from 16 to 24 pages during the course. Students who do not meet the ACT requirement will have an opportunity to take a placement test at RVC to gain admittance.

Yearbook

Grade: 9, 10, 11, 12 Prerequisite: Instructor's approval upon completion of application
Length of Course: 2 Semesters 1 Credit English

Yearbook/journalism is a year-long class. The purpose of this class is to develop three forms of media (yearbook, online journalism, and media broadcast). Students will be using technology to develop a yearbook, a web page for the school with article posts, and a consistent news program that informs viewers on school events. Students will have the option of taking the class for three years. Students must get instructor's approval; meaning, students would have to go through an application process in order to be considered for the class.

AP English (Lit. & Comp.)

Grade: 12

Honors Course

Prerequisite: English 3 Honors (at least a B-), high English ACT score, and/or Teacher Recommendation. *Students who did not take English 3 Honors may take the course with course instructor's approval

Length of Course: 2 Semesters 1 Credit English

****This course requires a course fee to cover the cost of the required AP exam.****

****Payment is due before the start of the course.****

This class mirrors a typical college English class and is designed for the ambitious student who welcomes a challenge. We will be studying literature from the point of view of the writer as well as of the reader to determine how the literature affects its readers and in what ways. We will "measure" literature against the history of philosophy to understand how literature fits into its own time as well as in all time. In addition, our literary analysis will look at style and structure and a writer's diction, imagery, use of detail, language, and syntax and to what effect. Writing well about literature is a key component of the class. Students who score well on the AP exam may be eligible for college credit.

Humanities

Grade: 12

Length of Course: 1 Semester

Honors Course

Prerequisite: Successful completion of 3 years of English
½ Credit English

Humanities is a course for honor students which reflects a thematic approach to the study of literature, art, music, architecture, and philosophy throughout the world. The general purpose is to develop knowledge of humanities in the contemporary world (1940-present time).

FOREIGN LANGUAGE PROGRAM

Spanish 1

Grade: 9, 10, 11 Prerequisite: None
Length of Course: 2 Semesters 1 Credit Foreign Language/Fine Arts

This course is designed to introduce students to the Spanish language and culture. Throughout the year, students will develop listening, reading, writing, and speaking skills in the Spanish language at the basic level focusing on the present tense. This course requires good study skills and self-discipline on the part of the students.

Spanish 2

Grade: 10, 11, 12 Prerequisite: Spanish 1
Length of Course: 2 Semesters 1 Credit Foreign Language/Fine Arts

This course is an extension of Spanish 1 that strengthens and increases the knowledge of vocabulary and grammar including the usage of the past tenses. This course will also heighten the awareness of the various Spanish-speaking cultures focusing on situations in every day life. This course requires good study skills and self-discipline on the part of the students.

Spanish 3

Grade: 11, 12
Length of Course: 2 Semesters

Honors Course

Prerequisite: Spanish 2 (B- minimum or instructor approval)
1 Credit Foreign Language/Fine Arts

This course is designed for students to become proficient at an intermediate-advanced level of Spanish in the areas of conversation, reading, and writing. Students will gain a very strong grammatical background through the study of advanced grammatical tenses with an emphasis on their practical use. It is expected that students will speak in Spanish. This course will be conducted almost completely in Spanish.

Spanish 4

Grade: 12
Length of Course: 2 Semesters

Honors Course

Prerequisite: Spanish 3 (B- minimum or instructor approval)
1 Credit Foreign Language/Fine Arts

This course is designed to prepare students for college-level Spanish. The course is conducted entirely in Spanish. The focus of the course is the authentic use of the Spanish language. Students will be exposed to various genres of Spanish-language literature with an emphasis on grammar. Reading, writing, discussion, and projects are heavily emphasized, as well as performance assessments such as speeches, skits, and debates. Students must be willing to speak in Spanish in order to be successful in this course.

French 1 (Stillman Valley)

Grade: 9, 10, 11 Prerequisite: None
Length of Course: 2 Semesters 1 Credit Foreign Language/Fine Arts

This course is designed for students who wish to use French as a means of communication, both oral and written. Study is concentrated on developing skills and using the language, together with written knowledge of the culture and civilization of the countries where it is spoken.

French 2 (Stillman Valley)

Grade: 10, 11, 12 Prerequisite: French 1
Length of Course: 2 Semesters 1 Credit Foreign Language/Fine Arts

This course is an extension of French 1 that develops a more intense knowledge of vocabulary, grammar, and speaking. In addition, the instructor will highlight the various cultures in the French speaking countries.

French 3 (Stillman Valley)

Grade: 11, 12
Length of Course: 2 Semesters

Honors Course

Prerequisite: French 2
1 Credit Foreign Language/Fine Arts

French 3 continues the study of French with increased emphasis on reading, writing, and speaking. In addition to studying all aspects of communication in the target language, this course will also study the diverse areas of France and the culture and literature of various Francophone countries.

French 4 (Stillman Valley)

Grade: 12
Length of Course: 2 Semesters

Honors Course

Prerequisite: French 3
1 Credit Foreign Language/Fine Arts

This course focuses on the consistent use of French on both a written and conversational level. A general introduction to French history and art will be given with an emphasis on modern France.

HEALTH & PHYSICAL EDUCATION PROGRAM

Introduction to Physical Education

Grade: 9 Prerequisite: None
Length of Course: 2 Semesters 1 Credit Physical Education - Required

This course is a year-long class for all freshmen. This course puts an emphasis on laying the groundwork for creating, implementing, and maintaining a personal fitness plan that will focus on the five components of health related fitness and other fitness topics. Various sport and recreational activities will be introduced to the students as well as daily work on personal fitness goals. Periodical physical fitness testing of all students will be done to monitor improvements in fitness levels. Purchasing a heart rate monitor strap and a 3-ring binder is required. The straps will be available from the PE department the first week of class.

Lifetime Fitness/Non-Competitive Play Physical Education

Grade: 10, 11, 12 Prerequisite: 10th-12th Grades
Length of Course: 1 Semester ½ Credit Physical Education - Required

This course is a semester-long course that will focus on lifetime sports and improving individual fitness levels. Periodical physical fitness testing of all students will be done to monitor improvements in fitness levels. Students need a pocket folder and will be expected to pay a lab fee to cover activity expenses. Fees per semester range from \$9-\$15. Activities may include...Golf, Tennis, Hiking/Orienteering, Circuit Training, Aerobics, Pilates, Jogging/Walking, Badminton, Table Tennis, Badminton, Racquetball, Volley Tennis, Team Building, etc.

Competitive Team/Individual Sports Physical Education

Grade: 10, 11, 12 Prerequisite: 10th-12th Grades
Length of Course: 1 Semester ½ Credit Physical Education – Required

This course is a semester-long course for individuals who enjoy being competitive and playing games. Periodical physical fitness testing of all students will be done to monitor improvements in fitness levels. A heart rate monitor strap and 3-ring binder may be required. Activities may include...Volleyball, Ultimate Frisbee, Soccer, Basketball, Racquetball, Flag Football, Softball, Lacrosse, Floor Hockey, Volley Tennis, Badminton, Pickle Ball, Wallyball, Speed Ball, etc. Minimum of 18 students per class.

Strength and Conditioning Physical Education

Grade: 10, 11, 12 Prerequisite: 10th-12th Grades
Length of Course: 1 Semester ½ Credit Physical Education – Required

This course is a semester-long course intended for student athletes as well as non-athletes who would like to weight train using different methods such as free weights, machines, dumb bell weights, therapeutic ball, bands, circuit training, plyometrics, etc. to improve their sports performance. Basic anatomy and physiology will be taught. Periodical physical fitness testing of all students will be done to monitor improvements in fitness levels. A heart rate monitor strap and 3-ring binder may be required.

Health

Grade: 9 Prerequisite: None
Length of Course: 1 Semester ½ Credit Health – Required

This course covers a number of topics that are vital to living. It is specifically geared to meet the needs of teenagers. Topics covered are physical health, mental/emotional health, drug education, human sexuality, and CPR instruction. **P.E. cannot be taken during the semester you take Health.**

Driver's Education

This course will be offered from 7:00-8:00 a.m. Students will be enrolled in this course according to their age. They will not need to sign up specifically for this course. Students will need to have passed 8 semester classes in the previous calendar year before they will be allowed to register for this class.

MATHEMATICS PROGRAM

Algebra 1A

Grade: 9 Prerequisite: None (Teacher Recommendation)
Length of Course: 2 Semesters 1 Credit Mathematics – Required

This is the first component of a 3-year program that will include 2 years of Algebra and 1 year of Geometry. Topics covered during the program will include basic Algebra.

Algebra 1B

Grade: 10 Prerequisite: Algebra 1A or Teacher Recommendation
Length of Course: 2 Semesters 1 Credit Mathematics – Required

This is the second component of a 3-year program that will include 2 years of Algebra and 1 year of Geometry. Topics covered during the program will include basic Algebra.

Algebra 1

Grade: 9 Prerequisite: None
Length of Course: 2 Semesters 1 Credit Mathematics - Required

Algebra 1 is the beginning of the introductory course to abstract mathematics utilizing a students' math skills in an ordered fashion to solve problems. Algebra 1 will perform operations on signed numbers, solve linear equations and inequalities, solve story problems, graph equations, and find slope. In order to be successful in college preparatory mathematics, the Algebra 1 concepts must be mastered.

Geometry

Grade: 9, 10, 11 Prerequisite: Algebra 1
Length of Course: 2 Semesters 1 Credit Mathematics - Required

This course is the study of traditional Geometry. Students will study the properties of geometric figures and the use of proofs as a powerful tool in mathematics. This course is required of students who plan to attend state universities in Illinois.

Algebra 2 – 10TH

Grade: 10 Prerequisite: Geometry
Length of Course: 2 Semesters 1 Credit Mathematics

This course reviews Algebra 1 concepts with additional studies in linear relations, functions, matrices, systems of equations, exponents, conics, polynomial functions, logarithmic equations, multiply and factor polynomials and combining rational expressions. This course is required of students who plan to attend state universities in Illinois.

Algebra 2 – 10th Accelerated

Grade: 10 Prerequisite: Geometry 9 Accelerated (this will change after this school year because we will no longer have the Geometry Accelerated class), 8th grade Accelerated Geometry (DeVries Acc. Class) or teacher recommendation
Length of Course: 2 Semesters 1 Credit Mathematics

This course reviews Algebra 1 concepts with additional studies in linear relations, functions, matrices, systems of equations, exponents, conics, polynomial functions, logarithmic equations, multiply and factor polynomials and combining rational expressions. This course is required of students who plan to attend state universities in Illinois.

Trigonometry

Grade:	10, 11, 12	Prerequisite:	Completion of Alg. 2-11 th or concurrently taking Alg. 2-10 th
Length of Course:	1 Semester		½ Credit Mathematics

This course reviews the study of trigonometry, vectors, and polynomials. It may be taken concurrently with 2nd semester Algebra 2 or 1st semester Pre-Calculus. It must be completed before 2nd semester Pre-Calculus.

Algebra 2 – 11TH

Grade:	11, 12	Prerequisite:	Geometry
Length of Course:	2 Semesters		1 Credit Mathematics

This course reviews Algebra 1 concepts with additional studies in linear relations, functions, matrices, systems of equations, exponents, conics, polynomial functions, and rational expressions. This course is required of students who plan to attend state universities in Illinois.

RVC Statistics

Grade:	11, 12	Prerequisite:	ACT scores Math (18) and Reading (19); successful completion of Algebra 2
Length of Course:	2 Semesters		1 Credit Mathematics

This course will be an introduction to the field of probability and statistics. Topics included are measures of central tendency and variability, graphical presentation of data, normal and binomial distributions, t- and chi-square distributions, sampling, and correlation. The course will help students understand how to use statistics in their lives and how to use the field of statistics in different careers. Students who do not meet the ACT requirement will have an opportunity to take a placement test at RVC to gain admittance.

Algebra 3/Trigonometry

Grade:	12	Prerequisite:	Algebra 2–11 th
Length of Course:	2 Semesters		1 Credit Mathematics

This course reviews Algebra 2 concepts with additional studies in linear relations, functions, matrices, systems of equations, exponents, conics, polynomial functions and rational expressions.

Pre-Calculus

Grade:	11, 12
Length of Course:	2 Semesters

Honors Course

Prerequisite:	Algebra 2 & concurrently enrolled in Trig. 1 st semester
	1 Credit Mathematics

A student must have successfully completed Algebra 2 and by second semester a student must have successfully completed Trigonometry. This course is designed to prepare students for college calculus. It is the study of sequences and series, analytic geometry, logarithmic and exponential functions, and circular trigonometry.

Pre-Calculus Accelerated

Grade:	11, 12
Length of Course:	2 Semesters

Honors Course

Prerequisite:	Algebra 2 Acc. & concurrently enrolled in Trig. 1 st semester or Teacher Recommendation
	1 Credit Mathematics

A student must have successfully completed Algebra 2 and by second semester a student must have successfully completed Trigonometry. This course is designed to prepare students for college calculus. It is the study of sequences and series, analytic geometry, logarithmic and exponential functions, and circular trigonometry.

Calculus

Grade:	12
Length of Course:	2 Semesters

Honors Course

Prerequisite:	Pre-Calculus and Teacher Consent
	1 Credit Mathematics

Calculus is a year-long course covering the basic topics of calculus. Topics covered include, but are not limited to...limits, derivatives, integrals, and applications of derivatives and integrals.

AP Calculus 1

Grade: 12
Length of Course: 2 Semesters

Honors Course

Prerequisite: Pre-Calculus
1 Credit Mathematics

****This course requires a course fee to cover the cost of the required AP exam.****

****Payment is due before the start of the course.****

This course is for students who wish to take the AP Calculus exam in the spring. Course curriculum will be dictated by topics to be included on the AP Test and on college entrance exams. Students who do well on the AP exam may exempt out of some college courses.

AP Calculus 2

Grade: 12
Length of Course: 2 Semesters

Honors Course

Prerequisite: AP Calculus 1
1 Credit Mathematics

Not offered year 2010-2011

****This course requires a course fee to cover the cost of the required AP exam.****

****Payment is due before the start of the course.****

AP Calculus 2 is an extension of AP Calculus primarily for those who wish to take the AP Calculus BC exam in the spring. AP Calculus 2 involves more depth and more applications of topics such as integrals, polar coordinates, sequences, series, parametric, and vector equations. Students who do well on the AP exam may exempt out of some college courses.

SCIENCE PROGRAM

Biology

Grade: 9, 10 Prerequisite: Teacher Recommendation
Length of Course: 2 Semesters 1 Credit Science - Required

This course utilizes lecture and lab work to provide a strong biology base. Areas of emphasis include the scientific method, characteristics of life, taxonomy, biochemistry, cell biology, and genetics. Current topics and discoveries applicable to the above areas will be discussed and researched, accompanied with daily assignments.

Earth Science

Grade: 9 Prerequisite: Teacher Recommendation
Length of Course: 2 Semesters 1 Credit Science – Required

This course is an activity centered look at our planet and the processes that have shaped it. During the one-year course, students will be exposed to important concepts in astronomy, meteorology, geology, and physical oceanography.

Chemistry A

Grade: 10, 11 Prerequisite: Biology, current enrollment in Algebra 2 or
Teacher Recommendation
Length of Course: 2 Semesters 1 Credit Science – Required (A or B)

Chemistry A is an advanced paced chemistry class that includes an in-depth study of matter and the chemical and physical changes it undergoes. Through the use of computational tools, classroom demonstrations and laboratory experiments, Chemistry A provides the background information that students need to prepare for more advanced topics in the sciences. This course is required for enrollment in Anatomy, AP Chemistry, & AP Biology.

Chemistry B

Grade: 10, 11 Prerequisite: Algebra 1 and Biology
Length of Course: 2 Semesters 1 Credit Science – Required (A or B)

Chemistry B is an activity-based chemistry class emphasizing group activities and lab work. This class is not math intensive and concentrates on concepts rather than mathematical analysis. Students who plan to follow a science or math curriculum should take Chemistry A.

Animal Science - Biological Science Applications (CEANCI #10508)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education or Elective Applied Science

This course is designed to reinforce and extend the understanding of students by associating basic scientific principles and concepts with relevant applications in animal studies. Experiments and laboratory exercises will be used to teach concepts of scientific applications of animal growth and development, animal genetics, reproduction, and the processing of animal products.

Plant Science - Biological Science Applications (CEANCI #10507)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Career Education or Elective Applied Science

Plant Science is a continuation of the Ag sequence. Students continue to focus on scientific applications that include exploring, designing, and conducting research in Ag., using scientific measurement, the effects of pollution on plant growth, plant reproduction, initiating and managing growth, plant responses and effects of herbicides, and agriculture structural and power systems.

Forensic Science

Grade: 11, 12 Prerequisite: Biology and Chemistry (A or B)
Length of Course: 1 Semester ½ Credit Science

Students will learn the methodology needed to evaluate a crime scene, the proper lab mechanics needed to evaluate evidence, and how to compare between a known and unknown. Students will learn how DNA, fingerprinting, and other forensic tests can be used to solve a crime. Topics include: fingerprinting, footprints, tire tracks, DNA, blood spatter, drugs and toxins, and ballistics.

AP Biology

Grade: 11, 12

Honors Course

Prerequisite: Biology and Chemistry A
(at least a B- in both) and/or Teacher
Recommendation

Length of Course: 2 Semesters 1 Credit Science

****This course requires a course fee to cover the cost of the required AP exam.****

****Payment is due before the start of the course.****

AP 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. A research paper will be required. Students who do well on the AP exam may exempt out of some college courses.

Microbiology

Grade: 11,12 Prerequisite: Chemistry A or Teacher Recommendation
Length of Course: 1 Semester ½ Credit Science

This course serves as an introduction to diversity of microbial world, particularly the bacteria, viruses, fungi, and protozoans. Lab work involves the following topics: 1. Effective use of the microscope 2. Staining procedures 3. Proper handling, isolation, and identification of cultures 4. Sensitivity to anti-microbial agents. 5. Societal issues involved in antibacterial resistance and vaccinations. 6. Growth requirements of bacteria and methods to control their growth.

Conceptual Physics

Grade: 11, 12 Prerequisite: Algebra 2, or concurrently enrolled in Alg. 2
Length of Course: 2 Semesters 1 Credit Science

Conceptual Physics is a year-long course designed to introduce students to Physics in the context of everyday objects. The course concentrates on concepts rather than math, and on familiar objects rather than abstract constructs. The goal of the course is to understand, using hands on experiments, how the universe and every day objects work within the laws of Physics. Topics covered will include, but are not limited to: Motion, forces, sound, music, light, energy, and fluids.

Physics

Grade: 11, 12

Honors Course

Prerequisite: Algebra 2 & Trigonometry, currently enrolled in
Pre-Calculus or AP Calculus

Length of Course: 2 Semesters 1 Credit Science

Physics is the science that deals with the physical nature of matter and energy and the mathematical description of it. Topics of study include mechanics, acoustics, heat, light, electricity, relativity, and a touch of modern particle physics.

Anatomy/Physiology 1

Grade: 11, 12

Honors Course

Prerequisite: Biology & Chemistry A or Teacher
Recommendation

Length of Course: 1 Semester ½ Credit Science

This course concentrates on the structure and function of the human body. Anatomy/Physiology 1 is a college preparatory class designed to give the student the opportunity to experience the field of health sciences. The format of the class includes class lectures and discussions, comparative dissections, physiological experiments, and clinical laboratory technique. It is a course well suited for any student interested in pursuing careers in medicine, psychiatry, nursing, speech pathology, x-ray technology, medical technology, physical therapy, sports medicine, and coaching. Fetal pig dissection required.

Anatomy/Physiology 2

Grade: 11, 12
Length of Course: 1 Semester

Honors Course

Prerequisite: Anatomy/Physiology 1
½ Credit Science

This one semester course is designed for students who have successfully completed Anatomy/Physiology 1 and desire to continue their study of the human body. The emphasis is the same as in Anatomy/Physiology 1. Topics covered include the muscular system, cardiovascular system, and the nervous system. The students will perform physiological experiments, clinical tests, and comparative anatomy dissections. Cat dissection required.

AP Chemistry

Grade: 11, 12
Length of Course: 2 Semesters

Honors Course

Prerequisite: Chemistry A (at least a B-), current enrollment or completion of Pre-Calculus
1 Credit Science

****This course requires a course fee to cover the cost of the required AP exam.****

****Payment is due before the start of the course.****

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. Students who do well on the AP exam may exempt out of some college courses.

SOCIAL STUDIES PROGRAM

Civics

Grade: 9 Prerequisite: None
Length of Course: 2 Semesters 1 Credit Social Studies - Required

This is a survey course introducing the social sciences (i.e. economics, history, political science, psychology, and sociology) with an emphasis on the importance of active citizenship and community service. Students will explore the integration of civic life, politics, volunteerism, and government in daily living.

U.S. History

Grade: 10 Prerequisite: Social Studies/Civics
Length of Course: 2 Semesters 1 Credit Social Studies - Required

This course covers the events of our country's history and how they affected the world. Emphasis is placed on the time period from our country's beginning to the present.

Comparative Government

Grade: 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Social Studies - Required

This semester-long class will look into the creation and life of the U.S. government, including the Constitution of the United States. The class will also compare the U.S. government to governments throughout the world. Finally, the class will also discuss the state government of Illinois. Successful completion of this class will meet the state requirement of both federal and state constitution tests.

Modern Social Issues

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Social Studies

Students will research, analyze, and chronicle current events using newspapers, magazines, and the Internet by creating an extensive and highly detailed personal portfolio. Additionally, students will be assessed using tests, research papers, and a culminating final project on a social issue of choice involving power point, handouts, and a written thesis. Besides daily events, careful attention will be given to an in-depth exploration of geography and map-skills, religion and culture, political science, economics, and globalism, and various other issues from world conflicts to human rights.

World History 1 (Prehistoric Times – Greece)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Social Studies

This course covers the major events of world history. It begins with an introduction to archeology/anthropology and prehistory, and makes stops in the four cradles of human civilization, including Egypt, Mesopotamia, India, and China. The course also explores the foundations of Western civilization in Greece and the Roman Empire.

World History 2 (Roman Empire – World War II)

Grade: 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Social Studies

This course picks up where World History 1 leaves off, traveling through the Byzantine Empire, Africa, the Americas, the Middle Ages, and Renaissance, and concluding with World Wars I and II from a global perspective.

Psychology

Grade: 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Social Studies

This semester course will introduce students to the study of human behavior. Students will learn the history of psychology and look at the many ways of examining human behavior, mental processes and the many learning styles and their disciplines. Psychology emphasizes the individual and incorporates many of the social sciences in its views.

Sociology

Grade: 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Social Studies

This semester course provides the tools to understand what our social structures are, how they affect our beliefs and behaviors, and how individuals relate to one another. The emphasis of sociology is placed upon groups rather than the individual and incorporates all aspects of the social sciences.

AP United States History

Grade: 11, 12
Length of Course: 2 Semesters

Honors Course

Prerequisite: U.S. History with at least a B- grade
1 Credit Social Studies

****This course requires a course fee to cover the cost of the required AP exam.****

****Payment is due before the start of the course.****

United States History – Advanced Placement (AP) is a challenging honors course that is designed to be the equivalent of a freshmen college course in a high school setting. It is a two-semester survey of American history from the age of exploration to the present. Solid reading and writing skills, along with a willingness to devote considerable time to homework and study are necessary to succeed. Emphasis is placed on critical and evaluative thinking skills, essay writing, interpretation of original documents, and historiography. Students who score well on the AP exam may be eligible for college credit.

SPECIAL EDUCATION PROGRAM

Study Skills

The class is designed to assist students that qualify for special services with their regular education classes and to help students develop strategies for life-long success. The work in class depends on the information we receive from the students' teachers. The class will assist students with assignments as needed and offer assistance in preparing them for tests/quizzes and planning for long-term projects. Our goal is to foster independence and responsibility for the student's own work, while providing the tools necessary for success. It is ultimately a student's own choice to utilize the services offered.

- ❖ All other special education classes are based on the student's need.

VISUAL & PERFORMING ARTS PROGRAM

Art 1

Grade: 9, 10, 11, 12 Prerequisite: None
Length of Course: 1 Semester ½ Credit Fine Arts

Art 1 will introduce students to the elements of art through two-dimensional drawing and design projects. Drawing skills are mastered as a base for future art courses. Artists and styles of art are studied in conjunction with studio projects. Students must purchase a required sketchbook – Mead spiral-bound is recommended.

Art 2

Grade: 9, 10, 11, 12 Prerequisite: Art 1
Length of Course: 1 Semester ½ Credit Fine Arts

Art 2 introduces the design principles and color theory. Students explore various movements and styles associated with 20th Century Art. Each project gives the student experience in a new medium. A set of acrylic brushes is required and can be purchased through the school.

Painting 1

Grade: 10, 11, 12 Prerequisite: Art 2
Length of Course: 1 Semester ½ Credit Fine Arts

Students will explore a variety of painting techniques, materials, and theories. Watercolor, acrylics, and mixed media will be used. A set of acrylic paintbrushes is required and may be purchased through the school.

Ceramics & Sculpture 1

Grade: 10, 11, 12 Prerequisite: Art 2
Length of Course: 1 Semester ½ Credit Fine Arts

Students will learn the fundamentals of the ceramic medium. They will have an opportunity to master the six basic construction techniques, including throwing on the potter's wheel. Students will complete several sculptures while exploring various processes, styles, and media.

Painting 2

Grade: 11, 12 Prerequisite: Painting 1
Length of Course: 1 Semester ½ Credit Fine Arts

This course is a continuation of techniques and materials used in Painting 1. A set of acrylic paintbrushes is required and may be purchased through the school.

Ceramics & Sculpture 2

Grade: 11, 12 Prerequisite: Ceramics & Sculpture 1
Length of Course: 1 Semester ½ Credit Fine Arts

This course provides the student an opportunity to expand their knowledge and expertise with 3-D media. They will use their understanding of process, style, and media to design individual projects.

Chorus

Grade: 9, 10, 11, 12 Prerequisite: None for fall sem. Audition or completion of fall semester required for spring semester.
Length of Course: 1 Semester ½ Credit Fine Arts

Chorus is the entry-level vocal ensemble at the high school. Students need not give a vocal audition to participate, but will find prior singing experience and a basic knowledge of the fundamentals of music helpful. Chorus sings at three mandatory concerts during the year and may be asked to give special performances. The group performs many different styles of music and a strong emphasis is placed on learning both the mechanics and theory skills to perform well in the vocal medium. This class can be taken all four years of high school.

Chamber Choir

Grade: 9, 10, 11, 12 Prerequisite: Audition and possible entrance exam given by Instructor.
Length of Course: 2 Semesters 1 Credit Fine Arts

This course is an auditioned mixed choir for students who are seriously interested in music. The Concert Choir sings at three or more mandatory concerts during the year, and participates in IHSA music contest. Students will study music theory, sight-read regularly, and can expect to perform a wide variety of very challenging music. This course can be taken all four years of high school. Participation in Madrigals is mandatory.

Concert Band

Grade: 9, 10, 11, 12 Prerequisite: 2 years of instrumental music prior to high school
Length of Course: 2 Semesters 1 Credit Fine Arts

This course is for students wishing to continue their instrumental music experience. Basic music skills will be covered and a wide variety of musical styles performed. Three formal concerts are presented plus I.H.S.A. Music Contest. Optional involvement includes Jazz Band, Solo/Ensemble Contest, District Band, Musicals, and Flag Corps. All students are encouraged to take private lessons. **Please see paragraphs on Marching Band and Sectionals. Freshmen taking band should enroll in this course rather than symphonic band.** This course can be taken all four years of high school.

Symphonic Band

Grade: 10, 11, 12 Prerequisite: Audition
Length of Course: 2 Semesters 1 Credit Fine Arts

This course is for the more advanced instrumental student. Music from various periods and covering a wide spectrum of styles will be studied and performed. Three formal concerts are presented plus I.H.S.A. Music Contest. Optional involvement includes Jazz Band, Solo/Ensemble Contest, District Band, Musicals, and Flag Corps. All students are encouraged to take private lessons. **Please see paragraphs on Marching Band and Sectionals.** Auditions for Symphonic Band will be held late in the first semester. Upper classmen must check with the director before signing up in the spring. This course can be taken all four years of high school.

****Marching Band**

During the first semester all students enrolled in Concert and Symphonic Band combine to form the Marching Band. These students participate in a preseason marching workshop, all home football games, and the Memorial Day Parade. Evening Marching Band rehearsals and performances are required of all band members. However, after a meeting with the director and administration, a student may be excused from a rehearsal if they are participating in another Byron High School sponsored activity when that activity's performance directly conflicts with those of the Marching Band rehearsal.

****Sectional Lessons**

These lessons are held occasionally before school and are a graded part of the band curriculum.

INDEX

A

Accounting (CEANCI #20501)	Business	8
Adult Living (CEANCI #60503)	Consumer/Family	13
Advanced Accounting (CEANCI #20501)	Business	8
Advanced Computer Programming (CEANCI #52126)	Computer Tech	11
Advanced Office 1 (CEANCI #30007)	Business	9
Advanced Office 2 (CEANCI #30008)	Business	9
Advanced Office 3 (CEANCI #24001)	Business	9
Advanced Office 4 (CEANCI #24002)	Business	9
Advanced Theatre Arts	English	27
Algebra 1A	Math	32
Algebra 1B	Math	32
Algebra 1	Math	32
Algebra 2 – 10 th	Math	32
Algebra 2 – 10 th Accelerated	Math	32
Algebra 2 – 11 th	Math	33
Algebra 3/Trigonometry	Math	33
Anatomy/Physiology 1	Science	36
Anatomy/Physiology 2	Science	37
Animal Science (CEANCI #10508)	Agriculture/Science	6, 35
Architectural Drafting 1 (CEANCI #81505)	Drafting	19
Architectural Drafting 2 (CEANCI #81506)	Drafting	20
Art 1	Visual & Performing Arts	41
Art 2	Visual & Performing Arts	41
Auto 1 (CEANCI #75003)	Automotive	17
Auto 2 (CEANCI #75004)	Automotive	17
Auto 3 (CEANCI #75005)	Automotive	17
Auto 4 (CEANCI #75006)	Automotive	17
Auto 5 (CEANCI #75007)	Automotive	18
Auto 6 (CEANCI #75008)	Automotive	18
Auto. Coop./Apprenticeship Education (CEANCI #90003)	Automotive	18

B

Basic Agricultural Science 1 (CEANCI #10501)	Agriculture	6
Basic Agricultural Science 2 (CEANCI #10501)	Agriculture	6
Beauty School (Cosmetology)	Career Education	10
Biology	Science	35
Biology – AP	Science	36
Business Basics (CEANCI #30001)	Business	8

C

Calculus	Math	33
Calculus 1 – AP	Math	34
Calculus 2 – AP	Math	34
Ceramics & Sculpture 1	Visual & Performing Arts	41
Ceramics & Sculpture 2	Visual & Performing Arts	41
Chamber Choir	Visual & Performing Arts	42
Chemistry A	Science	35
Chemistry – AP	Science	37
Chemistry B	Science	35
Child Care 1 (CEANCI #61003)	Consumer/Family	14
Child Care 2 (CEANCI #61005)	Consumer/Family	14
Child Development (CEANCI #61001)	Consumer/Family	13
Chorus	Visual & Performing Arts	41
CISCO Networking 1 (CEANCI #52121)	Pre-Approval	12

CISCO Networking 2 (CEANCI #52122)	Pre-Approval	12
CISCO Networking 3 (CEANCI #52123)	Pre-Approval	12
CISCO Networking 4 (CEANCI #52124)	Pre-Approval	12
Civics	Social Studies	38
Civil Engineer. & Arch. 1 (C.E.A.)(PLTW) (CEANCI #81505)	Drafting	22
Civil Engineer. & Arch. 2 (C.E.A.)(PLTW) (CEANCI #81506)	Drafting	22
Civil Engineering 1 (CEANCI #81507)	Drafting	21
Civil Engineering 2 (CEANCI #81508)	Drafting	21
Comparative Government	Social Studies	38
Composition 1	English	26
Composition 2	English	26
Comp. Aided Draft. & Des. 1 (CADD 1) (CEANCI #81503)	Drafting	19
Comp. Aided Draft. & Des. 2 (CADD 2) (CEANCI #81504)	Drafting	19
Computer Integrated Manufacturing (C.I.M.) (PLTW)	Pre-Approval	22
Computer Operations & Design 1 (CEANCI #30018)	Computer Tech	11
Computer Operations & Design 2 (CEANCI #30019)	Computer Tech	12
Conceptual Physics	Science	36
Concert Band	Visual & Performing Arts	42
Construction Trades 2 (CEANCI #70506)	Building Trades	24
Consumer Education	Consumer/Family	13
Creative Writing	English	27

D

Digital Electronics (D.E.) (PLTW) (CEANCI #72005)	Pre-Engineering	22
Driver's Education	PE/Health	31

E

Earth Science	Science	35
Engineering Design & Development (E.D.D.) (PLTW)	Pre-Engineering	22
English 1	English	26
English 2	English	26
English 3	English	26
English 3 Honors	English	26
English – AP	English	28
Environmental Science (CEANCI #16008)	Agriculture	6

F

Fire Cadets	Career Education	10
Foods 1 (CEANCI #64003)	Consumer/Family	13
Foods 2 (CEANCI #64005)	Consumer/Family	14
Forensic Science	Science	36
French 1	Foreign Language	29
French 2	Foreign Language	29
French 3	Foreign Language	30
French 4	Foreign Language	30

G

Geometry	Math	32
----------	------	----

H

Health	PE/Health	31
Health Occupations	Pre-Approval	15
Horticultural Production and Mgmt. 1 (CEANCI #16007)	Agriculture	7
Horticultural Production and Mgmt. 2 (CEANCI #16007)	Agriculture	7
Humanities	English	28

I

Industrial Survey (CEANCI #80001)	Production Tech	16
Intro. to Computer Programming (CEANCI #52125)	Computer Tech	11
Intro. to Construction Trades (CEANCI #70505)	Building Trades	24
Intro. to Engineering Design 1 (I.E.D.)(PLTW)(CEANCI #81503)	Pre-Engineering	19, 21
Intro. to Engineering Design 2 (I.E.D.)(PLTW)(CEANCI #81504)	Pre-Engineering	19, 21
Intro. to Internal Combustion Engines (CEANCI #75001)	Automotive	17

L

Landscaping and Turf Management (CEANCI # 16005)	Agriculture	7
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M

Management (CEANCI #40003)	Business	8
Manufacturing Program	Pre-Approval	23
Marketing (CEANCI #33001)	Business	8
Microbiology	Science	36
Modern Social Issues	Social Studies	38
Multimedia (CEANCI #30011)	Computer Tech	11
Mythology	English	27

P

Painting 1	Visual & Performing Arts	41
Painting 2	Visual & Performing Arts	41
Physical Education – Competitive Team/Individual Sports	PE/Health	31
Physical Education – Intro. to P.E.	PE/Health	31
Physical Education – Lifetime Fitness/Non-Competitive	PE/Health	31
Physical Education – Strength & Conditioning PE	PE/Health	31
Physics	Science	36
Plant Science (CEANCI #10507)	Agriculture/Science	6, 35
Pre-Calculus	Math	33
Pre-Calculus Accelerated	Math	33
Principles of Engineering (P.O.E.)(PLTW)(CEANCI #81501/81502)	Pre-Engineering	21
Production Technology (CEANCI #70501)	Production Tech	24
Psychology	Social Studies	39

R

RVC English 101	English	27
RVC Statistics	Math	33

S

Science Fiction & Fantasy Reading	English	27
Sociology	Social Studies	39
Spanish 1	Foreign Language	29
Spanish 2	Foreign Language	29
Spanish 3	Foreign Language	29
Spanish 4	Foreign Language	29
Special Education Program	--	40
Symphonic Band	Visual & Performing Arts	42

T

Technology Seminar 1 (CEANCI #30002)	Computer Tech	11
Technology Seminar 2 (CEANCI #30002)	Computer Tech	11
Theatre Arts	English	27
Trigonometry	Math	33

U

U.S. History	Social Studies	38
U.S. History – AP	Social Studies	39

W

Welding Programs	Pre-Approval	25
Woodworking	Building Trades	24
Work Education & Exploration (CEANCI #90003)	Career Education	10
World History 1	Social Studies	38
World History 2	Social Studies	38

Y

Yearbook	English	28
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