

Adirondack High School

# 2023-2024 Course Catalog



# Graduation Requirements for Students Entering 9<sup>th</sup> grade in September 2008 and Beyond

*Local Diploma (CSE students only)		Regents Diploma		Adv. Designation	
Content Area	Credits	Content Area	Credits	Content Area	Credits
English	4	English	4	English	4
Social Studies	4	Social Studies	4	Social Studies	4
Math	3	Math	3	Math	3
Science	3	Science	3	Science	3
LOTE	1	LOTE	1	LOTE	3
Art/Music	1	Art/Music	1	Art/Music	1
Health	0.5	Health	0.5	Health	0.5
Physical Education	2	Physical Education	2	Physical Education	2
Electives	3.5	Electives	3.5	Electives	1.5
Total:	22.0	Total:	22.0	Total:	22.0

#### COURSE AND CREDIT REQUIREMENTS

\*A Local Diploma is only available to certain students who are under the Committee of Special Education

#### REQUIRED REGENTS EXAMS

*Local Diploma (CSE student only) (Passing score - 55-64)	<b>Regents Diploma</b> (Passing score 65 and above)	<b>Adv. Regents Diploma</b> (Passing score 65 and above)
English Language Arts	English Language Arts	English Language Arts
Algebra	Algebra	Algebra, Geometry, and Alg. II ( 3 exams)
Global History Exam	Global History Exam	Global History Exam
US History Exam	US History Exam	US History Exam
Science Exam (example: Living Environment, Earth Science)	Science Exam	2 Regents Science Exams (1 Life Science & 1 from Physical Science)
		Regents Foreign Language Exam

Note: The extension of the safety net for students with disabilities applies to students who enter grade 9 through 2009. The safety net allows students who do not pass a required Regents exam to pass the corresponding Regents Competency Test (RCT) to meet the local diploma requirements.

#### **HONORS DIPLOMA**

In order to earn a *Regents Diploma with Honors* or a *Regents Diploma with Advanced Designation with Honors*, a student must earn a 90.0 average on all core Regents exams.

#### ADDITIONAL HONORS DESIGNATIONS

Also available are MASTERY IN SCIENCE and MASTERY IN MATH designations. Students who earn an 85 or higher average on three math or science Regents exams can earn this extra designation.

# Information for Adirondack High School Students and their Parents/Guardians:

In planning a high school course of study the student, parents and counselor should consider the student's history of academic performance, teachers' recommendations, aptitudes and abilities, interest, and tentative career goal. Students must complete 22 credits by graduation and either 5 or 8 Regents exams, depending upon the Regents Diploma track they choose.

The definitions of terms to be used in planning the student's program are as follows:

**Credit** (Unit) – the value given for the successful completion of a subject. 1 credit=full year class such as Global 10; 1/2 credit=half a year class such as Health.

**Dual-credit**- refers to a class that is given at Adirondack High School but is a college level class. Credit is awarded both locally and through Mohawk Valley Community College as long as the student receives a grade of "C" or better.

**Requirement-** a specific course that is necessary for all pupils to complete for graduation or for a program.

**Prerequisite-** a class that is required before another one can be taken. An example of this would be a student wanting to take Algebra 2 Common Core would need to have taken Algebra Common Core and Geometry Common Core before enrolling.

**Sequence** – as applies to cohort group of 2001 and thereafter, a sequence is a prescribed series of courses, usually within the same academic area. In order to graduate with a Regents Diploma with Advanced Designation, students need a 3-credit foreign language sequence.

Elective- any course chosen beyond the requirements to complete the units necessary for a diploma.

**Regents Examination**– a comprehensive New York State examination. It is given as the final examination in some Regents courses. The examination must be successfully completed in order to obtain Regents Credit. Also, at least five (5) of these examinations are being required for graduation for **any** diploma:

English (11<sup>th</sup> grade) Global Studies (10<sup>th</sup> grade) U.S. History & Government (11<sup>th</sup> grade) One Math (typically Algebra) One Science (Living Environment, Earth Science, Chemistry or Physics).

**Cohort Group-** a group of students who first enter 9<sup>th</sup> grade together in September. For example, the cohort group of 2015 would be all of those students who first enter 9<sup>th</sup> grade in September of 2015. Even if a student has to repeat a high school grade, that student still belongs to the original cohort group with which he/she started.

# TESTING

PSAT	(Preliminary Scholastic Assessment Test) – offered to all juniors. This test is a way to practice for the Scholastic Aptitude Test (SAT) and also to qualify for National Merit Scholarships.
SAT	(Scholastic Assessment Test) – generally taken by college bound juniors and seniors. This test is often used as part of the college admissions process.
ACT	(American College Test) – generally taken by college bound juniors and seniors. This test is often used as part of the college admissions process.
ASVAB	(Armed Services Vocational Aptitude Battery) – offered to all juniors. The test is administered by the military. It is used as a vocational tool to help in career discovery. It is not necessarily

**College Transcripts**-Students who have taken MVCC dual-credit classes are encouraged to contact MVCC to have their transcript sent to their final college at the end of their senior year. Colleges will not award credit without the MVCC transcript.

# NCAA

If you are interested in playing a Division I or Division II sport in college, please log on to **EligibilityCenter.org** in order to register as a student-athlete. This should be done your junior year. The following are classes that Adirondack High School offers that have been approved by the NCAA for eligibility requirements:

**ELA**: ELA 9, ELA 9H, ELA 10, ELA 10H, ELA 11, ELA 11 H, ELA 12, MVCC 101,102 & 110, AP English **Social Studies**: Global 9, Global 10, US History, Economics, Participation in Government, AP European History, AP United States History

Math: Algebra, Geometry, MVCC Pre-Calculus, MVCC Calculus, Algebra 2, MVCC Statistics Science: Living Environment, Earth Science, Chemistry, Physics, Astronomy, Forensic Science, AP Biology, AP Physics, STEM Robotics, Environmental Science

**LOTE**: Spanish 1, 2, 3, 4; French 1, 2, 3, MVCC 191 & 192; Chinese 8, 9, 10, 11 **Electives**: None.

used for Military Recruitment.

The SAT score used for NCAA purposes includes **only** the critical reading and math sections. <u>The writing</u> <u>section of the SAT is not used</u>. The ACT score used for NCAA purposes is a **sum** of the following four sections: English, Math, Reading and Science.

**Please note**: For Division1 you must have 16 Core Courses in total and 10 must be completed prior to the start of your 7<sup>th</sup> semester in high school. 7 of those 10 must be ELA, math and/or science. You must also have corresponding SAT/ACT scores and core-courses GPA which is listed on the Sliding Scale B on the Eligibility Center website.

For Division II, you must have 16 Core Courses in total and a minimum SAT score of 820 and/or ACT sum score of 68.

# **COURSE OFFERINGS**

# AGRICULTURE

**CASE Agriculture, Food & Natural Resources (AG Science)** – Agriscience is the application of science principles to the production of food, plants and animals. This course will open the door to exciting educational programs and careers that contribute to better living conditions for people everywhere. Topics will include the role of science and technology in agriculture; natural resource management; plant science; crop science; animal science; food science; and communications and management in agriscience. Hands-on application of concepts will be provided through work in the greenhouse, animal science lab, and classroom activities. Students have the opportunity to learn from guest speakers and participate in various field trips and events where they compete in career development events at colleges and fairs. The national CASE AFNR curriculum will serve as the framework for this course.

#### Articulation Agreement: Delaware Valley University - 3 credit hours

Credit – 1 unit. Please note, this course CAN be used as one of the three science credits required for graduation. Final Examination: Local

<u>CASE Animal Science</u> – This course provides an introduction to the animal industry and the sciences of animal ownership, production and management. Animals discussed will include livestock and farm type animals, as well as pets and companion animals. Topics will include an overview of the animal industry, animal science terminology and classification, animal behavior, animal nutrition, health and well-being, anatomy & physiology, animal reproduction, selection and marketing. and an in-depth look at an animal of choice. The final project is an in-depth look at an animal of the student's choice. A small animal laboratory and classroom animal visitors allow students to gain hands-on experience with animals. The national CASE Animal Science curriculum serves as the framework for this course.

Articulation Agreements: SUNY Cobleskill, SUNY Morrisville, and Delaware Valley University College in High School College Credit available through SUNY Cobleskill Credit – 1 unit

Final Examination: Local

**Equine (Horse) Science** - This class will explore various aspects of horse ownership and management, as well as the overall equine industry in NYS and the U.S. We will take an interesting and practical look at the horse world by incorporating guest speakers, hands-on opportunities, interactive multimedia, and field trips. Topics will include history and domestication of the horse, horse selection and judging, horse anatomy and physiology, horse health, horse nutrition and feeding, horse behavior, safety and training, financial management of horses and horse businesses, horse numbers and economic impact, segments and opportunities in the horse industry, and much more. Credit: 1 unit

Final Examination: Local

#### **VISUAL ARTS**

**Studio in Art** - A year course designed to instruct beginning art students in drawing, painting, printmaking and ceramics. It prepares students to take more advanced electives in art. Students will become familiar with the elements of art and principles of design while completing units, a variety of assigned projects and experimenting with different media and processes. In addition to art production, students will be introduced to art history, art criticism and aesthetics.

Full Year Credit: 1 unit Final Examination: Semester & Final Exam

**Drawing and Painting** - A year course that focuses on improving and developing drawing and painting skills. We will experiment with drawing materials such as pencil, charcoal, pen, ink and pastels as well as painting media such as watercolor, tempera, and acrylics. These media will be used to solve problems in visual expression. The work will focus on technical skills in the area of drawing, painting, printmaking, and mixed media.

Full Year Credit: 1 unit Final Examination: Semester & Final Exam **Prerequisites: Studio in Art** 

**Digital Photography** - A half year course that will help the students become well rounded in the fundamentals of digital photography. Four areas of instruction will be emphasized: How cameras work, how composition works, how lighting works, how to use photo editing software. Students will receive basic instruction, demonstration, and see samples of the desired outcomes. This is a project-based course with an emphasis on developing skills needed in photo and graphics careers. Semester 1

Half Year Credit: .5 unit Final Examination: Local Prerequisites: None

**Graphic Design** - A half year course that teaches how to blend art and technology. In this class students will use design as a creative process in communication. Students will also explore various methods used to create and combine words, symbols, and images illustrating a visual representation of ideas and messages. Students will use the basic elements and principles of design and also learn how to use the computer programs Adobe Photoshop and Adobe Illustrator. This class teaches the basics of Graphic Design through an illustrative and corporate view. Semester 2 *Half Year Credit: .5 unit Final Examination: Local* 

Final Examination: L Prerequisites: None

Sculpture - A half year course that will focus on three-dimensional processes; ceramics, mixed-media, sculpture and jewelry making. Different sculpture techniques will be acquired and used with different mediums. Also the class will include one collaborative sculpture that all students will work on together. *Half Year Credit: .5 unit Final Examination: Local Prerequisites: Studio Art* 

**Printmaking** - A half year course where students will learn techniques of fine art printmaking, e.g. relief printing, monotype, intaglio, calligraphy and collage. This course introduces history of printmaking including: tools, inks, paper, plate preparation, registration, printing processes and qualities of prints. Hand printmaking techniques will engage the student with problem solving in drawing, design and color. Class sessions will comprise independent and collaborative printing and, lecture, demonstrations, discussion, and critique.

Half Year Credit: .5 unit Final Examination: Local **Prerequisites: Studio Art** 

Advanced Art I - Half year courses each designed for the student who is seriously interested in the practical experiences of visual art. Studio art, Drawing and Painting and other art department electives have led you to the development of a strong technical skill set – now you will be expected to apply these skills creatively as you develop a portfolio of work that represents your unique artistic vision. There are high expectations for these course; therefore, the work that is created must consistently represent best effort in the pursuit of improving the current level of ability.

Credit: .5 unit each Final Examination: Semester & Final Exam **Prerequisites: Studio in Art , Drawing & Painting and/or two of the .5 art electives** 

Advanced Art II - Half year course offered to students who wish to develop their technical artistic skills while creating a solid body of original artwork. Students who take this course will submit a portfolio for review at the end of the semester. While the Portfolios are oriented specifically for the Advanced Art Program, the work may also be for exhibition, for enhancing the college application process, and may be submitted for scholarship considerations. This course is designed for students with strong, independent motivation and a desire to become mature artists.

Credit: .5 unit each Final Examination: Semester & Final Exam **Prerequisites: Advanced Art** 

## **BUSINESS**

**MVCC Principles of Accounting I AC110-** Students will learn the basic accounting cycle for a service and merchandising business. This course is highly recommended for ANY student planning for a career in any business related field in college, vocational technical school and opening their own business. This course is designed to provide students with an understanding of basic accounting terminology, the financial accounting cycle, and the primary financial statements. A major emphasis of this course if placed on information communicated by financial statements and how this information is used for decision making purposes. Students will gain an understanding of how the financial statements are useful in assessing the profitability, liquidity, and solvency of a business entity, as well as how to hold members accountable for their actions in the pursuit of organization goals. Upon successful completion of the semester, students will receive 3 college credits from MVCC which may be transferable to other institutions. Students in grades 10-12 may take this class.

Credit: 3 College Credits Prerequisite: None Local Credit: 1 Unit Final Examination: Local Accounting II - Students will continue to explore the accounting cycle and the financial activities of a small business as well as a corporation. Topics include: payroll, petty cash, cash registers, depreciation, stocks, bonds, dividends, and notes payable/receivable. Microsoft Excel will be heavily used as well as the software Peachtree will be introduced. Prerequisites: Accounting 1 Local Credit – 1 unit

Final Examination: Local

MVCC Senior Seminar BM108- Senior Seminar is divided into two units: Career Exploration and Planning (includes application process for college) and Financial Management. Career Exploration and Planning will give students the opportunity to explore a career(s) in which they are interested in pursuing once graduated from high school. They will research all areas of these careers (college requirement, forecasted growth/demand of career, geographic average hourly/annual wages). Students will also prepare for job interviews (entry level/career area) and create an E-Portfolio (resume, cover letter, letters of recommendation, awards/accomplishments, pictures, etc.). Students will also participate in a number of mock interviews. College Preparation will give students time to begin/finish the college selection/acceptance process. Financial Management will give the students the opportunity to learn/review the various financial areas in which they need to be knowledgeable and proficient in, once on their own. Areas covered are: budgeting, checking/savings accounts, loans, credit cards, credit reports, buying car/car insurance, renting, identify theft, consumer fraud, and income tax. Upon successful completion of the semester, students will receive 3 college credits from MVCC which may be transferrable to other institutions. This class is for seniors only. **Credit: 3 College Credits** Prerequisite: Must be a Senior Local Credit: <sup>1</sup>/<sub>2</sub> Unit

Final Examination: Local

**MVCC Principles of Marketing/Travel & Tourism BM 120** – Travel & Tourism is the third largest retail industry in the United States. In fact, travel and tourism is one of America's largest employers. Have fun in the class while learning at the same time. This course emphasizes the basic practices, concepts, and activities involved in developing a successful marketing program. Topics include buyer behavior, market identification, product development, distribution, promotion, pricing, and uncontrollable factors (economic, social political, legal and technological) that are involved in the changing market environment of today – travel and tourism will still be the main focus of the course. Upon successful completion of the semester, students will receive 3 college credits from MVCC which may be transferrable to other institutions. Students in grades 11-12 may take this class.

Credit: 3 College Credits Prerequisite: None Local Credit: ½ Unit Final Examination: Local

**MVCC Introduction to Business /Hospitality BM 100** – Hospitality is an ever-growing industry with great job opportunities! This class will be hands-on learning with a flair for fun! This course presents the relationship among social, political, economic, legal and environmental forces, and the development and operation of business in the global economy. Students will have an overview of the concepts and principles of various subfields of business – accounting, management, finance, marketing, ethics, human resources, and general business – hospitality will still be the main focus of the course. Upon successful completion of the

semester, students will receive 3 college credits from MVCC which may be transferrable to other institutions. Students in grades 10-12 may take this class.

**Credit: 3 College Credits Prerequisite: None** Local Credit: ½ Unit Final Examination: Local

# FOREIGN LANGUAGE

American Sign Language I - ASL 1 is the first series of four sequential courses. ASL 1 will be split between two classes 1A and 1B that will teach students introductory level vocabulary, basic grammar structure, deaf history, and the cultural background needed to communicate effectively with Deaf individuals. Instruction will include the language functions asking for and giving information, making requests, giving directions, agreeing and disagreeing, expressing likes and dislikes as well as many other skills required to communicate on a novice level. This course is derived from the New York State Learning Standards for Languages Other than English. The course is also aligned to the national proficiency guidelines published by the American Council on the Teaching of Foreign Languages (ACTFL).

Final Exam-OHM BOCES Checkpoint A Examination

American Sign Language II- ASL 2 is the second of a series of four sequential courses that will teach students introductory level vocabulary, grammar structure, Deaf history, and the cultural background needed to communicate with Deaf individuals. Instruction will include the language functions, asking for and giving information, making requests, giving directions, agreeing and disagreeing, expressing likes and dislikes, introducing classifiers and facial expressions as important components of ASL grammar, as well as many other skills required to communicate on a novice-high level. ASL 2 offers students a variety of experiences that will increase their awareness of the world around them. Likewise, the multimedia exposure students experience in this class will help them better understand the Deaf culture. This course is derived from the New York State Learning Standards for Languages Other than English. The course is also aligned to the national proficiency guidelines published by the American Council on the Teaching of Foreign Languages (ACTFL). Final Exam: Local

#### Prerequisites- American Sign Language I

American Sign Language III - ASL 3 is the third series of four sequential courses that will teach students higher level vocabulary, grammar structure, Deaf history, and the cultural background needed to communicate with Deaf individuals. Students will learn how to use various classifiers with complex grammar structures, learn to narrate compound situations that occur in everyday life, and use advanced grammar structures and sentence types. Students will learn to to receptively and expressly understand functions of the body such as breathing and how to sign those functions. ASL 3 is largely project based and centers around the interests and curiosities of students through a series of personalized projects. This course is derived from the New York State Learning Standards for Languages Other than English. The course is also aligned to the national proficiency guidelines published by the American Council on the Teaching of Foreign Languages (ACTFL).

Final Examination: OHM BOCES Checkpoint B Examination

Prerequisites- American Sign Language II

American Sign Language IV - ASL 4 is the final course in a series of 4 ASL courses. ASL 4 will teach students to develop advanced skills in American Sign Language. Through twelve units of study on topics such

as Deaf literature, Deaf Refugees, Complex Classifiers, and Geographical signs, students will further develop previously learned skills. students will use expressive and receptive language skills to meet expectations. This course is derived from the New York State Learning Standards for Languages Other than English. The course is also aligned to the national proficiency guidelines published by the American Council on the Teaching of Foreign Languages (ACTFL).

Final Exam: Local

Prerequisites- American Sign Language I, American Sign Language II & American Sign Language III

**French I** - This is the first in sequence of three courses required for graduation with an Advanced Regents Diploma. Students learn greetings as well as vocabulary on such topics as family members, foods, parts of the body, school subjects, and sports in French. They learn how to conjugate regular verbs, and a few irregular verbs in the present tense. Students learn to comprehend the language by listening, reading, speaking and writing French. They learn about the culture of France and other French-speaking countries. Credit – 1 unit Final Examination- Local

**French II** - Students learn rooms of the house, clothing, weather, nature, leisure-time, sports, and food vocabulary; along with a few idiomatic expressions. They learn how to conjugate regular, reflexive and irregular verbs in the present tense, imperative tense, past tense, future tense and conditional tense. Students will continue to learn to comprehend the language by listening, reading, speaking, and writing exercises. Credit – 1 unit Final Examination- Local **Prerequisites- French I** 

**French III** - Students learn synonyms, opposites, idiomatic expressions in the target language (French); as well as review vocabulary learned in the last two years. They review how to conjugate regular, reflexive and irregular verbs in the present tense, imperative tense, past tense and conditional tense. Students begin to perfect their comprehension of the target language with listening, reading, speaking, and writing exercises. Credit – 1 unit Final Examination: Regents Produced Regionally

Prerequisites: French I & II

**MVCC French 191 & 192** - This course focuses on developing grammar, cultural understandings, reading and writing skills in the target language. It is presented at a demanding pace. Students must show evidence of grammar and verb structures in their writing and speaking assignments. Please note, this is a dual-credit program therefore, it is expected that you will be doing **college level work**. MVCC will provide you with a letter grade on their transcript at the end of the year. You must complete the course with a letter grade of "C" to receive credit from MVCC.

Credit – 1 unit for ACS local credit for both MVCC 191 and 192. 3 credits per class through MVCC.

Final Examination for 191 and 192: Final exam in January for 191 and final exam in May for 192. Each final exam will count as 1/3 of your class grade.

Prerequisites- French I, II, III, the Regents exam in French, and an average of 80 or higher in French III

**Spanish I** - This is the first in sequence of three courses required for graduation with an Advanced Regents Diploma. In this course, students are introduced to basic grammar, vocabulary, and conversational skills. Cultural topics are presented so as to give students a more holistic view of the language. Emphasis is placed on

proficiency in oral and written Spanish. In order to receive credit for this course, students must successfully complete the course and a comprehensive final exam with a minimum average of 65. Credit – 1 unit Final Examination- Local

**Spanish II** - This course is a continuation of Spanish 1, which is the prerequisite. As with Spanish 1, this course is required for graduation with an Advanced Regents diploma. In this course, students are introduced to intermediate grammar, vocabulary, and conversational skills. Culture topics are presented to give students a more holistic view of the language. In order to receive credit for this course, students must successfully complete the course and a comprehensive local exam with a minimum average of 65. The final exam, as with chapter exams, tests listening skills as well as reading comprehension skills. Credit – 1 unit Final Examination- Local **Prerequisites- Spanish I** 

**Spanish III** - This is the third course in a sequence of three required for graduation with an Advanced Regents diploma. In this course, students are introduced to advanced grammar, vocabulary, and conversational skills, with heavy emphasis on the latter. Culture topics are presented so as to give the students a more holistic view of the language. In order to receive Regents credit for this course, students must successfully complete the course with a minimum average of 65 and successfully complete the Regents exam with a minimum grade of 65. The Regents exam is a comprehensive exam of the three year sequence which stresses conversational, listening comprehension, reading comprehension and writing skills.

Credit – 1 unit

Final Examination- Regents Produced Regionally and/or Locally **Prerequisites- Spanish I & II** 

**MVCC Spanish 191 & 192** - his course focuses on developing grammar, cultural understandings, reading and writing skills in the target language. It is presented at a demanding pace. Students must show evidence of grammar and verb structures in their writing and speaking assignments. Please note, this is a dual-credit program therefore, it is expected that you will be doing **college level work**. MVCC will provide you with a letter grade on their transcript at the end of the year. You must complete the course with a letter grade of "C" to receive credit from MVCC.

Credit – 1 unit for ACS local credit for both MVCC 191 and 192. 3 credits per class through MVCC.

Final Examination for 191 and 192: Final exam in January for 191 and final exam in May for 192. Each final exam will count as 1/3 of your class grade.

Prerequisites- Spanish I, II, III, the Regents exam in Spanish, and an average of 80 or higher in Spanish III

## HEALTH

**Health** - The purpose of the Health Education program is to provide learning opportunities and experiences that will favorably influence values, attitudes and practices which promote individual, family and community health. The emphasis of the course is on the relationship between lifestyle and quality of life as well as longevity. The

course also attempts to foster a greater value for health in the individual so that they will encourage healthy practices in their own families. This is a graduation requirement. Credit –  $\frac{1}{2}$  unit Final Examination- Local

## LANGUAGE ARTS

Language Arts 9 - Designed to further a student's communication skills, this course provides the tools necessary to prepare him/her for the reading, writing, and speaking skills that will follow later in high school and beyond. The emphasis in reading will be on comprehension, basic analysis and on exposure to a variety of literary types. The student will begin to develop, through his/her reading, a broader understanding of people and him/herself. The emphasis in writing will be on basic skills such as mechanics, sentence structure, organization and clarity of ideas. Regents essays will also be introduced. Credit – 1 unit Final Examination: Local

Final Examination: Local

**Language Arts 9 Honors** - Designed to further the above average student's communication skills, this course provides the tools necessary to prepare him/her for the broadening and deepening of language skills that will follow throughout high school, college, and beyond. The emphasis in reading will be on analysis and on exposure to a variety of literary types. The student will begin to develop, through his/her reading, a broader understanding of people and him/herself. The emphasis in writing will be on basic skills such as mechanics, sentence structure, organization, and clarity of ideas as well as style and in-depth analysis of literature. A literary research paper is required. Regents essays are introduced. Credit – 1 unit

Final Examination: Local

Language Arts 10 - Designed to touch all strands of language arts curriculum, English 10 is a comprehensive course placing emphasis on world literature. Through extensive and intensive reading, students are encouraged to go beyond literal comprehension. Rather, the emphasis is on analysis and recognition of literary techniques. In addition to the novels taught in class, students will be exposed to various pieces of non-fiction that support the Common Core Standards. Writing includes Regents preparation through expository pieces, literary response, creative writing and a mandatory research project. Credit – 1 unit

Final Examination: Local

**Language Arts 10 Honors** - In addition to many of the novels taught in the tenth grade Language Arts classes, the honors class does a survey of British literature from the Anglo-Saxon period through the Victorians. Historical and autobiographical sketches of authors are often incorporated into the lessons to provide crucial connections that exist between a work, its author and the time period in which it was written. The emphasis in writing is on Regents preparation through literary analysis, expository pieces, and a literary research paper is required.

Credit – 1 unit Final Examination: Local **Language Arts 11RCC** - Designed primarily as an American Literature survey course, this classes focuses largely on reading analysis, depth and development in writing, as well as listening and oral communication skills. Specifically, students will be required to write practice tasks as preparation for the English Regents Exam.

Credit – 1 unit

Final Examination–Regents exam given as required by the state. The district also has the option of requiring a local final.

Language Arts 11RCC Honors- Designed primarily as an American Literature survey course, this classes focuses largely on reading analysis, depth and development in writing, as well as listening and oral communication skills. Specifically, students will be required to write practice tasks as preparation for the English Regents Exam. Honors students have additional opportunities for analytical thinking through various supplemental units. In addition, all students will be completing a mandatory research paper.

Credit – 1 unit

Final Examination–Regents exam given as required by the state. The district also has the option of requiring a local final.

Language Arts 12 – The goal of Language Arts 12 is to meet the needs of all high school seniors. During the fall semester there is special emphasis on workplace communication and technical writing. In order to increase societal awareness, in the spring we read from famous works such as Greek Mythology and King Arthur that have influenced both our pop culture and ethical base.

Credit -1 unit

Final examination: Local exam given

**MVCC English 101 Composition** - Designed as a dual-credit course emphasizing the development of writing skills, this course is for students capable of doing entry level college work in English while they are in secondary school. Participants must be willing to devote the energy necessary to complete a course more rigorous and demanding than other high school Language Arts courses. During the first semester, students will be asked to produce various forms of writing that may be required of them in college courses. Among these is an argument based research paper and a literary analysis of a short work. This course focuses on several kinds of writing--self-expressive, informative, argumentative/persuasive, and others. It emphasizes the composition of clear, correct and effective prose required in a wide variety of professions and occupations. Upon successful completion of this semester, students will receive 3 college credits from MVCC which may be transferrable to other institutions of higher learning depending on the grade they achieve.

Local Credit: <sup>1</sup>/<sub>2</sub> unit

College Credit: potential to earn 3 credits pending a grade of a "C" or higher (please note, students who do not earn a "C" or higher, will not receive college credit but rather local credit for the class. Local credit is awarded if the student receives a 65 or higher)

Prerequisite: ELA 11 average above 85% after 3 marking periods.

**MVCC English 102 Ideas and Values in Literature**: Designed as a dual-credit course emphasizing the analysis and evaluation of literature, this second semester course is for students capable of doing entry level college work in English while they are in secondary school. Participants must be willing to devote the energy necessary to complete a course more rigorous and demanding than other high school Language Arts courses. This course seeks to deepen the students' understanding of human nature and the human condition through the

study of ideas and values expressed in both imaginative literature and non-fiction selections. Emphasis is placed on the use and development of critical thinking and language skills. A Library-oriented research project is required. Upon successful completion of this semester, students will receive 3 college credits from MVCC which may be transferrable to other institutions of higher learning depending on the grade they achieve. Local Credit –  $\frac{1}{2}$  unit

College Credit: potential to earn 3 credits pending a grade of a "C" or higher (please note, students who do not earn a "C" or higher, will not receive college credit but rather local credit for the class. Local credit is awarded if the student receives a 65 or higher)

Prerequisites: Successful completion of EN101: Composition course first semester.

## MATHEMATICS

Algebra Basics – This is the first year of a two year math course designed to improve basic skills needed for success in Algebra. The course consists of the following topics: Algebraic expressions and integers, solving one-step equations and inequalities, solving equations that contain decimal numbers, determining factors, working with fractions, exponents, solving multi-step equations and inequalities, graphing linear equations, and an introduction to module 1 for Integrated Algebra. Additional areas of study will be included as time permits. Credit – 1 unit

Final Examination- Local

#### Prerequisite- Criteria Based Placement from 6<sup>th</sup> – 8<sup>th</sup> grade mathematics classes

Algebra CC – This is a first year math course that will cover the following topics of instruction: Structure of Expressions, Arithmetic Operations on Polynomials, Create Equations, Solving One Variable Equations and Inequalities through Reasoning and Explanation, Graphically Represent and Solve Equations and Inequalities, Understand and Interpret Functions, and Interpret Linear Models Credit – 1 unit Final Examination – In class & Regents Exam in June (Required) Prerequisite - Completion of Math 8 or Algebra Basics

**Geometry CC** - This is the second year math course that will cover the following major topics of instruction: Prove Geometric Theorems, Congruence in terms of Rigid Motion, Similarity of Transformations, Prove Theorems using Similarity, Define Trigonometric Ratios and Solve Problems involving Right Triangles, Use Coordinates to Prove Simple Geometric Theorems, and Apply Geometry to modeling Situations. Credit– 1 unit

Final Examination- In Class & Regents Exam in June (Required) Prerequisite- Successful Completion of Algebra

Algebra 2 CC – This is the third year math course that will cover the following topics of instruction: Arithmetic Operations on different types of Expressions, Trigonometric Functions, Equations, Inequalities, Patterns, Relations and Functions, Radians, Statistics and Probability. Credit – 1 unit Final Examination- Local Regents Exam in June- Required

# Prerequisite - 65% or better in both Algebra and Geometry Classes and 65% or better on both Regents Exams

**MVCC MA125 College Algebra:** This course prepares students for MA150 Pre-calculus. Topics include linear and quadratic equations; inequalities; rational expressions; trigonometric functions; graphs of linear, quadratic, piecewise, and trigonometric functions; and, systems of equations. Algebraic and trigonometric manipulations and problem-solving are emphasized.

Credit: 1/2 high school credit; Fall Semester course, 4 college credits available for those who are successfully placed via MVCC Accuplacer exam and pass the course with C average of better. Followed with spring course MA 150

Final Examination In June - Required

Prerequisite: Completion of Algebra 2 CC with a minimum of 65% or better in both the course and on the regents exam. An appropriate placement test result or MA115 Intermediate Mathematics.

**MVCC MA110 Elementary Statistics** - This course introduces probability and statistics. Topics include graphs, tables, frequency distributions, measures of central tendency and dispersion, normal distribution, correlation and regression, probability, and inferential statistics. This is a half year course.

Credit – <sup>1</sup>/<sub>2</sub> unit Spring course; preceded by fall course MA 115

College Credit – Potential to earn 3 MVCC credits pending a grade of "C" or higher

Final Examination: Local

#### Prerequisite: 2 years of high school math

**MVCC MA115 Intermediate Algebra** – This course introduces intermediate algebra-level knowledge and skills. Topics include exponents and radicals, polynomial and rational expressions, functions and relations and their graphs, inequalities, and systems of linear equations. Linear, quadratic, rational, and radical equations are solved. Applications are included. This is a half year course.

Credit – <sup>1</sup>/<sub>2</sub> unit Fall course preceding spring course MA 110 / or spring course followed by fall course MA091 College Credit – Potential to earn 4 MVCC credits pending a grade of a "C" or higher Final Examination – Local

#### Prerequisite – 2 years of high school math; for spring enrollment MA091

**MVCC MA150 Pre-Calculus** - This course prepares students for calculus through a study of the properties and graphs of polynomial, rational, trigonometric, inverse trigonometric, exponential, and logarithmic functions. Topics include an introduction to mathematical argument and conic sections. Emphasis is placed on the function concept and the appropriate use of the language of mathematics. Prerequisite: An appropriate placement test result or MA125 College Algebra & Trigonometry

Credit: 1/2 high school credit; Spring Semester course, 4 college credits available for those who are successfully placed via MVCC Accuplacer exam and pass the course with C average of better. Final Examination- Local **Prerequisites- C average or better in MVCC MA125** 

**MVCC MA 151 Calculus-** This course is for those students intending to transfer to programs in college requiring a thorough background in calculus. Topics include limits and continuity, differentiation of algebraic and trigonometric functions, and indefinite and definite integration. Applications are included. Prerequisite: An appropriate placement test result or MA150 Precalculus.

Credit- 1 unit local ACS credit. 4 credits through MVCC with a successful grade of "C" or better. **Prerequisites: MVCC MA150 Pre-Calculus** 

**Personal Finance** Topics covered include: Banking, Checking, Loans, Credit, Interest, Spending, Purchasing, Owning a Home/Car, Taxes, Insurance, and more life skills needed in today's world. Students will use a variety of applications throughout the course. Credit - 1 unit Final Examination- Local

Prerequisite: taken and passed at least one year of high school math

#### MUSIC

**Chorus** - This course meets every other day and emphasizes experiences in repertoire study, preparation, and presentation of concerts and program. Music of all periods and styles is performed. All members receive a small group vocal lesson each week. Throughout the year, the student must demonstrate: vocal ability and the ability to match pitch, a working knowledge of musical language, the ability to work in a group setting, and the willingness to grow as a musician.

Credit – ½ unit

Final Examination- None

**Concert Choir** - This course meets every other day and is designed to afford advanced choral students the challenge of working on music of a more complex nature. This course also emphasizes experiences in repertoire study, preparation, and presentation of concerts and programs. Music of all periods and styles is performed. All members receive a small group vocal lesson each week. Vocal independence and an awareness of blend are stressed. At the audition and throughout the year the student must demonstrate: an advanced ability and mastery of musical skills, the mental ability to grasp abstract concepts, the personal ability to function in a multitude of settings.

Credit – ½ unit Final Examination- None

**Concert Band** - This course meets every other day and emphasizes experiences in repertoire study, preparation and presentation of programs, assemblies, and concerts. Music from the standard band literature as well as contemporary music is performed. All members receive a small group or private instrumental lesson each week. Grades are determined by the student performance in lessons, band rehearsals and concerts. Additional participation in small ensembles, jazz band, pit orchestra, NYSSMA solos and all-county groups may enhance the instrumental experience and success of the student. Credit –  $\frac{1}{2}$  unit

Final Examination:- None

Music Theory 1 - The purpose of this course is to present the basic ingredients of the art of music – its structure, design and language. Included are: notation; scales tonality, keys and modes; intervals and transposition; chords. Credit – 1 unit Final Examination: Local **Music Theory 2** - This course is a continuation of Music Theory 1. Topics of study include: harmonic progression, cadences; melodic organization; rhythm; texture; voice-leading; modulation; and two and three part form.

Credit – 1 unit Final Examination- Local **Prerequisites- Music Theory 1** 

 Music Theory 3 - This course is a follow-up to Theory 2. It focuses on the following topics: Renaissance & Baroque Periods, late Renaissance Polyphony, Eighteenth Century Counterpoint Borrowed Chords, Neopolitan 6<sup>th</sup> Chords, Augmented 6<sup>th</sup> Chords, Variation Technique Sonata Forms, Rondo Forms, Extended and Chromatic Harmony9<sup>th</sup>, 11<sup>th</sup> & 13<sup>th</sup> Chords. Altered Dominants, Chromatic Mediant, Nineteenth & Twentieth Centuries. The Romantic Period, Post Romantic Impressionistic & Related Styles. The Contemporary Period, Twelve Tone Technique Music since 1945 Credit – 1 unit Final Examination- Local
Prerequisites- Music Theory 1 & 2

#### **PHYSICAL EDUCATION**

The Physical Education program educates students through a variety of physical activities. The objectives of the program are: 1) To educate students on the benefits of maintaining good physical fitness and healthy habits. 2) To promote interest in lifetime recreational activities. 3) To develop the interest and ability to use leisure time in a healthy manner. 4) To provide an atmosphere conducive to the development of appropriate knowledge and skills in recreational and team activities. 5) To develop a positive attitude toward exercise through individual and/or team sports that will continue throughout life. The program also strives to develop appropriate social behaviors such as courtesy, modesty, fair play and empathy. Students must be enrolled in PE every single semester they are in school, per NYS. This class is a graduation requirement.

Final Examination- None

## SCIENCE

**Regents Living Environment** - This class is designed for 9<sup>th</sup> graders. Students on other levels will be placed at administrator's discretion. Living Environment is based on six units:

Unit 1-Taxonomy/Classification, Biochemistry, Cell Structure/Function.

Unit 2 – Maintenance: Nutrition, Transport, Respiration, Excretion, Homeostasis & Disease, Regulation, Locomotion.

Unit 3 – Reproduction and Development.

Unit 4 – Genetics/Heredity.

Unit 5 – Evolution.

Unit 6 – Ecology.

Credit – 1 unit

Final Examination: Regents

Credit – .5 unit

Pre-requisite: As a prerequisite to the Regents examination students must successfully complete a minimum of 1200 minutes of hands-on laboratory experience with satisfactory lab reports on file.

**Regents Earth Science** – This is a problem solving course which explores the basic mechanics of astronomy, meteorology, geology, earth history, and stratigraphy. The course stresses the use of graphing skills, relationships, density, and mathematical skills, with emphasis on analyzing lab data to arrive at course concepts. Actual content includes: reading maps, describing sun, moon, and star motions, describing energy sources and changes, describing and predicting weather patterns while using actual weather instruments, identifying and classifying rocks and minerals, comparing constructive and destructive forces which alter the surface of the earth, describing and analyzing landscapes and land features to determine the geologic history of an area, and reviewing the changes of the earth over its 5 billion year history. This course is fast-paced and requires strong abstract thinking, reasoning, and math skills. A long-term project may be required. As a prerequisite to the Earth Science Regents Examination students must successfully complete a minimum of 1200 minutes of hands-on laboratory experience with satisfactory lab reports on file.

Credit – 1 unit

Final Examination: Regents exam

**Regents Chemistry** – This course is the study of matter. It includes topics such as: structure of the atom and nuclear chemistry, how and why atoms bond, the behavior of acids and bases, electricity from chemistry; electroplating metals, properties of solids, liquids, and gases, and reading the periodic table. These and other topics are taught to prepare the student for the Regents exam in June. During the course, emphasis will be on developing the reasoning abilities of the student. Using information, rather than memorizing information, is the key to success in chemistry. As a prerequisite to the Chemistry Regents Examination students must successfully complete a minimum of 1200 minutes of hands-on laboratory experience with satisfactory lab reports on file.

Credit – 1 unit

Final Examination- Regents

# Prerequisite- Successful passing grade in Algebra (Class & Regents), currently taking or have taken Geometry.

**Regents Physics** - The course in physics offered at Adirondack Senior High School is aligned to the Physical Setting/Physics Core Curriculum designed by the New York State Education Department. This curriculum, implemented in the 2001-2002 school year, focuses on applying the knowledge and skills gained to real-world situations. Using the topics of physics as a setting, the essential instruction is intended to develop students' understanding, use of mathematical relationships, develop science skills and processes, and apply all learning to new real world settings. Students, in attaining scientific literacy, will be able to provide explanations in their own words, exhibiting creative problem solving, reasoning, and informed decision making. In doing this, the course covers the topics: Motion, Waves, Electricity and Magnetism, and Physics of the late 20<sup>th</sup> century. The class meets for eight forty-minute periods over a six-day cycle. The extra class periods are to extend the content of the course through different lab and problem solving situations. As a prerequisite to the Physics Regents Examination students must successfully complete a minimum of 1200 minutes of hands-on laboratory experience with satisfactory lab reports on file.

Credit – 1 unit

Final Examination- Physics Regents

**Environmental Science-** This is a full year elective course for students who need a third year of science to complete the science requirement for graduation. This course focuses in on the environment and how humans

interact with it. There are 6 units: Ecology, Biodiversity / Invasive species, Pollution, Population, Atmosphere, and Environmental energy. Credit-1 unit Final Examination- Local final **Pre-requisite- Must have passed 1 science regents exam** 

**Forensic Science** – This course is the application of scientific investigation for the interpretation of physical or medical evidence in civil or criminal legal cases. Forensics draws on many branches of science including biology, chemistry, physics and earth science. This course is designed to give the student an introduction to the methods used and an understanding of the following areas of forensics: 1) Hair & fiber 2) Pollen & flowers 3) Blood and blood typing 4) Blood splatter 5) Finger printing 6) Ballistics 7) Tool marks 8) Anatomy, muscle and bone 9) DNA & gel electrophoresis 10) Mitochondrial DNA 11) Glass 12) Foot and tire impressions 13) Insects and time of death 14) Mortis: Rigor, Algor & Livor 15) Drugs 16) Sexual Assault 17) Handwriting analysis 18) Crime scene set-up Credit – 1 unit Final Examination- Local Exam

Anatomy and Physiology -This is a rigorous college prep class. This will be a full year course that covers the structures and functions of the human body. Students will learn about body orientation, basic chemistry, cells, tissues and all of the organs and organ systems in the human body. This will include extensive vocabulary (medical terminology), visual identification and the role each organ plays within the body to maintain homeostasis.

Credit: Local 1 credit----no lab time

Pre-requisite: Living Environment (course and passing regents), Chemistry (course and passing regents).

Advanced Placement Physics – This course is offered as an extension to the Regents Physics Course. The course has four goals: Understanding of basic physics knowledge, the development of problem solving skills, fostering appreciation of the physical world and the world of physics, and understanding connections between physics and other disciplines. The course will cover the Physics C – Mechanics section of the AP Exam. In this section motion and its causes will be studied in great detail.

Credit- 1 unit

Final Exam- Local and AP Exam

Prerequisites- Successful Completion of the Regents Physics Course.

**Principles of Technology-** Principles of Technology courses focus on the study of the forces and laws of nature and their application to modern technology. Equilibrium, motion, momentum, energy conversion, electromagnetism, and optical phenomena are presented in the context of current, real-world applications. Demonstrations, math labs, and applied laboratory experiments are an integral part of the Principles of Technology curriculum. This course will enable students to gain a solid foundation for careers in electronics, robotics, telecommunication , and other technological fields. This will include participation in the First Tech Challenge. This course can be taken yearly for credit. Credit- 1 unit

Final Exam- Local Prerequisites- none

#### **SOCIAL STUDIES**

**Global History & Geography 1** - The curriculum for 9<sup>th</sup> grade begins with the Paleolithic Era and the development of the first civilizations, continues with an examination of classical societies, and traces the expansion of trade networks and their global impact. The course emphasizes the key themes of interactions over time, shifts in political power, and the role of believe systems. This course is taught chronologically beginning with the Paleolithic Era through the mid-1700. An emphasis will be placed on the importance of historical and spatial thinking; however all the social studies practices and standards are included in the study of global history and geography.

Credit – 1 unit Final Examination: Local

**Regents Global History & Geography 2-** This tenth grade Social Studies course is a continuation of a two-year program studying world regions and cultures. It includes eleven Units that cover Ancient Civilizations, Western Europe, The Soviet Union and Eastern Europe, The Middle East, and The World today. Each unit considers the geographic, historic, political, economic and social roots of world cultures as they relate to the contemporary world. Emphasis is placed on developing an awareness that world outlooks differ and that regional and cultural differences contribute to the systems in place in the world today. Students will also explore the interdependence of nations and regions, the influence of technology on the development of each region, the role of religious and value systems, the development of and changes in economic, political, and legal systems, and the response of each culture to basic needs and rights.

Attention is given to the extent to which cultural diffusion and assimilation have taken place while understanding the legacy Western Civilization owes to other cultures as well as the extent to which the reverse is true. Students will develop skills and tools needed to analyze and interpret multiple sources of information from each of the social science disciplines. Using that information as data, they will develop the ability to generalize and draw conclusions about their own and other culture systems. They will also be able to understand and deal effectively with other views and cultures and understand the impact that the decisions of one region or nation have on the larger global context. Credit – 1 unit

Final Examination- Regents

Prerequisites-Global History & Geography 1

**United States History & Government (Regents)** - This curriculum begins with the colonial and constitutional foundations of the United States and explores the government structure and functions written in the Constitution. The development of the nation and the political, social and economic factors that led to the challenges our nation faced in the Civil War are examined, along with America's emergence as a world power, the two world wars of the 20<sup>th</sup> century and the Cold War. Students explore the expansion of the federal government, the threat of terrorism, and the place of the United States in an increasingly globalized and interconnected world. Successful completion of this course is a requirement for high school graduation in New York State.

Credit- 1 unit

Final Examination- Regents

**Participation in Government** - This is a one semester course required for graduation. The course is taken during the senior year as part of the fourth year for Social Studies in New York State. This course covers

economics principles and practices in-depth as they relate to the United States economy today. Topics in this course include- the principles of American democracy as they are reflected in the Constitution and the Bill of Rights, and the organization and actions of federal, state, and local government entities. Civil liberties are discussed and include engaging in issues of civic debate, citizens act with an appreciation of differences and are able to participate in constructive dialogue with those who hold different perspectives. Students will learn how to be active, engaged, and informed citizens are critical to the success of the United States representative democracy. United States citizens have certain rights, responsibilities, and duties, the fulfillment of which helps to maintain the healthy functioning of the national, state, and local communities. Students will learn the importance of engagement in the political process, from exercising the power of the vote to affiliating with political parties, to engage in other forms of civic participation. Citizens leverage both electoral and non-electoral means to participate in the political process. All levels of government—local, state, and federal—are involved in shaping public policy and responding to public policy issues, all of which influence our lives beyond what appears in the Constitution. Engaged citizens understand how to find, monitor, evaluate, and respond to information on public policy issues at the various levels of government. Required for graduation. Credit –  $\frac{1}{2}$  unit

Final Examination-Local

**Economics** - This one-semester required course is designed for Grade 12 students who have completed the Social Studies course in grade 11. The goal of this course is to educate young people to understand basic economics and their future finances. Students need to learn to set personal financial goals, recognize their income needs and debt obligations, and know-how to utilize effective budgeting, borrowing, and investment strategies to maximize well-being. Students need to understand that the resources of individuals (and societies) are limited, decisions as to what goods and services will be produced and to whom to sell one's resources are driven by numerous factors, including a desire to derive the maximum benefit from and thus the most efficient allocation of those resources. The United States operates within a mixed, free-market economy that is characterized by competition and a limited role of government in economic affairs. Economic policymakers face considerable challenges within a capitalist system, including unemployment, inflation, poverty, and environmental consequences. Globalization increases the complexity of these challenges significantly and has exerted strong and transformative effects on workers and entrepreneurs in the United States economy. Students need to know how these elements affect them as individuals and us as a nation. Required for graduation. Credit –  $\frac{1}{2}$  unit

Advanced Placement European History - This is a concentrated course designed for the individual who is capable of doing college level work. It is a demanding course. The subject matter includes a study of the religious, political, economic and social orders of Europe over the past two thousand years. Materials used to complement this course include primary readings, detailed political and geographic maps, artwork and audio and visual materials. The course will culminate with a college level exam published by Education Testing Service. Taking the Advanced Placement Exam is a requirement.

Credit – 1 unit

Final Examination- Regents & AP Exam

Prerequisites: Students entering this course should have at least an 85% average in social studies as well as achieving a score of 85% or better on the Global History & Geography 2 Regents Exam. Students must be of sophomore, junior or senior status to enroll.

Advanced Placement United States History & Government - This is a concentrated course designed for the individual who is capable of doing college level work. It is a demanding course. The subject matter includes a study of the political, economic and social issues since colonial times. Materials used to complement this

course include primary readings, detailed political and geographic maps, artwork and audio and visual materials. The course will culminate with a college level exam published by Education Testing Service. Taking the Advanced Placement Exam is a requirement.

Credit - 1 unit

Final Examination- Regents & AP Exam

Prerequisites- Students entering this course should have at least an 85% average in social studies as well as achieving a score of 85% or better on the Global History & Geography II Regents Exam. Students must be a junior or senior to enroll.

#### MVCC Poli Sci 10- American Government

This course introduces the discipline of political science through the study of the American government. Topics include the concept of the political system, democracy in theory and practice, the historical background and content of the Constitution, Federalism, and the role of the Supreme Court in civil rights. It stresses these aspects of the American political system: public opinion, voting behavior, the electoral system, political parties, and modern campaigning techniques. Federal, state, and local governments are addressed, as well as how the participation of citizens is imperative to a strong democracy.

Credit - Credit –  $\frac{1}{2}$  unit local ACS credit. 3 credits through MVCC with a successful grade of "C" or better. Final Examination- Local

Prerequisites- Students entering this college course should have at least an 85% average in US History, as well as achieving a score of 85% or higher on the US History Regents Exam.

College Credit 3 with a C or higher in the class. This also gives dual credit for the Government course requirement in 12th grade, <sup>1</sup>/<sub>2</sub> unit.

# TECHNOLOGY

**Design & Drawing for Production (DDP)** - Design and drawing for production is an introduction to a universal graphic language through which students can express their ideas with creativity, clarity and exactness. This is a basic course including orthographic projection, isometric drawing, dimensioning, sectioning, and auxiliary views with the use of drafting instruments and materials. The visualization, imagination, accuracy of thought and expression are the basic concepts of this course. With the skills from this course the student will develop plans and create prototypes and models for objects that could be manufactured to use in everyday life. Many of these prototypes and models are actually constructed in the technology lab. Computer aided design (CAD) is also used in the problem solving approach.

This course may be used to fulfill the Art/Music requirement for graduation. Credit – 1 unit Final Examination: Local

**MVCC Electronics** - A basic course in electricity involves practical and laboratory situations. Covered are units in basic electrical theory, power flow, sources of electricity, series circuits, parallel circuits, magnetism, motors, generators, transformers, automotive ignition and related electrical systems. Six weeks of the course involves residential house wiring. Some of the areas covered are: electrical service, kilowatt-hour meter, circuits (outlets, 3-way and 4-way switches), fuses and circuit breakers, checking, safety, electrical wiring (codes, wire sizes, extension cords), basic servicing (ground tests, replacing switches and receptacles, junction and outlet boxes), lighting systems, heating systems and consumer education. The electronics portion of the

course goes over many electronic components. Electronic kits are assembled by soldering components on circuit boards.

Final Examination- Local

Credit – <sup>1</sup>/<sub>2</sub> unit local ACS credit. 3 credits through MVCC with a successful grade of "C" or better.

**MVCC Construction**- The construction technology course is designed to cover primarily residential house construction. Other areas of construction covered are roadways, bridges, dams, commercial buildings, towers and pipelines.

The residential construction module covers the following processes in detail:

- 1) Foundations (a. materials, b. types (slab, block, treated wood, concrete)
- 2) Super Structures (a. residential, b. non-residential)
- 3) Enclosure Systems (a. flooring, b. walls, c. roofing, d. ceiling, e. insulation)
- 4) Utility Systems (a. electrical, b. plumbing, c. heating & cooling, d. communication)
- 5) Site (a. selection, b. preparation)
- 6) Technical Knowledge (a. research & development, b. engineering)

Safety and career information is stressed throughout the course.

Local Credit – <sup>1</sup>/<sub>2</sub> unit Final Examination: Local

College Credit- potential to earn 3 credits pending a grade of a "C" or higher (please note, students who do not earn a "C" or higher, will not receive college credit but rather local credit for the class)

#### Prerequisite- Successful completion of DDP

**Creativity and Innovations** - This is an elective course in the technology sequence making students be creative and innovative. Students solve problems by generating new ideas individually and/or in groups. In the process of solving problems there are many ideas brought about by brainstorming, analytical thinking and creative thinking. Students are creative in making products by the use of design and drawing. From the drawings and plans the students actually make the product by using the tools, machines and materials in the Tech. Ed. Lab. Many of the materials used are wood, plastic, metal, glass, mortar, concrete, and electrical components. Students are innovative by adjusting or changing a product for improvement or to change the products function. Emphasis is given to hand-on learning. Safety and career information is stressed throughout the course. Credit  $-\frac{1}{2}$  unit

Final Examination- Local

#### Prerequisite- Successful completion of DDP

**Manufacturing Systems** - This course uses the technology education laboratory equipped with tools and machines essential for project activity. Emphasis is given to hands-on learning. Approximately 75 percent of class time is devoted to student performance lab activity and 25 percent devoted to theory and instruction. The manufacturing modules cover many industrial processes such as:

- 1) Forming (a. casting and molding, b. compressing and stretching)
- Separating (a. shearing, b. chip removal, c. non-traditional)
- 3) Combining (a. mechanical fastening b. adhesion/cohesion, c. mixing, d. coating, e. assembling)
- 4) Conditioning (a. thermal, chemical, mechanical, b. applications)

Many of the manufacturing activities are done as a group while others are done individually.

The individual activities are useful in reinforcing learning about various processes of manufacturing as well as use of tools and machines. The group activities center around the organization and operation of an actual manufacturing company that will set up a production line to actually produce and possibly sell, the chosen product. This will include design, drawing, appropriate material selection, jigs and fixtures, mass production, inspections, and quality control.

Credit – ½ unit Final Examination- Local

# **BOCES PROGRAMS**

These are offered to juniors and seniors only.

**Auto Body Repair** - Auto body professionals can be considered the artists of their trade, repairing and refinishing vehicles to pristine condition. When you're enrolled in this program, you'll receive foundational training in job-site safety and then move on to hands-on work on real customers' vehicles. Using high-tech, state-of-the-art equipment, you'll have the chance to work on many different types of projects-from dent repair, auto body refinishing and custom painting to job estimation and customer service. After graduation, students are prepared to begin careers or further their education. Future careers for students include auto body shop technician/paint technician, auto body estimator, shop manager, sales representative, insurance adjuster and upholsterer.

Automotive Technology - The Automotive shop is a modern facility designed to give students hands-on experience with the latest trends in the automotive trades. Equipped with up-to-date computerized testing equipment and computer software, we provide the latest in researching repair procedures and looking up parts. Our goal is to provide a "Real World" atmosphere that will prepare graduates for entry-level employment in the automotive industry as well as providing some advance placement opportunities in higher education. You'll learn to safely use all the tools of the trade while repairing brake, hydraulic, steering, suspension, electrical systems and more. Program meets the rigorous standards of excellence set by the National Automotive Technicians Education Foundation (NATEF). Graduates have successfully found careers in the following areas: Electrical technician/tire and wheel alignment, Engine performance technician including OBD-II diagnostics/brake system technician/steering and suspension technician, Auto sales/automotive parts retailer, Auto reconditioning, New York State inspector, Military/NASCAR, and Heavy truck repair.

**Cosmetology** - Cosmetology is a demanding career that requires a wide range of skills. Artistic ability, as well as technical and communication skills are critical to success. Throughout the two-year program, our Cosmetology program focuses on learning the latest techniques in haircutting, perms, coloring, pin curls, roller placement, manicuring, artificial nails, and skin care. The students spend time working in a real salon environment with clients from the community. Additionally, time is spent reviewing New York State Cosmetology Board procedures necessary for obtaining a license. Students must attend NYS required training of 1000 hours of classroom time over the two year period to be eligible to apply for a Cosmetology License. Career opportunities include: Hair stylist, Manicurist/Pedicurist, Salon owner, Make-up artist, Skin or nail technician, Desairology (funeral cosmetology services), Hair show coordinator, State board examiner and Technical trainer

**Criminal Justice** - Criminal Justice is a broad based career exploration program intended to give students skills, knowledge, behaviors and occupational opportunities in the field. Through a blending of a strong academic component with a rigorous hands-on feature, students gain insight into what it takes to be successful in Criminal Justice. Students will be equipped and trained with the most current technology found in the field. Students will work with firearm simulators, suspect-identification kits and investigation kits. Many of our Criminal Justice graduates continue their education and training. A brief listing of career opportunities would include: Police officer, Military police, Human services, Retail security, U.S. Customs, State Park Police, Industrial security, Paralegal and Probation/Parole.

**Culinary Arts** - In Culinary Arts, students are encouraged to explore the wide variety of career opportunities the food-service industry has to offer. From street vendors to white-table cloth restaurants, people are drawn to this industry because of the job availability, advancement opportunities and creative environment. First year students have the opportunity to master skills in baking ingredient identification, quick breads, yeast breads, cookies, pies, cake preparation, cake decorating, pastries, kitchen desserts, menu design/development, human relations, skills and nutrition. Second year students are exposed but not limited to the following topics: professional image, kitchen math, sanitation, safety, hand tools/equipment, work place skills, raw ingredients, soups, stocks, sauces, cooking methods, pantry, breakfast preparation, and dining room service. Career opportunities include: Executive Chef, Restaurant Owner, Food Journalist, Baking/Pastry Chef, Public Health and Sanitation, Food Service Distributor, Sports Facilities Management and Travel and Tourism Management.

**Early Childhood Education** - One can acquire the knowledge needed to work effectively with children in a wide variety of areas through our Early Childhood Education Program. The Early Childhood Program is a two-year program designed to provide interested students with the required skills for entry-level employment working with young children. Some of the career opportunities for graduates include Recreation Programs, Family Service Programs, Teacher Assistant in Private/Public Schools, Aide in the Public School System, Governess/Nanny, Foster parent, Family Child Care Provider, and Preschool teacher or Head Start.

**Electrical Technology** - Electrical Wiring Technology is a two year, hands-on course designed to provide students with the skills necessary to obtain entry-level employment as an electrician or to further their education at a post-secondary institution. First-year students will concentrate on residential wiring techniques. They will build 40 different electrical wiring circuit projects by the end of the first 10 weeks of class and also study conduit bending, AC/DC theory and national electrical code. They will use electrical skills to install all the wiring circuits and service entrance for a modular house constructed on campus. Second year students will concentrate on commercial and industrial maintenance wiring. They will install and repair all types of electrical equipment including conduit, motors, electrical tools, light fixtures, motor controllers, etc. Career opportunities include: Electrician, Construction, Residential/Hospital Maintenance, Motor Manufacturing, Electrical Supply Houses, Surveillance/security system installation and Management.

**Engineering & Design** – Do you like to build things? Solve intriguing problems using technology and brain power? This new two year program is for students interested in using innovative industry-driven technologies to create new and improved production methods and designs.

**Environmental Conservation & Forestry Technology** - In the Forestry & Conservation program, you will have the chance to explore a wide variety of career opportunities, while receiving training and education in the basics of proper resource management. If you enjoy working outdoors, rain or shine, and want to learn about the wise use, management, and protection of our valuable natural resources, then the Forestry & Conservation program is for you! By spending almost every day working in the field, you will get a good feel for what working outdoors is all about! As the demand for our country's limited natural resources increases, so does the need for qualified resource managers and conservation workers. Career opportunities include: Forest Technician, Conservation Officer/ Forest Ranger, Arborist, Soil Technician, Surveying Aide and Equipment Operator.

**Gas & Diesel Mechanics** - Our Gas & Diesel Mechanics program includes foundation theory and hands-on experience in agricultural, industrial and over-the-road truck mechanics. Training includes engines, power trains, hydraulics, chassis, troubleshooting and welding. Through hands-on application, students will experience tooling in a very well equipped modern facility. Welding techniques that are used include MIG, TIG, and plasma cutting. Dyno-testing, injector overhaul/calibration, and cylinder sleeve removal/replacement are common experiences during engine overhaul. Facilities are continually updated to parallel industry standards such as speed-glass helmets in the welding curriculum. Career Opportunities include: Agricultural

Machinery Technician, Industrial Machinery Technician, Over-the-road Truck Technician, Logging Industry Technician, Welder, Business Owner and Small Engine Technician.

**Heavy Equipment:** The Heavy Equipment program is a hands-on learning experience focusing on the areas current and emerging technologies in construction. This two year program is designed to prepare students for entrance into the workforce or attaining higher education through college or trade school. Students will have the opportunity to learn fundamentals and gain skills in equipment operation. Class time will be spent learning from those who have worked professionally within the field. Students will have the opportunity to work with state-of-the-art equipment inside our workshops and learn by taking part in real-life projects through work-based learning. Students will focus on career exploration involving emerging technologies, learning high level problem-solving skills, while earning college credits and hands-on experience directly through local excavating and trucking businesses. Career opportunities include: highway maintenance departments, forklift operator, farm equipment operator, landscaping, truck/bus driver, quarry employee and equipment repair.

**Intro to Trades: Building Projects** - Enter the Carpentry Program and become a real "builder of the future!" Not only do our graduates have the skills they need to earn above average wages, they are working in rewarding jobs that offer them plentiful opportunities all over the world. Careers that our students train for include building construction, entrepreneurship sales, material handling, distribution estimating and job costing. This program is a combination of hands-on skill development and technical training that uses the most up-to-date equipment and resource materials. Emphasis is placed on the safe operation of tools required to keep pace in this dynamic building industry. Students work on building projects to develop carpentry skills as well as problem solving and decision-making skills. Teamwork is the key to their success. Career opportunities include: Building construction, Materials handling and distribution, Entrepreneurship/sales, Estimating and job costing and Military.

**Medical Careers** - This is a one-year program that provides an opportunity for students to explore health and medical careers through a variety of experiences. The basic core of study enables students to shadow professionals through a series of rotations in a healthcare facility. Some units of study that the students cover are Professional Ethics, Confidentiality/Patient Rights/Responsibilities, Basic First Aid, CPR, and Safety. Students are able to continue their studies in the Certified Nursing Assistant and Licensed Practical Nursing Programs. Career opportunities include: Certified Nurse Assistant (CNA), Licensed Practical Nurse (LPN), Registered Nurse (RN), Pharmacist, Nutritionist, Surgeon, Physical Therapist and General Practitioner.

**New Vision Health** - (AM Program for **Seniors**) The field of health care has numerous occupations that involve the delivery of care to patients. Hospital personnel are highly skilled and must specialize to keep pace with today's technology. Students participate in weekly clinical rotations throughout the hospital, learning from hands-on experience about many health care professions. In addition to rotations and internships, students will receive credit for participation in Health Occupations, English and Government/Economics. Some of the Program Rotations are Emergency Room, Search and Rescue, Laboratory Services, Dietary, Respiratory Therapy, Operating Room, Dialysis, Social Services, Diagnostic Imaging, Hospital Administration, Rehabilitation Services, Physical Therapy, and Occupational Therapy. Career Opportunities include: Doctor, Nurse, Dentist, Pharmacist, Nutritionist, Surgeon, Radiologist, Physical Therapist and Hospital Administrator.

**Nursing Assistant** – (One year program for **Seniors**) Substantial healthcare combined with academic in a relaxed classroom setting. You'll be on your way to caregiver positions or additional education.

**Veterinary Practices** - The Small Animal Care program is designed as a two year program for juniors and seniors who are interested in pursuing a career in Animal Management. Small Animal Care encompasses the study of dogs, cats, pocket pets, laboratory animals, livestock, equines, and, to a lesser extent exotic species. The emphasis will primarily be on the care and handling of dogs and cats. Small Animal Care units are

designed to provide students with practical experience while focusing on critical thinking and depth of understanding. Through hands-on application, shared skills and various on-the-job learning opportunities, students become familiar with good working ethic, teamwork, responsibilities and specific career requirements. Because the curriculum is so flexible and the field is so diverse, Small Animal Care graduates have the opportunity to go in many interested directions: Veterinary medicine, Veterinary Assistant or Technician, Laboratory Technician, Kennel Assistant, Grooming, Sale and retail, animal production, Zoo keeper, Farm Assistant and many more.

**Visual Communications** - Visual Communications will teach you the latest technologies for graphic design, animation, web design, and video production. Graduates will be prepared to land that first entry-level job or receive advanced placement in a variety of art colleges and universities. Exciting careers in Visual Communications include: Animation, Advertising, Computer Illustration, Video Game Design, Web Design, Graphic Design, Film/Video Production, Packaging Design, Digital Special Effects, and lots more.