

2022-2023
Royalton-Hartland
High School



Course
Description
Manual

Foster your learning through various programs of study such as:

- **College**
 - *Various course offerings are available for students based on interest, grade level, and academic performance in order for students to explore higher learning opportunities.*
- **STEAM**
 - **S-** *Following the science regents course of study; Living Environment, Earth Science, and Chemistry. Plus, one advanced class; Physics , College Chemistry and/or College Biology.*
 - **T-**
 - {** 5 Course offerings in the area of Technology or Engineering.
 - **E-**
 - **A-** *Coursework to include more than the state minimum of 1 art credit.*
 - **M-** *Following the Math regents course of study; Algebra, Geometry, and Algebra 2/Trigonometry. Plus, one advanced class; Statistics and/or College Calculus.*
- **FFA (AG)-** *Students will follow a program of study that aligns to Agricultural Science with the opportunity to participate in intra-curricular extension as an FFA member.*
- **Music-** *Students will follow music studies in each of their four years of high school in any one or more of its programs.*
- **CTE-** *Students in 11th and 12th grade will follow a CTE program of their choice.*

This manual is to be used as a guide for the selection of courses for the coming academic year. This guide can also be used to assist you in the planning of your entire educational program at Roy-Hart.

Course Offerings by Departments

Agriculture <ul style="list-style-type: none"> • Public Speaking & Leadership Development • Animal Science • Food Science • Agricultural Science • Advanced Agricultural Science 	Engineering <ul style="list-style-type: none"> • Industrial Arts • Energy & Transportation • Manufacturing
Art <ul style="list-style-type: none"> • Studio in Art • Drawing & Painting • Advanced Studio Art/Drawing/Painting • Ceramics I • Ceramics II • Independent Advanced Art 	English <ul style="list-style-type: none"> • English 9 • English 10 • English 11 & English 11 Enriched • English 12 or NCCC English 12* • Creative Writing • Visual Literacy • Modern Media
Business <ul style="list-style-type: none"> • Career and Financial Management • Intro to Business • Self Management 	Foreign Language <ul style="list-style-type: none"> • Spanish I • Spanish II • Spanish III • Spanish IV/Spa 203* • Spanish V/ Spa 204*
Computer Engineering <ul style="list-style-type: none"> • Microcomputer Application* • Computer Science/ Coding* • Digital Photography 	Humanities <ul style="list-style-type: none"> • Psychology • Sociology • NU College Sociology* • Niagara County Legislative Internship • Service Learning

Course Offerings by Departments *(continued)*

<p>Math</p> <ul style="list-style-type: none"> • Pre-Algebra • Algebra • Geometry • Intermediate Geometry • Intro to College Algebra • Algebra II/Trigonometry • Statistics* • Pre-Calculus* • Calculus* • Problem Solving • Consumer Math 	<p>Technology</p> <ul style="list-style-type: none"> • DDP- Drafting/ CAD* • Architecture/ Advanced CAD*
<p>Music</p> <ul style="list-style-type: none"> • Music Theory* • Concert Band • High School Chorus • Orchestra 	<p>Science</p> <ul style="list-style-type: none"> • Earth Science • Living Environment • Intermediate Earth Science • Chemistry • College Chemistry* • Physics • College Biology* • Forensic Science
<p>Social Studies</p> <ul style="list-style-type: none"> • Global Studies 9 • Global Studies 10 or 10E • US History or NCCC US History • Government & Economics 	<p>Physical Education/ Health</p> <ul style="list-style-type: none"> • NYS Requirement

** indicates college course*

Introduction

Careful course selection is a critical part of your high school experience. The process provides you with the opportunity for decision-making, in partnership with parents, and school personnel.

This Course Description Manual has been prepared to assist you in that decision making process. It contains all the courses offered with a short descriptive paragraph giving pertinent information, course prerequisites, credits, et. It is intended to give you as accurate a course description as possible so that you may be aware of the content of each subject and wisely make your selection.

Now is the time for careful consideration of your choices. **You as a student are accountable for the decision.** After your purses are chosen, we will build a master schedule that reflects those choices. Once we make this commitment of our resources in the spring, changing courses becomes very difficult.

If you or your parent/guardian have any questions about the courses described here or the process of course selection, please call the Counseling Department at (716) 735-2000 ext. 2306. Counselors and faculty are always available to hel throughout this process. Students need to ask questions and check to make sure they are on track for graduation. All students should know what classes they need and what Regents Exams they need to graduate!

Course Change Policy

The purpose of this policy is to support our students as they strive to meet high standards. Our goal is to prevent failure rather than react to it by students dropping out of courses. This process involves early identification and intervention through personal contact and conferencing so that all involved may work to promote success. As a result of increased graduation requirements established by New York State, in order to receive a high school diploma, students are required to take and pass higher level courses.

After June 1, Students will not be able to drop a full year or a first semester course.

It is very important that students keep the lines of communication open with their School Counselors as far as what they are thinking about for their future. We are able to assist you in selecting the best courses for you based on your future plans. All students will have numerous opportunities over the course of 4 years to learn more about their personality and their strengths and weaknesses while participating in certain assessments such as PSAT and ASVAB.

(cont.) Students are encouraged to do their best on these assessments so that accurate information and data can be used in their future planning. The school counselors are resources for the students to go to for assistance in a variety of areas. College and Career readiness is our focus. We want to ensure our students are ready for college or careers when they complete high school.

Counseling Department

Ms. Christine Lenhart	Grades 10 & 12	Phone: x 2083
Ms. Colleen Albee	Grades 9 & 11	Phone: x 2300
Mrs. Kelly Halstead	Secretary	Phone: x 2306

Timeline for Course Selection Process

January/February

- Classroom visits by School Counselors (Grades 8-11)
- Read the Course Description Manual.
- Complete the planning worksheet.
- Consult present teachers, parents and counselors to discuss choices.
- Have individual or small group meetings with counselors.
- Receive verification of course requests.
- Contact the Counseling Office Department if schedules need to be modified. A parent/counselor/student conference may be required. All requests for course modifications must be made by June 1st.

April

- Receive a copy of the final course requests. These will be mailed home with the third quarter report card.

June/July

- Receive a copy of the list of scheduled classes.
- Please note - schedule changes will **not** be made after June 1st. Students will have had numerous times to adjust their course requests. The only changes to be made after June 1st will be related to summer school or at the discretion of school staff.

August

- Receive a final copy of schedule prior to the first day of school.

NYS Graduation Requirements

<u>Regents Diploma</u>	<u># of Credits</u>	<u>Regents Exams</u>
English	4	Grade 11 Grade 10 & 11 Must pass 1 Science Exam Must pass 1 Math Exam
Social Studies	4	
Science	3	
Math	3	
Health	.5	
Art/Music	1	
~Sub total of Core Credits	15.5	
*Foreign Language (LOTE)	1	
Physical Education	2	
**Electives (LOTE, CTE, Art/Music or BOCES)	3.5	
~Total Credits Required	22	

Students must score a 65% or higher on 5 Regents Exams in order to graduate with a Regents Diploma.

<u>Advanced Regents Diploma</u>	<u># of Credits</u>	<u>Regents Exams/Common Core</u>
English	4	Grade 11 Grade 10 & 11 Must pass 1 Science Exam Must pass 1 Math Exam
Social Studies	4	
Science	3	
Math	3	
Health	.5	
Art/Music	1	
~Sub total of Core Credits	15.5	
*Foreign Language (LOTE)	1 (or 3)	
Physical Education	2	
**Electives (LOTE, CTE, Art/Music or BOCES)	3.5	
~Total Credits Required	22	

Students must score a 65% or higher on 8 Regents Exams in order to graduate w/ Advanced Regents Diploma.

(continued)

****Foreign Language:** All students must complete one unit of a foreign language. If they decide not to continue with the second and third year, they must replace the three Foreign Language Elective credits with five credits in either Career and Technical Education (CTE) or Art/Music.

Promotion Policy: Promotion is determined by the number of units satisfactorily completed in a specific program of required and elective subjects. Students must complete a minimum of 5.5 credits each year to be promoted.

College Offerings

The Colleges that Royalton-Hartland has articulations with are: Niagara University, Niagara County Community College, and Genesee Community College, and Cobleskill University. See a complete college course list on page 28.

Students enrolled in a college course will do so with the expectations that all courses will be treated in a manner in which the home college/university course is affiliated with. Students will abide by all the classroom expectations for conduct, follow all grading, attendance, and assignment expectations as presented by the instructor.

As a college student it is expected that they become responsible and self-advocates should they have questions of the instructor relevant to the course. While parents should support their child it is the responsibility of the college student to manage their college course load.

The teacher for the course is an adjunct college instructor and has specific expectations in communicating with the student, not the parent for this particular course.

College course grades will result in a college transcript for that particular college/university. Each course has specific deadlines for enrollment, tuition, and grading policies that are provided to the student for either the Fall and Spring semesters.

NCAA Clearinghouse Center

Attention Student Athletes- Students planning to participate in Athletics in a Division I or II college must be certified by the NCAA Clearinghouse. Please stay current in communication with your high school counselor to be certain to meet all requirements. NCAA requirements change frequently, and transcripts will need to be submitted by your counselor.

Parent Portal

eSchool is the District's electronic student management system/database where we collect and store student information. The portal is a "doorway" into our database giving families access to information about their children and their academic progress. The Parent Portal can be accessed on the Royalton-Hartland CSD web home page. All quarterly and progress reports should be checked frequently, as the High School no longer sends out paper mailings.

Naviance

Is a comprehensive K-12 college and career readiness platform that enables self-discovery, career exploration, academic planning, and college preparation for millions of students across all ages and around the globe. Self-discovery helps students develop confidence and lays a strong foundation by uncovering strengths and unique skills allowing students to see their own potential.

Naviance helps high school students:

- Understand their unique strengths
- Connect their interests to careers
- Set goals
- Develop self-knowledge and personal motivation

The Counseling office will be using Naviance as a platform for student planning. Naviance will be a vehicle to help students organize their college search process and post graduation plans. This will allow them to have access to college searches, college applications, letters of recommendations and scholarships. Each student will have a Naviance account that will be linked to their HS Counselor as a way to keep on track for college and career planning. Ms. Lenhart, and Ms. Albee will work with students throughout the year to orientate students with the program. Should you have any questions please contact the Counseling Office at 716-735-2000 ext. 2306

Course Offerings/Descriptions

Agriculture Courses

Animal Science

Course #AG001

Grades: 9-12

Credits: 1

Length: 40 weeks

Prerequisite: Living Environment

This hands-on course covers both the scientific principles and practical applications relating to animal care and management. Students will acquire knowledge on all types of animals- ranging from large to small and exotic to endangered. Specific units will cover the history and use of animals, animal handling and safety, cells and tissues, nutrition, reproduction, genetics, animal health, animal products, marketing and selection. Students will be responsible for the care and management of the classroom small animals and explore hands-on projects, activities and laboratory work to learn about the industry and its variety of careers.

Course meets FFA program requirements.

Food Science

Course #AG002

Grades: 9-12

Credits: 1

Length: 40 weeks

Prerequisite: NONE

"Eat Fresh! Got Milk? Where's the Beef? I'm Loving it!" I bet that you can match most of these popular catchphrases with their corresponding food industry company! In this course, students will explore hands-on activities, laboratories, projects, and problems that simulate actual concepts and situations found within the food science and safety industry. We will build content knowledge and technical skills through the investigation of food safety, food chemistry, food processing, and preservation, nutrition, digestion, genetically modified organisms (GMO), food labels, food quality, flavoring, food product design, development, and marketing. Students will gain a better understanding of the science that goes into the food they eat and acquire the knowledge and skills to be an informed consumer.

Course meets FFA program requirements.

Agricultural Science

Course #AG003

Grades: 9-10

Credits: 1

Length: 40 weeks

Prerequisite: NONE

This hands-on course is designed to introduce students to agriculture, its applications, and leadership development. Topics may include: agricultural careers, soils, animal care, plant science, hunting, landscape design, horticulture, tractor operation, food science, natural resources, crops, FFA, and communications. Students will develop their own Supervised Agricultural Experience (SAE) and use their acquired knowledge and problem solving strategies to complete real world agricultural problems. This introductory course is highly recommended for all students interested in completing future high school agricultural coursework (Animal Science, & Food Science).

Course meets FFA program requirements.



Advanced Agricultural Science Course #AG006

Grades: 11-12

Credits: 1

Length: 40 weeks

Prerequisite: At least 2 of the following - Agricultural, , Food Science, and/or Teacher recommendation.

Advanced Agricultural Science provides opportunities for Royalton-Hartland agricultural students to further develop, enhance, and apply knowledge and skills pertaining to the vast agriculture industry. This capstone course is designed for high school students that have completed previous secondary agricultural coursework. Students will conduct hands-on learning experiences in all sectors of agriculture. This course will allow students to engage in the practical application of course concepts in our agricultural community. Course meets FFA requirements.

Art Courses

At Royalton-Hartland we offer a variety of classes that all students can experience no matter what their talent level may be. We encourage the students to explore and have fun learning about art and perhaps make a career out of it when they graduate.

When students select their art classes, we must limit each student to 2 art classes/ school year.

There is a one-unit graduation requirement in Music or Art. Students may pursue additional credits; Studio in Art is a prerequisite for most art classes.

Studio in Art

Course #7000

Grades: 9

Credits: 1

Length: 40 weeks

Prerequisite: NONE

Studio in Art is designed to recognize and understand the what, where and how of art. This course is designed as a foundation course for all students following and art sequence. Students will use the elements of art in a wide variety of two and three dimensional media, processes and techniques. They will also interpret and appreciate the major art movements and styles past and present. Class activities include: drawing, and painting in pencil, charcoal, pastels, pen and ink, water color, lettering, perspective, art history, and sculpture.

Drawing & Painting

Course #70013

Grades: 10-12

Credits: 1

Length: 40 weeks

Prerequisite: Studio in Art

The Drawing portion of this course is an advanced course based upon the skills and techniques developed in "Studio in Art." Areas of drawing are examined more extensively and include the use of charcoal, graphite, colored pencil, paint, pastel, and pen and ink. This course emphasizes an understanding of the two dimensional surface through a series of structured drawing problems including life, environment and models. Class work will enhance the student's ability to observe and execute.

Painting includes involvement with advanced problems in acrylic painting, watercolor and mixed media. Areas of painting which are explored include the use of watercolor, tempera, acrylic, and mixed media. This course is designed to explore a variety of painting techniques through still life, landscape, figure and contemporary abstractions. Students will become familiar with color, surface, space and texture through projects that will encourage a professional philosophy and work habits.

Adv. Studio Art/Drawing/Painting Course #70011

Grades: 11-12

Credits: 1

Length: 40 weeks

Prerequisite: Studio in Art and Drawing & Painting

An upper level course designed for the student who wishes to further develop skills and techniques that were introduced in previous drawing and painting courses. This is a desirable course for any student wishing to develop a portfolio for college. Students will be continually encouraged to expand their creative ideas as well as their technical potential. The course will approach drawing and painting utilizing various techniques and materials.

Ceramics I

Course #70003

Grades: 9-12

Credits: 1

Length: 40 weeks

Prerequisite: NONE

This elective class will provide an introductory exposure to the history of ceramics and a beginning level experience in the use of clay as a fine art medium. Emphasis will be placed on the design elements; line, texture, form and color. Focus will be on the hand building techniques; pinch, coil and slabs. Functional as well as sculptural applications will be explored. Introduction to traditional and historical ceramic arts will be incorporated into the class experiences. Students will be introduced to the art of wheel thrown pottery and kiln firing practices on a limited basis. Various glaze and decoration techniques for finishing work will be explored throughout the class.

Ceramics II

Course #70018

Grades: 10-12

Credits: 1

Length: 40 weeks

Prerequisite: Ceramics I

This elective class provides an in-depth look at the properties of clay, an introduction to the potter's wheel, and exploration of advanced hand building techniques. Students will be creating both functional pottery and nonfunctional sculpture. Students will continue to explore surface applications. Emphasis will be placed on individuality, creativity, and craftsmanship.

Independent Advanced Art

Course #70008

Grades: 12

Credits: 1

Length: 40 weeks

Prerequisite: Studio in Art, Portfolio of art work and Teacher recommendation / approval.

The Advanced program is intended for the highly motivated student committed to serious study in Art. Students should, however, be made aware that Advanced Art work involves significantly more time than the typical high school course and that the program is not intended for the casually interested. It is recognized that the student will need to work outside the classroom, as well as in it, and beyond scheduled periods. Thus, students will be required to do homework such as maintaining a sketchbook, or a journal, with visits to museums and galleries considered extensions of class time.

Business Courses

Intro to Business

Course #BUS002

Grades: 11/12

Credits: 1

Length: 40 weeks

Prerequisite: NONE

Elective

This course will cover an array of topics and concepts related to the field of business. This course introduces business concepts such as the environment of business, business ownership, entrepreneurship, finance, human resources, marketing, organization, and management. The business units help students acquire sound values and acceptable attitudes regarding their lives and on-the-job success. Students will be engaged in teamwork, presentations, technology, and current events while learning about the world of business. The knowledge and skills obtained in this class is transferable to life during and after high school.

Consumer Economics/Personal Finance

Course #BUS001

Grades: 10
Length: 40 weeks

Credits: .5
Prerequisite: NONE

Consumer Economics/Personal Finance courses provide students with an understanding of the concepts and principles involved in managing one's personal finances. These courses emphasize lifespan goal-setting, individual and family decision making, and consumer rights as well as topics that are commonly associated with personal finance so that one can become a financially responsible consumer. Topics may include savings and investing, credit, insurance, taxes and social security, spending patterns and budget planning, contracts, and consumer protection. These courses may also investigate the effects of the global economy on consumers and the family.

Self Management

Course #BUS003

Grades: 9
Length: 40 weeks

Credits: .5
Prerequisite: NONE

Self-Management courses introduce students to the skills and strategies that are helpful in becoming more focused, productive individuals, wage earners, and family members. These courses typically emphasize goal-setting; decision making; managing time, energy and stress; and identifying alternatives and coping strategies. They may also allow students to explore various career and lifestyle choices.

English Courses

Required Courses:

<u>Grade:</u>	<u>Required Course:</u>	<u>Regents Exam:</u>
9	English 9	NO
10	English 10	NO
11	English 11 or 11E	YES
12	English 12	NO

Electives:

Creative Writing

Modern Media

Visual Literacy

English 9	Course #10009
Grades: 9	Credits: 1
Length: 40 weeks	Prerequisite: NONE

This Regents level course emphasizes the development of writing and reading skills as the first of three years' preparation for the Regents Comprehensive Examination in English. Writing activities will focus on essay format with special attention to skills required by the NYS Regents exam essay questions. Literature study will cover drama, the novel, short stories, essays and poetry. Students will read full-length works including: Romeo and Juliet, The Outsiders, and Homer's the Odyssey.

English 10	Course #10010
Grades: 10	Credits: 1
Length: 40 weeks	Prerequisite: English 9

In this Regents level course, world literature forms the basis for the study of the short story, the play, the essay, and the novel. Students will frequently do various forms of writing including expressive, narrative, expository, and persuasive writing. English 10 reinforces much of what has been covered in English 9 and proceeds to prepare students for English 11 and the English Regents Exam. Greater emphasis is placed on the continued development of critical thinking skills in the context of writing, speech, and reading comprehension. Full-length works will be selected from the following: Of Mice and Men, Lord of the Flies, and A Midsummer Night's Dream.

English 11	Course #10011
Grades: 11	Credits: 1
Length: 40 weeks	Prerequisite: English 10

English 11 will provide students with a curriculum rich in reading development, vocabulary, as well as expanding growth in writing for a variety of purposes. Students will analyze and critique fiction and non-fiction literature independently, read actively, and annotate texts, learning to self-monitor comprehension and to apply strategies when needed. Much of what is being covered this year is prescribed by the New York State Education Department. Eleventh grade students are not only preparing to take the ELA Common Core Regents Exam, PSAT, SAT and ACT assessments- they are developing critical reading and writing skills that will allow them to be successful in any capacity following high school graduation.

English 11(E)	Course #10011
Grades: 11	Credits: 1
Length: 40 weeks	Prerequisite: English 10

This Course is intended for students who are recommended by English 10 teachers. Students will cover the same material as English 11 but on a more advanced level. More research and independent projects will be expected of students in this course. Students will be required to complete a summer reading project prior to taking the course.

English 12
Grades: 12
Length: 40 weeks

Course #10012
Credits: 1
Prerequisite: English 11

English 12 is designed to give seniors the interpersonal skills required for college and career success. The course will focus on Communication skills, Writing, and Public Speaking, as well as an analysis of societal issues through the lens of literature. As a final requirement, all students will do a research paper using MLA format.

English 12

Course #10012



NCCC College Credit Course (Writing I)

Grades: 12
Length: 40 weeks

Credits: 1
Prerequisite: English 11

English 12- NCCC is designed for seniors to improve their interpersonal skills with a focus on writing at the collegiate level. Students will receive Writing I credit from NCCC upon successful completion. This college level course has substantially more independent reading and writing requirements than the traditional English 12 offering. As a final requirement, all students will do a research paper using MLA format. This course will be weighted at 1.07. (NCCC 3 credit course- students can pay for college credit).

Foreign Language

Spanish I
Grade: 9-12
Length: 40 weeks

Course #60009
Credits: 1
Prerequisite: NONE

This is a first level course, which serves as an introduction to the Spanish language and to the culture of the Spanish speaking world. This course is the equivalent of Spanish 7 and 8 combined. In Level I, students will be exposed to everyday Spanish used in practical situations. These situations will include topics such as asking and giving directions, ordering food, or making travel plans. Students will study the four basic skills of reading, writing, speaking, and listening. At this level, the main emphasis will be to develop speaking and listening skills, while reading and writing will be coerced to a lesser extent. Integration of Spanish culture is an important aspect of the Level I course. Students learn about the hobbies, and interests of Spanish youth. This course is designed for students who have not yet completed the Level I graduation requirement.

Spanish II

Grade 9-12

Length: 40 weeks

Course #60010

Credits: 1

Prerequisite: Spanish 7 / 8 or Spanish I

Level II Spanish combines both a review of previously learned skills in Level I with the introduction of new vocabulary, grammar, and verbs. Students will continue to develop their listening and speaking skills. A greater emphasis will be placed on reading and writing skills. These four basic language skills will be developed through a variety of activities that will provide the student with the opportunity to communicate in real-life situations. Spanish culture will continue to be integrated into the course. At the conclusion of Spanish II, a local exam will be given.

Spanish III

Grade 10-12

Length: 40 weeks

Course #60011

Credits: 1

Prerequisite: Spanish II

The skills acquired in Spanish I and II will be further developed in Spanish III to a level where the student can communicate in the past, present, and future based on the topics for Checkpoint B in the NYS LOTE Syllabus. Writing and speaking will be emphasized with a focus on organization, usage of new vocabulary, advanced grammatical structures and increased word count. Real life situations will provide the stimuli for conversation and in class performance presentations. Formal and informal speaking assessments as well as listening and reading will be emphasized. Reading skills will be enhanced through authentic documents, informative texts and abbreviated literary selections. At the end of Spanish III, the NYS Regional Comprehensive Examination will be given.

Spanish IV/ SPA 203

Grade 11-12

Length: 20 weeks

Course #60012

Credits: 1

Prerequisite: Spanish III



This 1 semester course offers students the opportunity to apply what they have learned in their previous years of Spanish at the Checkpoint C level as per the NYS LOTE Syllabus. In a casual, relaxed atmosphere, the student will be encouraged to speak Spanish as much as possible. Writing skills will be refined through a periodic review of grammar already learned and the addition of some advanced grammar. The students will work in group situations to devise games in Spanish, and to present scenes from plays and stories they have read or written themselves. Other communicative activities also will be pursued. The student will explore Spanish art, literature, and culture. Students may also receive 3 college credit hours for this course through the NCCC CAP (College Acceleration) program. Tuition is usually $\frac{1}{3}$ the cost of regular tuition. A final exam or final project is the final assessment at the discretion of the instructor. This course will be weighted at 1.07 (NCCC 3 credit course students can pay for college credit).

Spanish V

Course #60013

Grade 12

Credits: 1

Length: 20 weeks

Prerequisite: Spanish IV/ SPA 203

This 1 semester course is designed for those who wish to continue to develop their proficiency in the Spanish language at the Checkpoint C level as per the NYS LOTE syllabus and is a continuation of the prerequisite course, Spanish IV/SPA 203. Literature will be explored with an emphasis on oral skills and composition. The course content might best reflect intellectual interests shared by the students and teacher: the arts, history, current events, literature, culture and CAP program. Tuition is usually $\frac{1}{3}$ the cost of regular tuition. Students who enroll in the eCAP program will be enrolled in SPA 204 and will receive a college transcript from NCCC upon successful completion of the course. A final exam or final project is the final assessment at the discretion of the instructor. This course will be weighted 1.07. (NCCC 3 credit course students can pay for college credit).

Humanities

Psychology

Course #20015

Grade: 12

Credits: 0.5

Length: 20 Weeks

Prerequisite: None

Psychology is the science of the mind and behavior. Some topics to be discussed are- history of psychology, the brain, consciousness, learning, memory, cognitive development, and mental health disorders. Students will learn through reading, writing, viewing videos pertaining to the different topics and classroom activities.

Sociology

Grade: 12

Credits: 0.5

Length: 20 weeks

Prerequisite: None



Sociology is the scientific study of human interaction. Some topic studies will include society, social structures; and social problems. The class will make use of multiple current event sources; including videos and magazines. Students will also sponsor a resolution presented at a “mock” legislative session at the conclusion of the semester. Students that participate will also be required to take Participation in Government as a graduation requirement.

Service Learning

Grade: 10-12

Students can work with a teacher/ counselor to schedule peer tutoring. The student will assist younger students or peers with academic help as needed. Students should talk with their counselor about this opportunity. Credit will be awarded at completion of the school year.

Math Courses

Required Courses: All Students Must Pass a minimum of (1) Regents Math Exam.

Math Course:

Regents Exam:

Pre-Algebra Algebra Geometry Intermediate Geometry Algebra 2/Trigonometry	NONE Algebra Geometry NONE Algebra 2/Trigonometry
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Electives:

Statistics (Seniors/College Credit) Pre-Calculus (Accelerated Students) Calculus (Accelerated Seniors)

*Students who struggle with math may take one of the following math electives in place of Algebra 2/Trigonometry to meet math requirements:

Introduction to College Algebra
Problem Solving- ½ credit
Consumer Math- ½ credit

Pre-Algebra

Course #30000

Grade:9

Credits: 1

Length: 40 Weeks

Prerequisite: Teacher and/or Counselor recommendation

This course is the first in a 2 year program designed to give students a stronger background in understanding the various branches of mathematics. Major topics in Pre-Algebra that are covered if time allows: The Language of Algebra including expressions, equations, order of operations and properties, integers: adding, subtracting, multiplying and dividing, multiplication and division equations, multi-step equations and solving equations with variables on both sides, solving equations with grouping symbols $()$, $[]$ or $\{\}$, solving proportions, percent problems, percent of change and probability, scatter plots, graphing linear equations, slope, writing equations in point-slope form, writing equations in slope-intercept form, exponents, scientific notation, square roots, and the Pythagorean Theorem, Polynomials: adding and subtracting, multiply a polynomial by a monomial, multiply binomials and special products, factoring, GCF, factoring trinomials, special products, graphing quadratic functions (parabolas), solving quadratic equations by graphing or factoring, exponential functions, solve inequalities, systems of equations and radicals.

Algebra	Course #30002
Grade:9-10	Credits: 1
Length: 40 Weeks	Prerequisite: NONE

Common Core Exam in June
Concepts broken into 5 modules:

- Relationships between Quantities and reasoning with Equations
 - Descriptive Statistics
 - Linear and Exponential Relationships
 - Expressions and Equations
 - Quadratic Functions and Modeling
-

Geometry	Course #30003
Grade:9-11	Credits: 1
Length: 40 Weeks	Prerequisite:Algebra I

Geometry is a continuation of Algebra and extends the student's knowledge in algebraic concepts, probability, and rectangular coordinate geometry. In addition, students will cover the following concepts: Mathematical Systems, Euclidean Geometry, ,EAnalytical Geometry, Logic Quadratic Equations, and Transformational Geometry, Locus, Similarity, and Probability. Emphasis will be placed more on the reasoning behind problems and proofs. Students will take the Geometry Common Core Exam in June.

Intermediate Geometry	Course #300016
Grade:10-12	Credits: 1
Length: 40 Weeks	Prerequisite: successful completion of Algebra CC Course and 65%+ on exam

This is a one year course in mathematics for high school students. The course is based on a three year integrated math curriculum and meets the requirement for a Regents Diploma. This course will emphasize a practical approach to the study of Geometry. Example topics include: study of angle relationships, transformations, constructions, triangle, quadrilateral, and circle properties and relationships, right triangle and trigonometry, and geometric measurement and dimensions. Students will work at a different pace and be required to take a district final exam.

Intro to College Algebra

Course #30004

Grade:11-12

Credits: 1

Length: 40 Weeks

Prerequisite: Intermediate Geometry or Geometry

This is a one year course designed for college bound students (both two and four year colleges). This course will focus on skills that will be tested on a college entry math placement exam. Upon entering college, many students will be expected to take a math placement exam and depending on the results may be required to take and pay for a non-credit bearing course in preparation for the math course required for their degree. The main goal of this class is to prepare students for success on this test. This course is designed to refresh arithmetic skills while developing basic algebraic skills in preparation for college math courses. The following algebraic topics will be covered: operations with real numbers and algebraic expressions, linear equations, simple word problems, graphing, systems of equations, quadratic equations, operations with radicals, and more.

Algebra II

Course #30006

Grade:10-12

Credits: 1

Length: 40 Weeks

Prerequisite: successful completion of Algebra I & Geometry and exams with teacher recommendation

All students are required to bring their own IT-83 graphing calculator to class

This is a one year course intended to be the third course in mathematics for high school students. This course meets the requirements for an Advanced Regents diploma. This course builds on students' work with linear, quadratic, and exponential functions. /students extend their repertoire of functions to include rational, radical, and trigonometric functions. Students work closely with the expressions that define the functions and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Students also spend a portion of the year on probability and statistics.

Pre-Calculus

Course #30008

Grade:11-12

Credits: 1

Length: 40 Weeks

Prerequisite: Algebra II/Trigonometry



This course is designed to review and build upon the Algebra II/Trig curriculum in preparations for calculus and other college level math courses. The emphasis is uniquely upon master of key concepts and algebraic procedures from all previous math courses. **SERIOUS COMMITMENT TO DAILY HOMEWORK IS REQUIRED.** New topics of study will include polar coordinates, inverse trig functions, trig identities, sinusoidal transformations, matrices, vectors, solving high degree equations, conics and binomial probability, NCCC awards 4 credit hours for this college level course with a tuition fee. This course is recommended for all accelerated juniors and committed seniors. This course will be weighted at 1.07.

College Level Calculus I

(Differential Calculus)

College Level Calculus II

(Integral Calculus)



Course # 30012	Credits: 1	Course #30013	Credits: 1
Grade: 12	Prerequisite: Pre- Calculus	Grade: 12	Prerequisite: College Calculus I
Length: 20 weeks		Length: 20 weeks	

This course is offered to those students who have been accelerated and are seeking college credit for calculus. Calculus is the mathematics of change and motion. Differential Calculus involves finding the rate at which a variable quantity is changing. Integral Calculus deals with the problem of finding the function when the rate of change is given. The course involves a thorough study and mastery of the following topics: Cartesian Plane and Functions, Limits and Continuity, the Derivative and its applications, the Integral and its applications, Logarithmic and Exponential Functions, Trigonometric Functions, Integration techniques, Integration applications, and Infinite series. Niagara University prepares the mid-term and final exams for both Calculus I and Calculus II and awards 4 credit hours per semester. There is a tuition fee each semester, plus registration fee, payable in September and February. This course will be weighted at 1.07.

Statistics

Grade:12

Length: 40 Weeks

Course #30015 MAT 164

Credits: 1

Prerequisite: 2 or more math courses completed w/ passed Regents exam



This will be an introduction to statistical concepts including descriptive statistical, basic probability, probability distributions, estimation of parameters, hypothesis testing using one or 2 samples, correlation and regression. Computer applications and simulations are done using EXCEL, MINITAB, or other technology tools. Senior BOCES students will occasionally need to finish assignments outside of class time. NCCC college 3 credit course- students can pay for college credit. This course will be weighted at 1.07

Courses recommended for Pre-Algebra Track:

Problem Solving Strategies

Grade: 11-12

Length: 20 weeks

Course #30010

Credits:.5

Prerequisite: Must have earned 2 math credits and passed a Regents exam

In this course students will learn specific techniques for solving problems ranging from simple to complex. "Brain Teasers" are heavily involved. Much of the class time will be spent working in groups and presenting solutions to the class. Specific problem solving techniques include: drawing a diagram,

making a systematic list, elimination possibilities, matrix logic, looking for patterns, guess and check, reducing to an easier problem, using manipulative, working backwards, and others.

Consumer Math

Course #30014

Grade:11-12

Credits: .5

Length: 20 Weeks

Prerequisite: Must have earned 2 math credits and passed a Regents exam

This math course will reinforce general math topics to include budgeting, taxation, credit, banking services, insurance, buying and selling products, homes and services and managing personal income and investment.

Music Courses

There is a ONE unit graduation requirement in MUSIC or ART. Students who pursue a three or five unit sequence in Music must complete two or four units of performance music (Senior High Band, Senior High Chorus, or Senior High Orchestra) and Music Theory I.

Music Theory I (NCCC)

Course #80000

Grade:11-12

Credits: 1

Length: 40 Weeks

Prerequisite: 1 credit of Performance Music



Music Theory I is designed to expand and enhance student knowledge of music fundamentals; notation, rhythm, scales, tonality, key, modes, intervals, transposition, chords, cadences, nonharmonic tones, melodic organization, texture and vocabulary. Additional focus on music history, music analysis, and music styles. This course will be weighted at 1.07. NCCC 3 credit Course- students can pay for college credit.

Concert Band

Course #80002

Grade: 9-12

Credits: 1

Length: 40 Weeks

Prerequisite: Audition or recommendation of instructor

This course provides opportunities for students to develop their musical potential and aesthetic understanding as they learn to play a woodwind, brass, or percussion instrument(s). Band rehearsals take place every day while small group lessons are scheduled every 7-10 days during times that rotate throughout the marking periods. Study will focus on acquiring, developing and refining tone quality and technique, music reading capabilities, performance skills, team spirit, and responsible rehearsal/practice habits. Students will also work to improve listening skills and their ability to discuss music and music performances. Winter Festival, and Spring concerts are course requirements. State and County music festival participation will be strongly encouraged.

High School Chorus

Course #80003

Grade:9-12

Credits: 1

Length: 40 Weeks

Prerequisite: NONE

Senior High Mixed Chorus is designed for all students who wish to develop their musicianship through vocal study. The chorus rehearses every day while small group lessons occur once every 6 school days. Lessons are scheduled on a rotating basis and students are expected to make up class work missed due to music lessons. Study will focus on a wide variety of vocal literature; acquiring, developing, and refining tone quality and technique; reading music and sight-singing; performance skills, team spirit, and responsible rehearsal/practice habits. Students will also work to improve listening skills and their ability to discuss music and music performances. Winter, Festival, and Spring concerts are course requirements. Some required performances in State and County solo festivals through NYSSMA and NCMEA.

Orchestra

Course #80004

Grade:9-12

Credits:1

Length: 40 Weeks

Prerequisite: NONE

Senior High Orchestra involves one scheduled rehearsal per day and one small group or individual lesson per week. Lessons are scheduled on a rotating basis, and students are expected to make up class work missed due to a music lesson. Students are expected to participate in all orchestra activities including concerts, and are encouraged to participate in NYSSMA and NCMEA festivals and solo and ensemble competition.

Physical Education & Health

Physical Education

Course #50000

Grade:9-12

Credits: 0.5

Length: 40 weeks (alternate days) Prerequisite: NONE

REQUIRED FOR GRADUATION

All students attending Royalton-Hartland Schools are required to participate in Physical Education and receive a passing grade. Physical Education is a State required course of study. Each student will receive ½ credit for each year of successful completion of Physical Education for a 4 year total of two credits. This credit must be earned to complete requirements for graduation. Emphasis is placed upon a program of sequential instruction which is directed toward the student's individual needs and which covers a wide range of activities such as basic athletic skills, self-testing, lifetime sports, physical fitness, and team sport activities. A student who is physically unable to attend classes must secure a written excuse from a physician. The school nurse or P.E instructor may issue temporary excuses which do NOT exceed two weeks. Grading is based upon participation, preparedness, ability, effort and a written skills test.

Health Course #50003
 Grade:9-12 Credits: 0.5
 Length: 40 Weeks (alternate days) Prerequisite: NONE

REQUIRED FOR GRADUATION

The Senior High School Health Course consists of ten modules dedicated to developing a mentally and physically well-rounded individual. This course is recommended for students entering their freshman year of high school. The modules attempt to address the contemporary problems that confront teenagers of today and are as follows: health is basic; being physically fit, locating health resources, promoting health in families handling stress, improving health and safety in the workplace, and preventing injuries, protecting oneself and others, eating well, preventing disease and understanding sexuality.

Science Courses

<u>Required Course</u>	<u>Regents Exam</u>
Earth Science	YES
Living Environment	YES

Elective Courses:

Advanced Biology (College Credit) Forensic Science Chemistry (Regents Exam)
College Chemistry (College Credit) Physics (Regents Exam)

Living Environment Course # 40010
 Grade: 9-12 Credits: 1
 Length: 40 weeks Prerequisite: NONE

Living Environment is intended to provide a basic understanding of the general areas of Biology. These areas include the Study of Life, both a biochemical and metabolic levels, energy transformations, the study of the process of aerobic respiration and photosynthesis in both plants and animals, reproduction and development, heredity, evolution, and ecology. Completion of the minimum of 1200 minutes of laboratory exercises is a course requirement. Students will take the NYS Regents Exam in June.

Physical Setting- Intermediate Earth Science

Grade: 10-12

Length: 40 weeks

Course #40008

Credits: 1

Prerequisite: Teacher recommendation

This Course is designed to introduce the study of Earth Science and basic science skills. Students will also be required to complete laboratory exercises to aid in greater understanding of covered material. The course culminates with a final examination in June.

Physical Setting- Earth Science

Grade: 10-12

Length: 40 weeks

Course #40009

Credits: 1

Prerequisite: *Successful completion of Living Environment course and passing of Regents Exam.*

Earth Science offers insight into the environment on earth and the earth's environment in space, while presenting the concepts and principles essential to students' understanding of the dynamics and history of the earth. Completion of a minimum of 1200 minutes of laboratory activities is a course requirement. The culminating assessment is a NYS Regents examination in June.

Physical Setting- Chemistry

Grade: 11-12 (accelerated 10th)

Length: 40 weeks

Course #40011

Credits: 1

Prerequisite: *Successful completion of CC Algebra II or currently enrolled. Successful completion of LE and Regents ES.*

This Course is designed to help students develop an interest in a career in pure and applied science, as well as an attitude of curiosity and involvement in natural events. Students with potential interests in medical fields, forensic analysis, lab-based research, engineering, and agriculture will find the concepts taught in this class to be helpful in their future college and/or career goals. Inclination towards problem solving in a scientific manner, plus knowledge of facts, terminology, concepts, and principles will help the student interpret scientific information and data. The student will learn to handle, construct, and manipulate materials and equipment safely, as well as to measure, organize, and communicate scientific information. This course is an excellent preparation to any college level chemistry or health science class. Completion of 1200 minutes of laboratory exercises is a course requirement. The culminating activity is a NYS Regents Examination in June.

College Chemistry (NCCC)

Grade: 12
Length: 40 weeks

Course #40021

Credits: 1
Prerequisite: *Completion of Earth Science, Living Environment, Chemistry, and passed all 3 Regents Exams.*



NCCC Chemistry 120 is the first course of general Chemistry for students interested in a variety of science and engineering majors where principles of chemistry will be covered in detail. The topics covered will include equipment, safe handling of chemicals and accurate collection of data as they relate to concepts covered in class.

Physical Setting: Physics

Grade: 12 (accelerated 11th)
Length: 40 weeks

Course #40012

Credits: 1
Prerequisite: *Successful completion of CC Algebra II or currently enrolled. Successful completion of Regents Chemistry Course.*

The study of the forces and laws of nature affecting matter, such as equilibrium, motion, momentum, and the relationships between matter and energy. The study of physics includes the examination of sound, light, and magnetic and electric phenomena. This course is designed to present the basics of physics to those who will be pursuing a career in the sciences, a medical field, or engineering. 1200 minutes (30 successful written reports) of laboratory exercises are required in order to qualify for the NYS Regents Exam.

College Biology

Grade: 12
Length: 40 weeks

Course #40015

Credits: 1
Prerequisite: *Completion of Earth Science, Living Environment, Chemistry, and passed all 3 Regents.*



This class is the equivalent to the NCCC college-level course, Biology 109. This course represents the first semester of a two semester study of topics in General Biology. Initial emphasis is placed on the chemistry of living organisms. This knowledge is applied to the second major area of study, the cell. The third major area of emphasis will be the study of classification, structure, and function of representative members from the five major kingdoms of living organisms. This course meets SUNY General Education requirements for Natural Sciences. The tuition for this course will be set up through NCCC with the Roy-Hart Teacher. This course will award 4 credits at the college level and 1 credit at the high school level. This course will be weighted at 1.07. (NCCC 4 credit course- students can pay for college credit.

Forensic Science

Grade: 11-12

Length: 40 weeks

Course #40014

Credits: 1

Prerequisite: *successful completion of Living Environment and pass Regents exam and 1 course in the physical setting: Earth Science, Chemistry, or Physics.*

The course allows the student to investigate the science of evidence. Throughout the fall semester students will assume the role of a crime scene investigator. They will learn how various forms of evidence are scientifically collected, tested and interpreted. The evidence for this course will include the study of microscopy through examination of the physical properties of glass, soil and sand. DNA analysis, document analysis (i.e: handwriting, typewriting, paper and ink analysis, forgery and voice patterns). This course will also explore the topics within the disciplines of the study of botany and feature the analysis of organic and inorganic evidence. Legal debate, case study readings will also be required in this course. Throughout the spring semester, students will learn how to collect and interpret scientifically. The evidence for this course will include the study and interpretation of prints (finger, lips, teeth, and shoe forensic toxicology of drugs, alcohol, poisons, and trace evidence such as hair, fibers and paint. Forensic serology collection techniques and investigations include laboratory handling and testing on samples of simulated body fluids (i.e: blood, sweat, and tears), measurements of crime scenes and more.

Social Studies Courses

Required Courses:

<u>Required Course</u>	<u>Regents Exam</u>
Global Studies 9	NO
Global Studies 10	YES
Global 10E	YES
US History or	YES
NCCC History 120/122	YES
Government & Economics	NO

ELECTIVE: Niagara County Legislative Internship

Global History 9

Grade: 9

Length: 40 weeks

Course #20009

Credits: 1

Prerequisite: NONE

This course provides students with the historic, economic, social and political background of the major non-western cultural regions of the world and the ability to understand the multi-ethnic nature of those cultures. In doing so the course aims to foster a global outlook and to cultivate the knowledge, skills and attitudes needed to function effectively in an increasingly interdependent world. Successful completion of a local final exam will be expected at the end of the course. Information learned in this course will be tested as part of the Global Studies 10 NYS Regents exam.

Global History 10

Grade: 10

Length: 40 weeks

Course #40010

Credits: 1

Prerequisite: *Successful completion of Global 9.*

The course will continue a cultural study that started with Global 9. Students will study the world from the 1750 to present. The class will study culture, geography, religion and many other aspects of our world. The concept of global interdependence will be discussed throughout the year. At year's end, students must pass the NYS Global Studies Regents exam. **This is a graduation requirement.**

United States History and Government

Grade: 11

Length: 40 weeks

Course #40011

Credits: 1

Prerequisite: NONE

The United States History and Government course is divided up into six major historical units. The first unit, Constitutional Foundations of the U.S. is by far the most important as it is necessary to master the Constitution to understand the later development of the U.S. This first unit takes 10 weeks to complete. The second unit deals with the industrialization of the U.S. from 1865 to 1920 and its impact on cultural, political, and economic change. The Progressive Movement is the subject of the third unit, and its impact on reform.

Our fourth unit focuses on prosperity and depression at home and abroad 1917 to 1940. The fifth unit discusses the U.S. in an age of global crisis and the reasons for our shift from isolation to international leadership during the Cold War. The sixth unit, the World in Uncertain Times stresses the growing interdependence of nations and the role of the U.S. in global affairs as well as social, economic, and political changes facing the U.S. today.

In each unit, students must demonstrate their ability to interpret document-based questions and to write an appropriate essay response. At year's end, students must pass the United States History NYS Regents exam.

NCCC US History

Grade: 11-12

Length: 40 weeks

Course #20011A

Credits: 1

Prerequisite: *Must have earned a 90 or higher for Global 10, successful submission of a writing exemplar (history based writing assessed May/June), current teacher/US History teacher meeting.*



NCCC United States History is an in-depth look at our nation's past orientated to eleventh and twelfth grade students. A chronological approach to United States history is presented in this course. The numerous units span the discovery and settlement of the New Worlds during the Age of Exploration to the United States in current times. NCCC United States History is a course offering that fulfills a dual purpose. It fulfills the NYS Regent requirement for U.S History, and as such will culminate with the U.S. History an government Regents exam in June. The students enrolled in this course can expect college level lectures and class discussions, as well as reading and workload similar to college requirements. This course will be weighted at 1.07. NCCC 3 per semester Credit Course- HIS 120/122- students can pay for college credit.

Economics

Grade: 11-12

Length: 40 weeks

Course# 20013

Credits: 1

Prerequisite:NONE

Economics is a graduation requirement for all seniors. This is an introductory course in economics. It has been said that the U.S. economy is the eighth wonder of the world and that Americans' ignorance of how their won economy works is the ninth wonder of the world! The course will help students understand basic economic principles and how economic decisions are made. It will help students become a better consumer and an informed citizen. As with all disciplines, economics has its own vocabulary and procedures which students will be expected to learn.

Government

Grade: 12

Length: 40 weeks

Course #20012

Credits: 1

Prerequisite:NONE

This is the culminating course of students' studies in government since Middle School. We will examine the government's purpose, the origins of government and how our current government works. More importantly, we will focus on how students, the soon-to-be adult citizens, will interact and participate in our government and society.

Technology

Electives:

DDP- Drafting/CAD

Advanced CAD

Architecture

DDP- Drafting/CAD

Grade: 9-12

Length: 40 weeks

Course #90000

Credits: 1

Prerequisite: NONE



DDP is an introduction to the world of drafting. Students will be exposed to drafting equipment, basic drafting principles/concepts, and industry standards. Both hand and computer drafting will be used. Hand drafting will allow the students an opportunity to explore design, learning basic drafting concepts that will be carried forward into other design classes. AutoCAD will be used to learn basic drawing and editing commands, giving the students the skills to draw single, multi, and pictorial view drawings. Throughout the semester, students will continue to be challenged with new projects resulting in a collection of drawings for a portfolio.

Topics to be included: measurement, scale, lettering, dimensioning, CAD history, applications, design concepts, basics of AutoCAD, drawing management, soft & hard copies of drawings.

Evaluation: drawings, projects, test/quizzes

Available as a CAP College Course through NCCC- Course fees apply. This course will be weighted at 1.07.

Architecture

Grade: 10-12

Length: 20 weeks

Course #90011

Credits: 0.5

Prerequisite: DDP/CAD

Architecture gives the students an opportunity to explore the world of residential and commercial design. CAD will be used extensively throughout the course to create a variety of drawings. Each student will continue to develop their own portfolio, including a compilation of completed work from this course.

Topics included: history of architecture, building codes, floor plans, framing, wall sections, elevations, roofing layouts, plumbing layouts, electrical layouts, models, commercial buildings, landscape design, bridges, towers, and highways.

Evaluation: Drawings, projects, tests/quizzes

Courses will be offered every other year. Offered 2022-2023 school year.



Advanced CAD

Grade: 10-12

Length: 20 weeks

Course #90014

Credits: 0.5

Prerequisite: DDP/CAD

This course presents the more sophisticated functions of AutoCAD and Solidworks (three-dimensional software). Students will develop assembly drawings, three dimensional, and multi view drawings. More complex tutorials with advanced projects will challenge students to improve accuracy, speed, and enhance their drawing skills.

Students will continue to add to their portfolio.

Topics to be included: symbols, intelligent symbols, basic three dimensional drawing, paperspace, portfolios.

Evaluation: drawings, projects, test/quizzes

Articulation Agreement with NCCC- upon successful completion of this course, students may receive college credit. Available as a CAP College course through NCcC- Course fees apply. This course will be weighted at 1.07.

Courses will be offered every other year. Offered 2022-2023 school year.

Computer Engineering

Electives:

Microcomputer Applications

Digital Photography/Photoshop

Computer Science/Coding

Microcomputer Applications

Course #90007



Grade: 9-12

Credits: 1

Length: 40 weeks

Prerequisite: NONE

This computer literacy course is designed to expose students to typical home and office use of Windows based systems. Students will explore Word, Excel, Powerpoint, Access, Internet Explorer, Windows operating system, and Microsoft Publisher.

Available as a CAP College Course through NCCC- Course fees apply. This course will be weighted at 1.07. Course will be offered in the 2022-2023 school year.

Digital Photography/Photoshop

Course #90020

Grade: 10-12

Credits: 1

Length: 40 weeks

Prerequisite: NONE

This course is designed to give students experiences with the creative and technical aspects of photography. Students will use digital cameras to take and compose digital photos. Photoshop and other apps will be explored to manipulate and edit photographs.

Course will be offered every other year. Offered in the 2023-2024 school year.

Computer Science/Coding

Course #90021



Grade: 10-12

Credits: 1

Length: 40 weeks

Prerequisite: Microcomputer Applications

This course will use beginner friendly, drag and drop programming environments, like Scratch and Alice. In this course students will explore the inner workings and internal components of a computer, computer basics and problem solving, coding, programming.

Available as a CAP College Course through NCCC- course fees apply. This course will be weighted at 1.07. Course offered every other year. Offered in the 2023-2024 school year.

Engineering

Electives:

Industrial Arts

Manufacturing

Energy & Transportation

Industrial Arts:

The Industrial Arts course selections must be taken consecutively and will make up 1 credit. Materials Processing and Principles of Engineering courses are combined as a full year course.

Industrial Arts

Course #90008

Grade: 10-12

Credits: 0.5

Length: 20 weeks

Prerequisite: DDP

Materials Processing is designed to expose students to industrial production of plastics, metals and lumber. Concepts to be explored will involve the design process, spatial relations, measurement, computer numeric controlled (CNC) programs, atomic structures, and production. Some projects in this course might include a cutting board, picture frame, chessboard, and plexi-glass book stand.

This course is offered every other year. Course will be offered in the 2023-2024 school year.

Principles of Engineering

Course #90009

Grade: 9-12

Credits: .05

Length: 20 weeks

Prerequisite: NONE

Principles of Engineering is a hands-on technology class in which students will be exploring science and math principles while forming social skills needed for life outside of school. Students learn about simple and advanced mechanics and the design and deconstruction of such machines, including a trebuchet/catapult and a mousetrap car. Students will explore areas such as: simple machines, energy and power, computer numeric control (CNC) programs and design. Students will use a variety of hand and power tools while maintaining safe shop management.

This course is offered every other year. Course will be offered in the 2023-2024 school year.

Energy & Transportation

Grade: 9-12

Length: 40 weeks

Course #90012

Credits: 1

Prerequisite: NONE

This course emphasizes the introduction to energy sources and supplies. It explored the following energy technologies: solar, wind, fossil fuels, nuclear fission, nuclear fusion, and geothermal energy. Types of energy conversion systems and energy conservation will be included. This course will also include a comprehensive study of today's transportation.

Transportation systems will be examined from three perspectives; land transportation, aerospace transportation and marine transportation.

Course offered every other year. Offered 2022-2023 school year.

Roy-Hart College Course Offerings:



Students enrolled in these courses will receive 1 credit for the course indicated on their high school transcript. To earn the college credit, students will be required to pay the college tuition. This tuition is a discounted rate that the college gives to high school students. Our Roy-Hart faculty work as adjunct professors and are able to teach college courses.

<u>Niagara University (NUSTEP):</u> Calculus 1 (MAT 111) Calculus 2 (MAT 112) Sociology 101 <i>* Taught in conjunction with Niagara University. Students will receive college credit hours upon successful completion of the course.</i> <i>*Undergraduate tuition fee is required to receive college credit.</i> <i>*Can be used towards a Baccalaureate degree at NU, or transferred to another college/university.</i>	<u>NCCC/ CAP (College Acceleration Program):</u> Adv. CAD US History College Biology College Calculus College Sociology (NU) DDP/Drafting/CAD DDP/Drafting/CAD Manufacturing Microcomputer Applications Music Theory Pre-Calculus Spanish IV & V Statistics ELA 12 <i>* NCCC/CAP tuition for these courses is handled through NCCC.</i>
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