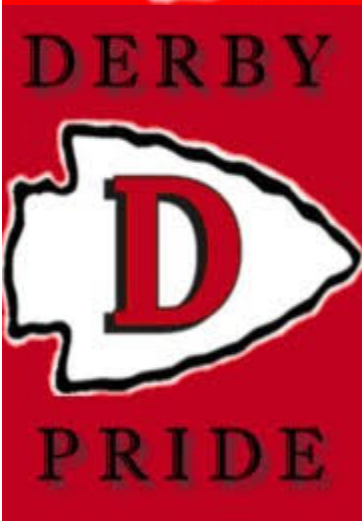


DERBY HIGH SCHOOL PROGRAM OF STUDIES



2020-2021

Derby Public Schools Core Values

Foster a culture of **GRIT**

All **STUDENTS MATTER**

Meaningful **RELATIONSHIPS MATTER**

Improvement is a **SHARED RESPONSIBILITY**

Learning & Growth are **SUPPORTED**

Youth and **DIVERSITY** are celebrated



Dear Derby High School Families,

Welcome to the 2020-2021 Program of Studies. This booklet has been prepared to help you choose a course of study for your high school years. Planning is an important part of a successful high school experience. We hope that you find it helpful in making informed decisions.

Derby High School provides you with a quality core curriculum in mathematics, English, social studies, and science. In addition, a wide range of courses are available in art, music, world language and career and technical education. Choosing appropriate courses based on your goals, skills, and interests are important in preparing you for your future beyond high school.

The 2020-2021 Program of Studies has several notable updates. New courses have been added in multiple departments. Students are now also able to earn physical education credit by competing in a varsity sport. The course selection process has also been updated for the 2020-2021 school year. Students will be selecting their courses online using PowerSchool instead of completing a paper course selection form. By moving the process online, students and their families will be more actively involved in selecting their courses and desired path of study. School counselors will be available throughout the process to help students and families as they navigate the online portal. Additional directions and information will be provided over the next few weeks.

For the 2020-2021 school year, Derby High School will continue to utilize a blended learning model for all students. Tools such as Google classroom, Google drive and Edgenuity will be used on a consistent basis in all curriculum areas. The expectation is that students are prepared for school each day with their fully charged Chromebooks.

Students: It is essential that you thoroughly review this booklet and discuss your options with your teachers, counselor and family. We strongly encourage you to think carefully about your choices. These courses become the foundation for future education and training that will support your goals. An important aspect of your high school education is to broaden your experiences beyond the classroom walls. We encourage you to become involved in co-curricular and extracurricular activities in both the high school and the community. Some of the many possibilities available to you include clubs, athletics, student government, the arts, and community service endeavors. All of these provide opportunities for you to pursue interests and make new friendships.

The administration, faculty and staff of Derby High School are here to provide you with the resources, support, and encouragement you will need to be successful.

Sincerely,

Martin Pascale

Principal



Counseling Department

75 Chatfield Street
Derby, Connecticut 06418

Dear Parent/Guardian,

We are excited to begin the course selection process with your son/daughter for the 2020-2021 school year! All students currently in grades 9-11 will receive specific instructions for choosing courses for the upcoming year and will obtain their course selection materials in their homeroom. The Program of Studies catalog is now available on Derby High School's website, and will allow you and your son/daughter to discuss what courses they would like to take for the next school year.

Once students receive their course selection sheets in their homeroom, they will pass it along to their core teachers for course recommendations. The students will also meet with their advisor and counselor to ensure that all elective areas are complete, and all graduation requirements are being fulfilled. Please note that graduation requirements have increased from 24 credits to 25 credits, beginning with the class of 2023. Earned credits necessary for grade promotion can be found on page 9 of this Program of Studies.

Once processed, your student's course requests will be available to view on the PowerSchool parent portal. Any changes or corrections must be brought to the attention of your student's counselor. Please note, these are course requests only and not actual schedules. There is no guarantee that all course requests will be met. We encourage all students and parents to contact their counselor for assistance if they have any questions about the most appropriate choices for next year. In addition, we always encourage students to seek out the most challenging courses available to them and in which they have the best chance to learn and succeed. Prospective colleges always prefer to see students enrolled in a schedule of courses that are strong in the core subject areas; above and beyond the minimum high school graduation requirements. It is very important that students spend quality time considering their options at this stage of the process so that they make the wisest choices, as it may not be possible for them to change those choices later.

You will be receiving frequent phone calls and emails to keep you abreast of the course selection process as it is taking place. We look forward to assisting students in making the best possible course choices for the coming year and we hope that you will contact us with any questions you may have!

Sincerely,

Jennifer Ostrosky

School Counselor

jostrosky@derbyps.org

Adam Baker

School Counselor

abaker@derbyps.org

Follow us on Twitter @DHSCounselors

Connecticut Common Core State Standards

On July 7, 2010, with a unanimous vote, the Connecticut State Board of Education (SBE) adopted new national academic standards known as the Common Core State Standards (CCSS) in English Language Arts and Mathematics that will establish what Connecticut's public school students should know and be able to do as they progress through Grades K-12.

Derby's Vision

Since the SBE's adoption of the Common Core, districts across Connecticut, including Derby, have begun implementation of the standards and made preparations for the next generation of assessments. In direct response to the Connecticut State Department of Education's revised strategic plan for implementation of the Common Core, which was presented to the SBE on December 5, 2012, the Derby School System has begun a process to prepare and align existing curriculum to the Common Core for grades K-12.

Assessments/ Measures of Academic Progress

For the 2020-2021 school year, students in grades 9, 10 and 11 will be taking the PSAT/SAT assessment. Students in grade 11 will be taking the Science portion of the NGSS test in the Spring of 2021. All students in grade 11 will be taking the SAT in the Spring of 2020. More information can be found at www.collegeboard.org The College Board offers a free practice site at <https://www.khanacademy.org/sat>.



PROGRAM OF STUDIES TABLE OF CONTENTS

Introduction to the Program of Studies	7
Course Selection Process	7
Diploma Requirements	9

Rank in Class – Quality Point Average	11
Schedule Changes	12
Non-discrimination Policy	13
Course Descriptions	15
Art	15
Business	16
English	18
World Language	21
Mathematics	23
Music	26
Physical Education/Health	27
Science	28
Social Studies	30
Technical Education	33
Online Courses	36

Derby High School

Introduction to the Program of Studies

TO THE STUDENTS

You have the responsibility of selecting your courses while at Derby High School. The counseling staff, the faculty, and the administration will do whatever they can to assist and guide you in your selections; however, you must realize that the selections you are making will affect your academic program of study and your future. Before you begin to select your courses, give some thought to the following questions:

1. How well have I done in school so far?
2. In what subjects have I been particularly interested?

3. What are my post-high school plans? How are these related to what I have done and will be doing while at Derby High School?
4. Have I looked into the process of college selection? Have I looked into the possibility of beginning my career after graduation from high school? Have I discussed these plans with my parents or guardians and with my school counselor?
5. What extracurricular interests do I have? How important are they in my total school program and career goals?

Some of these questions may be difficult to answer on your own. Make certain that you have talked with people who may be able to give help, such as your parents/guardians, teachers, counselor and representatives from college, business and industry. Be sure that you spend some time with your school counselor in working out the answers and in selecting your courses during the course of your high school years.

The program in the high school is designed to provide the foundational education every student needs and to offer specific subjects which meet some of your personal objectives. The eventual transition from school to career should be considered. Your ability, interests and future plans should serve as a guide in the selection of your courses.

COURSE SELECTION PROCESS

- Receive Program of Studies
- Read Program of Studies carefully
- Discuss options with parents, teachers, department coordinators and counselors
- Complete the Course Selection Sheet
- Get teacher recommendations
- Have teachers sign off on course selection
- Submit completed Course Selection Sheet to homeroom on time in order to ensure that you are able to obtain preferred courses.
- Parents can view course requests through the PowerSchool Parent Portal.

THE PROGRAM SELECTED NOW IS THE ONE YOU WILL BE EXPECTED TO FOLLOW DURING THE NEXT SCHOOL YEAR. MAKE YOUR CHOICES WISELY!!!!

COURSE PLANNING FORM

The following form is included to assist you in planning your four year program. Upperclassmen should use it to review previous courses and underclassmen should use it to project future courses. By utilizing this form you will make wiser decisions about your high school program. Students should select six courses at a minimum.

Grade 9	Grade 10	Grade 11	Grade 12
<i>Course Name</i>	<i>Course Name</i>	<i>Course Name</i>	<i>Course Name</i>
English			
<u>English I</u> -Honors (H) -College Prep (CP)	<u>English II</u> -Honors (H) -College Prep (CP)	<u>English III</u> -Honors (H) -College Prep (CP)	<u>English IV</u> -HCC Dual-Credit -Honors -College Prep (CP)
English electives are also available for students - please refer to the Program of Studies for additional English Department course offerings			
Math			
<u>Algebra I</u> -Honors (H) -College Prep (CP) <u>Geometry</u> -Honors (H)	<u>Geometry</u> -Honors (H) -College Prep (CP) <u>Algebra II</u> -Honors (H) -College Prep (CP)	<u>Algebra II</u> -Honors (H) -College Prep (CP) <u>Trigonometry</u> -College Prep (CP) <u>Statistics</u> -College Prep (CP) <u>Pre-Calculus</u> -Honors (H)	<u>Trigonometry</u> -College Prep (CP) <u>Statistics</u> -College Prep (CP) <u>Pre-Calculus</u> -Honors (H) <u>Calculus</u> -Advanced Placement (AP) -Honors (H) <u>General Applied Math</u> -College Prep (CP)
History			
<u>Modern World History</u> -Honors (H) -College Prep (CP)	<u>Civics</u> -Honors (H) -College Prep (CP) <u>U.S. Government and Politics</u> -Advanced Placement (AP)	<u>United States History</u> -Honors (H) -College Prep (CP) -Advanced Placement (AP)	Seniors have the option of enrolling in multiple history courses based on their chosen program path.
History electives are also available for students - please refer to the Program of Studies for additional History Department course offerings			
Science			
<u>Integrated Earth and Physical Science</u> -Honors (H) -College Prep (CP)	<u>Biology</u> -Honors (H) -College Prep (CP) <u>Anatomy and Physiology</u> -Honors (H)	<u>Chemistry</u> -Honors (H) -College Prep (CP) <u>Conceptual Chemistry</u> -College Prep (CP) <u>Anatomy and Physiology</u> -Honors (H) <u>Physics</u> -Honors (H)	<u>Chemistry</u> -Honors (H) -College Prep (CP) <u>Conceptual Chemistry</u> -College Prep (CP) <u>Anatomy and Physiology</u> -Honors (H) <u>Physics</u> -Honors (H)
Science electives are also available for students - please refer to the Program of Studies for additional Science Department course offerings			
World Language			
<u>Italian I</u> -College Prep (CP) <u>Italian II</u> -College Prep (CP) <u>Spanish I</u> -College Prep (CP)	<u>Italian II</u> -College Prep (CP) <u>Spanish II</u> -College Prep (CP)	<u>Italian III</u> -Honors (H) <u>Italian IV</u> -Honors (H) <u>Spanish III</u> -Honors (H)	<u>UCONN ECE Italian I/II</u> -ECE (Early College Experience) <u>Spanish IV</u> -Honors (H) <u>Spanish V</u>

<u>Spanish II</u> -College Prep (CP)		-College Prep (CP) <u>Spanish IV</u> -Honors (H)	-Honors (H) -Advanced Placement (AP)
<u>Health & Safety</u> -College Prep (CP)	<u>Physical Education</u> -College Prep (CP)	<u>Personal Fitness and Weight Training</u> -College Prep (CP)	
Electives			
Students will need to enroll in additional elective courses to satisfy their graduation requirements			

DERBY HIGH SCHOOL DIPLOMA REQUIREMENTS

The awarding of a Derby High School diploma is contingent upon a student completing and passing a minimum total of twenty-four (24) credits for the graduating class of 2020. Including the following mandatory requirements:

- a) English I, II, III, IV – 4 years/credits
- b) Mathematics – 3 years/credits
- c) Science – 3 years/credits
- d) Social Studies – 3.5 years/credits
 - (Includes ½ year Civics and one year of U.S. History)
- e) Physical Education – 1 total credit (.5 per semester)
 - (Waivers may be granted at the sole discretion of the Administration for extreme medical reasons or documented conditions)
- f) Health & Safety - 1 credit
- g) Fine Arts – .5 credit
 - (Includes courses in art or music)
- h) Practical Arts – 1 credit
 - (Includes courses in business, technical education or work experience)
- i.) World Language - No requirement for graduation, but taking three years of one language is recommended

Beginning with the graduating class of 2023, the following graduation requirements must be fulfilled

- (1) *nine credits in the humanities, including civics and the arts*
- (2) *nine credits in science, technology, engineering and mathematics*
- (3) *one credit in physical education and wellness*
- (4) *one credit in health and safety education*
- (5) *one credit in world languages*
- (6) *a one credit mastery-based diploma assessment.*

Students must complete a minimum of 25 credits in order to receive a diploma.

Students are reminded that, although admission requirements to college may differ widely, most colleges are highly competitive. Derby High School strongly recommends the following for all college-bound students:

- 4 years of English
- 4 years of mathematics
- 3-4 years of science
- 3-4 years of world language
- 3.5-4 years of social studies

The minimum number of earned credits necessary to enter each grade level:

- a. Grade 10 – 5 earned credits
- b. Grade 11 – 11 earned credits
- c. Grade 12 – 17 earned credits

For the Class of 2023 the following requirements will be followed:

The minimum number of earned credits necessary to enter each grade level:

- Grade 10 – 6 earned credits*
- Grade 11 – 12 earned credits*
- Grade 12 – 18 earned credits*

RANK IN CLASS – QUALITY POINT AVERAGE

The computation of rank in class is based on course levels and grades earned. Each course carries a weight value which is determined by the course's level of difficulty. The class rank will include all subjects except Pass/Fail courses. It will be determined at the end of junior year and again at the end of the 1st semester of senior year.

An example of the various levels associated with letter grades are illustrated below:

(Quality Points given)

Grade	AP/ECE	Honors	College Prep
95	16	14	12
85	14	12	10
75	12	10	8
65	10	8	6
0-64	0	0	0

Interpretations of Course Levels

(AP) Advanced Placement: College level courses

(ECE) Early College Experience: College level courses; Earn credits from the University of Connecticut

(HCC) Housatonic Community College Courses: Students earn credit from HCC and Derby High School

(H) Honors: Advanced work beyond grade level with focus on critical and higher thinking orders

(CP) College Prep: Advanced work at grade level designed to prepare the student for college level courses

Honors Courses: Students who maintain an **83** average in current course work can be recommended for the subsequent honors course.

Students who do not meet the criteria above but still want to enroll in an honors level class will need to complete the Derby High School Course Waiver Form. Any student wishing to take an honors class who is currently enrolled in a college prep level class, must have a 93 or above average. Placement in levels is determined by the administration, faculty, and counseling department based on the student's ability as identified in the student's prior class performance, achievement and test scores.

Grading: The grading system for all students and all courses is a numeric grade system from 0 to 100. The minimum passing grade to earn a full year or semester credit is 65. A final year end or semester grade of less than 65 will not earn credit.

A summer program may be recommended for students who fail a subject with a grade average no lower than 10 points below the minimum passing grade or no more than 20 points below the minimum passing grade with a teachers recommendation (i.e. 65 passing, 55 eligibility for summer program, or 65 passing, 45 eligibility with teacher recommendation).

CHANGES IN STUDENT SCHEDULES

You will select courses in the early spring of each year for the following academic year. You must keep in mind that this selection represents a *final choice of courses*, with some exceptions:

1. If you have completed satisfactorily a summer school study of courses which were failed or incomplete in June, then you may apply for a program change during the summer.
2. If your educational objectives have been altered significantly, then an individual interview with a counselor before the opening day of school may result in a recommendation for change.

- **Any student request for program changes must be accompanied by a letter from the student as well as the student’s parent and/or guardian indicating approval of such requests.**

Protocol for adding/dropping a course:

1. Students will be given an option to add or drop a course until **two weeks** into the semester.
2. Counselor will check for space availability.
3. Counselor will give the student a Schedule Change Form with a directive that the form must be returned by the next day with the teacher and parent/guardian signature indicating approval.

** Teachers should be made aware that if a student’s name appears on their class roster, they are responsible for that student. DO NOT assume that a course change has occurred because a student has expressed an interest in dropping. The ADDING teacher should sign first. The DROPPING teacher should not sign unless the adding teacher’s signature is on the form.

** Any further schedule changes after the two week period (the withdrawal deadline) require a request in writing from the student as well as the student’s parent or guardian indicating approval of such requests. Final decision will be made by the administration.

** Requests that involve a LEVEL CHANGE require completion of the **Request for Change of Program and the Schedule Change Form**. Any student request for program changes must be accompanied by a letter from the student as well as the student’s parent or guardian indicating approval of such requests. The final decision will be made by the administration.

GRADING PROCEDURE FOR DROPPED COURSES

Deadline for Dropping a Course:

0.5 and 1.00 accredited courses - End of the first marking period

- A student who withdraws from a course with a passing grade after the course withdrawal deadline has passed will receive a “WP”, which will appear on the student’s permanent record and transcript.
- A student who withdraws from a course with a failing grade after the course withdrawal deadline has passed will receive a “WF”, which will appear on the student’s permanent record and transcript.
- If a student drops a course prior to the withdrawal deadline, the course will not appear on the student’s transcript or permanent record.
- We do not allow courses to be audited once a student has been registered for the class.

Policy on Waivers of Level:

Derby High School recognizes the right of a parent/guardian to appeal a student’s recommended level or course. Should a parent/guardian choose to do so, he/she should contact the student’s school counselor who will provide the appropriate forms to complete. A conversation with the department coordinator of the subject area is required prior to the level change. Students who waive

into an Honors/Advanced Placement course will be expected to produce the same quality of work as the rest of the class.

Sports Eligibility:

The Connecticut Interscholastic Athletic Association (CIAC) mandates that all students, in order to be eligible for athletics, pass at least four full-time courses for the quarter prior to the start of the season and during any given season. At Derby High School, students must earn a minimum of a 65 in order to be considered passing. Incompletes are not considered passing. Please see Student Handbook and Student-Athlete Handbook for further information regarding CIAC athletic eligibility and academic eligibility for the NCAA Clearinghouse.

Independent Study:

Independent Study in any subject area requires prior approval of the department coordinator and the administrative team. Independent study projects may not be used for meeting departmental requirements for graduation except in most unusual circumstances with approval of the Principal.

NON-DISCRIMINATION POLICY:

The Derby Public Schools does not discriminate against students, parents, guardians, or employees on the basis of race, national origin, religion, sex, age, or mental or physical disability. If any student, parent, guardian, or employee feels aggrieved by the school district or its agents or employees, a complaint may be filed with: Stacey McCourt or James Nichols, Compliance Officers, Central Office, 35 Fifth Street, Derby, CT 06418, Telephone: 203-736-5027. This policy is required in order to receive funds for Applied Education Programs.

POLITICA CONTRA LA DISCRIMINATION:

Las escuelas públicas de Derby no discriminan contra alumnos, padres, guardians, empleado, a causa de raza, origen nacional, religión, sexo, edad o incapacidad física. Si alguno alumno, padre, guardián, o empleado cree que hay la discriminación contra sí de la administración de las escuelas, de sus agentes, o de sus empleados, se puede quejar con la siguiente persona: Stacey McCourt or James Nichols, Central Office, 35 Fifth Street, Derby, CT 06418, telephone: 203-736-5027. Esta política es necesaria para recibir fondos para Programas Aplicado de La Educación.

***Note: Courses are offered on the basis of enrollment and staff availability.**



INTRODUCTION TO ART (CP)

GRADE 9-12

.5 credit

Course #1811

This is a basic course that introduces the student to different materials and methods of artistic expression through 2D or 3D artwork. The elements and principles of design, drawing, and painting are all introduced and explored.

ADVANCED ART I (H)

GRADE 10-12

.5 credit

Course # 1825

This course is intended for motivated students committed to serious study of studio art, building on the Elements and Principles of Design previously learned in Introduction to Art. Students will explore advanced techniques in two-dimensional and three dimensional art using mixed media. Problem solving that focuses on approaches to art processes, written and/or oral critiques and reflection of results is expected. Emphasis of this course is on quality of work, concentration in a particular artistic concept, developing a body of related works based on a personal idea or theme. The resulting portfolio will show evidence of artistic development and creation of an individual series or body of work for each student. **Prerequisite: Introduction to Art**

ADVANCED ART II (H)

GRADE 10-12

.5 credit

Course #

This course is a continuation of Advanced Art I. Students will have the opportunity to continue developing their artistic skills in chosen mediums. The resulting portfolio will show evidence of artistic development and creation of an individual series or body of work for each student. **Prerequisite: Introduction to Art, Advanced Art I**

SCULPTURE I (CP)

GRADE 9-12

.5 credit

Course #1820

This course explores three-dimensional design. The student will use clay and various other media to gain knowledge of three dimensional forms and sculpture.

DRAWING AND PAINTING (CP)

GRADE 10-12

.5 credit

Course #1831

The student will use different types of painting and media techniques to explore a range of creative expression. Painting theories and techniques will be studied through various projects. The student will use watercolors, acrylic and oil pastels for their work. **Prerequisite: Introduction to Art**

GRAPHIC DESIGN (CP)

GRADE 10-12

.5 credit

Course #1891

This course focuses on the history, industry and application of graphic design. This course requires computer skills for digital work and traditional art skills for studio components. Students are expected to have an understanding of the basic art elements and principles. **Prerequisite: Introduction to Art**

DESKTOP PUBLISHING/YEARBOOK (CP)**GRADE 11-12****1 credit**

Course #1890

The students in this course will learn the basics of desktop publishing while creating this year's yearbook, *The Lookout*. Some knowledge of computer skills and word processing is recommended.

Prerequisite: Instructor's recommendation**DIGITAL PHOTOGRAPHY (CP)****GRADE 9-12****.5 credit**

Course # 1893

This course focuses on the use of basic digital photography and photographic manipulation techniques. Beginning with the basic camera functions, and through a variety of assignments, students will learn the basics of composition to enhance their own photographic style. An understanding and critique of the basic art elements and principles is expected. Students must provide their own camera for this course.

Prerequisite: Introduction to Art**ADVANCED DIGITAL PHOTOGRAPHY (H)****GRADE 10-12****.5 credit**

Course # 1897

This course builds on the skills and Elements and Principles of Design already mastered in Digital Photography; utilizing a more in-depth approach to editing, and other advanced photographic techniques. Students will continue digital capture and image processing on the computer, learn to create stronger and more interesting compositions using digital media, create a portfolio of images that relate to a common theme or purpose as well as showcase their photographs on a website or on other internet resources, while participating in on campus or off campus shows, competitions or activities. Acquisition of necessary language, critical thinking and analytical skills to communicate their ideas to others about the photographic medium is expected.

Prerequisite: Digital Photography**BUSINESS****ACCOUNTING I (CP)****GRADE 10-12****1 credit**

Course #2621

This course provides the basic principles, concepts, and procedures of accounting. Students experience the systematic flow of business operations through the use of a simulation practice set. They learn how to use journals, ledgers, and checking accounts. Students will learn the basic preparation of financial statements. A computer software program is used as a supplement to enhance the program.

ACCOUNTING II (CP)**GRADE 11-12****1 credit**

Course #2631

This course is designed for students interested in accounting as an occupation or those planning to major in accounting or business administration in college. Students study payroll registers, partnerships, and corporations as well as analyze and interpret business reports and records.

Prerequisite: Teacher Recommendation

**FINANCIAL LITERACY: BANKING & BUDGETING
(previously PERSONAL FINANCE MANAGEMENT) (CP)**

GRADE 9-12

.5 credit

Course #2649

Financial Literacy: Banking & Budgeting is a half-year course that will introduce students to the world of money management. They will learn what to do with their money by learning about their financial options and responsibilities and the consequences of mismanaged finances allowing them to achieve the tools for financial independence. Topics covered include: taxes, saving and investing, checking accounts, and budgeting.

FINANCIAL LITERACY: CREDIT & INSURANCE

GRADE 9-12

.5 credit

Course #

Financial Literacy: Credit & Insurance is a half-year course designed to introduce students to the world of money management. They will learn what to do with their money by learning about their financial options and responsibilities and the consequences of mismanaged finances allowing them to achieve the tools for financial independence. Topics covered include: types of credit and managing credit, paying for college, insurance, behavioral finance, and financial pitfalls.

COOPERATIVE WORK EXPERIENCE (CP)

GRADE 11-12

1 credit

Course #2651

The Cooperative Work Experience Program (CWE) is designed to equip juniors and seniors with real world occupational skills necessary to be successful in the 21st century workplace. Opportunities are provided for students to combine comprehensive classroom instruction with paid-on-the-job experience. The course consists of topics such as career exploration, obtaining workplace readiness skills, utilizing technology, understanding and working with cultural differences, as well as development of critical thinking and effective interpersonal communication skills.

ENTREPRENEURSHIP (CP)

GRADE 11-12

1 credit

Course #2660

This course is designed to introduce the student to the organization, design, marketing, production, transportation, and communication systems used to operate an entrepreneurial business endeavor, in this case our school company, Big Red Productions. The company/students of Big Red Productions will conduct market research to sell 2-3 products over the course of the school year. **Prerequisite: Teacher recommendation, and at least one of the following: Accounting, Financial Literacy, Personal Finance, or Business Management**



ENGLISH

English I Course Description

Dedicated to creating effective and adaptable readers and writers, English I provides rigorous training in the foundations of English Language Arts skills and strategies. Using the core foundation, the course expands on and applies traditional concepts to modern, 21st-century demands. Offering practical lessons in techniques such as visualizing, making inferences and predictions, and

recognizing organizational patterns in online and offline texts. This course delivers hands-on training in applying the writing process, evaluating essays, and using MLA style and documentation. Over the course of two semesters, interactive grammar lessons will strengthen students' grasp of language and improve writing skills.

ENGLISH I (H)

GRADE 9

1 credit

Course #3111

English I (H) is a course for students of exceptional ability and motivation. The course consists of a sequential grammar, writing, and literature curriculum aimed at developing specific skills.

ENGLISH I (CP)

GRADE 9

1 credit

Course #3112

This is a traditional course for students who are college bound or who intend to enroll in other post graduate programs. The program includes a complete review of fundamentals of grammar and writing. As well, students will be introduced to the notions of reading for enjoyment and oral discussion.

English II Multicultural and Historical Literature- Course Description

Focused on application, this sophomore English course reinforces literary analysis and 21st-century skills with selections of literature and literary nonfiction, application e-resources, and educational interactives. Each thematic unit focuses on a specific historical period or culture identity. In addition to literary analysis, students study and apply vocabulary and grammar rules to enhance reading understanding and writing techniques.

ENGLISH II (H)

GRADE 10

1 credit

Course #3121

This course will focus on the advancement of critical writing skills through literary interpretation and comprehension. Competence in advanced writing assignments, independent reading, and increased difficulty are a part of this course.

ENGLISH II (CP)

GRADE 10

1 credit

Course #3122

This is a course for the college-bound student providing further practice in correct grammar usage, vocabulary, and its application to student writing. Students are expected to begin developing an understanding and appreciation for the various types of literature that exist.

English III Course Description

This junior-year English course invites students to delve into American literature from early American Indian voices through contemporary works. Students will engage in literary analysis and inferential evaluation of great texts, the centerpieces of this course. While critically reading fiction, poetry, drama, and expository nonfiction, students will master the comprehension and literary analysis strategies that the Common Core State Standards require. Interwoven in the lessons across two semesters are tasks that encourage students to strengthen their oral language skills and produce

creative, coherent writing. Students will read a range of short but complex texts. (from Edgenuity.com)

ENGLISH III (H)

GRADE 11

1 credit

Course #3131

This course offers an intensive approach to American literature interpretation and textual analysis. Students will be expected to develop a critical understanding for required texts and also formulate appropriate interpretations from literary devices used in the text. Writing assignments will be assigned frequently and completion of independent reading is mandatory.

ENGLISH III (CP)

GRADE 11

1 credit

Course #3132

This course emphasizes advanced writing skills and projects for the average-to-high ability academic student. Completed assignments will be evaluated for textual understanding and writing competency. Students will be expected to interpret American literature and express their views through written and oral responses.

English IV Course Description

This required senior-level English course incorporates all the skills that have been developed in prior English courses, which is intended to enhance writing and preparation for college-level courses. In addition to reading and writing at an advanced level, students will engage in the art of public speaking. All seniors will produce a final senior footprint project at the end of the 2nd semester. This footprint will be a collaboration of both video production and a written response. The senior footprint will not replace the final exam.

ENGLISH IV (H)

GRADE 12

1 credit

Course #3141

This is a reading, writing, and speaking intensive course that will prepare students for the challenges on the collegiate level. The written assignments and expectations will focus heavily on the analytical approach to understanding. Independent and group speaking presentations are required throughout the year-long course. Assignments are expected to be completed at a high level of competency and expected to consist of independent thoughts and views. Students who have a qualifying score on the SAT or Accuplacer Test will have the opportunity to take this course for dual-credit awarded by Housatonic Community College.

ENGLISH IV LITERATURE AND COMPOSITION (CP)

GRADE 12

1 credit

Course # 01004

This is a reading and writing intensive course that will prepare students for the challenges they will face in the areas of literature and composition at the college level. The assignments and expectations will focus on the analysis and critique of literature as well as the following writing skills: synthesis of evidence and reasoning, grammar and spelling, organization, and language use. Assignments are expected to be completed at a high level of competency and expected to consist of independent thoughts and views.

English Electives

CONTEMPORARY LITERATURE (CP)

GRADE 12

.5 credit

Course # 01062

Students will focus their attention on contemporary works that deal with the daily “routine” of being a young adult. The class will examine the representation of young adults within society and the way they are perceived by the general public. This class will be reading and writing intensive.

JOURNALISM (CP)

GRADE 11-12

.5 credit

Course #

This course examines the five principles of journalistic writing: investigative, news, reviews, columns, and feature writing. Students will read, watch, and analyze different media to understand these five principles. Then students will be responsible for creating, writing, and distributing a bi-weekly school newspaper and also deliver the daily school announcements.

CREATIVE WRITING (CP)

GRADE 11-12

.5 credit

Course #

In Creative Writing, students will read, write, and discuss short stories, essays, flash fiction, memoir, poems, and various other literary genres. The work read in class functions as an exemplar for mastery in a given style. Analysis of exemplar work serves the creation of criteria. Students should consider these criteria as they create original work in the same genre, and as they evaluate the work of their classmates. As this is a writing class, teaching and learning emphasize writing, critique, and workshop. This focus is what distinguishes creative writing from traditional English writing assignments; the teacher evaluates students based on their adherence to and active participation in the three phases outlined above. The process of writing, critique, and workshop is consistent with creative writing classes at the college and graduate levels. So, the goal is to prepare students of English - those with an affinity for literary analysis and the written word - for similar coursework they will encounter beyond high school.

PUBLIC SPEAKING (CP)

GRADE 11-12

.5 credit

Course #

This course focuses on the development and improvement in the skill of public speaking through study of theory and practice. This course aims for students to plan, prepare, and deliver speeches and to improve voice, presence, and enunciation. Students will analyze and evaluate famous speeches, their peers’ speeches, and their own speeches.



HUMANITIES

HUMANITIES

GRADE 11-12

1 credit

Course #01055

This course examines and evokes student responses to human creative efforts and the world in particular historical periods and in particular cultures. Course content includes exploration, analysis, synthesis, and various responses to cultural traditions, including viewing, listening, speaking, reading, writing, performing, and creating. The courses may also examine relationships among painting, sculpture, architecture, and music.



WORLD LANGUAGE

SPANISH

SPANISH I (CP)

Course #4315

This is a beginning course for those who have never studied the language. This course stresses four skills: listening, speaking, reading, and writing with the goal of striving towards proficiency in communication.

GRADE 9-12

1 credit

SPANISH II (CP)

Course #4325

This course is a continuation of Spanish I. The same skills are stressed with the goal of improving proficiency in communication. This course is conducted in Spanish according to the ability of the students.

GRADE 9-12

1 credit

SPANISH III (CP)

Course # 4336

This course is a continuation of Spanish II. The same skills are stressed with the goal of improving proficiency in communication. This course is conducted in Spanish according to the ability of the students.

GRADE 10-12

1 credit

SPANISH III (H)

Course #4335

This course promotes advanced development of the four skills and advanced grammar. Students will read short stories on the culture of Spain and/or Latin America. Students also prepare original compositions and informal talks in Spanish.

GRADE 10-12

1 credit

SPANISH IV (H)

Course #4345

This course offers advanced reading, writing, listening, and speaking experiences for students who wish to develop and maintain a level of proficiency in the Spanish language. This course is conducted exclusively in Spanish and includes units on Hispanic culture.

GRADE 11-12

1 credit

SPANISH V (H)

Course #06105

The new course will be called Spanish Culture and Conversation. This course will emphasize the assessment of Spanish grammar and connect it with real life Spanish Conversations. It will also incorporate Art, Science, History with more concentration on all the Spanish Countries.

GRADE 11-12

1 credit

SPANISH (AP)

Course #4348

GRADE 9-12

1 credit

This course is designed for students who have demonstrated high ability and interest in Spanish. In addition to stressing oral proficiency and writing through Spanish literature and contemporary issues, the course includes a thorough review of grammar and vocabulary.



ITALIAN

ITALIAN I (CP)

GRADE 9-12

1 credit

Course #4551

This introductory course stresses the four skills of listening, speaking, reading and writing. Verb tenses include the present with an introduction to the past tense with the goal of personal expression. The students will be able to read simple passages and communicate regarding simple topics pertaining to life.

ITALIAN II (CP)

GRADE 9-12

1 credit

Course #4552

Students continue their study of Italian grammar and further develop their oral skills, comprehension, and vocabulary. The emphasis is on speaking, but students will write some short compositions and give one oral presentation in Italian. The course is conducted in Italian according to the ability of the students.

ITALIAN III (H)

GRADE 10-12

1 credit

Course #4553

Italian III continues the student's development of listening and speaking skills and reviews more difficult aspects of the Italian language. Longer and more challenging narratives are employed to increase the use of grammar and to enhance vocabulary skills. Greater weight is placed on oral proficiency and pronunciation. Additional material on Italian culture, geography, and history is introduced into the curriculum.

ITALIAN IV (H)

GRADE 11-12

1 credit

Course #4554

Italian IV refines the study of the Italian language and culture. This course emphasizes the spoken language, with use of all of the major tenses. Practice in composition with intensive grammar and syntax review is included, as well as idiomatic use of Italian as it applies to the written and spoken language.

UCONN – ILCS 3239: Italian Comp/Conversation I

1 Credit/3 UCONN ECE credits

Course #4555

This course is designed to develop a student's fluency and spontaneous expression in the language through a combination of oral and written exercises. Class activities and discussions will be geared toward effective communication and the reinforcement of grammatical and lexical skills. Students will be assigned short compositions and oral presentations on a great variety of topics of general interest.

UCONN – ILCS 3240: Italian Comp/Conversation II

.5 Credit/3 UCONN ECE credits

Course #4556

This course is a continuation of ILCS 3239. Further development of oral and written skills to achieve a higher degree of proficiency will be addressed. Students will be assigned longer compositions.

This course will offer intensive training in oral expression in order to develop abilities in everyday spoken communication with a strong emphasis given to vocabulary and oral proficiency.

Prerequisite: ILCS 3239: Italian Comp/Conversation I



MATHEMATICS

Algebra I Course Description

This course begins with a brief review of what students should already know about linear equations, with a focus on analyzing and explaining the process of solving equations. Students develop a strong foundation in working with linear equations in all forms, extending solution techniques to simple equations with exponents. Students explore functions, including notation, domain and range, multiple representations, and modeling. Through the comparison of linear and exponential functions, students contrast the concepts of additive and multiplicative change. Students then apply what they have learned to linear models of data, analyzing scatter plots and using lines of best fit to apply regression techniques. The course closes with an exploration of rational exponents, quadratic and exponential expressions, and an introduction to nonlinear functions, with a heavy emphasis on quadratics. (from Edgenuity.com)

ALGEBRA I (H)

GRADE 9

1 credit

Course #8410

This honors level course is designed for advanced math students. This course covers such topics as functions, graphs, solving equations and inequalities, exponents, factoring, solving systems of equations, radical expressions and rational expressions. This course will prepare students for higher level math and science courses. **Prerequisite: Recommendation of 8th Grade teacher and review of PSAT scores in Math**

ALGEBRA I (CP)

GRADE 9

1 credit

Course #8411

This course is designed for math students who have mastered the fundamentals of mathematics and problem solving. This course includes: solving equations, graphing linear equations and inequalities and systems, applying statistics, exploring polynomials, factoring, applying proportional reasoning, exponents, roots and radical expressions and equations. PSAT/SAT preparation is woven into the curriculum. This course will prepare students for higher level math and science courses.

GEOMETRY (H)

GRADE 9-10

1 credit

Course #8421

This honors level course is designed for advanced math students. It differs from College Prep Geometry in its approach, content, and level of difficulty. Proofs are a major part of the course combined with extensive coverage of such topics as circles, right triangles, triangle inequalities, measurement, points of concurrence, polygons, similarity, and an introduction to trigonometry. Solid topics are discussed throughout the course. Algebraic concepts are reinforced. **Prerequisite: Algebra I**

GEOMETRY (CP)

GRADE 9-10

1 credit

Course #8422

This course addresses the essentials of plane geometry: proofs, rectilinear figures, the circle, similar polygons, areas and volumes of polygons, regular polygons, and introduction to trigonometry. Solid topics are discussed throughout the course. Algebraic concepts are reinforced. **Prerequisite: Algebra I**

Algebra II Course Description

This course focuses on the four critical areas of the Common Core model pathway for Algebra II: functions, polynomials, periodic phenomena, and collecting and analyzing data. The course begins with a review of linear and quadratic functions, to solidify a foundation for learning these new functions. Students will make connections between verbal, numerical, algebraic, and graphical representations of functions and apply this knowledge as they create equations and inequalities that can be used to model and solve mathematical and real-world problems. As students refine and expand their algebraic skills, they will draw analogies between the operations and field properties of real numbers and those of complex numbers and algebraic expressions. The Common Core practice standards are embedded throughout the course, as students solve novel problems, reason abstractly, and think critically. (from Edgenuity.com)

ALGEBRA II (H)

GRADE 10-11

1 credit

Course #8431

Algebra II Honors explores the following topics in depth: fundamental operations, factoring, fractions, linear equations with one unknown, linear systems, determinants, square roots, exponents, radicals, functions and graphs, quadratic equations, higher order inequalities, systems solvable by quadratics, the binomial theorem, logarithms, conic sections, introduction to trigonometry, and complex numbers. Graphic representation and problem solving are emphasized throughout. **Prerequisite: Algebra I and Geometry**

ALGEBRA II (CP)

GRADE 10-11

1 credit

Course #8432

This is a traditional college preparatory second year algebra course designed to prepare students for the SAT and higher level mathematics courses including Pre-Calculus, Statistics, and/or Trigonometry. Topics include: solving and graphing linear and quadratic equations and inequalities, identifying and graphing conic sections, working with exponents and solving exponential equations, applying concepts of the Real and Complex number systems, Trigonometry, and making real world connections and applications using these tools. Graphic representation and problem solving are emphasized throughout. **Prerequisite: Algebra I and Geometry**

TRIGONOMETRY (CP)

GRADE 11-12

.5 credit

Course #8440

Topics are trigonometric functions, the unit circle, trigonometric ratios, use of tables, inverses, trigonometric identities, Law of Sines and Cosines, and graphical representations. Emphasis is on application and thought processes. This course is appropriate for students planning a technical career.

Prerequisite: Algebra II

STATISTICS (CP)

GRADE 11 – 12

.5 credit

Course # 8443

Students explore data, work with normal distribution, standard deviation, variance, examine relationships and simulate experiments. Probability models, probability laws, Venn diagrams, combinations, permutations, random variables and distributions are studied along with tests of significance.

Prerequisite: Algebra II

PRE-CALCULUS (H)

GRADE 11

1 credit

Course #8441

Contents include definitions and algebra of functions, polynomials, exponents, logarithmic functions, trigonometric functions including polar coordinates and complex numbers, inductive proofs, arithmetic and geometric progressions and series. Graphic representation and application problems are included. **Prerequisite: Algebra II**

PRE-CALCULUS (CP)

GRADE 11

1 credit

Course #844

Contents include definitions and algebra of functions, polynomials, exponents, logarithmic functions, trigonometric functions including polar coordinates and complex numbers, inductive proofs, arithmetic and geometric progressions and series. Graphic representation and application problems are included. **Prerequisite: Algebra II**

CALCULUS (H)

GRADE 12

1 credit

Course # 8450

This is an introductory course in differential and integral calculus with strong emphasis on applications to the field of business, social science and life science. Topics covered include functions, limits, rates of change, differentiation, maxima and minima problems, integration techniques, and applications. There is extensive use of the graphic calculator in this course. **Prerequisite: Pre-Calculus.**

CALCULUS (AP)

GRADE 12

1 credit

Course #8451

This topics of this full year course includes: limits, derivatives as limits, derivatives of algebraic functions, continuity applications of the derivative of algebraic functions, differentiation of non algebraic functions, development of the integral by upper and lower Riemann sums, integration rules for algebraic functions, area under a curve, the first and second fundamental theorems of Calculus, applications of the definite integral, and methods of the integration and infinite series. **The College Board Advanced Placement test is mandatory.**

**GENERAL APPLIED MATH (CP)
credit**

GRADE 12

1

Course #02151

Math courses emphasize the teaching of mathematics as problem solving, communication, and reasoning, and emphasize the connections among mathematical topics and between mathematics and other disciplines. General applied math focuses on topics such as: algebra, functions, geometry, trigonometry, statistics and probability, discrete mathematics, and the conceptual underpinnings of calculus and mathematical structure.

SAT PREPARATION - MATH (CP)

GRADE 11-12

.5 credit

Course #

This course will review the concepts and testing strategies that the PSAT and SAT focus on. Math skills specific to the four focus areas which are addressed on the exams will be further examined.



BAND (CP)

GRADE 9-12

1 credit

Course #1816

Band offers students the opportunity to study instrumental music in a group setting. There are several required performances throughout the year. Students learn proper instrumental techniques, harmony and theory, and performance practices. As this is a performance based course, after school commitment is required. This course is open to all students; no prior experience is required.

BAND (H)

GRADE 9-12

1 credit

Course #

Students wishing to take on added challenges and responsibilities have the option to take band at the honors level. This class meets during regular band. Honors students must complete additional requirements as determined by the teacher. **Prerequisite: Teacher's Recommendation**

CONCERT CHOIR (CP)

GRADE 9-12

1 credit

Course #1814

Concert choir offers students the opportunity to study vocal music in a group setting. There are several required performances throughout the school year. Students learn proper vocal techniques, harmony and theory, and performance practices. As this is a performance based course, after school commitment is required. This course is open to all students; no prior experience is required.

CONCERT CHOIR (H)

GRADE 9-12

1 credit

Course #1812

Students wishing to take on added challenges and responsibilities have the option to take choir at the honors level. This class meets during regular choir. Honors students must complete additional requirements as determined by the teacher. **Prerequisite: Teacher's Recommendation**

MUSIC APPRECIATION (CP)

GRADE 9-12

.5 credit

Course # 1837

This course is designed for students with no previous music experience. We will focus on topics in popular music: popular artists and their inspirations, the Billboard Music Charts, the Grammy Awards, copyrighting, and other topics relevant to music today.



PHYSICAL EDUCATION/HEALTH

PHYSICAL EDUCATION (CP)

GRADE 10-12

.5 credit

Course # 5921

The physical education program focuses on activities and instruction that promote beneficial physical fitness habits, group interaction and team-building skills through a sequential program of sport, leisure and recreational activities. Students are instructed in the necessary skills in order to participate in a variety of physically related experiences, which are socially sound, physically wholesome and provide

lifetime benefits. Activities offered are touch football, badminton, track and field, softball, fitness, pickleball, volleyball, indoor and outdoor soccer, floor hockey, team handball, basketball and aerobics.

For the 2020-2021 school year, students can fulfill .5 of their physical education credit by participating in a varsity sport.

Derby High School – Alternative Credit Physical Education

Derby High School student-athletes can earn .5 physical education credit by completing a full season of a varsity sport. Any varsity sport offered at DHS and recognized by the CIAC as a sanctioned sport will qualify for credit. Students competing as a “team of one” at another CIAC recognized school will also qualify. Credit will be awarded as a “pass credit”, not a letter grade.

Student-athletes will qualify for physical education credit by meeting the following requirements:

1. Students must participate in a minimum of 80% of athletic contests and practices (“participation” will include being dressed for a varsity contest).
2. Students must be in good academic standing throughout the entire season of the sport. Students who find themselves academically ineligible will not qualify for physical education credit.
3. Students who wish to apply for the alternate physical education credit will need to complete the Alternate Physical Education Application. This form must be signed by the student, parent/guardian and head coach. Form should then be submitted to the student’s guidance counselor for review.
4. Students will need to complete a physical education written assessment scoring a 70% or better.
5. Students will need to complete a performance exam demonstrating mastery in two of the four assessments (student will need to meet the mastery standard as outlined by the state department of education):
 - P.A.C.E.R. Test/Mile Run
 - Flexibility (Sit and Reach)
 - 90 Degree Push-Up
 - Curl Up

HEALTH AND SAFETY (CP)

GRADE 9

1.0 credit

Course # 08051

This is a required course of study for graduation. This course is intended to build upon and expand student knowledge of physical, emotional and mental health issues. This year-long course will cover human growth and development, nutrition, first-aid, disease prevention, community and consumer health, substance abuse prevention, safety, accident prevention and suicide prevention. The curriculum addresses knowledge, attitude and skill development and provides opportunities for students to practice skills that promote lifelong health and well-being.

PERSONAL FITNESS AND WEIGHT TRAINING I

GRADE 10-12

.5 credit

Course # 08005

This combined health and PE course provides students with essential knowledge and decision-making skills for a healthy lifestyle. Students will apply principles of health and wellness to their own lives. This course is also designed to provide students with the basic skills and information needed to begin a personalized exercise program and maintain an active and healthy lifestyle. Throughout this course students establish their fitness level, set goals, and design their own resistance training program. They study muscular anatomy and learn specific exercises to strengthen each muscle or muscle group. They also gain an understanding of how to apply the FITT principles and other fundamental exercise principles, such as progression and overload, to strength training. Students participate in pre- and post-fitness assessments in which they measure and analyze their own levels of fitness based on the five components of physical fitness: muscular strength, endurance, cardiovascular fitness, flexibility, and

body composition. In this course, students research the benefits of physical activity, as well as the techniques, principles, and guidelines of exercise to keep them safe and healthy.

PERSONAL FITNESS AND WEIGHT TRAINING II

GRADE 10-12

.5 credit

Course #

This course is a continuation of Personal Fitness and Weight Training I. Students will further develop their knowledge and understanding of weight training principles.



INTEGRATED EARTH AND PHYSICAL SCIENCE (CP)

GRADE 9

1 credit

Course Number # 9512

This course follows the NGSS (Next Generation Science Standards) for Grade 9 students. Students will explore the following topics: Using Waves to Understand the Universe, Planetary Motion, the Earth's Interactions, Global Climate Change and the Impacts of Earth's Resources. This course will follow an academically rigorous curriculum which is aligned with NGSS.

INTEGRATED EARTH AND PHYSICAL SCIENCE (H)

GRADE 9

1 credit

Course Number #9510

This course follows the NGSS (Next Generation Science Standards) for Grade 9 students. Students will explore the following topics: Using Waves to Understand the Universe, Planetary Motion, the Earth's Interactions, Global Climate Change and the Impacts of Earth's Resources. This course will follow an academically rigorous curriculum which is aligned with NGSS. This course will culminate with a year-end research project.

BIOLOGY/LAB (CP)

GRADE 10

1 credit

Course #9522

This introductory course of Biology is a yearlong survey of such topics as cellular biology, biochemistry, taxonomy, evolution, botany, as well as traditional and applied genetics. Student centered activities are included to support the study of these areas.

BIOLOGY/LAB (H)

GRADE 10

1 credit

Course #9521

This introductory course of Biology is a yearlong survey of such topics as cellular biology, biochemistry, taxonomy, evolution, botany, as well as traditional and applied genetics. Student centered activities are included to support the study of these areas.

ANATOMY AND PHYSIOLOGY/LAB (H)

GRADE 10-12

1 credit

Course #9524

This course covers the structure and function of the human body. The overall content of the course is a detailed study of the major systems of the human body. Appropriate laboratory work is provided. The course is especially recommended for students interested in nursing, health, or medical careers.

PHYSICS/LAB (H)

GRADE 11-12

1 credit

Course #9541

This course is recommended for students planning careers in Mathematics, Science, Engineering, or Technology. Contents include a study of mechanics of speed; laws of motion; friction; vector analysis; temperature and thermometry; sound; electricity and electronics; light; magnetism; and nuclear energy. It is accompanied by related laboratory work. **Prerequisites: Algebra II, Geometry, Honors Biology & Honors Chemistry**

CONCEPTUAL CHEMISTRY (CP)

GRADE 11-12

1 credit

Course #03105

This course will present students with active hands on experience as to the practical application of chemistry in our daily lives. Students will conduct weekly experiments and demonstrations that will help them better understand the chemical properties in everyday items.

CHEMISTRY/LAB (CP)

GRADE 10-12

1 credit

Course #9532

This course is recommended for the college-bound student planning a career in a non-technical field. Course content is similar to that listed in the honors section of this course. **Prerequisites: Algebra II & Biology**

CHEMISTRY/LAB (H)

GRADE 10-12

1 credit

Course #9531

This course deals with the structure and composition of substances and their changes in composition. Topics covered include: atomic structure, chemical bonding, periodic classification, physical states of matter, chemical reactions, and properties of common elements and compounds. These topics are accompanied by appropriate laboratory work. **Prerequisites: Algebra II & Honors Biology**

ENVIRONMENTAL SCIENCE (CP)

GRADE 11-12

.5 credit

Course # 9611

The course will examine topics such as Ecology, population, water, air and land use, mineral and energy resources, health and our future. Students will participate in projects, lab activities and research to further their understanding about the many complex issues facing our environment. As their knowledge and skills in environmental science grow, so will their ability to draw their own conclusions. **Prerequisite: Biology**

FORENSIC SCIENCE (CP)

GRADE 10-12

.5 credit

Course #4064240

This class is designed for those students interested in learning about real-world applications of science. It will involve several areas of science including Biology, Chemistry and Physics. Students will learn common forensic science techniques used in crime investigations such as fingerprinting, blood typing and DNA analysis. Students will also examine and analyze past court cases. This course is ideal for those students interested in a career in law, forensic science, or law enforcement.

Prerequisite: Successful completion of previous high school science course

FORENSIC SCIENCE (H)

GRADE 10-12

1 credit

Course #4055540L

This course is designed to meet the needs of students wishing to experience a more in-depth investigation in the field of forensic science. With many hands-on activities and labs, the student will be exposed to real-world practical application of the concepts, information, and techniques utilized in criminal forensic investigations. **Prerequisite: Successful completion of previous high school science course**

ASTRONOMY (CP)**GRADE 11-12****.5 credit**

Course #03004

Astronomy courses offer students the opportunity to study the solar system, stars, galaxies, and interstellar bodies. These courses usually introduce and use astronomic instruments and typically explore theories regarding the origin and evolution of the universe, space, and time.

MARINE SCIENCE (CP)**GRADE 11-12****.5 credit**

Course # 03005

The course in Marine Science focuses on the content, features, and possibilities of the earth's oceans. They explore marine organisms, conditions, and ecology and sometimes cover marine mining, farming, and exploration.

**SOCIAL STUDIES****Modern World History Course Description**

This full-year course examines the major events and turning points of world history from the Middle Ages to the present. Students investigate the modern world development of Europe, Africa, and Asia. They will explore the economic, political, and social revolutions that have transformed human history. Students will conduct a rigorous study of modern history, allowing them to draw connections between past events and contemporary issues. The use of recurring themes, such as social history, democratic government, and the relationship between history and the arts, allows students to draw connections between the past and the present, among cultures, and among multiple perspectives. Throughout the course, students use a variety of primary and secondary sources, including legal documents, essays, historical writings, and political cartoons to evaluate the reliability of historical evidence and to draw conclusions about historical events.

(from Edgenuity.com)

MODERN WORLD HISTORY (CP)**GRADE 9****1 credit**

Course #0222

This full-year course examines the major events and turning points of world history from the Middle Ages to the present. Students investigate the modern world development of Europe, Africa, and Asia. They will explore the economic, political, and social revolutions that have transformed human history. Students conduct a rigorous study of modern history, allowing them to draw connections between past events and contemporary issues. The use of recurring themes, such as social history, democratic government, and the relationship between history and the arts, allows students to draw connections between the past and the present, among cultures, and among multiple perspectives.

MODERN WORLD HISTORY (H)**GRADE 9****1 credit**

Course #0225

The honors section of this course will examine the major events and turning points of world history from the Middle Ages to the present. Students will be introduced to the concepts of higher order thinking as they investigate, compare and contrast the various revolutionary movements that shape

modern society and culture. The course will also include in depth study of outside readings and critical analysis of primary source documents.

U.S. GOVERNMENT AND POLITICS (AP)

GRADE 9-12

1 credit

Course number # 04157

AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. They will also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they will complete a political science research or applied civics project.

Modern U.S. History II Course Description

U.S. History II is a year-long course that examines the major events and turning points of U.S. history from the Industrial Revolution through the modern age. The course leads students toward a clearer understanding of the patterns, processes, and people that have shaped U.S. history. As students progress through each era of modern U.S. history, they will study the impact of dynamic leadership and economic and political change on the United States' rise to global prominence, the influence of social and political movements on societal change, and the importance of modern cultural and political developments. Recurring themes lead students to draw connections between the past and the present, between cultures, and between multiple perspectives. (from Edgenuity.com)

MODERN UNITED STATES HISTORY II (CP)

GRADE 11

1 credit

Course #0533

U.S. History II is a year-long course that examines the major events and turning points of U.S. history from the Industrial Revolution through the modern age. Students will investigate, analyze, and evaluate significant moments in American History. Special efforts will be made to develop understandings of concepts so that students will gain insights into the cause and effect relationships of history. **United States History is a requirement for graduation.**

MODERN UNITED STATES HISTORY II (H)

GRADE 11

1 credit

Course #0534

In addition to the topics covered in the College Prep level, students will investigate, analyze, and evaluate significant moments in American History through outside readings and critical analysis of primary source documents. **United States History is a requirement for graduation.**

UNITED STATES HISTORY (AP)

GRADE 9-12

1 credit

Course #0230

A.P. U.S. History is a survey course in American History that is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the major events and influences in American History. A major portion of the activities requires critical reading, writing, listening, and discussing. Students should learn to assess historical materials and to weigh the evidence and interpretations presented in historical scholarship. Students should develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format. *****The College Board Advanced Placement test is mandatory.**

CIVICS (CP) **GRADE 10-12** **.5 credit**

Course #0240

The focus of this course is on the fundamentals of our American Republic through detailed study of the many significant milestones in American government that shaped our laws, practices and culture. The course is designed to guide students toward an understanding of our political system and to prepare students for the responsibilities of citizenship. **Civics is a requirement for graduation.**

CIVICS (H) **GRADE 10-12** **.5 credit**

Course #0241

In addition to the topics covered in the College Prep level, students will investigate, analyze and evaluate current topics in our political system, to gain a deeper understanding of our government. This honors level course will focus on analyzing primary source documents and will include a significant amount of writing, culminating with a research project. **Civics is a requirement for graduation.**

UCONN ECE HIST 1300 **.5 Credit/3 UCONN ECE credits**

Course number # 04060

An analysis of the traditions and changes which have shaped Western political institutions, economic systems, social structures and culture in ancient and medieval times.

Social Studies Electives

PSYCHOLOGY (AP) **GRADE 9-12** **1 credit**

Course #0250

This college level course will present the different sub-areas of psychology. The material will be organized around four main questions: how do humans (and, where relevant, animals) act, how do they know, how do they interact, and how do they differ from each other? Specific material to be covered will include classical and instrumental conditioning; cognition (which includes perception, memory, and the thinking process); biological basis of social behavior; personality development (Freud, Jung, Phenomenological and Dispositional Schools); individual differences (intelligence, heredity, and environment); and abnormal psychology. *****The College Board Advanced Placement test is mandatory.**

PSYCHOLOGY (CP) **GRADE 10-12** **.5 credit**

Course #0251

This introductory course will provide a foundation for those students who are interested in the field of psychology. Throughout the year, topics to be explored include, but are not limited to, the roles of the body and brain in human behavior, the process of consciousness, the causes of mental illness, human intelligence, personality, psychological testing, the roles of sleep and dreams, developmental psychology, and nature vs. nurture.

MODERN MILITARY HISTORY (CP) **GRADE 10-12** **.5 credit**

Course #0235

Content of this course includes the military leaders and battles fought during the 20th and 21st century that have affected, changed and shaped the world.

HOLOCAUST AND GENOCIDE STUDIES (CP) **GRADE 10-12** **.5 credit**

Course #0238

This course is a comprehensive study of the causes and events leading up to the Holocaust, as well as a study of the tragic events of this historical period. This course will also cover other historical events connected to genocide in the 20th century.

SPORTS AND SOCIETY (CP)

GRADE 10-12

.5 credit

Course #

This course will allow students to trace the development of sports through a historical lens. Students will have the opportunity to research how sports have impacted all facets of American society.

CURRENT SOCIAL ISSUES (CP)

GRADE 10-12

.5 credit

Course #

Students will investigate current issues facing the United States and the global community. This course will cover politics, foreign policy, social issues and relevant current events.



TECHNICAL EDUCATION

TECHNOLOGY EDUCATION I (CP)

GRADE 9-12

.5 credit

Course #7723

This course is an exploration of the world of technology and how it relates to you and the world around you. It connects the middle school experience to high school and beyond by investigating the four areas of technology – construction, manufacturing, communications, and transportation. This activity-based course will provide experience in the application of technology through a problem-solving approach. Students may build models, develop communication systems, or program robots while utilizing knowledge and skills acquired in other academic areas. Future career opportunities will be explored.

TECHNOLOGY EDUCATION II (CP)

GRADE 9-12

.5 credit

Course #7722

This course offers students an opportunity to increase their understanding of energy, power, manufacturing and transportation and how they continue to enhance our everyday lives. A continued emphasis will be placed on enhancing the student's knowledge in these areas as well as an understanding of quality methods and how to budget time, materials, and money. Students will examine and appraise industrial products and processes.

WOOD TECHNOLOGY I (CP)

GRADE 9-12

.5 credit

Course #7710

Woodworking is a course designed to introduce students to general woodworking practices. Students will expand their knowledge and experience through various projects, lessons and vocabulary. Students will be expected to learn about and safely use hand tools, power tools, and woodworking machinery. The projects are designed to give students as much experience as possible by using many different machines and tools. The projects will also cover many aspects of the building and woodworking industries. Instructional units will include the design, planning, documentation, manufacturing, and finishing processes. Project work will be the vehicle for instruction.

WOOD TECHNOLOGY II (CP)

GRADE 9-12

.5 credit

Course #7711

This course offers students an opportunity to increase their understanding of woodworking and is a segway for the introduction to the basic building materials, components, methods, and sequences in residential construction. It is designed to give students basic, entry level skills in construction and related trades along with an overview of career opportunities available. Emphasis is placed on safety and the proper use of both hand and power tools. This course provides students the experiences of participating in the building of a house along with various woodworking skill building projects. They will learn to be responsible for their own work, for tools, equipment. and for the facility- traits necessary to successful future employment.

BUILDING CONSTRUCTION I (CP)

GRADE 10-12

.5 credit

Course #7712

Building Construction I is a course designed to introduce students to general building techniques and practices. Students will expand their knowledge and experience through various projects, lessons and vocabulary. Students will be expected to learn about and safely utilize hand tools, power tools and woodworking machinery. The projects are designed to give students as much experience as possible by using many different machines and tools. The projects will also cover as many aspects of building and industries as is possible in an entry level course. Instructional units will include the design, planning, and documentation, manufacturing, and finishing processes. Project work will be the vehicle of instruction. **Prerequisite: Wood Technology I or Wood Technology II with Teacher Recommendation**

BUILDING CONSTRUCTION II (CP)

GRADE 10-12

.5 credit

Course # 13054

Building Construction II is a course designed to introduce students to general building techniques and practices. Students will expand their knowledge and experience through various projects, lessons and vocabulary. This course will provide students with marketable skills in the construction industry. Emphasis will be placed on quality of workmanship and effective use of time and resources. Students will be introduced to house construction, sheds, decks, and surveying construction sites. The culmination of this sequence of course work will serve as an adequate prerequisite for entry into apprentice training in this field. Students will build personal. school related, or community needed projects for this course. **Prerequisite: Building Construction I or with Teacher Recommendation**

ENGINEERING / ARCHITECTURAL DRAFTING I

GRADE 10-12

1 credit

Course #7740

This introductory course will begin with the theory of orthographic and isometric projections. Daily work assignments will be used to reinforce the basics of architectural drawings. A continued emphasis placed on the development of exactness and proficiency in the performance. This course will include sectional views, machine threads and auxiliary views. The last quarter will be devoted to architectural drafting where students will make plans for a small house. This course will provide an increased development of marketable skills and in future potential job opportunities. **Prerequisite: None**

ENGINEERING / ARCHITECTURAL DRAFTING II

GRADE 11-12

1 credit

Course #7741

This course is designed to fit the needs of juniors and seniors who will plan to follow an engineering curriculum in college. This course will give the student further experience in making more advanced drawings including complex sectional views, machine threads and fasteners. Again the last half of this class shall be devoted to further the experience in architectural drawings, elevations, pictorial rendering of the house, and structural detail drawings. Basic vocational and career opportunities will be discussed.

Prerequisite: Engineering / Architectural Drafting I

ENTERPRISE PRODUCTION

GRADE 11-12

1 credit

Course #7755

This course shall be designed to introduce the student to the production (manufacturing/construction), transportation (energy), and communication systems used to organize and operate an entrepreneurial business endeavor. Teachers in the unified arts area shall guide a diverse group of students into an experience that would last for a lifetime. The company/students of the Big Red Productions will choose a product, market it, research it and produce it within one school year. **Prerequisite: : Instructor's permission and at least one of the following - Engineering / Architectural Drafting 1, Exploring Technology, Materials and Manufacturing Technology 1**

INDEP. STUDY IN TECHNOLOGY EDUCATION (CP)

GRADE 11-12

.5 credit

Course # 7751

This program provides students with an opportunity to do a study in a field of interest not readily available in the regular curriculum. A student desiring such a program should consult the Technology Education Teacher and the Guidance office.

Prerequisite: Teacher Recommendation

ONLINE COURSES

EDGENUITY

GRADE 9/12

credit varies by course

Edgenuity research based instructional model meets the demands of the CT Common Core State Standards. Courses offer an interactive and personal learning environment with the right level of support for each student. Highly qualified, certified teachers provide direct instruction, explain concepts, model strategies, and make real world connections. Courses are organized into manageable segments so students work at a pace that is right for them. Assignments ensure students master key concepts and develop their analytical and critical thinking skills. Customizable options support accommodations and modifications as needed.

****Please make an appointment in the Counseling Office to see a listing of courses and get more information.**

DUAL-CREDIT COURSES

For the 2019-2020 school year, Derby High School students will have the opportunity to earn college credits as well as Derby High School credits in a variety of courses. Derby High School has developed a partnership with Post University, Housatonic Community College and the University of Connecticut. Students may take UCONN ECE (early college experience) courses in Italian and history. For the 2019-2020 school year, HCC will offer courses in advanced manufacturing, English, math and early childhood development. Post University courses will be offered throughout the year based on students interest and the Post University course catalog.

UCONN ECE Course Offerings

UCONN ECE HIST 1300

.5 Credit/3 UCONN ECE credits

Course number #04060

An analysis of the traditions and changes which have shaped Western political institutions, economic systems, social structures and culture in ancient and medieval times.

UCONN – ILCS 3239: Italian Comp/Conversation I**.5 Credit/3 UCONN ECE credits**

Course #4555

This course is designed to develop a student's fluency and spontaneous expression in the language through a combination of oral and written exercises. Class activities and discussions will be geared toward effective communication and the reinforcement of grammatical and lexical skills. Students will be assigned short compositions and oral presentations on a great variety of topics of general interest.

UCONN – ILCS 3240: Italian Comp/Conversation II**.5 Credit/3 UCONN ECE credits.**

Course #4556

This course is a continuation of ILCS 3239. Further development of oral and written skills to achieve a higher degree of proficiency will be addressed. Students will be assigned longer compositions. This course will offer intensive training in oral expression in order to develop abilities in everyday spoken communication with a strong emphasis given to vocabulary and oral proficiency.

Prerequisite: ILCS 3239: Italian Comp/Conversation I**POST University High School Academy**

POST University High School Academy provides high school students the opportunity to enroll in undergraduate college courses. In these 3-credit courses, students interact with their peers and POST University faculty members in engaging, challenging, college-level coursework. Courses are offered in an 8-week accelerated online class.

CTC101 College Success Seminar

This course teaches students the fundamental skills and strategies required to support learning in a University environment. This course is structured to help students analyze values, motivations, and goals, while helping connect present University experiences with current and future career goals. Emphasis is placed on academic skills, personal assessment, career exploration, and development of interpersonal soft skills. *This course is required for all undergraduate degree programs at Post University.*

3 college credits earned from POST University & 1 elective credit high school earned upon completion of the course

CIS112 Introduction to Computing

This course strives to meet the high level of computer literacy required of all students earning a degree for the university. Special emphasis is placed on the ethical use of computer technology for information analysis and communications. Computer units introduce the Internet, MS Windows, word processing, spreadsheets and presentation software. *This course is required for all undergraduate degree programs at Post University.*

3 college credits earned from POST University & 1 elective credit high school earned upon completion of the course

ENG110: College Writing

This introductory writing course is designed to develop and refine critical reading and writing skills that will contribute to student success in university courses and their chosen careers.

Prerequisite: College Success Seminar

3 college credits earned from POST University & 1 elective credit high school earned upon completion of the course

****Any student interested in enrolling in online courses through the High School Academy at POST University must have a 3.0 GPA as well as a completed teacher recommendation form. Both criteria need to be approved by the Admissions Office at POST University. ****

Housatonic Community College Dual-Credit Offerings

For the 2019-2020 school year, Derby High School is continuing to expand its dual-credit offerings for students. In order for students to take English 101, they must achieve a satisfactory score on the Accuplacer exam. More information will be available about course availability in the spring. Students interested in enrolling should speak with their guidance counselor.

ENG* E101 - Composition 3 CH Prerequisite(s): Satisfactory score on placement examination OR passing BOTH courses in one of the following course sets with a grade of C or higher: [ENG* E043 and ENG* E073] OR [ENG* E092 and ENG* E094] The study of skills necessary for effective written communication. The course includes analyses of outstanding non-fiction prose works. The principles of rhetoric and logic are also applied in frequent writing assignments.

Housatonic Community College Advanced Manufacturing Program

This program is a collaboration between Derby High School and Housatonic Community College. HCC professors are on campus working with Derby High School students in both a classroom and shop setting.

Students enrolled in the program will earn both Derby High School and Housatonic Community College credits.

Students will complete the following courses:

Benchwork - MFG 166

CATALOG DESCRIPTION: Benchwork is a basic course in the fundamentals principles, practices and tools used in semi-precision and precision layout including the various tools, methods and procedures for common machine shop Benchwork. Topics will include: Measurement systems Layout principles Use of Hand and power tools

COURSE OBJECTIVES: At the end of this class the student will have learned the benchwork processes in Advanced Manufacturing. Included in this are the concepts surrounding efforts using hand tools and semi-precision and precision layout. In addition, introduction to various measuring tools, their precision and proper use along with when to use which measuring device. The student that completes this course will be able to understand and use the following:

- Units of measure
- Identify various types of fasteners
- Understand fits and tolerances
- Understand the difference between semi-precision and precision layout
- Understand the proper use of layout tools

- Identify and understand the use of hand tools
- Use tools to layout semi-precision and precision layout work

COURSE CONTENT

1. Shop Safety
2. Basics of Applied Benchwork
3. Units of Measure
4. Precision and Semi-precision Measurement
5. Layout Procedures and Special Benchwork tools

Solidworks - MFG 110

COURSE DESCRIPTION: SolidWorks design focuses on parametric modeling while introducing the student to the paperless computer based design process utilizing the modern parametric 3-D design software SolidWorks. The course reviews the following topics: design process, design engineering, assembly modeling, mechanism analysis, rapid prototyping, team design, geometric dimensioning and tolerancing, and the analysis of tolerance stackups. Students will participate in individual & team design projects

Course Objectives: At the conclusion of this course students will be able to...

- Demonstrate an understanding of the fundamentals of drawing.
- Demonstrate a basic understanding of the fundamentals of Part Modeling.
- Demonstrate an understanding of the extrude and revolve features.
- Demonstrate an understanding of Sweep, Loft & Additional Features.
- Demonstrate an understanding of the fundamentals of Assembly Modeling.
- Demonstrate an understanding of top-down assembly modeling

Course Content: Students will learn to...

1. Create drawing template with document properties and sheet properties.
2. Create a sheet format with document properties & sheet properties.
3. Create standard, auxiliary, detailed & section views.
4. Insert, create and modify dimensions & annotations.
5. Develop and incorporate a bill of materials.
6. Effectively use SolidWorks User Interface & Toolbars
7. Create file folders for projects & templates
8. Use System Options & Document Properties
9. Create a 2D sketch.
10. Incorporate design intent into sketches, features, parts, and assembly.
11. Apply Document properties.
12. Create custom part templates.
13. Use the following features: Extruded Cut, Revolve Boss/Base, Revolved Cut, Dome, Shell, Circular Pattern, and Fillet.
14. Use the Mold tools [Scale, Parting Lines, Parting Surfaces, Shut-off Surfaces, Tooling Split, and Draft Analysis] to create a simple Core and Cavity part.
15. Use sweep & loft features in 3D modeling.
16. Create & edit a design table.
17. Create components.
18. Use Bottom-Up assembly modeling techniques.
19. Insert components; insert & edit Mates and Smart Mates in an assembly.
20. Obtain & assemble components using the Content Central.

21. Assemble components from the SolidWorks Design Library.
22. Use the Resolved Based feature: the Save as a Copy option, and the Component Pattern feature § Use top-down assembly method.
23. Import parts. using the top-down assembly method
24. Develop a sheet metal design table.
25. Convert a solid part into a sheet metal part and insert sheet metal features.
26. Configure drawing into 3D Formed & 2D Flat Pattern states.
27. Use sheet metal features: Base, Edge, Miter Flange, Hem, and Flat Pattern.

Blueprint Reading I - MFG 124

CATALOG DESCRIPTION: The course covers basic skills for a manufacturing environment. Course includes view orientation, drawing, symbols, dimensioning, views, title block, machining specifications and more

COURSE OBJECTIVES: At the conclusion of this course the student will be able to:

- Understand Technical drafting practices,
- Understand Drafting terminology
- Sketch and design a vast array of drawing Blueprints
- Understand Blueprint and drafting standards set forth by industry related to manufacturing
- Understand and use of procedures and processes, including the visualization of multi-view drawings
- Blueprint reading literacy, and the application of Blueprint to a variety of manufacturing and engineering fields.

COURSE CONTENT

1. Prints, Design and Mfg. process
2. Line Usage- Alphabet of lines
3. Visualizing Shapes
4. Orthographic Projection Multi-view drawings Normal and inclined surfaces and lines
5. Title Blocks Dimensioning
6. Orthographic Projection/Multi –View Drawings
7. Rounds and Fillets Holes C-Bore
8. Pictorial Drawings Isometric drawings
9. Title Blocks and Parts
10. Basic Drawing Commands
11. Orthographic Projection Multi-view drawings
12. Pictorial Drawings/Perspectives Oblique's

Introduction to Machine Technology - MFG 150

Course description: Introduction to Machine Technology introduces the student to the fundamentals of Metal Machining Technology. The student is introduced to the basic metal machining equipment including Lathe, Miller, Drill Press, Saw, and Grinding Wheels. Students will perform basic lathe operations, which will consist of facing, center-drilling, chuck turning, turning between centers, boring, grooving, tapers, knurling, and single point threading. Students will identify the major parts of the vertical & horizontal mill, align a vise, use an indicator, edge finder, and boring head, determine speeds and feeds, perform simple indexing, mill flat, square surfaces and slots, drill, bore, and tap holes.

Course Objectives: At the conclusion of this course students will be able to...

- Demonstrate an understanding of Personal Protective Equipment [PPE].
- Demonstrate an understanding of lockout/tag-out safety systems.
- Demonstrate an understanding of Machine Guarding Mechanisms.
- Demonstrate an understanding of Confined Space Entry.
- Demonstrate a basic understanding of Drill Press, Saw, and Grinding equipment.
- Demonstrate a basic understanding of the Lathe.
- Demonstrate a basic understanding of Milling Centers.

Course content: Students will learn to...

1. Setup and operate a drill press.
2. Drill, counterbore, ream, and countersink using the drill press.
3. Setup and operate a vertical & horizontal band saw.
4. Grind drills using the pedestal grinder.
5. Plan sequences of lathe operations; Sets up machine; Mount and true a workpiece in jaw chucks; Align centers; and Calculate & Set speeds, feeds, and depth of cut.
6. Correctly center drill the ends of a work-piece.
7. Plans sequence of milling operations; Sets up machine; Align workpiece, work holding devices, jigs, and fixtures; Calculate and set speeds, feeds, and depth of cut.
8. Understand the use of different cutting tools and cutter holders for the vertical milling machine.
9. Understand the use of arbor driven milling cutters for the horizontal milling machine.
10. Mill surfaces flat and square to each other.

Metrology - MFG 120

Course Description: Metrology provides the student with an introduction to the construction and usage of inspection tools as well as a comprehensive set of hands on exercises when these tools will be utilized to discover the dimensional characteristics of a variety of sample parts.

Course Objectives: At the conclusion of this course students will be able to...

- Demonstrate an ability to apply the basic measuring tools to a variety of sample parts and produce an inspection report.
 - Demonstrate an ability to understand and use direct measuring tools and comparison measuring tools.
 - Demonstrate an ability to understand and use standards of length and form.
 - Demonstrate an ability to use comparison tools in conjunction with inspection accessories and standards to obtain measurements of features on a variety of parts.
 - Demonstrate an understanding of geometric feature control symbols on engineering drawings.
- Course

Content: Students will learn to work with...

1. History, Principles, Variety of Tools and Measuring Systems
2. Steel Rule
3. Vernier, Dial and Digital Instruments
4. Micrometer Instruments
5. The Precision Height Stand
6. Dial Bore Gage
7. Standards of Length and Form: The Surface Plate, Right angle Block and Gage Blocks
8. Measure the Almost Right Angle
9. Setting a Snap Gage with Gage Blocks

- 10. Parallelism and Perpendicularity
- 11. Measuring an Angle with the Sine Bar
- 12. Measuring the location of a Hole
- 13. Gage R&R with Micrometers

NOTES
