

**BASSICK HIGH SCHOOL  
1181 FAIRFIELD AVENUE  
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### **Statement of Core Values, Beliefs, and Learning Expectations**

The Bassick High School community shares the belief that all students can learn, and we are committed to building on their unique learning styles to help them develop the habits of mind necessary for post-secondary success. We accept the responsibility to provide a safe, nurturing and collaborative environment where the voices of students, parents, staff and community are respected. We are dedicated to providing a diverse and challenging curriculum that piques our students' intellectual curiosity and encourages the creativity, innovation and the risk-taking necessary to succeed in today's global economy.

1. Use real-world digital and other research tools to access, evaluate and effectively apply information appropriate for authentic tasks
2. Work independently and collaboratively to solve problems and accomplish goals
3. Communicate information clearly and effectively using a variety of tools/media in varied contexts for a variety of purposes
4. Demonstrate innovation, flexibility and adaptability in thinking patterns, work habits and working/learning conditions
5. Effectively solve problems through analysis, synthesis and evaluation
6. Value and demonstrate personal responsibility, character, cultural understanding, ethical behavior and understanding of civil rights and duties

### **Administration**

Joseph A. Raiola, Ph.D., Principal  
Christopher Johnson, Assistant Principal  
Beswick Channer, Assistant Principal  
James Denton, Assistant Principal

### **Guidance Department**

James Gildea  
Karissa Shields  
Kristen Byron

## **BUSINESS, CAREER AND TECHNICAL EDUCATION**

### **FINANCIAL LITERACY**

#### **BE110STDGE 5 CREDITS Grades 9 - 12**

A semester course that provides students with the knowledge to effectively manage money and finances. The course will allow students to discover strategies for managing their money, explore skills for the wise use of money, and scrutinize various ways of investing money. Students will gain an understanding of the knowledge and skills necessary to achieve a lifetime of financial enjoyment while achieving personal goals.

### **ENTREPRENEURSHIP (NFTE)**

#### **BE132YTDGE 10 CREDITS Grades 11-12**

A year -long course of study for juniors and seniors that teaches the fundamental skills of starting a small business through an experiential curricula. Students are connected to real life experiences through interactive exercises, games, a trip to the wholesale district in New York City, a sales event, etc. as well as a partnership with business leaders in the community who offer in-class workshops and mentoring. Each student writes a business plan based on her/his interest, aided by executives.

### **MARKETING EDUCATION I**

#### **BE121YTDGE 10 CREDITS Grades 11-12**

Is designed to provide students with the fundamental concepts, principles, skills and attitudes common to the fields of marketing and management.

## **TECHNOLOGY EDUCATION**

### **INTRO TO AUTOMOTIVE**

#### **TE301STDGE 5 CREDITS Grade 9-10**

Develops knowledge of basic technical and operational aspects of automobile principles. Students receive both classroom and practical lessons in various systems that make up the modern automobile.

### **AUTOMOTIVE TRANSPORTATION 1**

#### **TE301YTDGE 10 CREDITS Grades 10-12**

Covers the introduction to power sources and the basics of the four-stroke cycle engine, including engine parts and their function, electrical part functions, hydraulic brake systems, exhaust systems, and basic tune up work. The development of tool and machine skills is stressed in such areas as engines, power trains, chassis, electrical systems, fuel systems, bodies, and accessories. Teacher demonstration is used extensively, including the use of computerized test equipment. Interpretation and application of technical manuals, manufacturer update publications, and periodicals are used as a means of keeping current with an ever-changing technology. Emphasis is placed on developing safe work habits while working on actual automobile components. Students will be introduced to Computer-Aided instruction and will become familiar with the start-up and use of the computer.

### **AUTOMOTIVE TRANSPORTATION 2**

#### **TE302YTDGE 10 CREDITS Grades 10-12**

Offers an opportunity to concentrate on specific "job shop" situations in sub-areas such as engine repair and assembly, tune-up, trouble-shooting, electronic test equipment, brakes, steering, fuel, exhaust, lubrication, cooling systems, electrical systems, body work, transmissions, and other power train comments, plus hands-on use of computerized test equipment. Precise workmanship and safety are stressed. Technical, general, and occupational information is provided in the broad area of power mechanics and transportation. Students will use computers and automotive software to travel through the electrical, ignition, cooling, brake, and exhaust systems. Students will

also learn about body and fender repair including metal cutting and forming, welding, grinding, metal stretching and shrinking, body fillers and car detailing.

**Prerequisite: Automotive Transportation 1.**

### **AUTOMOTIVE TRANSPORTATION 3**

**TE303YTDGE 10 CREDITS Grades 11-12**

Utilizes the same course description as Automotive Transportation 2 but offers more in-depth application and individualization. Students will use computers and automotive software to view front ends, transmissions, front wheel drive, anti-lock brakes, air restraint systems, and emission controls.

**Prerequisite: Automotive Transportation 2**

### **INTRO TO GRAPHIC COMMUNICATIONS**

**TE100STDGE 5 CREDITS Grades 9-12**

A project-based course using the latest technology in computer-generated applications. Projects incorporate textbook materials, desktop publishing, hands-on activities, scanning, and digital and printing peripherals. Mathematics concepts, language arts and communication skills are an integral part of this course.

### **GRAPHIC COMMUNICATIONS 1**

**TE101YTDGE 10 CREDITS Grades 10-12**

Includes the basic practices in computer composition and desktop publishing, utilizing desktop workstations. Students learn the fundamentals of design and demonstrate this knowledge when creating business cards, flyers, calendars and notepads. Students are also introduced to digital photography and the Internet.

### **GRAPHIC COMMUNICATIONS 2**

**TE102YTDGE 10 CREDITS Grades 10-12**

Utilizes the same course description as Graphic Communications 1 with emphasis on individuality and industrial responsibilities. Students learn to create their own web pages and are introduced to computer animation.

**Prerequisite: Graphic Communications 1.**

### **INTRODUCTION TO MANUFACTURING TECHNOLOGY**

**TE112STDGE 5 CREDITS Grades 10-12**

### **MANUFACTURING TECHNOLOGY 1**

**TE113YTDGE 10 CREDITS Grades 10-12**

### **MANUFACTURING TECHNOLOGY 2**

**##### 10 CREDITS Grades 10-12**

## **FAMILY/CONSUMER SCIENCES**

### **CULINARY ESSENTIALS**

**FS100STDGE 5 Credits Grades 9 -10**

This course provides students with an overview of classical culinary techniques. Through lecture, hands-on work and projects, students learn the basic skills needed for a career in the food service industry. An overview in sanitation, hot food production, meat identification and fabrication, pantry, breakfast cookery, purchasing, and basic culinary skills is offered.

### **CULINARY ARTS 1**

**FS101YTDGE 10 Credits Grades 11-12**

This course provides students with a working knowledge of classical culinary techniques. Through lecture, hands-on work and projects, students learn the skills needed for a career in the food service industry. Training in sanitation, hot food production, meat identification and fabrication, pantry, breakfast cookery, purchasing, and basic culinary skills is offered. Curriculum also includes culinary mathematics, field trips, and competitive events.

## ENGLISH

### HUMANITIES LAB I

#### EN001YTDGE 10 CREDITS Grade 9

This is a humanities course taken concurrently with English 9 and/or World Civilization and is designed to extend time and learning opportunities through interventional support or enrichment. Will develop skills around the SAT test.

### HUMANITIES LAB I

#### ##### 5 CREDITS Grade 9

This is a humanities course taken concurrently with English 9 and/or World Civilization and is designed to extend time and learning opportunities through interventional support or enrichment. Will develop skills around the SAT test.

### HUMANITIES LAB II

#### EN002YTDGE 10 CREDITS Grade 10

This is a humanities course taken concurrently with English 10 and/or Civics and is designed to extend time and learning opportunities through interventional support or enrichment. Will develop skills around the SAT test.

### HUMANITIES LAB II

#### ##### 5 CREDITS Grade 10

This is a humanities course taken concurrently with English 10 and/or Civics and is designed to extend time and learning opportunities through interventional support or enrichment. Will develop skills around the SAT test.

## ENGLISH 9

#### EN101YTDGE 10 CREDITS Grade 9

English 9 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. Students study literature, literary nonfiction, and composition. The major focus is on engaging students in a close, critical analysis of the qualitative features of complex texts ranging from short stories, essays, biographies, autobiographies, memoirs, novel, poetry, speeches, and plays. While all literary genres are included, emphasis is on the short story and engaging in discussion and written response to text dependent questions. The composition portion of this course concentrates on three forms of writing: narrative, informative/explanatory, and argumentative that includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with emphasis on writing over shorter time frames such as a single sitting or over a day or two from sources. In conjunction with reading and writing, students develop academic vocabulary, conventions of writing and speaking and listening skills. A short research project and an oral presentation with media are required.

## ENGLISH 9 HONORS

#### EN101YTDHO 10 CREDITS Grade 9

This English 9 honors course encompasses the objectives and requirements of the regular English 9 curriculum but requires students to work more with complete pieces of literature and literary nonfiction texts and fewer short stories with engagement in discussion and written responses to text dependent questions. The major focus is on

engaging students in the close, critical analysis of the qualitative features of complex texts across longer pieces of texts. Students will compose narrative, informative/explanatory, and argumentative texts that emphasize writing routinely over extended timeframes for research, reflection, and revision and writing over shorter time frames such as a single sitting or over a day or two. In conjunction with reading and writing, students develop academic and domain-specific vocabulary, develop knowledge of figurative language, conventions of writing and speaking and listening skills. A research project and an oral presentation with media are required.

**Prerequisite:** Teacher recommendation from 8th grade and high benchmark scores

## ENGLISH 10

### EN201YTDGE 10 CREDITS Grade 10

English 10 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing. This course introduces students to major authors, works, themes, and literary movements in America. Attention is given to the relationships between the literature and the cultural, historical, and philosophical viewpoints from various periods. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts from various genres. While all literary genres are read, emphasis is on the short story and drama and engaging in discussion and written response to text dependent questions. Students will compose narrative, informative/explanatory, and argumentative texts and will cite evidence from texts to support their written response. Composition includes writing routinely over extended timeframes for research, reflection, and revision from two or more sources and with a balance between writing over shorter time frames such as a single sitting or over a day or two from sources. Vocabulary development, writing conventions, speaking, listening, and viewing are integral components of the program. An oral research presentation with media is required.

## ENGLISH 10 HONORS - UCONN ECE 1004

### EN201YTDHO 10 CREDITS Grade 10

This English 10 Honors course serves as preparation for Advanced Placement English. This course encompasses the objectives and requirements of the regular English 10 curriculum and it introduces students to major authors, works, themes, and literary movements in America. Attention is given to the relationships between the literature and the cultural, historical, and philosophical viewpoints from various periods. The major focus is on engaging students in the close, critical analysis of the qualitative features of complex texts from various genres. While all literary genres are read, emphasis is on the short story and drama and engaging in discussion and written response to text dependent questions and requires that the honor student complete a significant amount of independent reading and writing beyond that required in English 10. Students will compose narrative, informative/explanatory, and argumentative texts and will cite evidence from texts to support their written response. Composition includes a greater emphasis on writing routinely over extended timeframes for research, reflection, and revision from two or more sources and includes writing over shorter time frames such as a single sitting or over a day or two from sources. Vocabulary development, knowledge of literary devices and figurative language, writing conventions, speaking, listening, and viewing are integral components of the program. An oral research presentation with media is required. **Prerequisite:** Teacher recommendation

## ENGLISH 11

### EN301YTDGE 10 CREDITS Grade 11

English 11 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Students will compose narrative, informative/explanatory, and argumentative texts and will analyze, evaluate, and integrate information from sources to support their composition. Composition includes writing routinely over extended timeframes for research, reflection, and revision from three or more sources with a balance between writing over shorter time frames such as a single sitting or over a day or two. Students will publish essays, book reviews, an interdisciplinary American literature project, resume, application, and cover letter; college essay, formal research paper, an autobiographical sketch, and a media project. Students read literary nonfiction, autobiographies, biographies, and novels, most selected for literary merit and their applicability to self-discovery and personal responsibility. The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative

features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills. Oral language and computer skills are an integral component of English 11 and an oral research presentation with media is required.

## **ENGLISH 11 – AP – UCONN ECE 1010**

### **EN301YTDAP 10 CREDITS Grade 11**

The AP English Language and Composition course is an introductory college-level rhetoric and writing course with a rigorous curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students close read, evaluate, synthesize, and cite specific evidence/research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices utilizing appropriate and well developed vocabulary (including subject specific vocabulary and vocabulary appropriate to audience and task). Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. Students will compose in several forms (e.g., narrative, expository, analytical, and argumentative essays) about a variety of subjects and prose style genres. The course includes writing research papers, which use college level writing style for informal and formal writing using Modern Language Association and The Chicago Manual of Style). **Prerequisite:** Teacher Recommendation.

## **ENGLISH 12**

### **EN401YTDGE 10 CREDITS Grade 12**

English 12 fosters an integrated approach to language arts synthesizing: reading, writing, speaking, listening, and viewing and focuses on authentic reading and writing experiences. Composition at the beginning of the course includes the college essay, applications, and resumes. Additionally, students will compose essays, poems, a formal speech, a formal research paper, editorials, letters to editor, critiques, media projects using a variety of text types (i.e., narrative, informative/explanatory, and argumentative) and for a variety of purposes. Students will analyze, evaluate, and integrate information from multiple sources to support their composition and students will also write for shorter time frames such as a single sitting or over a day or two. Students will read literary non-fiction, plays, short stories, novels, and other works. This course focuses on literary traditions among African-Americans and places those traditions in their historical and world context as well as other pieces of literature from around the world, most noted for literary merit (e.g., Letter from Birmingham Jail, Don Quixote, Shake Spear). The major focus is on engaging students in the close, critical analysis within and across texts and of the qualitative features (i.e., word meanings, central ideas, key ideas and details, text structure, text features, language use) of complex texts from various genres. Through composition and critical reading, students refine writing conventions, speaking, listening, and viewing skills to further education, college, or career. Oral language and computer skills are an integral component of English 12 and an oral research presentation with media is required.

## **ENGLISH 12 – AP – UCONN ECE 1014**

### **EN401YTDAP 10 CREDITS Grade 12**

The AP Literature and Composition Course is an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature (fiction, drama, poetry) to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, narrative, and argumentative essays that require students to analyze and interpret literary works that takes the writing through the processes of drafting, editing, revision and publishing final drafts. Students will be required to read texts over the summer and write about the texts. See instructor for details. . The course includes writing college essays and a research paper, which includes use of appropriate and cited evidence to support argument/claims (using college level writing style for informal and formal writing using Modern Language Association and The Chicago Manual of Style). **Prerequisite:** Teacher Recommendation.

## **JOURNALISM**

### **EN311YTDGE 10 CREDITS Grades 11-12**

Introduces the student to basic journalistic skills. Students learn to develop a respect for truth in written work. They also evaluate and organize facts using a variety of news writing techniques. Students use these basic journalistic skills to produce a school newspaper. **Prerequisite: A grade of "B" or better in prior year English.**

### **SAT PREP: ENGLISH**

#### **EN303STDGE 5 CREDITS Grades 11-12**

Is a half-year course designed to ready students for both the reading and writing portions of the SAT. An established program, with a computer component, is used to strengthen students' verbal skills in order to improve their SAT test scores.

## **MATHEMATICS**

### **STEM LAB I**

#### **MA001YTDGE 10 CREDITS Grades 9**

Is a STEM (Science Technology Engineering and Math) course taken concurrently with Algebra I or Physical Science and is designed to extend time and learning opportunities through interventional support or enrichment for either course.

### **STEM LAB I**

#### **##### 5 CREDITS Grades 9**

Is a STEM (Science Technology Engineering and Math) course taken concurrently with Algebra I or Physical Science and is designed to extend time and learning opportunities through interventional support or enrichment for either course.

### **STEM LAB II**

#### **MA002YTDGE 10 CREDITS Grade 10**

Is a STEM (Science Technology Engineering and Math) course taken concurrently with Geometry or Biology and is designed to extend time and learning opportunities through interventional support or enrichment for either course.

### **STEM LAB II**

#### **##### 5 CREDITS Grade 10**

Is a STEM (Science Technology Engineering and Math) course taken concurrently with Geometry or Biology and is designed to extend time and learning opportunities through interventional support or enrichment for either course.

### **ALGEBRA 1**

#### **MA101YTDGE 10 CREDITS Grades 9-12**

Involves applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting and analyzing linear trends, exploring and applying the laws of exponents and performing operations with polynomials. Special emphasis is placed on problem solving, technology, multiple representations, critical thinking and reasoning, making mathematical connections and communicating mathematically.

### **ALGEBRA 1 HONORS**

#### **MA101YTDHO 10 CREDITS Grade 9**

Is designed for students who have exhibited a high degree of skill in both mathematical manipulation and logical thinking. Topics include applying rules of Algebra: solving, graphing and writing linear equations, exploring functions and relations, solving systems of linear equations, predicting and analyzing linear trends, exploring and applying the laws of exponents, performing operations with polynomials, solving and graphing quadratic equations, and solving and graphing linear inequalities. Considerable emphasis is placed on the applications of concepts through the use of open-ended word problems, performance assessments, technology, multiple representations, making mathematical connections and communicating mathematically

**Prerequisite: (Middle School Students) Grade 8 Math with minimum of "B+", Teacher Recommendation, and Grade 8 end-of year test score of 75 or higher.**

## **ALGEBRA 2**

### **MA202YTDGE 10 CREDITS Grades 11-12**

Seeks to develop a higher degree of skill and accuracy in algebraic techniques and understanding of the structure of mathematical systems. Topics include a review and an extension of many concepts developed in Algebra 1, such as solving and graphing linear and quadratic equations. Other topics incorporated in this course include: solving and graphing exponential, logarithmic and rational functions and writing and identifying properties of conic sections. Emphasis is placed on problem solving using graphing calculator and computer activities, mathematical reasoning and connections. **Prerequisites: Algebra I and/or Geometry.**

## **ALGEBRA 2 HONORS**

### **MA202YTDHO 10 CREDITS Grades 11-12**

Expands on the topics of Algebra 1 Honors and provides further development of the concept of nonlinear functions. The expanded topics include quadratic, exponential, rational, and polynomial functions, sequences and series and the complex numbers system. Emphasis will be placed on the theory and practical applications of Algebra through the use of graphing calculators and related computer software. **Prerequisite: Algebra and Geometry with minimum grade of "B+" in both and Teacher Recommendation.**

## **GEOMETRY**

### **MA201YTDGE 10 CREDITS Grades 9-12**

Includes the concepts of geometric figures, parallelism, congruency, polygons, similarity, special quadrilaterals, right triangles, coordinate geometry, circles, loci, area and volume. Special emphasis is placed on problem solving using the scientific calculator, graphing calculator, and computer software; mathematical connections; critical thinking skills; reasoning; and communicating mathematically. Hands-on activities will also be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts.

**Prerequisite: (Middle School Students) Grade 8 Math with a minimum grade of 'B', Grade 8 end-of-year test score of 80 or higher and Teacher Recommendation. (High School Students) Algebra I**

## **GEOMETRY HONORS**

### **MA201YTDHO 10 CREDITS Grades 9-11**

Emphasizes the further development of skills, techniques and connections of geometric concepts. Topics include in-depth study of the properties and classification of triangles and polygons, similarity and congruency, transformations, properties of circles including arcs, chords and tangents, trigonometry and deductive reasoning and proof. Hands-on activities will be incorporated throughout the course as a means to enhance student understanding of essential geometric concepts. **Prerequisite: (Middle School Students) Grade 8 Math with minimum grade of "B+", Grade 8 end-of-year test score of 80 or higher and Teacher Recommendation; (High School Students) Algebra I Honors**

## **PROBABILITY & STATISTICS**

### **MA301YTDGE 10 CREDITS Grades 11-12**

Introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will work with statistical measures of central tendency and spread and methods of sampling and



experimentation. Students will use multiple representations to present data, including written descriptions, numerical statistics, formulas and graphs. **Prerequisite: Algebra and Geometry.**

## TRIGONOMETRY

### MA203YTDGE 10 CREDITS Grades 11-12

Provides students with instruction related to the concepts, theorems, definitions, vocabulary and applications of Trigonometry. Topics include functions of the acute angle, the right triangle, circular functions, oblique triangles, methods for solving application problems and connections to other technical areas. Calculators and computer applications are an integral part of the instruction. It is recommended that this course be taken simultaneously with Algebra 2. **Prerequisites: Algebra and Geometry.**

## PRE-CALCULUS - HONORS

### MA400YTDGE 10 CREDITS Grades 11-12

Includes the study of relations and functions, exponential and logarithmic functions, Trigonometry and triangles, Trigonometric functions, sequences and series, and data analysis. The purpose of this course is to study functions and develop the skills necessary for the study of Calculus. **Prerequisite: Algebra 2 and Teacher Recommendation.**

## CALCULUS AB – AP

### MA401YTDAP 10 CREDITS Grades 11-12

Covers all topics algebraically, geometrically, and analytically. These include: functions, analysis of graphs, limits, continuity; derivatives at a point and of functions, second derivatives and applications and computation of derivatives; interpretations and properties of definite integrals, applications of integrals, including volumes of solids of revolution, disks, and washer; the Fundamental Theorem of Calculus; and techniques and applications of anti-differentiation and numerical approximations to definite integrals. Students are required to take the Advanced Placement examination in May and may receive credit for up to two semesters of Calculus. **Prerequisite: Successful completion of Pre-Calculus and Teacher Recommendation.**

## SAT PREP MATH (Elective)

### MA304STDGE 5 CREDITS Grades 11-12

A semester course designed to provide students with extensive training in the areas of algebra and geometry that are required on the Scholastic Aptitude Test. Various methods of solving SAT-type problems will be covered. This course is paired with SAT Prep-English. All college-bound juniors are encouraged to enroll in this course.

## SCIENCE

### PHYSICAL SCIENCE

#### SC101YTDGE 10 CREDITS Grade 9

Is a full year course introducing the basic principles and applications of matter, its properties and reactions, the interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and processes that shape the structure of the earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **This course must be passed for entrance into Biology.**

### PHYSICAL SCIENCE HONORS

#### SC101YTDHO 10 CREDITS Grade 9

Is a full year course introducing the basic principles and applications of matter, its properties and reactions, the interactions of matter, selected topics from chemistry, and the basic principles of physics and earth science. Topics include the physics of motion and forces, work and energy, simple machines, light and sound, astronomy, and

processes that shape the structure of the earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **This course must be passed for entrance into Biology.**

## **BIOLOGY**

### **SC110YTDGE 10 CREDITS Grades 10**

Is the study of living things and life processes so students gain an appreciation of the world of which they are a part. It provides the student with an awareness of the problems of everyday living. The branches of Biology included are botany, zoology, ecology, genetics, and heredity. Required of all Grade 10 students. There will be one lab period per week. **Prerequisite: Physical Science.**

## **BIOLOGY HONORS**

### **SC110YTDHO 10 CREDITS Grade 10**

Is the study of living things and life processes so students gain an appreciation of the world of which they are a part. It provides the student with an awareness of the problems of everyday living. The branches of Biology included are botany, zoology, ecology, genetics, and heredity. Required for all 10th Grade students. There will be one lab period per week. **Prerequisite: Physical Science.**

## **ANATOMY AND PHYSIOLOGY**

### **SC310YTDGE 10 CREDITS Grades 11-12**

Is a course that investigates the structure and function of the human body. Topics covered will include the basic organization of the body, biochemical composition; major body systems and the impact of diseases on body system. **Prerequisite: Biology**

## **CHEMISTRY**

### **SC201YTDGE 10 CREDITS Grades 11-12**

Is a full year course designed to provide students with the knowledge of the fundamental laws and concepts of our physical world as evidenced by chemical change. This course stresses chemical reactions, their occurrences, and the energy transfers associated with these reactions. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **Prerequisite: Must pass two years of science and one year of Algebra I with a grade no less than a "C."**

## **CHEMISTRY – AP**

### **SC201YTDAP 10 CREDITS Grades 11-12**

Is the equivalent of the first year chemistry course generally taken in college. It follows the A.P. Chemistry curriculum outlined by the College Board and is intended to prepare the student for success on the A.P. exam. Critical thinking, analytical skills and problem solving are emphasized. Students should be prepared to do a minimum of five hours a week of independent study. A strong math background is helpful, and algebra skills are essential.

## **PHYSICS**

### **SC301YTDGE 10 CREDITS Grade 12**

Is a course designed to prepare students with concepts related to the mechanics of motion, energy and momentum, rotational motion, sound, light, waves, electricity and magnetism. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **Prerequisite: Must pass two years of science and Algebra I with a grade no less than "C."**

## **INTRO TO ASTRONOMY**

### **SC304STDGE 5 CREDITS Grade 9**

Students will explore in-depth Earth science topics such as plate tectonics, planetary geology and atmosphere, and ocean formations. Students will gain knowledge about how the solar system was formed and about the

comparative geology of the eight planets in the solar system. This basic understanding of the solar system will be developed as students learn to use the school's telescope located in our Planetarium

## **ASTRONOMY**

### **SC305YTDGE 10 CREDITS Grades 11-12**

A full year course designed to introduce students to concepts related to ancient astronomers, cosmology, the life in space and the tools of the astronomer. In addition, asteroids, comets and meteorites will be studied, along with stars, galaxies, constellations, and the current NASA space program. **Prerequisite: Two years of science.**

## **INTRODUCTION TO ENVIRONMENTAL SCIENCE**

### **SC102STDGE 5 CREDITS Grades 9 – 10**

This elective course is an interdisciplinary field of research that focuses on the physical and biological surroundings in which all living organisms exist.

## **ENVIRONMENTAL SCIENCE**

### **SC102YTDGE 10 CREDITS Grades 11-12**

Is a full year course which combines basic concepts from earth and environmental science. Topics include a history of our planet through fossils, mineralogy, plate tectonics, and oceanography. Environmental studies includes investigating the quality of our air, water, soil and examining the biotic and abiotic influences on ecosystems and the various factors which aide in determining the quality of life on earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum.

## **ENVIRONMENTAL SCIENCE HONORS NRE 100 - UCONN ECE**

### **SC102YDECL 10 CREDITS Grades 11-12**

Is a full year course which combines basic concepts from earth and environmental science. Topics include a history of our planet through fossils, mineralogy, plate tectonics, and oceanography. Environmental studies includes investigating the quality of our air, water, soil and examining the biotic and abiotic influences on ecosystems and the various factors which aide in determining the quality of life on earth. It is accompanied by the appropriate laboratory work as emphasized in the district science curriculum. **Prerequisite: Approval of instructor.**

## **CRIME SCENE INVESTIGATION**

### **SC204STDGE 5 CREDITS Grades 9 – 10**

This elective course introduces students to techniques used to gain information related to crimes. Course topics cover specific techniques for conducting a preliminary investigation combining practical experience and classroom study.

## **FORENSIC SCIENCE**

### **SC203YTDGE 10 CREDITS Grades 11-12**

Is a half-year interdisciplinary course which includes the application of scientific knowledge to solve crimes and legal problems. Students will have an opportunity to delve into the history of forensic science and possible career opportunities. This course is taught in a multidisciplinary approach, which includes the sciences (life science, chemistry, physics, and earth science), mathematics, technology, language arts and social studies.

## **SOCIAL STUDIES**

### **WORLD CIVILIZATION**

#### **SS101YTDGE 10 CREDITS Grade 9**

Explores the spectrum of World History from Neolithic times through World War I. Assured experiences focuses on the development of critical thinking skills, historical habits of mind, historical writing and reading historical texts.

## **WORLD CIVILIZATION Honors**

### **SS101YTDHO 10 CREDITS Grade 9**

Is designed to prepare ninth grade students to achieve national and state standards so that they become knowledgeable citizens. Course content includes a comprehensive survey of World Civilization from the beginning of civilization through medieval times. Particular emphasis is placed on the classical civilizations in Asia, Africa, Europe and Latin America.

## **CIVICS**

### **SS201STDGE 5 CREDITS Grade 10**

Provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.

## **CIVICS Honors**

### **##### 5 CREDITS Grade 10**

Provides students with the fundamental concepts of the United States Constitution and explores contemporary Constitutional issues. Assured experiences foster active citizenship and civic involvement. Critical thinking skills, reading, and persuasive writing are emphasized.

## **PERSPECTIVES ON RACE**

### **SS451STDGE 5 CREDITS Grades 10**

Exploration of historical & contemporary issues surrounding race relations in the U.S.; from the American slave trade through current events. Partnership with Oxford High School includes cultural exchange component in order to broaden students' perspectives on race. (partnered with Civics 10<sup>th</sup> grade)

## **PERSPECTIVES ON RACE - Honors**

### **##### 5 CREDITS Grades 10**

Exploration of historical & contemporary issues surrounding race relations in the U.S.; from the American slave trade through current events. Partnership with Oxford High School includes cultural exchange component in order to broaden students' perspectives on race. (partnered with Civics 10<sup>th</sup> grade)

## **US HISTORY**

### **SS301YTDGE 10 CREDITS Grade 11**

Focuses on the development of America as a modern industrial nation and as a global power. Topics cover events from 1865 to the present. Students are guided in conducting historical research and in developing and defending historical interpretation.

## **US HISTORY – AP**

### **SS301YTDAP 10 CREDITS Grades 11-12**

Is a, comprehensive, college level survey of United States history in which students gain a solid foundation in the social, political, economic, and intellectual forces that impact our culture. Each marking period, students are required to complete a long-term assignment involving extensive research, reading and writing. Students will be expected to take the AP exam in May, which may lead to college credit. **Prerequisites: World Civilization I, World Civilization II, Civics and recommendation of the previous social studies teacher.**

## **INTRO TO PSYCHOLOGY**

### **SS401STDGE 5 CREDITS Grade 11-12**

Is a one semester comprehensive, college-level survey course designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are

exposed to psychological facts, principles, and phenomena associated with each of the major subfields within psychology.

## **INTRO TO SOCIOLOGY**

### **SS402STDGE 5 CREDITS Grade 11-12**

Is an elective course for seniors that examines social structure. Concepts, terminology, and the techniques of Sociology are explained so that students can investigate problems that are relevant to young adults and society at large. **Prerequisites: World Civilization and United States History.**

## **PSYCHOLOGY - AP**

### **SS401YTDAP 10 CREDITS Grades 11-12**

Is a one-year comprehensive, college level survey course designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are introduced to psychological facts, principles, and phenomena associated with each of the major sub-fields within psychology. Students will be expected to take the A.P. exam in May, which may lead to college credit.

## **AFRICAN AMERICAN STUDIES**

### **SS422STDGE 5 Credits Grade 11-12**

This semester course examines the culture and history of African-Americans throughout the history of our country and fosters an appreciation and understanding of the major struggles and triumphs of the African-American experience.

## **LATIN AMERICAN STUDIES**

### **SS424STDGE 5 CREDITS Grade 11-12**

Traces the history of Latin America from its origins and includes a survey of the economic, political, and social structures of modern Latin America. Regional and global issues will be examined through the study of Brazil, Cuba, Nicaragua, and other Latin American nations.

## **VISUAL ARTS**

### **INTRODUCTION TO MEDIA**

#### **FA200STDGE 5 CREDITS Grades 9 – 10**

This course will engage students in the application of a systematic and multi-disciplinary approach to learning as they begin to master photo / video hardware and software, ultimately producing original films and photographic exhibitions.

### **COMPUTER VISUAL ARTS I**

#### **FA221YTDGE 10 CREDITS Grades 10-12**

Is a study of the computer as a visual arts medium. Current computer art technology and its applications to fine art, commercial/industrial design, animation and multimedia presentation are areas of study.

### **PHOTOGRAPHY 1**

#### **FA201YTDGE 10 CREDITS Grades 10-12**

Is an introductory course in black and white photography with an emphasis on the techniques of camera operation, film processing, and print development. Digital photography and the use of computers to produce digital photos will be examined.

### **PHOTOGRAPHY 2**

### **FA202YTDGE 10 CREDITS Grades 11-12**

Is a continuation of black and white photography using larger negatives and cameras with an emphasis on special effects in the darkroom and the use of the computer. The history of photography is also emphasized.

**Prerequisites: Photography 1 and Teacher Recommendation.**

### **PHOTOGRAPHY 3**

#### **FA203YTDGE 10 CREDITS Grades 11-12**

Students continue the study of photography using digital cameras. Students will develop technical skills manipulating the digital image on computers using Adobe Creative Suite, as well as skills and techniques of camera operation using digital SLR cameras. Using this knowledge, the students create the senior yearbook, school sports calendars, and various other projects. **Prerequisites: Photography 2 and Teacher Recommendation.**

### **INTRODUCTION TO CERAMICS**

#### **FA330STDGE 5 CREDITS Grades 9 – 10**

This course explores the uses of clay as a creative medium. Emphasis is placed on construction technique, the ceramic process and the elements and principles of design as related to clay.

### **CERAMICS 1**

#### **FA331YTDGE 10 CREDITS Grades 9-12**

Explores the uses of clay as a creative medium. Emphasis is placed on construction technique, the ceramic process and the elements and principles of design as related to clay. In addition, students are introduced to the potter's wheel and discover the role of ceramic art in various cultures and historical periods.

### **CERAMICS 2**

#### **FA332YTDGE 10 CREDITS Grades 10-12**

Is a continuation of clay exploration initiated in Ceramics 1. Emphasis is placed on developing advanced technical skills. Students develop their individual problem-solving skills and continue their exploration of clay in the cultural environment.

**Prerequisite: Ceramics 1**

### **INTRODUCTION TO STUDIO ARTS**

#### **FA310STDGE 5 CREDITS Grades 9 – 10**

This course is an overview of the scope and sequence of the visual arts. Emphasis is placed on developing advanced technical skills in media and increasing art history knowledge.

### **STUDIO ARTS 1**

#### **FA311YTDGE 10 CREDITS Grades 9-12**

Is an overview of the scope and sequence of the visual arts. Emphasis is placed on developing advanced technical skills in media and increasing art history knowledge. The acquisition of the analytical and problem-solving skills needed to create and appreciate art will be stressed.

### **STUDIO ARTS 2**

#### **FA312YTDGE 10 CREDITS Grades 9-12**

Is a continuation of the study of the topics listed in Studio Arts 1. Emphasis is placed on developing advanced technical skills in media and increasing art history knowledge. The acquisition of the analytical and problem-solving skills needed to create and appreciate fine art will be stressed. **Prerequisite: Studio Arts 1**

## **MUSIC/ PERFORMING ARTS**

### **INTRO TO MUSIC**

### **FA100YTDGE 10 Credits Grade 9-12**

Students will begin the process of surveying music and music technology. Students are expected to have previous vocal or instrumental experience. Course content will include music technology, music theory, piano, and composition techniques. Students will produce simple recording and compositions of their music as part of their project-based learning experience.

## **MUSIC 1**

### **FA101YTDGE 10 CREDITS Grades 9-12**

This will be a half-year survey of music technology. Students will be expected to have previous music experience whether it's vocal or instrumental. Through this course, students will get an introduction to music technology, basic music theory, piano, and composition techniques. They will work in small groups to create a simple recorded and notated composition as a final project. **Prerequisite: Strings, Piano, Band, Choir, or a recommendation from their 8<sup>th</sup> grade music teacher for the incoming freshmen.**

## **CHOIR**

### **FA131YTDGE 10 CREDITS Grades 9-12**

Is open to all students on a selective basis. Students must demonstrate a high degree of vocal proficiency and musicianship and the approval of the instructor. Since its major goal is the study and performance of choral masterpieces from various musical periods, students are given intensive training in the principles of vocal production, musicianship, interpretation, and the appreciation of music as it is related to musical style, literature, and history.

## **BAND**

### **FA111YTDGE 10 CREDITS Grades 9-12**

An introduction to woodwind, brass and percussion instruments. Students will choose their focus instrument during the first week of school. Group and individual practice will be expected. **There is a performance requirement for this class.**

## **ELECTRIC PIANO**

### **FA120YTDGE 10 CREDITS Grades 9-12**

Students will explore learning to sing. They will work in a large group to perform at various times of year and learn different genres of music. Both boys and girls are encouraged to sign up for choir.

## **INTRODUCTION TO PERFORMING ARTS**

### **FA400STDGE 5 CREDITS Grades 9 -10**

Students will begin the process of surveying music and music technology. Students are expected to have previous vocal or instrumental experience. Course content will include music technology, music theory, piano, and composition techniques. Students will produce simple recording and compositions of their music as part of their project-based learning experience.

## **THEATRE & PERFORMING ARTS**

### **FA400YTDGE 10 CREDITS Grade 10-12**

Students will increase their awareness, understanding, and appreciation of all aspects of theater and related performing arts. Students will learn the basic principles of acting and dance, theatre history and the work of master playwrights.

## **PHYSICAL/HEALTH EDUCATION**

## **HEALTH**

## **HE101STDGE 5 CREDITS Grades 9-12**

Provides information to motivate students to protect, maintain and improve their health. Topics include: Substance Abuse, Nutrition, Mental/Emotional Health, Growth and Development, Disease Prevention, First Aid and Safety, Family Life, AIDS, Community Health and Self-Esteem. **Required for graduation.**

## **FULL YEAR PHYSICAL EDUCATION**

### **PE100YTDGE 10 CREDITS Grades 9-12**

Introduces a variety of individual and team sports. Instructional emphasis will be on basic skills, rules, strategies and fitness. Values such as teamwork, sportsmanship and respect for differences will be enforced.

## **PHYSICAL EDUCATION 1**

### **PE101STDGE 5 CREDITS Grades 10-12**

10th-12th grade students will develop skills introduced in P.E. one. Students will be expected to be proficient in a number of individual and team sports. Values such as teamwork, sportsmanship and respect for differences will be enforced.

## **PHYSICAL EDUCATION 2**

### **PE102STDGE 5 CREDITS Grades 10-12**

10th-12th grade students will develop skills introduced in P.E. one. Students will be expected to be proficient in a number of individual and team sports. Values such as teamwork, sportsmanship and respect for differences will be enforced. **Prerequisite: P.E. 1.**

## **WORLD LANGUAGE**

### **FRENCH 1**

#### **WL201YTDGE 10 CREDITS Grades 9-11**

This is an introductory course that will provide students with foundational knowledge of French culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a French speaking country. The goal of this course is to communicate about basic topics in French. In this course, special emphasis will be placed on communicative competency and basic grammatical structures.

### **FRENCH 2**

#### **WL202YTDGE 10 CREDITS Grades 9-12**

This course is a continuation of French 1 and continues to build on the five basic skills: speaking, listening, reading, writing, and French culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in French. The goal of this course is prepare students for advanced study of the language and give them practical skills for travel to a French-speaking country.

### **FRENCH 3**

#### **WL203YTDGE 10 CREDITS Grades 10-11**

This course is a continuation of French 2 and increases the student's knowledge of French culture throughout the world. Students will understand more complex syntax in reading and writing in French. The goal of this course is to prepare students for advanced study of the language and provide them with authentic French contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills.



## **SPANISH 1**

### **WL101YTDGE 10 CREDITS Grades 9-11**

This is an introductory course that will provide students with a foundational knowledge of Spanish culture. Students will develop basic skills: speaking, listening, reading, writing and culture that are necessary to travel to a Spanish speaking country. The goal of this course is to communicate about basic topics in Spanish. In this course, special emphasis will be placed on communicative competency and basic grammatical structures.

## **SPANISH 2**

### **WL102YTDGE 10 CREDITS Grades 9-12**

This course is a continuation of Spanish 1 and continues to build on the five basic skills: speaking, listening, reading, writing, and Spanish culture. Students continue to develop a grammatical foundation to communicate ideas through oral, listening, reading and writing activities about a variety of topics in Spanish. The goal of this course is to prepare students for advanced study of the language and give them practical skills for travel to a Spanish-speaking country.

## **SPANISH 3**

### **WL103YTDGE 10 CREDITS Grades 10-12**

This course is a continuation of Spanish 2 and increases the student's knowledge of Spanish culture throughout the world. Students will understand more complex syntax in reading and writing in Spanish. The goal of this course is to prepare students for advanced study of the language and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills.

## **SPANISH 5 – AP - UCONN ECE #####**

### **WL105YTDAP 10 CREDITS Grades 11-12**

This is a college-level course designed to provide students the opportunity to achieve Spanish proficiency in the areas of: speaking, reading, writing and listening. Students will begin to analyze a variety of Spanish literature and explore perspectives of Spanish cultures in critical ways. The goal of this course is to prepare students to achieve proficiency of native Spanish language speakers and provide them with authentic Spanish contemporary situations that require rigorous reading, writing, presentational, and interpersonal skills. It is expected that students will take the A.P. exam in May, which may lead to college credit.

## **SPANISH FOR SPANISH SPEAKERS 1**

### **WL111YTDGE 10 CREDITS Grades 9 - 12**

This course is designed to meet the needs of students of Spanish-American heritage who were born in the United States or who came to the United States at an early age and possess little or no proficiency in reading and writing in the Spanish language. The goal of the course is to study Spanish to be able to speak, listen, read and write. Students are also given a general perspective of geography and Hispanic culture through selected readings from Spanish and Spanish-American literary works.

## **BILINGUAL SERVICES**

## **ESOL / NATIVE LANGUAGE SUPPORT - BEGINNER**

### **EN010YBLGE 20 CREDITS Grades 9-12**

This course is for students who are in the beginning stage of English Language acquisition. Students will focus on developing Basic English vocabulary, grammar, oral language, reading, writing, and listening skills. By developing these skills, students will begin to use English in both social and academic settings and in culturally appropriate

ways. Students will be placed in this program according to their Proficiency level in English. Students may receive native language support based on their language needs. This class meets for a double period daily and awards twenty points of credit in English towards graduation. The curriculum will align to English 9 and there will be staff collaboration.

## **ESOL / NATIVE LANGUAGE SUPPORT - INTERMEDIATE**

### **EN011YBLGE 20 CREDITS Grades 9-12**

This course is for students in the intermediate stage of English Language acquisition. Students will focus on developing content-based academic English language skills through vocabulary, grammar, oral language, reading, writing, and listening skills. By developing these skills, students will be able to use English in both social and academic settings and in culturally appropriate ways. Students will be placed in this program according to their Proficiency level in English. Students may receive native language support based on their language needs. This class meets for a double period daily and awards twenty points of credit in English towards graduation. The curriculum will align to English 10 and there will be staff collaboration.

## **ESOL / NATIVE LANGUAGE SUPPORT - ADVANCED**

### **EN012YBLGE 10 CREDITS Grades 9-12**

This course is for students in the advanced stage of English Language acquisition. Students will focus on developing proficient content-based academic English language skills through critical speaking, reading, writing, and listening skills. By developing these skills, students will be able to fluently use English in academic settings. Students will be placed in this program according to their Proficiency level in English. Students may receive native language support based on their language needs. This class meets for a single period daily and awards ten points of credit in English towards graduation.

## **ESOL-LTSS (Language Transition Support Services)**

### **EN013YBLGE 10 CREDITS Grades 9-12**

This course is for students who have completed Beginning, Intermediate, and Advanced ESOL yet require additional English Language instructional support. Students will receive Sheltered English instructional strategies to address all academic content area concepts. By developing these skills, students will use effective academic strategies in English content area courses to achieve success. This class meets for a single period daily and awards ten points of credit in English towards graduation.

## **SPECIALTY PROGRAMS / COURSES / EXTERNAL PARTNERSHIPS**

### **REGIONAL CENTER FOR THE ARTS (RCA)**

#### **FA410YTDGE 20 CREDITS Grades 9-12**

Is a state-funded performing arts magnet program located at 23 Oakview Drive, Trumbull that provides Students with professional training in dance, music, and theatre. The program is open to students in grades 9-12 in the public schools of Bridgeport, Trumbull, Fairfield, Monroe, and Stratford. Classes meet Tuesday-Friday from 2:00-5:00 p.m. and transportation is provided by participating school districts. RCA looks for potential as well as developed talent; therefore, any interested student is encouraged to apply.

### **CONSTRUCTION CRAFT LABORERS**

#### **TE135YTDGE 20 pts Grade 11-12 (full year)**

Our construction trade training focuses on jobsite skills, safety knowledge and progression to supervision. We offer career long learning that benefits Construction Craft Laborers, employers and owners. We offer training programs specific for building, heavy-highway & utilities, demolition/deconstruction, pipeline, masonry, environmental, and landscaping.

Activity-based participation and student-centered lessons use interactive techniques to empower workers to problem solve and work as a team. Hands-on training replicates the jobsite as workers perform job tasks in a safe and controlled setting. All trainees must demonstrate knowledge and proficiency in the classroom and hands-on activities. We assess both knowledge and skills so competency is demonstrated, ready to be applied on the job. All students will receive a comprehensive Professional Skills curriculum taught by certified instructors employed by The Justice Education Center, Inc.

## **CULINARY ARTS**

### **FS150YTDGE 10 pts Grade 11-12 (1 semester)**

Presents sanitation, safety and maintenance challenges encountered in the food service industry. Investigates causes and prevention of food-borne illnesses and the importance of sanitation and safety in food service establishments. Students will demonstrate the highest standard of food Safety training by completing a nationally recognized ServSafe Certification offered through the National Restaurant Association. Students who pass the certification exam will receive the certificate. Student hands on training will take place at Cook & Grow Inc. located on 1040 Broad Street, Bridgeport. All students will receive a comprehensive Professional Skills curriculum taught by certified instructors employed by The Justice Education Center, Inc.

## **HCC Manufacturing**

**The Advanced Manufacturing: Machine Technology I Certificate is designed to provide students with the advanced manufacturing skills for those seeking employment in machine technology and CNC manufacturing environments. Students develop advanced manufacturing skills in mathematics, blueprint reading II, principles of quality control, lathe II, milling II, and CNC II. Students spend approximately half their time in classroom activities and half in hands-on activities in the H.C.C.'s new Advanced Manufacturing Center. Students will attend classes on HCC's Campus 5 days a week from 12:00-2:30.**

## **HCC MANUFACTURING MATH 1: MFG-E5008**

### **MA600SDECL 5 CREDITS Grades 9 - 12**

Offers skills needed to read engineering drawings, production charts and graphs, and inspecting parts and fits to tolerances. Topics include whole numbers, fractions, decimals, measurement, percentages, fundamentals of SI metric measurement, and applied mathematics in a manufacturing environment. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

## **HCC MANUFACTURING MATH 2: MFG-E105**

### **MA601SDECL 5 CREDITS Grades 9 - 12**

Second course in manufacturing mathematics. A further study of arithmetic and trigonometric operations applied to manufacturing circumstances. The following geometric entities are studied in detail: the circle, regular and irregular polygons, the right triangle and oblique triangles. The application of angular arithmetic including the study of: angle decimal conversion, the Pythagorean Theorem, Sin, Cos, and Tan functions, and the Law of Sines and Law of Cosines. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

## **HCC METROLOGY: MFG-E120**

### **TE600SDECL 5 CREDITS Grades 9 - 12**

Course covers methods to test instrument calibration using precision artifacts to ensure gages work to calibration. Content includes: introduction to measurement; precision hand tools and gaging (micrometers, calipers, indicators and gages); measurement instruments; surface and form instruments; optical measurement instruments; and methods for analyzing the repeatability and reproducibility of measurement instruments. **Taken on Campus-**

**Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

### **HCC MFG MCHN-BENCHWORK: MFG-E153**

**TE163SDECL 5 CREDITS Grades 9 - 12**

A basic course in the fundamentals, principles, practices, and tools used in semi-precision and precision layout and in the various tools, methods, and procedures for common machine shop benchwork. Topics will include measurement systems, layout principles, hand tools, and power tools. **Taken on Campus-Housatonic Community College. Passing Grades may earn College credit. Prerequisite: Satisfactory test scores of C or better in Reading, Writing and Math will be required. Students will complete the following assessments administered by HCC staff: Aptitude Test, Hands on Skills Assessment, and Math Assessment.**

### **HCC INTRO TO LEAN MFG: MFT-E5009**

**TE603SDECL 5 CREDITS Grades 9 - 12**

This course provides you with the fundamental knowledge of current continuous process improvement methodologies in use today within competitive manufacturing environments. You will be exposed to the basic concepts of Lean Manufacturing theory and the various tools and techniques involved with a lean implementation. It will present the lean-six sigma process methodology of DMAIC (Define, Measure, Analyze, Improve, Control). At the completion of the course, you will be competent to participate effectively as a team member in lean implementation projects. **Taken on Campus-Housatonic Community College. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

### **HCC MFG MCHN-MILLING 1 MFG-E155**

**TE616SDECL 5 CREDITS Grades 9 - 12**

First course on the vertical and horizontal milling machines. Topics to include, cutting tools and holders, setups, spindles and arbors, work holding methods. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Prerequisite: Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

### **HCC MFG MCHN-CNC 1 MFG-E156**

**TE618SDECL 5 CREDITS Grades 9 - 12**

First course in CNC machinery and programming. Topics include, Cartesian coordinates, safe use of CNC equipment, setup and operate a two axis CNC lathe and a three axis CNC machining center, programming and runoff of parts. **Taken on Campus- Housatonic Community College. Passing grades may earn College credits. Prerequisite: Satisfactory test scores of C or better in Reading, Writing and Math will be required. Students will complete the following assessments administered by HCC staff: Aptitude Test, Hands on Skills Assessment, and Math Assessment.**

### **HCC COMPUTER APPLICATIONS: MFT-E5011**

**CS601SDECLS 5 CREDITS Grades 9 - 12**

Provides an introduction to using the computer as a productivity tool. Students will use application software for word processing, spreadsheets and presentations. An introduction to file management using the Windows operating system will also be covered. Substantial lab time is require in the computer lab. The textbook and an on-line supplemental access code (bundle) are required. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

### **HCC MFG MCHN-LATHE 1: MFG-E154**

**TE614SDECL 5 CREDITS Grades 9 - 12**

First course in the use of the lathe. Topics include, identification of major components of the lathe, tool holders and tool holding, cutting tools, operating the controls, facing and center drilling. **Taken on Campus-**

**Housatonic Community College. Passing grades may earn College credits. Prerequisite: Satisfactory test scores of C or better in Reading, Writing and Math will be required. Students will complete the following assessments administered by HCC staff: Aptitude Test, Hand on Skills Assessment, and Math Assessment.**

### **HCC BLUEPRINT READING 1: MFG-E124**

#### **TE601SDECL 5 CREDITS Grades 9 - 12**

First course in blueprint reading. The study of orthographic projection. Topics include lines and their uses, auxiliary views, sectional views, basic and special dimensioning, dimensioning practices for holes, chamfers, angle, tapers, keyways diameters and radii. Also, geometric tolerance and dimensioning is covered. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

### **HCC MFG MCHN-GRINDING: MFG-E152**

#### **TE612SDECL 5 CREDITS Grades 9 - 12**

Course on the use of various grinding machines. Topics covered include selection and identification of grinding wheels, truing, dressing and balancing wheels, grinding fluids, using the horizontal spindle reciprocating table surface grinder, using the cylindrical grinder, and using the tool and cutter grinder. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

### **HCC INTRODUCTION TO CAD: CAD-E110**

#### **TE120SDECL 5 CREDITS Grades 9 - 12**

An introduction to the techniques of generating graphic images with computers, using AutoCAD. Topics include: overview of CAD technology, computer technology, hardware descriptions and requirements, file manipulation and management, two-dimensional geometric construction, symbol library creation, dimensioning, scaling, sectioning, plotting, detail and assembly drawing including tolerance studies. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

### **HCC MFG MCHN-DRILL PRESS & SAW: MFG-E151**

#### **TE611SDECL 5 CREDITS Grades 9 - 12**

Course on Sawing and Drilling Machines. Topics covered include use of cutoff saws, use of drill presses, using the vertical band saw, drilling tools, countersinking, reaming and counter boarding. **Taken on Campus-Housatonic Community College. Passing grades may earn College credits. Satisfactory test scores of C or better in Reading, Writing and Math will be required.**

## **ADDITIONAL COURSES BY ARRANGEMENT**

### **COMMUNITY SERVICE**

#### **AD100STDGE 5 CREDITS Grades 11-12**

Is designed to encourage students to become contributing community members who recognize the importance of voluntary activity to help other members of the community. Credit may be earned only upon successful completion of 50 hours of unpaid, voluntary work in not-for-profit companies or governmental agencies, and 10 hours of classroom instruction.

### **SUCCESS ACADEMY**

#### **AD003YPLGE No Credit Grade 12**

The Success Academy provides an opportunity for students to get back on a successful track towards graduation. While enrolled in the Success Academy students will receive individualized curricula designed to meet the academic needs for each student. Through the use of technology students will be able to work at their own pace at

school and at home with the support and guidance of a classroom teacher and pupil support staff member. This virtual learning tool will allow students to recover lost credit and make progress towards graduation. Regular communication will take place between staff and parents regarding the progress of the student.

## **HCC FRESHMAN SEMINAR: FS-E100**

### **ID501SDECL 5 CREDITS Grades 11-12**

Freshman Seminar is a dual-enrollment course which introduces students to diverse academic content, emphasizing the acquisition and application of learning strategies in preparation for rigorous college study. The content is designed to prepare students to develop their own individual academic and career success through self-evaluation, inquiry, application of specific strategies, discussions, classroom exercises, and assignments. These activities help students acquire and apply study strategies, stimulate critical thinking skills, practice oral and written expression, establish goals, practice self and time management, and choose behaviors leading to a successful academic experience. Upon successful completion of the course students receive 3 college credits from Housatonic CC and 5 points toward high school graduation.

## **COLLEGE AND CAREER READINESS**

### **BE208YTDGE 10 credits Grade 12**

Course is designed to focus increasing post-secondary awareness and preparedness for 12<sup>th</sup> grade neighborhood students. Students will focus on further developing the key content knowledge, cognitive strategies, skills, techniques, and college-knowledge needed to be ready for post-secondary success. A guidance counselor will also work closely with the teacher to assist the students in 12<sup>th</sup> grade college-readiness activities such as college applications, financial aid, and transitioning to college.

## **BUSINESS INTERNSHIP-SEMESTER**

### **BE210STDGE 5 CREDITS Grades 11-12**

Is a 5 credit course offering an in-school, on-the-job training program in which students input data, file, use telephone skills, sort and distribute mail, and assist administrative and office personnel. Candidates must submit an application, as well as participate in training sessions.

**Prerequisites: Approval of Administration**

## **BUSINESS INTERNSHIP-YEAR**

### **BE211YTDGE 10 CREDITS Grades 11-12**

Is an in-school, on-the-job training program in which students input data, file, use telephone skills, sort and distribute mail, and assist administrative and office personnel. Candidates must submit an application, as well as participate in training sessions.

**Prerequisites: Approval of Administration**