

Program of Study 2015-2016



**Somersworth High School and
Career Technical Center**

21st CENTURY LEARNING EXPECTATIONS

Effective schools identify core values and beliefs about learning that function as explicit foundational commitments to students and the community. Decision-making remains focused on and aligned with these critical commitments. Core values and beliefs manifest themselves in research-based, school-wide 21st century learning expectations. Every component of the school is driven by the core values and beliefs about learning and supports all students' achievement of the school's learning expectations.

ACADEMIC

- A1 Speak articulately and write effectively
 - A1.1 Utilize vocabulary and grammar
 - A1.2 Apply focus and purpose
 - A1.3 Maintain confidence and presence while speaking
 - A1.4 Use organization
 - A1.5 Overall effort
- A2 Comprehend oral and written communication
 - A2.1 Comprehend oral communication
 - A2.2 Comprehend written communication
- A3 Use critical thinking to solve social and academic problems
 - A3.1 Use critical thinking to solve social issues
 - A3.2 Use critical thinking to solve academic problems
- A4 Acknowledge the importance of diversity among cultures, people, ideas, and options
 - A4.1 Understand and articulate ideas and opinions that are different from your own
 - A4.2 Understand and express the benefits of diversity of cultures and people
 - A4.3 Understand and participate in our global society
- A5 Know and understand the rights and responsibilities of citizens within a democratic society
 - A5.1 Understand voting and elections
 - A5.2 Understand the American democracy structured around the constitution
 - A5.3 Understand individual rights protected by the Bill of Rights and further Amendments
- A6 Recognize the importance of lifelong wellness activities and healthy lifestyle choices
 - A6.1 Recognize stress in yourself and others and to practice stress management
 - A6.2 Make choices that lead to a healthy lifestyle
- A7 Locate, evaluate, and use informational resources to obtain an end result
 - A7.1 Locate sources of information
 - A7.2 Evaluate informational resources
 - A7.3 Use informational resources
- A8 Use mathematics to function successfully as global citizens
 - A8.1 Understand financial well-being
 - A8.2 Understand the proper use of credit
 - A8.3 Make conclusions using graphical and numerical data
 - A8.4 Understand scale and proportion
 - A8.5 Achieve numerical competency without technology
 - A8.6 Solve problems across disciplines
- A9 Demonstrate computer competency
 - A9.1 Use and understand word processing
 - A9.2 Know different computer applications
 - A9.3 Use computers legally
 - A9.4 Navigate the internet to communicate and acquire credible information

SOCIAL

- S1 Demonstrate respect for self and others
 - S1.1 Demonstrate respect for others
 - S1.2 Demonstrate respect for self

CIVIC

- C1 Participate as productive citizens and members of their community
 - C1.1 Engage in community service and become a productive community member
 - C1.2 Become a productive member of the school community

Somersworth School District

SAU #56

*51 West High Street
Somersworth, NH 03878
603-692-4450*



Jeni Mosca, Superintendent

Robert “Bob” Marquis, Assistant Superintendent

Marie D’Agostino, Business Administrator

Pamela MacDonald, Special Education Director

Somersworth School District

Mission Statement

“Inspire all students to excel, to develop a thirst for knowledge, and to teach the essential skills necessary to be caring, contributing, and responsible individuals in an ever-changing world.”

Somersworth High School

Mission Statement

The Somersworth High School community will foster intellectual curiosity, critical thinking, and literacy in students while developing a respectful, responsible, and articulate global citizens.

**Somersworth High School and
Career Technical Center**

*11 Memorial Drive
Somersworth, NH 03878
603-692-2341*

Sharon Lampros, Principal

Katelyn Carrington, Assistant Principal

Lori Lane, Director, Somersworth Career Technical Center

Krystyna Smith, Athletic Director

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PLEASE NOTE: Descriptions of courses in this guide do not constitute a guarantee that all courses will be taught during the 2015-2016 school year. Somersworth High School and Career Technical Center reserves the right to cancel any course due to under-enrollment, scheduling issues, and/or budgetary constraints.

ACCREDITATION STATEMENT

Somersworth High School & Career Technical Center is accredited by the New England Association of Schools and Colleges, Inc., a non-governmental, nationally recognized organization whose affiliated institutions include elementary schools through collegiate institutions offering post-graduate instruction. Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one while has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation. Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution. Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of the school or college. Individuals may also contact the Association:

New England Association of Schools and Colleges
209 Burlington Road
Bedford Massachusetts 01730-1433
(617)-271-0022 FAX (617)-271-0950

NOTICE OF NONDISCRIMINATION

The Somersworth School District shall not discriminate in its education programs, activities, or employment practices on the basis of race, color, national origin, age, sex, sexual orientation, marital status, religion, domestic violence, harassment, sexual assault, stalking, handicap or economic status under the provision of Title VI of the Civil Rights Act of 1964, the Age Discrimination Act of 1967, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973. Any person having injuries concerning the Somersworth School District's compliance with the stated above may contact: Pam MacDonald, Age Discrimination Coordinator, Section 504 Coordinator, and Title VI, Title VII, Title IX of the Education Amendments of 1972, of the Civil Rights Act of 1964 and laws of New Hampshire pertaining to non-discrimination. (603)-692-4450.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

The mission of the ESOL Program is to ensure that all English language learners are given an equitable, appropriate and academically challenged education. The lack of English language skills is not a barrier to participation in any courses.

VISUAL IMPAIRMENTS

Students and/or their parents or legal guardians who have visual impairments should contact the Office of the Principal for assistance in accessing information. Please call (603)-692-2431 ext. 302.

COURSE COMPETENCIES

High school credit for a course includes demonstrating mastery of required competencies of the course, as approved by certified school personnel. Competencies will be identified in each course syllabus and demonstration of mastery of competencies will be required for earning high school credit for all courses. Course competencies will include:

- ◆ The expected content, concepts and skills to be mastered in a course;
- ◆ The process by which a student demonstrated sufficient evidence of learning; and
- ◆ What evidence students must include to demonstrate their attainment of the competencies.

To receive credit for a course, students must pass the identified course competencies and earn a passing grade of 60. Students who fail a course for attendance, but pass the competencies will fail the course. Students who fail one or two competencies will have the option to recover those competencies.

GRADING POLICY

For every high school course, teachers will develop and distribute both a course syllabus and a teacher policy and procedures statement regarding grading policy for each course. This will collectively address the following items: course description, brief summary of what students need to do in order to earn credit for the course, list of major concepts covered, list of course competencies, methodologies used, assessment tools, corresponding grading weights, grading practice, classroom behavior, homework policy, text utilized, student expectations, progress report procedures, and the teacher's availability for extra help.

HOMEWORK POLICY

The School Board recognizes homework as a constructive tool in the teaching/learning process. Further, the Board recognizes homework as a shared responsibility among parent/guardian, student, and teacher. Homework not only extends knowledge and skill, but reinforces habits of self-discipline and perseverance necessary for life-long learning. To this end, students expect to be assigned homework on a regular basis as one means of extending learning beyond the classroom and the school day.

Consistent with the guidelines the Student Handbook, each class within the district shall develop a written homework policy, establishing guidelines related to the frequency and length of the assignments, and how homework assignments are related to the grading system. The homework policy will be published in each

CLASS STANDING

Class standing is based on the number of credits EARNED

Freshman: 0 to 5.75 credits

Sophomore: 6 to 12.75 credits

Junior: 13 to 17.75 credits

Senior: 18 + credits

Class standing is adjusted just once at the end of each school year.

All Freshmen, Sophomores, and Juniors must be scheduled for 4 credits per semester and Seniors must schedule for a minimum of 3 credits per semester.

GRADE POINT AVERAGE, RANK, AND HONOR ROLL

The official Grade Point Average (GPA) is calculated each semester based on final averages. A student's Grade Point Average is computed by the total GPA points divided by the total GPA credits. Pass/Fail courses are not calculated in the GPA.

Students are eligible to qualify for the Honor Roll on a term-by-term basis. Scores are not rounded up for Honor Roll or GPA. Seniors must carry a minimum of three credits per semester with six credits per year to be eligible while underclassman must carry a minimum of four credits per semester with eight credits per year. A student must receive a letter grade for the course and it must not be below a C- in order to qualify. The following term GPA scores must be earned to achieve the given level of honors:

Level	Term GPA
Highest Honors	3.67-4.0
High Honors	3.33-3.66
Honors	3.0-3.32

GRADING AND QUALITY POINT SCALE

GRADE	SCORE	REGULAR	HONORS	AP
A	94-100	4.00	5.00	5.50
A-	90-93	3.67	4.67	5.17
B+	87-89	3.33	4.33	4.83
B	83-86	3.00	4.00	4.50
B-	80-82	2.67	3.67	4.17
C+	77-79	2.33	3.33	4.83
C	73-76	2.00	3.00	3.50
C-	70-72	1.67	2.67	3.17
D+	67-69	1.33	2.33	3.83
D	63-66	1.00	2.00	2.50
D-	60-62	0.67	1.67	2.17
F	0-59	0.00	0.00	0.00

TOP TEN RANKING

The top ten students, earning a 26 credit Somersworth High School diploma, are determined based on cumulative GPA earned at the end of the 3rd quarter of their senior year. Pass/Fail courses are not included in the GPA for class rank.

COURSE SELECTION AND ADJUSTMENT PROCESS

During the spring semester the school counseling department will make the Program of Studies available to students online as well as in their Future classrooms. Students are asked to discuss their course selections for the following year with their current and/or past teachers, their parents, and their assigned school counselor. Course selection will be facilitated by the School Counseling Department with the students through the PowerSchool online portal. The schedule for the upcoming school year is based on student sign-ups in the preceding spring. It is imperative that students make decisions on the courses they will take in accordance with the recommendations from their teachers and the counseling staff. Incomplete schedules will be filled available existing courses.

Any schedule adjustment for the school year must be done within the first three days of the start of the course. After that, course changes will be considered only under extenuating circumstances and based on course availability. **A student who drops a course after the third week of the course will receive a WF** (withdrawal failing) final grade for that course unless the classroom teacher agrees that the student lacks academic ability in that subject.

EARLY GRADUATION

The Somersworth School Board supports early graduation as a means to earn a diploma. The high school principal shall approve such requests if graduation requirements will be met with a minimum of 26 credits and credits for all required courses and if the request is related to a student's career or educational plan. Students must file a request for early graduation with the principal no later than October 1st of their senior year. Only upon approval shall the minimum 6 credits/year and 3 credit/semester senior requirement be waived. Early graduates are not allowed to participate in second semester school activities except for graduation related activities.

SCHOOL COUNSELING SERVICES

All students are assigned a primary school counselor upon entering Somersworth High School and Career Technical Center. School counselors develop and deliver counseling programs and services which provide students with the knowledge and skills for success in the academic/technical, career, and personal/social domains. Students are encouraged to meet with their counselor for both prevention and intervention supports so the counselor and student can develop proactive rather than reactive solution-focused results. Counselors may refer students in need of long-term personal counseling or emergency services to an outside agency or private therapist.

Considerable emphasis is placed upon post-secondary planning with students and parents. Information regarding four- and two-year colleges, technical schools, military options and scholarships are available in the school counseling department as well as the school counseling section of the website shsctcschoolcounseling.weebly.com. Students who elect not to attend a post-secondary institution will receive career counseling to determine which direction they should take whether that be joining the military or jumping into the work force. Students and parents are invited to use the services offered by the school counseling department at any time during the school year. Appointments can be made with the School Counseling Registrar at 692-2431 ext. 311.

GRADUATION REQUIREMENTS

Somersworth High School and Career Technical Center requires a minimum of 26 credits and the following specific requirements for graduation:

Requirements	Class of '16, '17 & '18	Class of '19
Arts Education Fine or Performing Arts	0.5	0.5
Computer Education	0.5	0.5
English Must take one per year in sequence	4.0	4.0
Mathematics	3.0	3.0
Mathematics Elective or Math based course*		1.0
Science Must take Physical Earth & Biology	2.0	2.0
Social Studies Must take World Cultures & Geography or Honors Modern History, US History, Government & Economics	2.5	2.5
Health & Physical Education Must take Physical Education course & Freshman Health course	2.0	2.0
Electives/ CTE Programs	11.5	10.5
Total Credits:	26	26

*Starting with the class of 2019 the New Hampshire Department of Education will require all students to participate in a math course or math based course in their senior year. To meet this requirement, students can either enroll in a course offered in the Mathematics Department OR in one of the following courses to be determined.

SUGGESTED SEQUENCE OF COURSES

This is a 4-year plan to meet the basic SHS & CTC graduation requirements. Please note that this plan will NOT be enough to gain admission into a four year college. Please see "Meeting Requirements for College" for more information. In addition it is important to understand that students will be scheduled into the appropriate grade level course sequence each year. *See Career Clusters for suggested course sequence in regards to various career paths.

Grade 9	Grade 10	Grade 11	Grade 12
<u>Required Courses:</u> Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health Physical Education Elective Health Elective	<u>Required Courses:</u> World Lit. and Composition Integrated Math 2 Biology US History Fine Art	<u>Required Courses:</u> American Lit. and Composition Integrated Math 3 Government Economics Computer Elective	<u>Required Courses:</u> British Lit. and Composition

ALTERNATIVE SATISFACTION OF GRADUATION REQUIREMENTS

Somersworth High School and Career Technical Center students often have alternative means of meeting graduation requirements. The chart below shows how interdisciplinary credits may be earned to meet graduation requirements.

Requirement	Course	Credits Met
Arts Education	Introduction to Art	0.5
	Drama	0.5
	Band	0.5 – 1.0
	Chorus	0.5 – 1.0
Arts Education OR Computer Education	Photoshop	0.5
	Illustrator	0.5
Computer Education	Digital Media I	1.0
	Computer/ Network Technician I	2.0
	Introduction to Engineering Design	1.0
	Digital Electronics	1.0
	Principles of Engineering	1.0
Economics	Marketing I	2.0

****Please note: In addition to grade level, courses may require additional prerequisites. Please see course descriptions for more information.**

MEETING ADMISSIONS REQUIREMENTS FOR COLLEGE

Colleges want strong academics and applicants who have challenged themselves, shown a strong work ethic, and who have proven development of skills and knowledge through a solid grade point average. Additionally, many colleges will accept students with average high school transcripts but who have demonstrated particular skills or exceptional qualities of character and leadership. As you plan your 4 years of high school, consider the guidelines below:

4-Year Colleges		2-Year Colleges	
Courses should be taken at the Honors level or higher. AP classes are highly encouraged for applicants applying to 4-year institutions.		Courses should be a blend of general level and Honors level courses.	
English	4 credits	English	4 credits
Social Studies	3-4 credits	Social Studies	3 credits
Mathematics	4-5 credits, including at least IM3	Mathematics	3-4 credits, including at least IM3
Science	3-5 credits (depending on college or major)	Science	3-4 credits
World Language	2-5 credits in the same language (depending on college or major)	World Languages	0-3 credits in the same language depending on college or major
Electives	10 or more credits of elective should be chosen from those available based on personal interest and educational goals.		

SHS & CTC SPORTS

SHS & CTC offers a number of different athletic teams for students to participate in. Students who are not passing all of their classes may not be eligible to play sports during their respective season. Athletes Take Note! Students who want to participate in Division I or Division II collegiate athletic programs must meet the NCAA eligibility requirements and be certified by the NCAA Clearinghouse. See your school counselor for further information or go to www.ncaaclearinghouse.net.

Fall	Winter	Spring
Field Hockey	Basketball	Baseball
Football	Ice Hockey	Softball
Soccer	Spirit	Track
Spirit	Track	
Volleyball		

*Changes to the offerings may occur. Please field questions to Krystyna Smith, Athletic Director.

SHS/CTC CLUBS & ORGANIZATIONS

SHS & CTC offered a number of co-curricular clubs and organizations for students to participate in. These clubs bring together students with common interests and skills but in many cases, also develop student leadership and organizational skills. Additionally, colleges are looking for students who participated in different experiences in high school to become well-rounded students.

Clubs & Organizations	9	10	11	12
Math Team	X	X	X	X
Interact Club	X	X	X	X
Student Council	X	X	X	X
Drama Club	X	X	X	X
Yearbook	X	X	X	X
Gay Straight Alliance	X	X	X	X
World Languages & Cultures Club	X	X	X	X
Youth to Youth	X	X	X	X
Environmental Club	X	X	X	X
Chain Reaction Club	X	X	X	X
Class Officer / Board	X	X	X	X
National Honor Society		X	X	X
National Technical Honor Society			X	X
DECA (Marketing Students)			X	X
Future Business Leaders of America (Business Students)			X	X
Life Smarts	X	X	X	X
Jazz Ensemble	X	X	X	X
Jazz Combo	X	X	X	X

*Students are encouraged to work with faculty to innovate new clubs and organizations tailored to their interests.

TESTING PROGRAM

Somersworth High School and Career Technical Center is dedicated to providing students with the opportunity to prepare them to be college and career ready at the end of their four years of high school. Some of the tests below are offered here at Somersworth High School and Career Technical Center while others have to be taken off site. Various tests are used as college entry assessments while others help students focus their career goals. For more information please refer to the School Counseling Department.

GRADES 10-11	<p>PSAT— The Preliminary Scholastic Assessment Test/National Merit Scholarship Qualifying Test measures verbal, mathematical, and writing abilities. National Merit Scholarships are determined by PSAT/NMSQT scores taken in the junior year. The test is given in the fall and should be taken by all sophomores and juniors considering post-secondary education.</p> <p>PLAN— Students who intend to take the ACT in place of or in addition to the SAT should take the PLAN in their sophomore and junior years. The PLAN measures proficiency in English, math, reading, and science. It also includes a career exploration component .</p>
GRADES 10-12	<p>ASVAB—The Department of Defense offers an optional testing program for students in grades 10-12 in schools throughout the U.S. This testing program utilizes the Armed Services Vocational Aptitude Battery (ASVAB), is also available at no cost or obligation to the student to enter the military. This test provides career information related to each student’s abilities and aptitude.</p>
GRADES 11-12	<p>ACCUPLACER— Juniors and seniors may take the Accuplacer test in English and mathematics to help determine college readiness. Students who are planning to attend a 2-year program may also be asked to take portions of the Accuplacer which can be administered at no cost to the student through Somersworth High School and Career Technical Center.</p>
GRADES 11-12	<p>SAT— The Scholastic Assessment Test is required for admission to many post-secondary institutions. All students in their junior year considering post-secondary education should take this test in the spring and repeat them at least once in the fall of the senior year.</p> <p>*Students looking to take the SAT should be enrolled in at least IM 3 during the fall of junior year so they are prepared to take the exam during the spring semester.</p> <p>ACT— The ACT is an alternative assessment to the SAT accepted by many post-secondary institutions. The ACT measures proficiency in English, math, reading and science.</p> <p>AP— The Advanced Placement exams allow students the opportunity to earn college credit. Exams take place on specific days (determined by College Board) in May. A completed AP course on a student transcript will stand out in the admissions process.</p>



NEW HAMPSHIRE STATE SCHOLARS

Somersworth High School and Career Technical Center participates in the New Hampshire Scholars Program, a state and national initiative that encourages students to take a more rigorous course load in high school. The New Hampshire Scholars Program partners with business leaders in the community to provide a variety of opportunities to foster a successful transition to college course work or technical training to enter today's competitive job market. Students agree to a four-year plan to complete the Core Course of Study needed to be recognized as a New Hampshire Scholar.

New Hampshire Scholars Core Course of Study

English:	4.0 Credits
Mathematics:	3.0 Credits
Science:	3.0 Credits (Biology, Chemistry, Physics, other lab science)
Social Studies:	3.5 Credits
World Languages:	2.0 Credits <u>(Must be in the same language)</u>

RUNNING START AND COLLEGE-LEVEL COURSEWORK

Somersworth High School and Career Technical Center offer juniors and seniors a way to work towards their high school diploma while also earning college credit. These programs are offered to students as a way to support post-secondary education at a drastically reduced price.

Project Running Start offers Somersworth High School and Career Technical Center juniors and seniors college credit through the New Hampshire Community College System. The credit earned is transcribed and will follow the student to which ever school they decide to attend. Students who successfully complete a Running Start course will generate a college transcript. This transcript can then be transferred to the students intended college to determine how these credits will meet established college program requirements.

Dual Enrollment offers Somersworth High School and Career Technical Center Marketing students the opportunity to earn college credit through the Maine Community College System.

Articulation Agreements offers Somersworth High School and Career Technical Center students the opportunity to earn college credit through a course at the high school level. This credits are not transferable to various institutions and will only show on the student's college transcript if the student attends the college in which the agreement is held. The Automotive Program at Somersworth Career Technical Center is a good example of this being that it has various Articulation Agreements with colleges such as WyoTech and Universal Technical Institute.

POST-SECONDARY CREDITS

Available at Somersworth Career Technical Center to Tri City Career Technical Center Students

Somersworth Career Technical Center Program & Class	College Class(es)	Institution	College Credits	Type of Credit
Marketing I & II	BUS100 Understanding Business	Central Maine Community College	3	Dual Enrollment
Digital Media & Communications: Photoshop	DMT135 Introduction to Photoshop	Great Bay Community College	3	Running Start
Digital Media & Communications: Adobe Illustrator	DMT175 Adobe Illustrator	Great Bay Community College	3	Running Start
Culinary Arts I & II	LCUL1460 Bakery Production	Lakes Region Community College	3	Articulation Agreement
	LCUL1510 Culinary Fundamentals			Running Start
	LCUL1520 Sanitation & Safety			
Teaching Education: Art, Music Movement, and Drama	ECE109 Art, Music, Drama, Movement in Early Childhood Education	Great Bay Community College	3	Running Start
Teaching Education: Child Health, Safety, and Nutrition	ECE116 Child Health, Safety, and Nutrition	Great Bay Community College	3	Running Start

Somersworth High School Courses

Topics in Applied College Math	MATH145 Topics in Applied College Math	Great Bay Community College	4	Running Start
Honors British Literature and Composition	ENGL110 College Composition I	Great Bay Community College	4	Running Start

Credits Available to Junior and Senior students only.

Articulation: Qualifying HS/CTC classes fulfill requirements for entry-level college classes through individual agreement between HS & college. No cost; no transcript.

Running Start Program: Agreements with the Community College System of New Hampshire. Students take college-level courses in High School for moderate fee; generates college transcript.

Dual Enrollment: Agreements with universities/colleges. Students take college-level courses in High School for moderate fee; generates transcript.

***Courses offered through the Running Start Program vary on a yearly basis. Check with the counseling office for the updated course list.**

CAREER CLUSTERS

Just the Facts...For Students and Parents

“What do you want to do after high school?” If you ask a lot of high school students that question, you will get a variety of answers, but the one that appears more often than not is, “I don’t know.” Students often don’t know exactly where they will be in five years but are able to indicate whether or not post-secondary education is part of their plan. This could mean that the student will go after an associate’s degree, bachelor’s degree or certificate program, but even at that they will be unsure what they want to study. Students that decide post-secondary education is not their path then they are most often looking into the military or joining the workforce post-graduation. So how does one decide what their path will be? The Career Clusters information included in the Program of Study can help guide some of those decisions by showing you the type of courses you can take in high school to help solidify the career path you would like in the future.

What is a Career Cluster?

A **Career Cluster** is a group of related careers or jobs. Nationally, there are sixteen (16) different clusters that cover over seventy-nine (79) career pathways which lead to thousands of career choices. Outlined for you in the Program of Study are twelve (12) of those Career Clusters. The Career Clusters included are:

- Architecture & Construction
- Arts, A/V Technology & Communications
- Business Management & Administration
- Education & Training
- Finance
- Health Science
- Hospitality & Tourism
- Information Technology
- Manufacturing
- Marketing
- Science, Technology, Engineering & Mathematics
- Transportation, Distribution & Logistics

Who benefits from using the Career Clusters information?

Everyone does! The Career Cluster information can assist ALL students in making informed decisions regarding which career field they choose, whether they are going right into the workforce or are attending a 4-year university. This information will also give them an opportunity to take control of which classes they take in high school in order to reach their career goal.

What kind of information will I find on a Career Cluster page?

Each Career Cluster page will contain two grids. The far left column on the top grid contains a list of the Career Paths that are found within each Career Cluster. From there you will find Post-Secondary options as well as possible college majors within that Career Cluster. The bottom grid then outlines what required and recommended courses are available at Somersworth High School and Career Technical Center for a student to pursue a career after high school in that particular Career Cluster. Recommended courses are just that; courses students who are interested in a particular Career Cluster and path may add additional knowledge and skills to help prepare students for life after high school.

How can students use the Career Cluster information?

The Guidance Office recommends that students make appointments with their counselors to discuss a four year plan for their courses at Somersworth High School and Career Technical Center. This plan can change throughout a student’s high school career, but having an idea of what areas are of interest as well as will help to support post-secondary efforts.

TRANSPORTATION, DISTRIBUTION & LOGISTICS CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Automotive Technician	Automotive Technology	Automotive Technology (specific brand, i.e. Dodge)	Business Administration— Entrepreneurial Studies
Service Manager	Entrepreneurship	Service Management	Business Administration— Management
Insurance Adjuster	Insurance Industry	Collision Repair Technology	Insurance
Automotive Engineer		Mobile Equipment Technology	Mechanical Engineering

Grade 9	Grade 10	Grade 11	Grade 12
<u>Required Courses:</u> Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health <u>Recommended Courses:</u> World Languages I Introduction to Engineering Design	<u>Required Courses:</u> World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective <u>Recommended Courses:</u> World Languages II	<u>Required Courses:</u> American Lit. and Composition Integrated Math 3 Government Economics Computer <u>Recommended Courses:</u> World Languages III Chemistry Marketing I Automotive Service Technology I	<u>Required Courses:</u> British Lit. and Composi- tion <u>Recommended Courses:</u> Physics Math Elective Automotive Service Technology II

MANUFACTURING CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Industrial Machinery Repairer	Advanced Composites Manu- facturing	Advanced Manufacturing and Process	Mechanical Engineering
Welder		Advanced Welding	
Ironworker	Pipe Welding	Welding Technology	
Civil Engineer		Civil Engineering Tech	Civil Engineering

Grade 9	Grade 10	Grade 11	Grade 12
<u>Required Courses:</u> Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health <u>Recommended Courses:</u> World Languages I	<u>Required Courses:</u> World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective <u>Recommended Courses:</u> World Languages II	<u>Required Courses:</u> American Lit. and Composition Integrated Math 3 Government Economics Computer <u>Recommended Courses:</u> World Languages III Chemistry Precision Machining 1 (Rochester)	<u>Required Courses:</u> British Lit. and Composition <u>Recommended Courses:</u> Physics Math Elective Precision Machining (Rochester)

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Mechanical Engineer	Advanced Machine Tool Tech	Advanced Manufacturing and Process	Mechanical Engineering
Electrical Engineer	Electrical Technology	Electrical Power and Control Tech	Electrical Engineering
Architect	Computer Aided Design—Architectural Construction		Architectural Engineering
Computer Hardware Engineer	Numerical Control Programming	Robotics Technology	Aerospace Engineering

Grade 9	Grade 10	Grade 11	Grade 12
Required Courses: Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health Recommended Courses: World Languages I	Required Courses: World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective Recommended Courses: World Languages II Introduction to Engineering Design	Required Courses: American Lit. and Composition Integrated Math 3 Government Economics Computer Recommended Courses: World Languages III Chemistry Digital Electronics Principles of Engineering	Required Courses: British Lit. and Composition Recommended Courses: Physics Math Elective Computer Integrated Manufacturing Engineering Design and Development

ARCHITECTURE AND CONSTRUCTION CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Facilities Manager	Building Construction Technology	Facilities Management	Facilities Management
Industrial Manager	Construction Drafting	Mathematics and Science	Industrial Engineering
Builder	Computer-Aided Design/Architectural Concentration	Building Construction Technology	Business Management—Entrepreneurial Studies
Architect		Civil Engineering Technology	Architecture

Grade 9	Grade 10	Grade 11	Grade 12
Required Courses: Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health Recommended Courses: World Languages I Introduction to Engineering Design	Required Courses: World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective Recommended Courses: World Languages II Woodworking Tech I Woodworking Tech II	Required Courses: American Lit. and Composition Integrated Math 3 Government Economics Computer Recommended Courses: World Languages III Chemistry Basic Home Repair Building Trades I	Required Courses: British Lit. and Composition Recommended Courses: Physics Math Elective Building Trades II

BUSINESS MANAGEMENT AND ADMINISTRATION CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Human Resources Manager	Human Resource Management	Business Administration	Human Resources Management
Store Manager	Entrepreneurship	Office Management	Retailing, Fashion Merchandising
Compensation Analyst	Bookkeeping	Mathematics and Science	Economics—Financial & Managerial Economics
Small Business Owner	Small Business Management	Entrepreneurship	Franchising

Grade 9	Grade 10	Grade 11	Grade 12
<p>Required Courses: Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health</p> <p>Recommended Courses: World Languages I</p>	<p>Required Courses: World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective</p> <p>Recommended Courses: World Languages II</p>	<p>Required Courses: American Lit. and Composition Integrated Math 3 Government Economics Computer</p> <p>Recommended Courses: World Languages III Chemistry Accounting I (Rochester)</p>	<p>Required Courses: British Lit. and Composition</p> <p>Recommended Courses: Physics Math Elective Accounting II (Rochester)</p>

FINANCE CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Cost Estimators	Accounting	Finance	Business Administration
Accountant	Finance	Business Administration	Accounting
Tax Examiner	Finance	Liberal Arts—Mathematics	Economics
Real Estate Appraiser		Real Estate	Business Management

Grade 9	Grade 10	Grade 11	Grade 12
<p>Required Courses: Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health</p> <p>Recommended Courses: World Languages I</p>	<p>Required Courses: World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective</p> <p>Recommended Courses: World Languages II</p>	<p>Required Courses: American Lit. and Composition Integrated Math 3 Government Economics Computer</p> <p>Recommended Courses: World Languages III Chemistry Accounting I (Rochester) Banking and Financial Services 1 (Rochester)</p>	<p>Required Courses: British Lit. and Composition</p> <p>Recommended Courses: Physics Math Elective Accounting II (Rochester) Banking and Financial Services 2 (Rochester)</p>

HOSPITALITY & TOURISM CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Chef	Food Service Production	Culinary Arts & Nutrition	Nutrition
Pastry Chef	Pastry Arts	Baking and Pastry Arts	Culinary Arts
Restaurant Manager	Institutional Food Service	Restaurant Management	Business Administration— Management
Hospitality Manager	Event/Conference Management	Hospitality Management	Hospitality Management

Grade 9	Grade 10	Grade 11	Grade 12
Required Courses: Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health Recommended Courses: World Languages I	Required Courses: World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective Recommended Courses: World Languages II	Required Courses: American Lit. and Composition Integrated Math 3 Government Economics Computer Recommended Courses: World Languages III Chemistry Culinary Arts I Accounting I (Rochester)	Required Courses: British Lit. and Composition Recommended Courses: Physics Math Elective Culinary Arts II Accounting II (Rochester)

MARKETING CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Marketing	Marketing	Business Studies	Marketing
Advertising Sales Agent	Business Communications		Advertising
Buyers and Purchasers		Fashion Merchandising	Fashion Merchandising
Management Consultants	Business Management	Digital Communications	Communications

Grade 9	Grade 10	Grade 11	Grade 12
Required Courses: Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health Recommended Courses: World Languages I Fashion Merchandising	Required Courses: World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective Recommended Courses: World Languages II Sports Marketing	Required Courses: American Lit. and Composition Integrated Math 3 Government Economics Computer Recommended Courses: World Languages III Chemistry Marketing I	Required Courses: British Lit. and Composition Recommended Courses: Physics Math Elective Marketing II

ARTS,A/V TECHNOLOGY & COMMUNICATIONS CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Web or Graphic Designer	Graphic Design for Web	Web Development & Design	Digital Arts
Multimedia Artist	Integrated Arts	Fine Arts	Studio Arts
Animator	Programming	Graphic Design/Illustrator	
Camera Operator			Film Production
Video Editor	Graphic Design for Animation	Visual Arts	Animation and Special Effects

Grade 9	Grade 10	Grade 11	Grade 12
<u>Required Courses:</u> Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health <u>Recommended Courses:</u> World Languages I	<u>Required Courses:</u> World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective <u>Recommended Courses:</u> World Languages II Into to Broadcast Technology	<u>Required Courses:</u> American Lit. and Composition Integrated Math 3 Government Economics Computer <u>Recommended Courses:</u> World Languages III Chemistry Digital Media I & II Broadcast Technology I	<u>Required Courses:</u> British Lit. and Composition <u>Recommended Courses:</u> Physics Math Elective Digital Media III & IV Broadcast Technology II

INFORMATION TECHNOLOGY CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Computer Programmer	IT Tech Support	Computer Networking	Information Technology
Graphic Designers	Network Administration	Computer Technology	Game and Interactive Media Design
Computer System Analysts	Computer Info Systems	Computer Service	Computer Science

Grade 9	Grade 10	Grade 11	Grade 12
<u>Required Courses:</u> Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health <u>Recommended Courses:</u> World Languages I	<u>Required Courses:</u> World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Into to Art) Physical Education Elective Health Elective <u>Recommended Courses:</u> World Languages II Computer Education	<u>Required Courses:</u> American Lit. and Composition Integrated Math 3 Government Economics Computer <u>Recommended Courses:</u> World Languages III Chemistry Computer/Network Technician I	<u>Required Courses:</u> British Lit. and Composition <u>Recommended Courses:</u> Physics Math Elective Computer/Network Technician II

EDUCATION & TRAINING CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Para-Educator	Associate Teacher, Early Childhood Education	Early Care & Education: Young Children with Disabilities	Education
Occupational Therapist	Autism Education		Occupational Therapy
K-8 Classroom Teacher		Early Childhood Education	Teacher Education, Multiple Levels
High School Teacher			High School Teaching

Grade 9	Grade 10	Grade 11	Grade 12
<p>Required Courses: Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health</p> <p>Recommended Courses: World Languages I</p>	<p>Required Courses: World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Intro to Art) Physical Education Elective Health Elective</p> <p>Recommended Courses: World Languages II Intro to Teacher Education</p>	<p>Required Courses: American Lit. and Composition Integrated Math 3 Government Economics Computer</p> <p>Recommended Courses: World Languages III Chemistry Teaching Education, Multiple Levels I Child Development</p>	<p>Required Courses: British Lit. and Composition</p> <p>Recommended Courses: Physics Math Elective Teaching Education, Multiple Levels II Child Health, Safety, and Nutrition Art, Music Movement, and Drama</p>

HEALTH SCIENCE CAREER CLUSTER

Career Paths	Certificate Programs	2-Year College	4-Year College
Biomedical Engineer	Phlebotomy	Biological Sciences	Biomedical Engineering
Forensic Scientist	Criminal Justice	Chemistry	Forensic Chemistry
Pathologist	Diagnostic Medical Sonography	Liberal Arts—Health Science	Biochemistry

Grade 9	Grade 10	Grade 11	Grade 12
<p>Required Courses: Survey of Lit. and Composition Integrated Math 1 Physical Earth Science World Cultures and Geography Physical Education Freshman Health</p> <p>Recommended Courses: World Languages I</p>	<p>Required Courses: World Lit. and Composition Integrated Math 2 Biology US History Fine Art (Intro to Art) Physical Education Elective Health Elective</p> <p>Recommended Courses: World Languages II</p>	<p>Required Courses: American Lit. and Composition Integrated Math 3 Government Economics Computer</p> <p>Recommended Courses: World Languages III Chemistry Biotechnology I Intro to Anatomy & Physiology</p>	<p>Required Courses: British Lit. and Composition</p> <p>Recommended Courses: Math Elective Biotechnology II Honors Anatomy & Physiology I Honors Anatomy & Physiology II</p>

ENGLISH

001 SURVEY OF LITERATURE & COMPOSITION

GRADE 9

1 CREDIT

The purpose of this course is to introduce new language arts concepts and to provide practice for the mastery of previously learned skills. Literature, the writing process, speech, drama, and grammar will be explored using a number of related activities. An additional aim of the course is to increase the student's sensitivity to literature and enjoyment of reading.

[21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

002 HONORS SURVEY OF LITERATURE & COMPOSITION

GRADE 9

1 CREDIT

This class is designed for students with superior skills and achievement in English. Students will complete the core curriculum and will read additional selections, keep journals, study vocabulary expansion techniques, and write essays. The level of literary analysis and discussion will be intensified, and a formal research paper will be assigned.

[21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

003 WORLD LITERATURE & COMPOSITION

GRADE 10

1 CREDIT

Students will continue to practice and refine the language skills learned in English I. The reading material will focus on world literature from a variety of cultures. Major works will include *The Joy Luck Club*, *A Thousand Splendid Suns*, and a multitude of short stories and poetry. This course will feature an ample amount of vocabulary and grammar, as well as an emphasis on expository writing. [21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

PREREQUISITE: Successful completion of Survey of Literature & Composition

004 HONORS WORLD LITERATURE & COMPOSITION

GRADE 10

1 CREDIT

This class is designed for students with superior skills and achievement in English. Students complete the core world literature curriculum with assignments modified to advanced vocabulary study. There will be additional reading, an extensive writing curriculum which includes literary criticism, an oral presentation, and a formal research paper. Students are recommended to have earned a "B" or better in Survey of Literature & Composition.

[21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

PREREQUISITE: Successful completion of Survey of Literature & Composition

005 AMERICAN LITERATURE & COMPOSITION

GRADE 11

1 CREDIT

American literature will be used to teach students to be more perceptive readers, more articulate and effective writers, and more fluent speakers. Previously learned skills will be reinforced as students concentrate on literature by classic American authors. The writing process will be emphasized. Speech and drama will also be included. [21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

PREREQUISITE: Successful completion of World Literature & Composition

006 HONORS AMERICAN LITERATURE & COMPOSITION

GRADE 11

1 CREDIT

Students will study the American literary tradition in greater depth. Writing assignments will consist of critical paragraphs, short essays, and analytical papers. Course work also will include the writing process, vocabulary study, and class discussion. A research paper will be assigned. Students are recommended to have earned a "B" or better in World Literature & Composition. [21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

PREREQUISITE: Successful completion of World Literature & Composition

007 BRITISH LITERATURE & COMPOSITION

GRADE 12

1 CREDIT

Students will explore the universality of themes in literature by surveying selections from British Literature. This course will serve as the culminating English course for students, and will spend time polishing mechanical skills, writing techniques, and mastery of vocabulary. [21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

PREREQUISITE: Successful completion of American Literature & Composition

008 HONORS BRITISH LITERATURE & COMPOSITION

GRADE 12

1 CREDIT

Students will complete the core British Literature & Composition curriculum and intensified assignments to prepare them for the transition to college-level work. Included will be advanced vocabulary study, a research paper, literary criticism and additional reading assignments. Students are recommended to have earned a "B" or better in American Literature & Composition. This course has been offered through Running Start Program. [21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

PREREQUISITE: Successful completion of American Literature & Composition

020 AP ENGLISH LITERATURE AND COMPOSITION

GRADE 11, 12

2 CREDITS

This course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider the structure of a work, style and themes, as well as such smaller scale elements as the use of figurative language, imagery, symbolism, and tone. Students also reflect upon the social historical values it reflects and embodies. Writing is an integral part of this course; assignments will focus on the critical analysis of literature and include expository, analytical, and argumentative essays. Successful completion of this course fulfills English credit for juniors. It may also be taken as elective credit by juniors or seniors. [21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

RECOMMENDED: B+ or better in previous Honors English courses.

009 AP ENGLISH LANGUAGE AND COMPOSITION

Grade 12

2 CREDITS

This course is devoted to the analysis of language and composition. Completion of a reading and writing assignment is required during the preceding summer. Preparation for the national AP examination is included in the spring semester. Success on this exam earns college credit at many colleges and universities. Students are expected to take the Advanced Placement examination which grants college credit in English to those who attain a sufficiently high score. It may also be taken as elective credit by juniors or seniors. [21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

RECOMMENDED: B+ or better in previous Honors English courses.

013 CREATIVE WRITING

GRADES 10, 11, 12

1/2 CREDIT Elective

This course is designed to give students who like to write the opportunity to develop their skills and to free their creativity. Students will write poetry, short stories, personal essays, reviews, letters to the editor, and interviews. They will be encouraged to develop their ideas clearly and logically. In addition, punctuation and grammar will be taught. [21st CLE A1.1-A1.5]

016 SHORT STORY

GRADES 10, 11, 12

1/2 CREDIT Elective

Short stories explore complex human relationships in a brief plot structure. Many short story writers bring new energy to the form by reflecting the changing values, attitudes, and issues of the times. This course is designed to develop the student's ability to understand the characters and themes in the stories and to relate their own experiences to the human condition. Students will be asked to react in writing to the reading. A critical analysis paper will be required as well as a short story which will be written over the course of the nine weeks. Authors will include Welty, Chopin, Faulkner, Updike, Hemingway, Walker MacLeod, and other recent contributors to this genre. [21st CLE A1.1-A1.5]

017 "IT'S THE END OF THE WORLD AS WE KNOW IT": DYSTOPIAN/APOCALYPTIC & POST-APOCALYPTIC LITERATURE

GRADES 10, 11, 12

1/2 CREDIT Elective

Do you enjoy books and movies about zombies, plagues, and the end of the world? This course will explore texts that describe a destructive and terrible future for our world. We will read texts that were written in the past, like *1984*, *Brave New World*, or *The Handmaid's Tale* to see if these earlier writers were correct about our future, and look at works that imagine our near and distant futures into the 2000's. This class will involve reading, discussion, and writing, along with examining the past and current social issues that inspired authors to create these bleak pictures of the future. Films may also be considered and studied in this course. Other texts could include *I am Legend*, *The Passage*, *The Stand*, and *The Road*. [21st CLE A1.1-A1.5, A3.2, A7.1-A7.3]

022 HEROES, LOVERS, & GODS: INTRO. TO CLASSICAL MYTHOLOGY

GRADES 10, 11, 12

1/2 CREDIT Elective

The myths of the Greeks and Romans are over-glorified soap operas! However, knowledge of classical mythology is also an invaluable resource for understanding the art and thought of the Western tradition, providing a vast set of stories and symbols for ancient and modern writers, artists, and thinkers. Moreover, the myths themselves provide an excellent starting point for the study of Greek and Roman culture. This course will provide an introduction to the major myths of Greece and Rome—including the creation of the cosmos, Olympians and other deities, and human heroes and their exploits—both as they appear in Greek and Roman literature and art and as they are represented in modern art, music, and film. The course may also take a fieldtrip to the Boston Museum of Fine Arts to view examples of art influenced by mythology! [21st CLE A1.1-A1.5, A4.1, A4.2, A7.1-A7.3]

021 NEW YORK TIMES BEST SELLER'S LIST

GRADES 11, 12

1/2 CREDIT Elective

This course is a literature driven class, focusing on contemporary novels that have recently made the New York Times Best Seller's List. The course will work on reading and analyzing some of the most popular, contemporary novels of our time. Examples would be: *Water for Elephants*, *The Help*, *The Room*, *Time Travelers Wife*, *Memoirs of a Geisha*, and *Unbroken*. [21st CLE A1.1-A1.5]

018 S.A.T. PREPARATION

GRADES 10, 11, 12

1/2 CREDIT Elective

This 9 week course will give you a head start towards conquering the SAT. We will review the vocabulary, the setup, the scoring process, the types of questions asked, how to write on command to a prompt as well as take multiple practice exams. If nothing else, you will learn how to conquer your fears when it comes to the test itself and walk in to the testing room much more confident that you can do this! [21st CLE A1.1-A1.5]

011 PUBLIC SPEAKING

GRADES 11, 12

1/2 CREDIT Elective

Are you afraid to speak in public? Heck, are you even nervous about speaking in class? In this nine week course, you will learn the basics of how to prepare and deliver a speech. You'll learn about what keeps a speech interesting, how to successfully engage an audience, and how to deliver a speech as opposed to read a text. So whether you are interested in running for class office, public office, or simply convincing the school board to consider a new idea, the goal of this course is to develop or strengthen your comfort level with speaking before any group. [21st CLE A1.1-A1.5, A2.1, A2.2, A3.2, A7.1-A7.3]

012 DEBATE

GRADES 11, 12

1/2 CREDIT Elective

In this nine – week course, students will learn what it means to plan and execute a formal debate. How does one debate rather than just argue? What are the most effective and successful ways to advance your positions? Why do we need to seriously consider what others think? If you are interested in exploring these and other questions as we deal with current issues like drugs and alcohol, human sexuality, US immigration policies, cloning, the merits and demerits of public schools, etc., then this course is for you. Come on, let's debate it; let's explore the power of persuasion! [21st CLE A1.1-A1.5, A2.1, A2.2, A3.1, A7.1-A7.3]

015 INTRODUCTION TO PHILOSOPHY

GRADES 10, 11, 12

1/2 CREDIT Elective

This class is intended for high school students who enjoy using their critical thinking skills, listening to and discussing challenging ideas, and engaging in reflective thought about life and its meaning. Students will learn about many of the world's greatest philosophers, including Plato, Aristotle, Aquinas, Kant, Hume, Locke, Spinoza, Descartes, Nietzsche, and Sartre. Students will also investigate the philosophical ideas behind ethics, epistemology, existentialism, logic, reason, rationalism, metaphysics, and empiricism. World religions such as Buddhism, Islam, Hinduism, and Judaism will be looked at. Journal and essay writing will be used to help students develop and express their own personal philosophies of life. [21st CLE A1.1-A1.5, A2.1, A2.2, A7.1-A7.3]

FINE & PERFORMING ARTS

501 INTRODUCTION TO ART

GRADES 9, 10, 11, 12

1/2 CREDIT

This course will be an introduction to art through the understanding of the basic elements and principles of art and design (such as line, space, shape, color, texture, balance, rhythm, movement, and repetition). These elements and principles will guide students to explore art through a variety of media such as pencil, pastel, markers, pen, charcoal, paint, mixed media, papier-mâché, and scratchboard. Students will explore art through the connection of art history, technology, and personal experience. [21st CLE A2.1, A3.1, A3.2, A8.6]

THIS COURSE IS A PREREQUISITE FOR ALL OTHER ART COURSES.

510 DIGITAL PHOTOGRAPHY—BEGINNER

This course will be an introduction to Digital Photography for beginners. This is a half credit course for students who have successfully passed Photoshop. Students will understand the fundamentals of digital photography including how to use the camera, understanding composition in photography, the history of the camera, the importance of lighting, and the use of the photo editing software Photoshop in photography. They will know how to use the appropriate Aperture, ISO and Shutter Speed on the camera for various situations in photography.

504 DRAWING I

GRADES 9, 10, 11, 12

1/2 CREDIT Elective

Students who like to draw and who would like instruction in the basics should elect this offering. Areas include: proportion, shading, perspective, texture, and composition. Media will include pencil, charcoal pencil, India ink, and colored pencils. Weekly homework will be assigned. Recommendation: Drawing should be taken prior to painting. [21st CLE A2.1, A3.1, A3.2, A8.6]

PREREQUISITE: Intro. to Art

505 DRAWING II

GRADES 10, 11, 12

1/2 CREDIT Elective

A class for those who have successfully passed Drawing I, this course will build upon skills learned in the basic course. Expressive and exciting visual images will be emphasized. This class should be elected by students who seek to improve their drawing or who seek admission to an art college. [21st CLE A2.1, A3.1, A3.2, A8.6]

PREREQUISITE: Drawing I

506 PAINTING I

GRADES 9, 10, 11, 12

1/2 CREDIT Elective

This course is for students who have never painted before and wish to learn or for experienced painters who wish to improve their skills. Each student will complete several pieces during this course and all supplies will be provided. Drawing should be elected before entering this course, but is not mandatory. Some basic drawing skills would be advantageous, however. [21st CLE A2.1, A3.1, A3.2, A8.6]

PREREQUISITE: Intro. to Art

507 PAINTING II

GRADES 10, 11, 12

1/2 CREDIT Elective

A course for students who have successfully passed Painting I, this class will build upon basic painting skills learned. A continuation of exploring painting and composition students in this course will add creativity and imagination to larger and more challenging assignments. Students who are interested in painting and seek admission to an art college should take this course. May be repeated with instructor permission. [21st CLE A2.1, A3.1, A3.2, A8.6]

PREREQUISITE : PAINTING I

508 MIXED MEDIA

GRADES 10, 11, 12

1/2 CREDIT Elective

This course will introduce students to three dimensional design. There will be a focus on the elements and principles of art such as form, shape, rhythm, balance, unity, and texture. Students will explore sculpture through various synthetic materials such as wire, paint, papier-mâché, cardboard, and found objects. [21st CLE A2.1, A3.1, A3.2, A8.6]

PREREQUISITE: Intro. to Art

509 ADVANCED PROJECTS

GRADES 11, 12

1/2 CREDIT Elective

This class is for students who wish to develop a portfolio for college admission. The course will help students improve individual skills with various media. It will also help them develop a feel for art college assignments. This class should be taken in the junior or first semester of senior year as admission portfolios are typically submitted in January. [21st CLE A2.1, A3.1, A3.2, A8.6]

551 / 550 BAND

GRADES 9, 10, 11, 12

1/2 OR 1 CREDIT Elective

This course deals with the study and performance of various types and styles of music through band literature. Students will be offered instruction and direction within the class setting to develop their musical and artistic talents. Students are required to take part in all concert and marching band performances during the school year. [21st CLE A1.1, A1.4, A1.5, A4.1-A4.3, A7.1-A7.3]

554 JAZZ IMPROVISATION

GRADES 9, 10, 11, 12

1/2 CREDIT Elective

The Jazz Improvisation course will delve into the American art form of jazz. Students will be involved in a broad spectrum of learning such as performing, listening, composing, and writing. The course will cover subjects of improvisation, jazz and American history, music theory, and composition. All students should be able to play an instrument and to read music. They will also be required to perform in a concert towards the end of the semester.

555 MUSIC THEORY I

GRADES 9, 10, 11, 12

1/2 CREDIT Elective

Music Theory I will be an introduction to music theory including music fundamentals, figured bass, analysis of musical segments, musical composition, and ear training. Requirements are a knowledge of music and being able to read basic musical notation. Students are not required to play an instrument, but they should be willing to sing from time to time.

553 / 552 CHORUS

GRADES 9, 10, 11 12

1/2 OR 1 CREDIT Elective

Chorus offers students an opportunity to sing a wide variety of musical styles from traditional choral literature to contemporary music. The course will also emphasize the development of sight reading skills. Students are required to take part in all performances. [21st CLE A1.1-A1.5, A2.1, A2.2, A4.1-A4.3, S1.1, S1.2, C1.1, C1.2]

556 THEATER PRODUCTION

GRADES 9, 10, 11, 12

1/2 CREDIT Elective

This course is a survey of the production aspects of theater and a workshop on stage performance. Students learn, through classroom practice, the art of acting and are exposed to all the aspects of production including producing, directing, designing, and the various technical crafts. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1, A4.1-A4.1]

557 HISTORY OF THEATER

GRADES 9, 10, 11, 12

1/2 CREDIT Elective

This course is a survey of the basic elements of theater. Students learn through classroom practice the art of acting and are exposed to a history of theater from Greek to modern. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1, A4.1-A4.1]

558 MUSICAL THEATER & PLAYWRITING

GRADES 9, 10, 11, 12

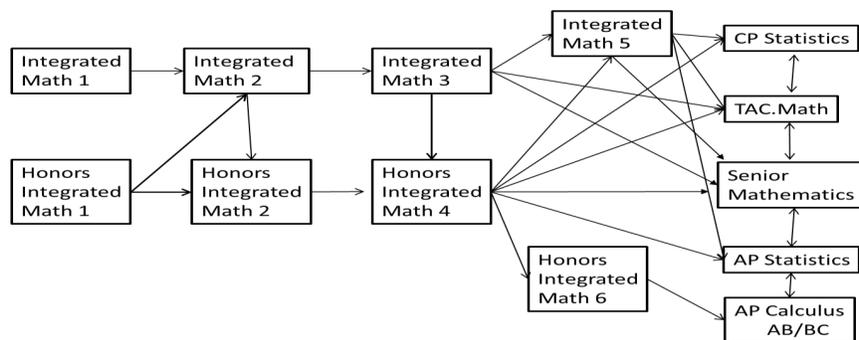
1/2 CREDIT Elective

This course is a survey of the basic elements of musical theater, playwriting, and a workshop in a stage performance. Students learn through classroom practice the art of acting and are exposed to a history of musical theater. Students will write a play in proper form. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1, A4.1-A4.1]



Mariah Cooper Class of 2018

MATHEMATICS



CURRICULUM

The SIMMS Integrated Mathematics curriculum is a complete NCTM standards based mathematics program. Developed for all students, SIMMS Integrated Mathematics involves real-world contexts and incorporates a modeling approach using technology. The curriculum is designed to replace all grade 9-12 mathematics courses, with the possible exception of advanced placement courses. Each level includes work in algebra, geometry, probability, statistics, data analysis, and discrete mathematics.

EXPECTATIONS

Students will be given written assignments on a daily basis. They will be expected to clearly document process and correct all errors in their work. Students will be expected to demonstrate proficiency in learner expectations in order to earn a passing grade. In-class labs missed due to absences will need to be made up before or after school to earn a daily grade. Grades will be based on written assignments, binder maintenance, class participation, behavior, grades and exams. It is recommended that students earning lower than a "C-" should repeat that course before advancing to the next level class.

USE OF TECHNOLOGY

Technology is an integral part of the mathematics curriculum at SHS/CTC, including the use of graphing calculators. The mathematics department has adopted the Ti-83Plus and the TI84 graphing calculator models and has a set available for use within the classroom. Any student wishing to purchase a graphing calculator for personal use outside the classroom is encouraged to buy one of those models so that the math teachers will be best able to assist students with their use.

101 INTEGRATED MATHEMATICS 1

GRADES 9, 10, 11, 12

1 CREDIT

Recommended for all students. Topics in this course include surface area, volumes, two-dimensional graphing, linear and introduction to polynomial equations & models, exponential equations & growth rate, direct & inverse proportions, introductory probability with expected value and fair games, similarity, introduction to sequences and series, and linear programming. Class goals will focus on students learning to communicate and reason mathematically and feel more confident in their ability to do mathematics. Students will be expected to take an active role as learners and work in a cooperative environment. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

102 HONORS INTEGRATED MATHEMATICS 1

GRADE 9

1 CREDIT

Same curriculum as IM1 (above) with higher work and performance expectations. Students must complete a district honors contract and return it to their teacher within the first two weeks of the semester. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

103 INTEGRATED MATHEMATICS 2

GRADES 10, 11, 12

1 CREDIT

Recommended for all students. Topics in the course include matrix operations and applications, right triangle trigonometry, probability, volume and surface area, solving systems of equations, linear programming, transformational geometry, linear, exponential laws and exponential and polynomial functions and quadratic models. Students will be expected to take an active role as learners and work in a cooperative environment. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

104 HONORS INTEGRATED MATHEMATICS 2

GRADES 10, 11, 12

CREDIT 1

Recommended for students who plan to major in mathematics or science. Topics in the course include similarity, matrix operations, right triangles, trigonometry, probability, volume and surface area, linear programming, transformational geometry, linear and quadratic models, and an introduction to polynomial functions. Students will be expected to take an active role as learners and work in a cooperative environment. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

PREREQUISITE: "C" OR better in Honors IM I OR "B+" or better in IM I and teacher recommendation

106 INTEGRATED MATHEMATICS 3

GRADES 10, 11, 12

1 CREDIT

Recommended for students considering business, liberal arts, social science, or non-technological post-secondary options. Topics in the course include arithmetic and geometric sequences and series, logarithms, fundamental counting principle, combination and permutation probability, modeling polynomial and exponential functions, properties of circles and circular functions, distance formula, trigonometry in general triangles, and an introduction to logic and reasoning. Students will be expected to take an active role as learners and work in a cooperative environment. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

PREREQUISITE: IM 2

120 SENIOR MATHEMATICS

This course is for seniors who are intending to attend, or giving consideration to attend, a post-secondary institution and would like to enroll in the TAC-Mathematics class but are unable to immediately enroll in the course for college credit. (Low Accuplacer score) Topics of the class are: operations on signed numbers, algebraic expressions, solving and graphing linear equations and linear inequalities, solving formula, rules of exponents, evaluating square roots, graphing lines, determining the slope of lines, simplifying polynomials, factoring polynomials, solving systems of linear equations, simplifying rational expressions, solving quadratics, and word problem applications.

PREREQUISITE: IM 3 and Accuplacer Test Score

107 HONORS INTEGRATED MATHEMATICS 4

GRADES 11, 12

1 CREDIT

Recommended for students who plan to major in mathematics or sciences. Topics in the course include circular polynomial and rational functions and their transformations, logarithms, vectors, introduction to proof, sequences and series transformational geometry, non-Euclidean geometry, combinatorics, parametric equations, normal distribution and graph theory. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

PREREQUISITE: "C" in Honors IM 2 OR "B-" in IM 2 and teacher recommendation

108 INTEGRATED MATHEMATICS 5

GRADES 11, 12

1 CREDIT Elective

Recommended for all students considering attending a four-year post-secondary school with the intention of studying business, liberal arts, or social sciences. Topics include polynomial rational and trigonometric functions, graph theory, algorithms, parametric equations, vectors, matrices, linear regression, probability fractals, logic number theory, and confidence intervals. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

PREREQUISITE : IM 3 OR Honors IM 4

109 HONORS INTERGRATED MATHEMATICS 6

GRADES 11, 12

1 CREDIT Elective

Recommended for students who plan to major in mathematics, physical science, or engineering. Topics in the course include polar coordinates, limits, chi square test, integration hypothesis testing, operations on functions, finite geometry, complex numbers, periodic and discontinuous functions, derivatives natural logarithms, induction and binomial probabilities. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

PREREQUISITE: "C" in Honors IM 4 OR "B+" in IM5 AND teacher recommendation

112 AP CALCULUS AB

GRADE 12

2 CREDITS Elective

AP Calculus is a year-long college-level course which follows the standards set by the College Entrance Examination Board. This course will begin with advanced mathematics including advanced geometry and other pre-calculus topics. Students are expected to take the Advanced Placement examination which grants college credit in calculus to those who attain a sufficiently high score. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

PREREQUISITE: "B-" or better in Honors IM 6

113 AP CALCULUS BC

GRADE 12

2 CREDITS Elective

AP Calculus BC is a year-long college-level course which follows the standards set by the College Entrance Examination Board. This course will begin with advanced mathematics including advanced geometry and other pre-calculus topics. The course will cover calculus topics through methods of integration and convergence tests for series. Students are expected to take the Advanced Placement examination which grants college credit in calculus to those who attain a sufficiently high score. [21st CLE A1.1-A1.5, A2.1-A2.2, A3.1-A3.2, A8.1-A8.4, A9.1-A9.5]

PREREQUISITE: AP Calculus AB or instructor permission

114 STATISTICS

GRADES 11, 12

1 CREDIT Elective

Students learn the major concepts and tools for collecting, analyzing, and drawing conclusions from data. They explore several broad conceptual themes of statistics such as exploring data, planning a study, modeling and anticipating patterns, and statistical inference. Students perform their own data analysis and research and are required to communicate their analysis in formal writing.

PREREQUISITE: Honors IM 4 OR IM 5

115 AP STATISTICS

GRADES 11, 12

1 CREDIT Elective

Students learn the major concepts and tools for collecting, analyzing, and drawing conclusions from data. They explore several broad conceptual themes of statistics such as exploring data, planning a study, modeling and anticipating patterns, and statistical inference. Students perform their own data analysis and research and are required to communicate their analysis in formal writing. This course follows the standards set by the College Entrance Examination Board. Students are expected to take an Advanced Placement examination which grants college credit in mathematics to those who attain a sufficiently high score (fall semester).

PREREQUISITE: "B-" or better in Honors IM 4 OR "B" or better in IM 5

116 TOPICS IN APPLIED COLLEGE MATHEMATICS

GRADES 11, 12

1 CREDIT Elective

This course focuses on quantitative thinking with real-world applications. Some topics covered are logic, number theory, number systems, algebra with applications, finance with simple and compound interest, geometry and measurement, probability and statistics, set theory, and graph theory.

PREREQUISITES: Satisfactory placement test scores as defined by the mathematics faculty or successful completion. This is a RUNNING START classes.

117 S.A.T. PREPARATION - MATHEMATICS

GRADES 10, 11, 12

1/2 CREDIT Elective

This 9 week course will give you a head start towards conquering the SAT. We will review the skills, the setup, the scoring process, the types of questions asked, test taking strategies, as well as take multiple practice exams. If nothing else, you will learn how to conquer your fears when it comes to the test itself and walk in to the testing room much more confident that you can do this! [21st CLE A1-A3, A7 – A9]

SCIENCE

201 PHYSICAL/EARTH SCIENCE

GRADES 9, 10, 11, 12

1 CREDIT

This course covers key principles of physical science within the realm of the earth's environment. Students taking the course will be better prepared for the principles taught in chemistry and physics, while exploring topics in today's headlines. Emphasis will be on laboratory activities. [21st CLE A1.1, A2.1, A2.2, A8.3]

202 HONORS PHYSICAL/EARTH SCIENCE

GRADES 9, 10, 11, 12

1 CREDIT

This course is an accelerated physical /earth science course covering the concepts of physics and introductory chemistry. Much emphasis will be placed on the mathematical interpretation of lab data. Students willing to accept the responsibility of this course will find it rewarding. This course is intended for students with strong math skills. The goal in this course is a balance between content, process (labs & projects), and an academic atmosphere. Interested students should score at least a 220 on the MAP math test before enrolling. [A1.1, A2.1, A2.2, A8.3]

203 BIOLOGY

GRADES 10, 11, 12

1 CREDIT

This course will provide an understanding of the fundamental principles of biology to provide the student with an awareness of the natural world and to stimulate inductive reasoning. Major units covered will include: study of life, homeostasis, cell biology, reproduction and development, genetics, evolution, and ecology. Basic laboratory techniques will be incorporated into the course.

[21st CLE A2.1, A2.2]

PREREQUISITE: Physical/Earth Science or Honors Physical /Earth Science

204 HONORS BIOLOGY

GRADES 10, 11, 12

1 CREDIT

This course is on an advanced level for students with above-average abilities. In addition to covering all of the topics of biology explained above in greater detail, this course will delve further into the field of genetics. [21st CLE A2.1, A2.2]

PREREQUISITE: "B" or better in Physical/Earth Science OR "C" or better in Honors Physical/Earth Science OR instructor permission.

881 BIOTECHNOLOGY I

GRADES 10, 11, 12

1 CREDIT

The semester-long course will focus on training students in lab skills commonly used in the biotechnology industry. There will be lots of hands on lab work during this course. Skills harnessed in this course will be isolating DNA from cells, manufacturing large quantities of DNA, growing bacteria, separating DNA with gel electrophoresis using microscopes to identify cells, and gaining valuable experience with a number of lab tools that are commonly used in professional labs.

[21st CLE A3.2, A7.1]

PREREQUISITE: Biology or Honors Biology

882 BIOTECHNOLOGY II

GRADES 11, 12

2 CREDITS

This is an advanced semester-long course in biotechnology that will focus on training students in lab skills while emphasizing current theories behind the molecular basis for disease. Skills obtained during this class will include measuring solution concentrations with spectroscopy using PCR, using 2 copy DNA in test tubes, bioinformatics research of micro-organisms, separation of protein cells, using gel electrophoresis, and culturing a variety of cell types.

[21st CLE A2, A3]

PREREQUISITE: Biotechnology I

205 CHEMISTRY

GRADES 11, 12

1 CREDIT Elective

This is a lab-based college-preparatory course designed to provide a basic foundation in chemistry. It is quantitative and requires good mathematical abilities. Data collection, good organization, and clear writing skills are stressed—as well as presentation of results and formulation of conclusions. Topics include the structure of matter and atomic theory, chemical reactions, the mole concept and stoichiometry, periodicity and chemical bonding, and the kinetic molecular theory and thermochemistry. Students planning to attend a four-year college, and/or are particularly interested in any of the medical, science, or engineering fields are recommended for this course. [21st, CLE A2.2, A3.2, A8.4-A8.6]

PREREQUISITE: “C” or better in IM 3 (may be taken concurrently with IM 3 with a “C” or better in IM 2)

209 HONORS CHEMISTRY

GRADES 11, 12

1 CREDIT Elective

This is an accelerated lab-based college-preparatory course designed to provide a solid foundation in chemistry. It is quantitative and requires strong algebraic mathematics. Data collection, good organization, and clear writing skills are stressed—as well as presentation of results and formulation of conclusions. Topics include those from the general chemistry course taught in greater depth, as well as additional topics such as nuclear chemistry, solutions, and acid-base chemistry. Students planning to attend a four-year college, and/or are particularly interested in any of the medical, science, or engineering fields are recommended for this course. [21st CLE A2.2, A3.2, A8.4-A8.6]

PREREQUISITE: “B” or better in IM 3 or “C” or better in Honors IM 4

206 PHYSICS

GRADES 11, 12

1 CREDIT Elective

This course introduces the basic principles of physics. Topics covered include vectors, kinematics, statics, dynamics, energy, momentum, and electricity. Conceptual learning is emphasized over mathematical problem solving; however, strong math skills are recommended. Suggested for students interested in post-secondary studies and/or a career in engineering, math, science, technology, or medicine. [21st CLE A3.2, A8.3, A8.5, A9.2]

PREREQUISITE: “C” in IM 3, “C” in Honors IM 4, or Instructor Permission

216 HONORS PHYSICS

GRADES 11, 12

1 CREDIT Elective

This course thoroughly explores the basic principles of physics. Topics covered include vectors, kinematics, statics, dynamics, work, energy, impulse, and momentum. The development of critical-thinking and mathematical problem-solving skills are emphasized; therefore, strong math skills are required. Recommended for students interested in studying engineering, math, science, technology, or medicine at a four-year institution. [21st CLE A3.2, A8.3, A8.5, A9.2]

PREREQUISITE: “B” in Physics, “C” in Honors IM 4, “B” in IM 5, or Instructor Permission

217 INTRO. TO ANATOMY & PHYSIOLOGY

GRADES 11, 12

1/2 CREDIT Elective

This course will bridge the gap between General Biology and Honors Anatomy and Physiology. It is designed for students who have an interest in Anatomy and Physiology but are concerned about the difficulty of the traditional Honors Anatomy and Physiology course. In this course, students will learn a couple of the key concepts of most units covered in Honors Anatomy and Physiology. The purpose of this class is to introduce students to some of the concepts covered in Honors Anatomy and Physiology in a less rigorous course. After this course, students should be better prepared to succeed in Honors Anatomy and Physiology. This course will also emphasize study skills and etymology of terms frequently used in Honors Anatomy and Physiology. [21st CLE A2.1, A 2.2, A3.2]

This course can be used as a Health elective.

PREREQUISITE: General Biology, OR Honors Biology

207 HONORS ANATOMY & PHYSIOLOGY I

GRADES 11, 12

1 CREDIT Elective

This course covers the structure and function of the human body and is recommended for those students going into the fields of medicine, dentistry, nursing, veterinary medicine, physical therapy, and physical education. Prior chemistry knowledge will be helpful, but is not required. Students taking this class will be able to demonstrate and describe how the body maintains stability via homeostasis at a variety of levels. They will also have a solid foundation in body regions and organizations, chemical and cellular organization of the body and the following systems: integumentary (skin hair nails), skeletal, muscular, nervous, and cardiovascular. [21st CLE A2.1, A2.2]

PREREQUISITE: "B" or better in Biology or Biotechnology I OR "C" or better in Honors Biology

208 HONORS ANATOMY & PHYSIOLOGY II

GRADES 11, 12

1 CREDIT Elective

As a continuation of A&P I, this rigorous honors course will focus on the endocrine, lymphatic, respiratory, digestive, metabolic, urinary, and reproductive systems. Students will be prepared for future college courses. Those dedicated students planning to pursue careers in the medical field are strongly recommended for this course as well as students who are interested in learning how their bodies work. [21st CLE A2.1, A2.2, A3.2]

PREREQUISITE: "C" OR better in A&P I

213 OCEANOGRAPHY

GRADES 11, 12

1 CREDIT Elective

This course covers the physical, chemical, geological, and biological aspects of the ocean environment. Students will be able to demonstrate and describe an understanding of the processes that affect our ocean planet and its habitat. Each student will be responsible for maintaining, observing and evaluating a tropical aquatic habitat. It is recommended for anyone interested in the field of science or marine biology. [21st CLE A1.1, A2.1, A2.2]

PREREQUISITE: Physical/Earth Science and Biology

212 HONORS OCEANOGRAPHY

GRADES 11, 12

1 CREDIT Elective

Students will be able to demonstrate and describe an understanding of the processes that affect our ocean planet and its habitat. Each student will be responsible for maintaining, observing and evaluating a tropical aquatic habitat. Students will take college level exams. Each student with a partner will be required to teach specific concepts to the class. They will have to research global issues weekly, collect materials, and then share. By the end of the semester, each student must research and present an environmental issue in NH today. [21st CLE A1.1, A2.1, A2.2]

PREREQUISITE: Honors Physical/Earth Science or Physical/Earth Science AND Honors Biology OR Biology

210 ZOOLOGY and ECOLOGY

GRADES 11, 12

1 CREDIT Elective

In Zoology, we will develop an understanding of how animals function within their own environment. In Ecology, we will examine the interrelationships among organisms at various levels and their impact on ecosystems perhaps far removed from them. Great emphasis will be placed on how the interrelationships among differing species have affected their evolution. [21st CLE A1.1, A1.3, A1.5, A2.1, A2.2, A7.1, A7.2, A8.3]

PREREQUISITE: Biology, Honors Biology or Biotechnology I and Physical /Earth Science.

SOCIAL STUDIES

300 WORLD CULTURES & GEOGRAPHY

GRADES 9, 10, 11, 12

1/2 CREDIT

Topics covered include world religions, world and regional geography, customs, clothing, celebrations, food, national landmarks, and local attractions. [21st CLE A4.1-A4.3]

301 HONORS MODERN WORLD HISTORY

GRADES 9, 10, 11, 12

1/2 CREDIT

Topics covered include the emergence of the modern world, the age of revolution, industry and nationalism, and world conflict. [21st CLE A1.1-A1.5, A4.1-A4.3]

302 US HISTORY

GRADES 10, 11, 12

1 CREDIT

This is a survey of US history from earliest colonization to the present day. There will be discussions on New Hampshire history. Library skills will be used and developed through long-range projects and papers. [21st CLE A1.1-A1.5, A2.1-A2.2, A4.1-A4.3]

PREREQUISITE: World Cultures & Geography OR Honors Modern World History

303 HONORS U.S. HISTORY

GRADES 10, 11, 12

1 CREDIT

Students trace the rise of the US as a world power in the 20th century. They analyze the development of American culture and describe the evolution of American democratic values and beliefs. Students develop and test hypotheses and by setting clear and valid criteria for judging the importance of significant events. They also compare and contrast the experiences of different groups in the US. Students demonstrate a variety of skills to communicate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States. Student are expected to complete nightly reading assignments along with homework, papers, and research. [21st CLE A2.1-A2.2, A4.1-A4.3, A7-A7.3]

PREREQUISITE: World Cultures & Geography OR Honors Modern World History or permission from instructor.

320 AP US HISTORY

GRADES 11,12

2 CREDITS

AP US History is a nationally standardized course for advanced junior and senior students under the requirements of the College Board. Some students may earn credit for college history after completing this class and taking the AP exam in the spring. This course is a fast paced survey of US History designed to stimulate and challenge students. This course examines the causes and effects of historical events and the social conditions covering the time periods from 1491 to the present. AP US History focuses on historical thinking skills such as continuity, comparison, periodization, causation, synthesis, argumentation, interpretation, contextualization, and the use of evidence. The course also focuses on the seven major themes of ideas, culture, and beliefs, the environment/geography, peopling, American identity, politics and power, America and the world, and work, exchange, and technology. A significant amount of outside reading is required for this course. Also Document Based and Free Response Essays are required weekly or bi-weekly. Class discussion of historical and current events is mandatory. The course culminates with the Advanced Placement United States History Exam which may be taken in the spring of the school year.

PREREQUISITES: B or better in freshman and sophomore social studies courses. Recommendation letter by Honors English teachers, previous high school Social Studies teacher, approval of the Advanced Placement history teacher, and a writing sample. NOTE: This course will satisfy the US History graduation requirement.

304 ECONOMICS

GRADES 11, 12

1/2 CREDIT

This course focuses on the development and the goals of the free enterprise system. It also examines the decision-making process in business and the importance of human relations skills. [21st CLE A8.1, A8.2, A8.3, A8.5, A8.6]

PREREQUISITE: Honors US History OR US History

305 HONORS ECONOMICS

GRADES 11, 12

1/2 CREDIT

This course challenges the student who wants to do independent work in the areas of personal finance, entrepreneurship, business management, and evaluating governmental impacts on the economy. Student are expected to complete nightly reading assignments along with homework, papers, and research. [21st CLE A3.1, A3.2, A8.1, A8.2, A8.6]

PREREQUISITE: Honors US History OR permission from instructor

306 GOVERNMENT

GRADES 11, 12

1/2 CREDIT

Students in this class discuss the US Constitution and the functioning of the federal, state, and local governments outlined under it. In addition to regular homework, students should expect some sort of project with class participation. [21st CLE A5.1-A5.3]

PREREQUISITE: Honors US History OR US History

307 HONORS GOVERNMENT

GRADES 11, 12

1/2 CREDIT

Students in this class discuss the US Constitution and the functioning of the federal, state, and local governments outlined under it. In addition to regular homework, students should expect some sort of project with class participation. This course is designed to provide students with a hands-on experience. There is a mandatory component to this class where the students must attend outside meetings such as school board and city council. Student are expected to complete nightly reading assignments along with homework, papers, and research. [21st CLE A3.1, A5.-1-A5.3]

PREREQUISITE: Honors US OR permission from instructor

312 THE 1960'S: DECADE OF REBELLION

GRADES 10, 11, 12

1/2 CREDIT Elective

This course is designed to cover the key events, people, and trends of the 1960's Topics include the Vietnam War, Civil Rights Movement, the Beatles, the Space Race, protestors, and other events. Films, books, magazines, photographs, music, and guest speakers are resources for this course. Students work to answer the question, "What did the movement and the "spirit of the sixties" accomplish?" [21st CLE A3.1, A4.1, A4.2]

PREREQUISITE: Honors US OR US History

314 RACE & ETHNIC RELATIONS

GRADES 11, 12

1/2 CREDIT Elective

Students explore the history of racial and ethnic relations within the US. They are exposed to the trials and tribulations of various minority groups and the history of discrimination. This course requires a lot of discussion. [21st CLE A3.1, A4.1, A4.2]

PREREQUISITE: Honors US History OR US History

316 PSYCHOLOGY

GRADES 11, 12

1/2 CREDIT Elective

This course is as an introduction to psychology through the understanding of the basic elements of human existence such as learning and cognition, stress and mental health, and psychological disorders. Students study how biology affects human development as related to learning and cognition and personality development. Students write weekly papers, perform case studies, complete research projects, and participate in a psychology fair. [21st CLE A1.1-A1.5, A7.1-A7.3]

PREREQUISITE: Honors US History OR US History

313 SPORTS IN AMERICA

GRADES 11, 12

1/2 CREDIT Elective

Through the study of sports, primarily baseball, students learn how American culture has been influenced by athletic interests. Using novels, poems, short stories, film, newspaper articles, and magazines, students examine the growth of the sports industry. Students understand how sports effected immigration, race relations, economics, television, transportation, urban development and decay, woman's rights, advertising, and our concept of heroes. A book report and a research paper is required. [21st CLE A3.1, A7.1-A7.3]

PREREQUISITE: Honors US History OR US History

309 WORLD WAR II

GRADES 11, 12

1/2 CREDIT

In this course students analyze, critique, research and learn about multiple aspects concerning the largest conflict the world has ever seen. Using primary and secondary sources students learn about each of the participating countries and how this war can be considered a truly global event. Students study the social, military, political, and cause and effect relationships among all belligerent nations. [21st CLE A4.1-A4.3, A7.1-A7.3, A9.4]

PREREQUISITE: US History.

713 MODERN AMERICAN HISTORY

GRADE 11, 12

1/2 CREDIT

This class is a survey of American society from 1970 to the present. The course briefly reviews Lyndon Johnson's Great Society, and the transformation of America in the late 1960s and then, beginning with Richard Nixon's silent majority, moves through the decades of the 70's, 80's and 90's and into the new millennium. The course looks at American society through perspectives such as politics, culture, oral and video histories, domestic and foreign affairs, economics, and more. As a class, we look to answer the question, "In what ways has America transformed since the end of the Vietnam War?" The course is a project driven, theme based study of American society with emphasis given to post 9/11/2001 America.

[21st CLE A1.1-A.15, A2.1-A2.2, A4.1 – A4.3]

PREREQUISITE: US History or Honors US History

311 ANCIENT GREECE AND ROME

GRADES 9-12

1/2 CREDIT

This class is a survey of Greek and Roman history from the 5th century BCE through the sack of the Rome in 400 CE. The Greek half of the course covers the Greek City States and the Athenian empire, the Peloponnesian and Persian Wars, and touches upon Greek Art, Drama, Philosophy, Government, and Religion. The Roman half of the course looks at the Roman Republic, The Roman Empire, and the Holy Roman Empire, and examines the means by which Rome grew from a City State (like those of the Greek's before) into history's most celebrated empire. [21st CLE A1.5, A4.1-A4.3]

308 THE BILL OF RIGHTS

GRADES 11, 12

1/2 CREDIT Elective

This course will explore the meaning of the Bill of Rights and how it effects your life. Debates and discussions will focus on freedom of speech, religion assembly, and the press as well as search and seizure, trails, steps following arrest, the death penalty, and much more. Supreme Court cases and decisions will be studied and analyzed.

[21st CLE A2.1-A2.2, A4.1-A4.3, A7-A7.3]

PREREQUISITE: Honor US History OR US History AND Government

310 ESPIONAGE

GRADES 10, 11, 12

1/2 CREDIT Elective

Students will study how nations over the last 200 years have used spies, surveillance, and covert operations to collect and analyze vital information. The impact of espionage on relations between nations will be discussed. Books, films, and maps will be utilized.

PREREQUISITE: World Cultures and Geography or Honors Modern World History

315 SOCIOLOGY

GRADES 11, 12

1/2 CREDIT Elective

Sociology is the academic study of social behavior, including its origins, development, organization, and institutions. It is a social science that uses various methods of empirical investigation and critical analysis to develop a body of knowledge about social order, social disorder and social change. The course will be structured around close examinations of social issues that students in the class choose to investigate. Topics like gun control, welfare, money and politics, wealth and poverty, civil disobedience, religion, and war are all good examples of the kinds of issues that students in this course may choose to investigate. Students should expect to leave the course with a major research project (10-12 page academic paper) completed. [21st CLE A1.1-A1.5, A7.1-A7.3]

PREREQUISITE: Honor US History or US History AND Government or Economics

HEALTH & WELLNESS

SHS requires students to successfully complete 1 credit Health (Freshman Health plus one health elective) as well as 1 credit Physical Education (Physical Education plus one PE elective course). For students who entered SHS prior to the 2015-2016 school year, successful completion of Wellness 1 will satisfy the (.5) Freshman Health and (.5) Physical Education requirements. Successful completion of Wellness 2 will satisfy the (.5) Health Elective and (.5) PE Elective requirements.

614 FRESHMEN HEALTH

GRADE 9

1/2 credit required for graduation

This course will be presented with basic information on a variety of topics to improve their quality of health and life. Topics covered will include tobacco, alcohol, drugs, human reproduction and venereal disease, nutrition, weight control, personal hygiene, stress, disease, self-discipline, responsibility, and getting along with others. Students are encouraged to ask questions pertaining to any life situation. Class discussion, films, experiments, surveys, field trips, and lectures are used in conjunction with written materials to ensure that information is valid and meaningful. [21st CLE A6.1, A6.2]

606 PRINCIPLES OF COACHING

GRADES 9 - 12

1/2 CREDIT Health Elective

This is a quarter long course designed to educate potential coaches on basic concepts and theories. A variety of topics will be covered including but not limited to coaching theory, age appropriate motor development, personal and professional roles of coaches, and general vs. specific practice planning. [21st CLE A6.1-A6.2]

615 DRUGS , ALCOHOL & CHOICES

GRADES 9-12

1/2 CREDIT Health Elective

This is a quarter long course designed to educate students on drugs and alcohol in our society today. Students will research the different types of new chemical drugs and what they do to the human body. The students will have spirited debates about the role drugs have in our city and country. Students will also learn and practice the positive choices that a student can use when confronted with peer pressure and resources that are available.[21st CLE A6.1-A6.2]

616 NUTRITION & MENTAL AND EMOTIONAL HEALTH

GRADES 9-12

1/2 CREDIT Health Elective

This is a quarter long course designed to educate students on the importance of proper nutrition and how it affects the human body physically and mentally. Included within the class are topics on the how food is processed, organic compared to natural food, preparation of food and how to understand the balance between caloric intakes compared to energy output. Students will also learn about their carbon footprint and how small changes to their life style can lessen that amount. We will be in the kitchen cooking different meals, snacks and recording nutritional values as it pertains to fitness and general health. Students will be required to perform small physical activities such as walking, fast walking, and small fitness activities.[21st CLE A6.1-A6.2]

617 CPR/FIRST AIDE/AED/SURVIVAL SKILLS

GRADES 9-12

1/2 CREDIT Health Elective

Students will learn the skills to become certified in CPR, First Aid, and AED. Students will use these skills and apply them to real life situations. They will also learn the basics of Wilderness survival skills, including the basic skills of orienteering, mapping, directions, and using compasses. Students will be placed in multiple situations with limited supplies and asked to build shelters and find materials to protect them for at least 24 hours.[21st CLE A6.1-A6.2]

PHYSICAL EDUCATION REQUIREMENTS- 1 credit for graduation

1/2 Credit of Physical Education or Advanced Physical Education and a 1/2 Credit of a Physical Education Elective is required for graduation.

609 PHYSICAL EDUCATION

GRADE 9

1/2 CREDIT required for graduation

Students who choose to take this class will focus on small group, individual, and small team activities such as badminton, pickle ball, weight training, fitness and capture the flag. Each student should be prepared to change clothes and participate in a class activity daily. [21st CLE A6.1-A6.2]

610 ADVANCED PHYSICAL EDUCATION

Grades 9-12

1/2 CREDIT

Students who choose to take this class will participate in a high intensity, competitive physical education class. This class will focus on increasing the student's cardiovascular, flexibility and group social skills. Activities will include team sports, group games and individual competitions. Students who take this class should be prepared to change clothes daily and to participate in any class activity. [21st CLE A6.1-A6.2]

611 YOGA/STRETCHING AND FLEXIBILITY

GRADES 9-12

1/2 CREDIT PE elective

In this course students will get an introduction to the basic science of yoga and a knowledge of the importance relaxation has on the human body. In this course students will be learning about the history of yoga and how it has changed over time. Students will be exposed to the many forms of yoga as well as martial arts. Students should be prepared to change into comfortable clothes and participate daily in various activities. Students will learn proper form for the different styles of yoga and martial arts.[21st CLE A6.1-A6.2]

612 DANCE/ZUMBA

GRADES 9-12

1/2 CREDIT PE Elective

Students will participate in various types of dances, including Square Dancing, Ballroom Dancing, Social Dancing, Line Dancing along with several other styles. Students will learn how dance relates to physical fitness and its effects on the body. There will be exercise based dance classes like Zumba and Aerobics. Students should be prepared to change into comfortable clothes and participate daily in various activities.[21st CLE A6.1-A6.2]

613 RUNNING/CARDIOVASCULAR ACTIVITIES

GRADES 9-12

1/2 CREDIT PE Elective

This course is designed for students that enjoy jogging or running. The student will be introduced to the positives and negatives effects of running on the human body. Each day students will participate in an activity that enforces cardiovascular strength. Students need to bring a change of clothes and understand that this is an active class. Daily activities will include at least 30 minutes of active exercises.[21st CLE A6.1-A6.2]

607 EXERCISE SCIENCE

GRADES 9-12

1/2 CREDIT PE Elective

This quarter long course is designed to help students plan and execute a basic fitness program. Areas of focus include weight training, circuit training, exercise physiology, nutrition, and cardiovascular enhancement. Course work includes daily weight room sessions, and aerobic training. [21st CLE A6.1-A6.2]

602 PERSONAL FITNESS

10, 11, 12

1/2 CREDIT PE Elective

Personal Fitness is a class based around Beach Body's P90x Program. This class contains workouts from 48-60 minutes. Workouts contain weight lifting, stretching, yoga, and kempo (martial arts). Student will learn information on the following: proper lifting form, self-esteem, nutrition, muscle building, weight loss and muscle confusion. This class has a vigorous workload and multiple written competencies. [21st CLE A6.1-A6.2]

Prerequisites PE or teacher discretion

603 STRENGTH TRAINING, AEROBICS, & RECREATION (STAR)

GRADES 10, 11, 12

1/2 CREDIT PE Elective

STAR is a class based on Beach Body Insanity Program. This class focuses on maximum intensity training. The workouts range from 42-60 minutes each day. Each workout involves bodyweight only exercises, with high intensity cardiovascular activities. Students will learn information on the following: proper lifting form, nutrition, muscle building, self-esteem and injury prevention. This class has a vigorous workload and required multiple written competencies [21st CLE A6.1-A6.2]

Prerequisites PE or teacher discretion

604 GROUP FITNESS

GRADES 10, 11, 12

1/2 CREDIT PE Elective

Group Fitness is a class based on training for obstacle course racing, such as Spartan and Tough Mudder style races. This course will include long duration running, preceded by a variety of fitness moves. Also included with this course is weight training with the support of Beach Body's P90x Program. Student will learn information on the following: proper lifting form, nutrition, muscle building, weight loss and muscle confusion. This class has a vigorous workload and required multiple written competencies. [21st CLE A6.1-A6.2]

Prerequisites PE or teacher discretion

605 ADVANCED FITNESS

GRADES 10, 11, 12

1/2 CREDIT PE Elective

Advanced fitness is based off of Beach Body's Insanity Program: "The Asylum". This class will bring students to a whole new level of fitness. Students will work on developing speed and agility while also working on maximum cardiovascular activities and building muscle tone. Students will learn information on the following, proper lifting form, nutrition, muscle building, and injury prevention. This class has a vigorous workload and required multiple written competencies.[21st CLE A6.1-A6.2]

PREREQUISITE: PE AND Personal Fitness, STAR, Group Fitness or teacher discretion

WORLD LANGUAGES

It is strongly recommended that students interested in taking world language courses should have at least a “C” in their last English class and or world language class, as each level is significantly more challenging than the previous.

401 FRENCH I

GRADES 9, 10, 11, 12

1 CREDIT

French I is an introduction to the French language with emphasis on oral communication. The French culture will be introduced through cultural readings, music, and videos. At the end of this course, students will be able to talk about themselves and others in the simple past, present and future tenses. Basic vocabulary and grammar are taught in this course. [21st CLE A2.1, A4.2, A4.3, A7.1]

402 FRENCH II

GRADES 9, 10, 11, 12

1 CREDIT

French II is an extension of French I with further emphasis on oral communication. The first few weeks will review the skills mastered in French I. The student will learn the principles of French grammar and language usage in both formal and informal situations. Brief dialogue is more emphasized than in the first year. The students will become familiar with the elements of French culture and the geography of the French speaking countries. [21st CLE A2.1, A4.2, A4.3, A7.1]
PREREQUISITE: French 1

403 FRENCH III

GRADES 10, 11, 12

1 CREDIT

French III will emphasize listening, speaking, reading, and writing the language in a more advanced, coherent manner. Students will develop advanced written and oral reports. The student will spend time investigating the geography of France, specifically its regions and major products. The student will be introduced to a variety of writing styles through the study of excerpts from major French authors. The culture and mores of the French people are studied mainly through excerpts of literature, idiomatic/slang expressions, and videos. [21st CLE A1.3, A2.1, A4.2, A4.3, A7.1]
PREREQUISITE: French II

404 HONORS FRENCH IV

GRADES 10, 11, 12

1 CREDIT

French IV is a continuation of the four language skills begun in the previous three years. Oral communication, advanced grammar, film, and selected readings from authors of francophone countries make up the core of this course. The main periods of the history of France and the literature, art, and music of the 19th and 20th centuries are highlighted. [21st CLE A1.3, A2.1, A4.2, A4.3, A7.1]
PREREQUISITE: French III

411 SPANISH I

GRADES 9, 10, 11, 12

1 CREDIT

Spanish I is an introduction to the Spanish language with emphasis on oral communication. The Hispanic culture will be introduced through cultural readings, music, and videos. At the end of this course students will be able to talk about themselves and others in the simple past, present and future tenses. Basic vocabulary and grammar are taught in this course. [21st CLE A2.1, A4.2, A4.3, A7.1]

412 SPANISH II

GRADE 9, 10, 11, 12

1 CREDIT

Spanish II is a continuation of Spanish I with further emphasis on oral and written skills. Students will focus on listening, speaking, reading, and writing and will continue to study of the Hispanic culture through cultural readings, music, and videos. [21st CLE A2.1, A4.2, A4.3, A7.1]
PREREQUISITE: Spanish I

413 SPANISH III

GRADES 10, 11, 12

1 CREDIT

Students will increase their knowledge of the language through review of grammar as well as the study of advanced vocabulary. Cultural topics will be introduced through readings, videos, and music. Oral and written skills will be emphasized. The class will be conducted primarily in Spanish. [21st CLE A1.3, A2.1, A4.2, A4.3, A7.1]

PREREQUISITE: Spanish II

414 HONORS SPANISH IV

GRADES 10, 11, 12

1 CREDIT

This is a continuation of Spanish III with an emphasis on the study of Spain which will focus on geography, history, art, literature and other relevant topics. A command of Spanish grammar and vocabulary is expected. [21st CLE A1.3, A2.1, A4.2, A4.3, A7.1]

PREREQUISITE: Spanish III

PERSONALIZED LEARNING

818 FRESHMAN ACADEMIC SKILLS & DEVELOPMENT

GRADE 9

1/2 CREDIT

This course is designed for special education freshman students to enrich, enhance, and improve their basic academic skills. There will be a strong focus on literacy. FAS will also provide students with academic support in their other classes and promote a positive and productive freshman year.

Permission Required

816 ACADEMIC SKILLS SUPPORT

GRADE 10, 11, 12

1/4 CREDIT

This course is designed for special education students to enrich, enhance, and improve their basic academic skills. Academic Skills will also provide students with academic support in their other classes and promote a positive and productive high school experience.

Permission Required

830 MONITORED STUDENT PROGRAM

GRADE 9, 10, 11, 12

1/4 CREDIT

MSP is uniquely designed to meet the behavioral and academic needs of students. Behavioral standards are strongly recognized as an integral part of this program. Students are able to work with support staff to aid in the completion of class work and homework. Students are encouraged to work with one another in a cooperative manner.

Permission Required

820 PARTNERSHIP ACADEMIC SKILLS

GRADE 9, 10, 11, 12

1/2 CREDIT

Partnership Academic Skills is a course designed to help students learn the skills needed for successful completion of general education class homework. It is also a course in which students will work on reading, writing, and math skills at their level with the necessary supports which are provided for them. Students will also be learning appropriate social skills which are practiced daily within all classroom setting. These skills help students to prepare for independence and successful adult living.

Permission Required

821 PARTNERSHIP LIFE SKILLS

GRADE 9 , 10, 11, 12

1/2 CREDIT

Partnership Life Skills is a course designed to help students learn the needed skills for adult living. Skills which are incorporated into this class include: hygiene skills, healthy life styles and nutrition, household safety issues, cooking, planning and implementing grocery shopping, laundry, budgets, job applications, and communication skills.
Permission Required.

023 FOUNDATIONS IN LITERACY

GRADE 9

1 CREDIT

This semester-long course is required for those students whose 8th grade NWEA RIT scores are below grade level benchmarks and who evidence need for literacy intervention. The class will use research-based reading interventions combined with consistent progress-monitoring to improve reading comprehension and engagement. This course will utilize the READ 180 program to monitor and support student reading skills. Students will also work to improve their written and spoken literacy skills. The course is offered as an elective credit for English, not in lieu of English 1.
Permission Required.

COMPETENCY RECOVERY

Students may participate in the recovery program if they earned a grade of at least 60%, and have missed at most 2 competencies. Plans should be discussed with appropriate teacher as well as Competency Recovery Advisor. Students may also recover credit by repeating the course either through DALC or the Virtual Learning Academy. Students who have failed a required course with a final grade of 59% or below need to repeat the class. Rather than repeating the class during the school day, it is strongly recommended that the course be taken through competency recovery after school in an adult education program. All competency recovery should be completed prior to August 1st for the prior school year. Arrangements must be made in advance with a School Counselor.

755 MENTORING**1/4 CREDIT PER QUARTER**

Grade 12

Become a mentor at Somersworth Middle School and empower a younger student to make positive life choices that enable them to maximize their personal potential and to meet the school-wide academic and behavioral expectations of SMS. Take the lead in supporting a young person through an ongoing, one-to-one relationship:

- Serve as a positive role model
- Build the relationship by planning and participating in activities together
- Strive for mutual respect
 - Build self-esteem and motivation
 - Help set goals and work toward accomplishing them Time Commitment
 - Make a commitment for one quarter (9 weeks), one semester (18 weeks) or the entire school year
 - Spend a minimum of 5 hours per week one-to-one with your mentee
 - Meet regularly with the supervising school counselor
 - Maintain a portfolio of your experiences as a mentor
 - Attend optional mentor/mentee group events, mentor support groups, and program recognition events

REQUIREMENT: Students must apply to this program with the Intervention counselor.

DOVER ADULT LEARNING CENTER (DALC)**SOMERSWORTH-DOVER ADULT PROGRAM (S-DAP)**

Dover Adult Learning Center offers an opportunity for mature students to earn credit towards graduation. DALC also provides an alternative method of earning a high school diploma. Current course offerings are available from the website www.dalc-online.org. Students should be at least 16 years old to participate in DALC courses. DALC courses hosted at SHS&CTC are currently free to Somersworth students. Interested students should meet with their School Counselor.

VIRTUAL LEARNING ACADEMY CHARTER SCHOOL (VLACS)

VLACS is an online high school accredited by the state of NH. Almost all of their course offerings are free to NH high school students. VLACS can be utilized by those students wanting to take courses not offered at SHS&CTC or, in some cases (subject to approval), for those who need credit recovery for a previous failure. Additionally, VLACS is a viable option for older high school students who wish to earn a high school diploma outside of the traditional classroom. VLACS also offers AP classes and, through their e-Start program, students can take college level courses and earn both high school and college credit. Additional information is available at www.vlacs.org. Students wishing to enroll must first meet with their school counselor.

Hi-SET

The Hi-SET Options Program provides an opportunity for students who have dropped out of school or who are at high risk of dropping out to earn their Hi-SET. High-risk students are students who are in their third year of high school and have earned significantly less than the expected 13 credits towards graduation. Students must demonstrate a minimum eighth grade level in reading and math on the T.A.B.E. (Test of Adult Basic Education). Once the student is admitted into the program, they progress on an individual basis under the tutelage of three Somersworth teachers. The students meet Monday through Thursday from 2:30pm to 6pm. Lessons are tailored to individual student needs. These high school students are treated as adults with adult responsibilities. In addition to working on their Hi-SET preparation, students also complete a resume and a reference sheet. Once the student completes their Hi-SET, teachers will work with the student on job-seeking, job-keeping, and career readiness skills. If the student plans to pursue post-secondary education, students are provided support in terms of the college search, application, financial aid processes, and other college readiness skills.

EXTENDED LEARNING OPPORTUNITIES

Extended Learning Opportunities (ELO) are a way in which students can earn credit beyond the classroom. Extended Learning Opportunities include, but are not limited to independent study, private instruction, performing groups, internships, community service, apprenticeships, and coursework at other institutions such as online academies, colleges, and adult education programs. Please note that all ELO's must be arranged in advance with the Career Technical Center School Counselor.

975 COMMUNITY SERVICE

GRADES 10, 11, 12

1/4 CREDIT PER QUARTER

Students locate their own non-profit site and then meet with the CTC school counselor before such service begins. One quarter credit pass/fail will be awarded per each 35 hours served. Additionally, students will need to write one paper per 35 hours and maintain a folder containing a written log of hours worked, evaluations, and other pertinent information. The community service site supervisor must sign off on the work log and complete quarterly evaluations. Arrangements must be made in advance with the Career Technical Center School Counselor.

978 COOPERATIVE EDUCATION

GRADES 11, 12

1/4 CREDIT PER QUARTER

Co-op is intended to provide additional training in a career field that is not possible in the classroom. It is an integral component of a career technical education program. Through co-op, students are provided a supervised learning experience related to their career technical training. In order for a valid co-op program to exist, the following conditions must be met: students must be enrolled in an approved career technical program, the training site must relate to the career tech program that the student is enrolled in, and the school and the training site must jointly develop the training agreement. All parties involved must adhere to the conditions of the agreement. The students will be evaluated by the employer 1 time per quarter. Arrangements must be made in advance with the Career Technical Center School Counselor.

995 PERSONALIZED EXTENDED LEARNING OPPORTUNITY

GRADES 9-12

CREDIT BASED ON ELO

Personalized Extended Learning Opportunities are for students looking to obtain credit based on an area of study that is not currently being offered within the high school. Students will be asked to complete a research paper, write weekly journals and present to the Extended Learning Opportunity committee, which will be comprised of the Career Technical Center Counselor, various teachers and personnel related to the Personalized Extended Learning Opportunity. Personalized Extended Learning Opportunities give students a chance to earn credit outside of the traditional classroom.

977 WORK STUDY

GRADES 11, 12

1/4 CREDIT PER QUARTER

Work Study is available to students who are currently working part time and are seeking additional credits. One quarter credit pass/fail will be awarded per academic quarter. Students will need to write a paper for each quarter and maintain a folder which contains a written log of hours worked, evaluations, and other pertinent information such as accolades, disciplinary action, etc. The Career Technical Center School Counselor must sign off on the work log and complete a quarterly evaluation. Students must work a minimum of 10 hours per week during non-school hours. Arrangements must be made in advance with the Career Technical Center School Counselor to participate in the Work Study program.

756 LIBRARY AIDE

GRADES 11, 12

1/4 CREDIT PER QUARTER

Library aides shelve books and magazines, assist other students, create and organize displays, work on promotions, and perform a variety of library tasks as needed. Reading and reviewing new library books is another aspect of the library aide position. New books arrive regularly at the SHS library, but in order for them to be widely read by students, they need to be read and reviewed. Choose from a wide variety of books and write short reviews for a local publication—either in print, online, or both. This course is open to self-motivated students who are able to work independently.

980 INTERNSHIP

GRADE 12

1 CREDIT PER YEAR

The Internship is a supervised program that provides on-the-job experience with a formalized training plan, giving students an opportunity to gain real world experience while learning how to conduct themselves in a professional workplace environment. The internship can solidify a career choice and provide training that will give students the opportunity to gain an edge in a successful career. An internship experience can help a student when it comes to:

- Apply to colleges or technical school – students can detail their experience in their application essays
- Select a college major – the opportunity to investigate a possible career choice permits more informed decisions regarding what type of onsite work happens in a particular career field
- Further support future plans – an internship can help students get professional references as well as open up opportunities for summer jobs.

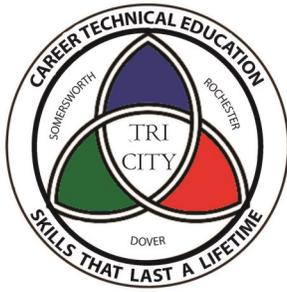
Students who plan to enroll in this career exploration must be pre-approved by the Guidance Department and Career Center and must complete the application process through the Career Technical Center School Counselor . Assignments are contingent upon the student’s academic, attendance, and disciplinary records, career interest connection, and availability of appropriate work sites. Students are encouraged to find their own work sites.

698 / 699 TEACHER ASSISTANT (TA)

GRADES: 12 ONLY

Seniors who have some expertise in a given course or discipline may serve as a teaching assistant for any course offered in the course selection guide, providing the students with a way to further explore and develop those skills and explore the possibility of pursuing teaching as a career. Teaching assistants assist the cooperating teacher with lesson planning and implementation, collaborate with the teacher to develop and teach at least one lesson plan, and assist in small group or one –on-one supplemental instruction. Teaching assistants will be required to maintain a portfolio of evidence of meetings held and lessons taught.

PREREQUISITE: Support of a cooperating teacher and a “B+” or better in the course.



SOMERSWORTH CAREER TECHNICAL CENTER

Somersworth High School students can apply to enroll in one of the Career Technical Center (CTC) program offerings at the three CTCs that serve the Tri-City area:

Dover High School/Regional Career Technical Center

Richard W. Creteau Career Technical Center at Spaulding High School (Rochester)

Somersworth High School/Career Technical Center

Each CTC provides students with the opportunity to study their career interests by enrolling in one of the CTC's programs. By combining a CTE program with an appropriate sequence of high school courses (see Career Clusters section of the *Program of Studies*), students will prepare themselves for a variety of options after high school, including four-year and two-year college programs, apprenticeships and entry-level positions in their career field.

CTE programs are not simply electives. Most CTE programs are two years in length and are started in a student's junior year. They are designed to develop the technical, academic and employability skills that will help students become successful members of today's workforce. We are looking for students who are genuinely interested in enrolling in a CTE program and willing to make the two-year commitment to complete the program.

Enrollment Information

All students interested in being considered for enrollment in a CTE program must complete an application. Starting in Spring 2015, the Tri-City CTCs will be using an online application called Enroll Track. The link to the online application is available on each CTC's website. To complete the application, students must have an active email address and be able to provide an email address for their parent/guardian. Students who have any questions about the application process should see the CTC's Career Counselor or Director or their Guidance Counselor.

Students should know that completing an application does not guarantee acceptance into the CTE program they are applying for. There are many factors that are considered including each student's grades, discipline record and attendance record. There are also limits on how many students can be enrolled in each CTE program. Students are encouraged to list a second choice in case their first choice is not available.

Students will be enrolled based on the following priorities:

1. Grade in School

Priority 1: Junior – 1st year of the program (Sophomore for Cosmetology students)

Senior – 2nd year of the program

Priority 2: Senior – 1st year of the program

Sophomore – 1st year of the program (when available)

2. Student Records

Transcript/Grades

Attendance Record

Discipline Record

Students will be notified by email of their application status. Parents/Guardians will also receive email updates. The high school guidance counselors will also be notified so that they can work with the student to create a course schedule that can best accommodate the CTE program and the student's required academic coursework.

Program Offerings

The following table identifies which CTE programs are offered at each CTC by Career Cluster.

Career Cluster/CTE Program	Dover	Rochester	Somersworth
Agriculture and Natural Resources Career Cluster			
Animal Science/Veterinary Science	*		
Environmental Science/Sustainability Studies		*	
Equine Science	*		
Architecture and Construction Career Cluster			
Building Construction Trades	*		*
Electrical Technology	*		
Heating/Air Conditioning/Refrigeration (HVAC)		*	
Plumbing		*	
Arts, Audio/Visual Technology & Communications Career Cluster			
Broadcast Technology			*
Digital Media			*
Graphic Design & Printing		*	
Photographic Arts		*	
Business, Finance and Marketing Career Cluster			
Accounting		*	
Banking		*	
Business Management	*	*	
Marketing	*		*
Education and Training Career Cluster			
Teacher Education/Teaching Multiple Levels		*	*
Government & Public Administration Career Cluster			
Naval JROTC	*		
Health Services Career Cluster			
Health Science	*	*	
Sports Medicine	*		
Hospitality & Tourism Career Cluster			
Culinary Arts	*		*
Event Marketing and Management		*	
Restaurant Management		*	
Human Services Career Cluster			
Cosmetology	*		
Information Technology Career Cluster			
Computer Network Technician			*
Law, Public Safety and Security Career Cluster			
Firefighter/EMT	*		
Manufacturing Career Cluster			
Precision Machining		*	
Science, Technology, Engineering & Mathematics Career Cluster			
Biotechnology	*		*
Engineering	*	*	*
Transportation, Distribution & Logistics Career Cluster			
Auto-body Collision and Repair	*		
Automotive Mechanics	*	*	*

Additional things to keep in mind when choosing to apply to a CTE program:

Students should be aware that their acceptance into a CTE program can be revoked at any time. Students need to demonstrate the willingness to engage in the course content and are expected to adhere to the attendance policy in place at the CTC. Unwillingness to actively participate and/or excessive absences could result in removal from the program.

Student misconduct will not be tolerated and could also be grounds for removal from the program. Because of the nature of many of our programs, students need to be able to demonstrate the ability to adhere to safety rules so as to not endanger themselves or others. Students who cannot exhibit safe behavior will be removed from the program.

Students should be aware that the courses that comprise each CTE program are not offered each block. Students should speak with their guidance counselor to determine when during the school day the different courses are offered. For those students who are considering a program at either Dover or Rochester, they should understand that each school runs on its own daily schedule. Additionally, buses are available to take students back and forth to the schools but the travel time to and from Dover and Rochester may have an adverse effect on a student's course schedule in Somersworth. **Meeting academic requirements for graduation must be the priority when scheduling a student who has been accepted into a CTE program.** Students, parents and guidance counselors need to carefully consider the impact of participating in an off-campus CTE program as they make decisions about the student's yearly course schedule.

Once enrolled, students are expected to stay enrolled in that course until the end of the semester or year (whichever is the case). When extenuating circumstances exist, students may be allowed to drop a full-year course at the end of the first semester, but they will NOT receive credit for partial completion. Students should also be aware that only second semester courses can be added if the student has taken the necessary prerequisite. No students will be allowed to add a full-year course in the second semester.



Camden Tillinghast Class of 2017

AGRICULTURE AND NATURAL RESOURCE CAREER CLUSTER

Animal Science Program - DOVER

Animal Science Program Course Sequence

Year 1 – Animal Science I and Equine Science I (Two semester-long courses)

Year 2 – Animal Science II and Canine Science OR Honors Animal Science III (Two semester-long courses. Students can choose which course in the spring semester best meets their career goals)

901212 ANIMAL SCIENCE I

GRADE 11(Grade 12 on a space available basis)

1 CREDIT (Fall Semester, CTE Program)

Do you love animals and want to know more about them? The Animal Science program may be for you! Utilize classroom pets and the onsite barn animals for hands on experiences in animal handling, restraint, feeding, and maintaining optimal health. Students operate a dog grooming business one day a week, where they develop first level skills of dog grooming while enhancing customer service skills. Animals studied throughout the semester include dogs, cats, small pets, reptiles, birds, and farm animals. **Note:** Fulfills a science credit

PREREQUISITE: Acceptance into the Animal Science program

901213 EQUINE SCIENCE I

GRADE 11(Grade 12 on space available basis)

1 CREDIT (Spring semester, CTE Program)

Interested in horses (equine) and their care? Take a look into equine history and evolution, management, veterinary care, riding form and function, and related career opportunities. Handle, tack up, groom and work with horses at local equine clinics and stables. **Note:** Fulfills a science credit

PREREQUISITE: Successful completion of Animal Science I

902210 ANIMAL SCIENCE II

GRADE 12

1 CREDIT (Fall semester, CTE Program)

Explore animal anatomy and physiology while advancing your knowledge of the animal world. Analyze various animal diets and the nutritional values of commercial foods available. Design and implement a breeding program for animals. Observe the many causes of diseases. Receive your Pet First Aid and CPR certification through hands-on training with cats and dogs. Real world skills are practiced through managing and operating a dog grooming lab and on site school barn. **Note:** Fulfills a science credit

PREREQUISITE: Successful completion of Animal Science I and Equine Science I

903317 CANINE SCIENCE

GRADE 12

1 CREDIT (Spring semester, CTE Program)

Are you a canine (dog) enthusiast interested in understanding canine behaviors and training? Investigate dog breeds, ethical ownership, advanced grooming, agility training, showmanship, life cycle, common vaccines, diseases, reproduction, and nutrition. Come and work with your own dog or one from the community and prepare for the AKC Canine Good Citizen test.

PREREQUISITE: Successful completion of Animal Science II

903310 HONORS ANIMAL SCIENCE III – VETERINARY SCIENCE

GRADE 12

1 Credit (Spring semester, CTE Program)

Interested in the Veterinary Medicine field? Take an in-depth look at animal anatomy as well as the common practices that veterinarians' experience. Investigate animal genetics, reproduction, vaccinations, veterinary terminology, and medical records. Explore ethical and legal issues in veterinary medicine. Experience what it's like to work in veterinary clinics and humane societies. **Note:** Fulfills a science elective. **College Credit:** Qualified students have the opportunity to earn college credits.

PREREQUISITE: Successful completion of Animal Science II

Equine Science Program - DOVER

Equine Science Program Course Sequence

Year 1 – Animal Science I and Equine Science I (Two semester-long courses)

Year 2 – Equine Science II (One full-year course)

901212 ANIMAL SCIENCE I

GRADE 11(Grade 12 on a space available basis)

1 CREDIT (Fall Semester, CTE Program)

PREREQUISITE: Acceptance into the Animal Science program

Do you love animals and want to know more about them? The Animal Science program may be for you! Utilize classroom pets and the onsite barn animals for hands on experiences in animal handling, restraint, feeding, and maintaining optimal health. Students operate a dog grooming business one day a week, where they develop first level skills of dog grooming while enhancing customer service skills. Animals studied throughout the semester include dogs, cats, small pets, reptiles, birds, and farm animals. **Note:** Fulfills a science credit.

901213 EQUINE SCIENCE I

GRADE 11(Grade 12 on space available basis)

1 CREDIT (Spring semester, CTE Program)

PREREQUISITE: Successful completion of Animal Science I

Interested in horses (equine) and their care? Take a look into equine history and evolution, management, veterinary care, riding form and function, and related career opportunities. Handle, tack up, groom and work with horses at local equine clinics and stables. **Note:** Fulfills a science credit

902215 EQUINE SCIENCE II

GRADE 12

2 CREDITS (Full-year course, CTE program)

Gain in-depth practical experience working with horses. Focus on equine veterinary care, training, management, anatomy & physiology, body systems, evaluation, first aid, and career planning. Improve riding form and function for both horse and rider. Participate in weekly field trips to off-site facilities gaining a broad view of the Equine Industry. **Note:** Fulfills a science elective. **College Credit:** Qualified students have the opportunity to earn college credits.

ARCHITECTURE AND CONSTRUCTION CAREER CLUSTER

Building Construction Trades Program - SOMERSWORTH

Building Construction Trades Program Course Sequence

Year 1 - Building Trades I (Full year, one block course)

Year 2 - Building Trades II (Full year, two block course)

941 BUILDING TRADES I

GRADES 11, 12

2 CREDITS (Full year course, CTE Program)

Students will learn basic skills in construction necessary to identify materials, tools, safety, building codes, blue print reading, and how to safely construct a building. Students will also learn how to obtain a job and be successful at it. Time is divided between lab and classroom. [21st CLE A2, A3]

PREREQUISITE: Acceptance into Building Construction Trades program, Student must turn 16 years old prior to September 30th.

942 BUILDING TRADES II

GRADE 12

4 CREDITS (Full year, double block course, CTE Program)

Students will seek to master their basic skills learned in Building Trades I. They will assume the role of leaders and manage a crew and the job site as well as the responsibility for the work done at all phases of the construction process. They will sit for their OSHA 10 hr. safety course, and if passed, receive an OSHA 10 card that is good for life. The students will learn, plan, and may receive certification in solar energy installation. [21st CLE A2, A3]

PREREQUISITE: Successful completion of Building Trades I and permission of the instructor.

Please Note: Dover CTC also offers this program. If students are unable to fit Somersworth's program into their daily schedule, they should speak with their guidance counselor or the career counselor to determine if attending Dover's program is an option.

Electrical Technology Program – DOVER

Electrical Technology Program Course Sequence

Year 1 - Electrical Technology I (One full-year course)

Year 2 – Electrical Technology II (One full-year course)

921260 ELECTRICAL TECHNOLOGY I AND RENEWABLE ENERGY SYSTEMS

GRADE 11 (Grade 12 on space available basis)

2 CREDITS (Full-year course, CTE Program)

Want to explore the world of electricity and become an apprentice electrician? Study the basic DC/AC theory and Ohms Law as they are applied to various types of circuits. Experience the safe and proper use of all hand and power tools utilized in the electrical/construction trades. Receive 250 hours of hands-on work experience towards your Journeyman's license. Assess the latest edition of the National Electrical Code and experience renewable energy systems. Configure and install solar and wind energy systems discovering how to convert, transmit, and store these renewable energies. **Costs:** All students are required to pay \$75.00 fee for the cost of supplies and the student's own electrical tools kit that they will be able to take with them when they graduate, and NH State Electrical Apprentice License fee (\$30).

PREREQUISITE: Acceptance into the Electrical Technology Program; Must be 16 years old by September 30th.

921360 ELECTRICAL TECHNOLOGY II AND RENEWABLE ENERGY SYSTEMS

GRADE 12

2 CREDITS (Full-year course, CTE Program)

Electricity got you all wired up? Interested in a career in the Electrical Trades? Explore advanced residential and commercial wiring projects. Discover industrial motors and controls and receive a Telecommunication Cabling Certificate. Complete an OSHA 10 hour safety training program and receive an OSHA 10 card for the construction industry. Receive an additional 250 hours of hands-on work experience towards your Journeyman's license. Upgrade your skills in renewable energy systems and develop the skills required to obtain a Journeyman Electricians License. **Costs:** NH State Electrical Apprentice License fee (\$30).

College Credit: Qualified students have the opportunity to earn college credits.

PREREQUISITE: Successful completion of Electrical Technology I

Heating, Ventilation, and Air Conditioning Repair (HVACR) – ROCHESTER

This is a new program offering from the R. W. Creteau CTE in Rochester with an anticipated start date Fall 2015. Interested students should refer to the CTC's website for more details on this program.

Plumbing Technology Program – ROCHESTER

Plumbing Technology Program Course Sequence

Year 1 – Plumbing Technology 1 (One full-year course)

Year 2 – Plumbing Technology 2 (One full-year course)

080752 PLUMBING TECHNOLOGY 1

GRADE 11

2 CREDITS (Full-year course, CTE Program)

This program offers students the opportunity to learn valuable employment skills in a high demand and high wage field. In this age of concern for the protection of our environment, an understanding of the proper installation techniques for water, drainage, and heating systems is necessary for today's plumbers. Students will learn the proper installation and maintenance of these systems in the class room and laboratory settings. Local, state, and national codes will be introduced and applied with hands-on lab activities. Successful completion of this two year program will allow the student to skip the first year of the NH Apprenticeship program leading up to licensure as a master plumber.

PREREQUISITE: Career and Technical Education application required.

080772 PLUMBING TECHNOLOGY 2

GRADE 12

2 CREDITS (Full-year course, CTE Program)

The second year of this program provides students with a more in-depth study of water, drainage, and heating systems. Second year students will design and install these systems in the lab setting and possibly with professionals in the field. Local, state and national codes will be studied in depth and applied in the lab or job-site setting. Successful completion of this program will allow the student to skip the first year of the NH Apprenticeship program leading up to licensure as a master plumber.

PREREQUISITE: Successful completion of Plumbing Technology 1

ARTS, AUDIO/VISUAL TECHNOLOGY & COMMUNICATIONS CAREER CLUSTER

Broadcast Technology Program – SOMERSWORTH

Broadcast Technology Program Course Sequence

Year 1 – Broadcast Technology I (One full-year course)

Year 2 – Broadcast Technology II (One full-year course)

BROADCAST TECHNOLOGY I

GRADES 11 and 12

2 CREDITS (Full year course, CTE Program)

In this introductory course, students will explore photography, television, video production, and graphic communication. Students will work on projects and learn to use digital cameras and video broadcasting equipment with photo and video editing software to create slideshows, short movies and even broadcast live events from the school and within the community. Students will work with Final Cut Pro X to edit and add effects to projects. Emphasis will be placed on post-production skills, planning and organizational skills. Students will also learn the importance of planning ahead and meeting deadlines. This course will require self-motivation, creativity and the ability to work collaboratively with others as well as independently.

PREREQUISITE: Acceptance into the Broadcast Technology program.

BROADCAST TECHNOLOGY II

GRADE 12

2 CREDITS (Full-year course, CTE Program)

In this more advanced course, students will delve more deeply into the capabilities of video broadcasting equipment and video editing software. Students will go in depth in learning Adobe Premiere pro, LiveText, Final Cut Pro X, and Virtual Set Editor software to create more sophisticated graphics to include in video projects and live broadcasts. Students will often fill the roles of producer and/or director, discovering what it takes to create independent films and run a successful live broadcast. Students in this course will be expected to take creative initiative with content for local cable television. This will include brainstorming ways to involve a wide variety of content including student work, sporting events, club information, upcoming events, etc. Students in this course will also be working with students in Broadcast Technology II on projects and taking the lead on school and community projects.

PREREQUISITE: Successful completion of Broadcast Technology I

Digital Media Program - SOMERSWORTH

Digital Media Program Course Sequence

Year 1 – Digital Media I and Digital Media II (Two semester-long courses)

Year 2 – Digital Media III and Digital Media IV (Two semester-long courses)

DIGITAL MEDIA I: COMPUTER GRAPHICS

GRADES 11 and 12

1 CREDIT (Fall semester course, CTE Program)

Using a foundation of fine arts, students will explore and identify the principles and elements of design to develop their skills in the design planning process and design thinking. Students will utilize industry standard software – Adobe Photoshop, Illustrator, and InDesign – to execute their ideas. These projects will range from logos to movie posters, and brochures to portrait illustrations.

PREREQUISITE: Acceptance into the Digital Media program

DIGITAL MEDIA II: WEB DESIGN

GRADES 11 and 12

1 CREDIT (Spring semester course, CTE Program)

Students will begin to familiarize themselves with the languages of web design by hand coding HTML5 and CSS3. After understanding the basic structure of these languages, students will use Adobe Dreamweaver as a design interface for web design. The second half of the course will cover JavaScript, to help add animations, sophisticated navigation, forms, blogs, quizzes, and more to student's term projects- creating a website on a topic of their choice.

PREREQUISITE: Successful completion of Digital Media I

DIGITAL MEDIA III – MOTION GRAPHICS

GRADE 12

1 CREDIT (Fall semester course, CTE Program)

In this course students will continue to expand their knowledge of art and design while adding a new variable to the mix – time. Through 2D and 3D animation students will work on a number of short animations to develop their skills in creating art as a story, complete with a beginning, middle and end. After creating a 30 second animation and developing realistic 3D worlds, students will move into the world of video. The course continues to focus on time-based media, as students use Adobe Premiere Pro, to learn the ins and outs of the video production process including, pre-production (planning), production (filming), and post-production (editing and effects).

PREREQUISITES: Successful completion of Digital Media I and II and recommendation of the teacher

DIGITAL MEDIA IV: ADVANCED MEDIA

GRADE 12

1 CREDIT (Spring semester course, CTE Program)

This is the final course in a two-year sequence of the Digital Media program. Students will demonstrate increased proficiency in multimedia skills and the application of design principles. At this level, students will plan and develop independent projects, from the ground up. This process will expand upon our knowledge of the design process by adding student proposals, class critiques, and client input. Students will work on individual and group projects that will include multiple parts using the many forms of digital media. For example – a brand identity may include a logo design, website design/update, and marketing materials, while a short film may include a movie trailer, posters, advertising materials, and the film itself.

PREREQUISITES: Successful completion of Digital Media I, II and III

Graphic Design & Printing - ROCHESTER

Graphic Design/Printing Technology Course Sequence

Year 1 – Graphic Design/Printing Technology I (One full-year course)

Year 2 – Graphic Design/Printing Technology II (One full-year course)

080512 GRAPHIC DESIGN/PRINTING TECHNOLOGY 1

GRADE 11 and 12

2 CREDITS (Full-year course, CTE Program)

If you like to draw, design on computers, be creative, scan images, use digital cameras and produce your creations through print technology, then this course is for you. You will use the latest software (Adobe Photoshop and InDesign) to layout and design your projects. The Graphic Arts industry offers a wide range of career opportunities that employs both men and woman. Job titles include graphic designers, page-layout artist, camera operators, pre-press technicians, computer operators, plate makers, press operators, bindery workers, computer programmers, chemists and estimator. This hands-on course acquaints students with the latest cutting edge technology, digital color imaging and conventional offset technology. Students will design and print business cards, tickets, letterheads, CD covers, posters and various other items. **Note:** This course will fulfill the fine arts requirement for graduation.

080532 GRAPHIC DESIGN/PRINTING TECHNOLOGY 2

GRADE 12

2 CREDITS (Full-year course, CTE Program)

Never has the demand been greater for graphic designers and print technicians. This advanced hands-on course acquaints students with the latest computer technology, digital color imaging (Adobe Photoshop, Illustrator, and InDesign), digital and conventional print technology and introduction to animation software. Students in this advanced program will learn to think like a designer and technician for their own personal expression as well as gain real-world experience by working with actual customers and learn to develop their skills in more detail. The students in this course will use research, critical thinking, creativity, and a range of problem-solving principles to complete their assignments. Projects include photo-composites, posters, publications, invitations, and various other items. **Note:** This is a Running Start Course and students are eligible to receive college credit.

PREREQUISITE: Successful completion of Graphic Design/Printing Technology 1

Photographic Arts - ROCHESTER

Photographic Arts Program Course Sequence

Year1 –Photography I and Photography II (Two semester-long courses)

Year2 – Photography III and Photography IV (Two semester-long courses)

0800071 PHOTOGRAPHY 1: INTRODUCTION TO DIGITAL PHOTOGRAPHY

GRADES 11 and 12

1 CREDIT (Fall semester, CTE Program)

This is the first course in a series of courses on becoming a professional photographer. It is a hands-on/project-based class. Students will complete a series of activities, utilizing the basic techniques necessary for the production of photographs. Topics to be covered are proper camera technique, composition, lighting and editing of images. Class time will focus on working with a variety of photographic equipment. Classes will run very independently and the goal is to provide each student with the opportunity to learn at his/her own pace and in his/her own style. Students who choose this course will be responsible for creating digital print artwork, slide presentations and motion graphics. Students will develop their own style in photography while building a portfolio of images demonstrating what they are learning and how their style is evolving. **Note:** This class will fulfill the fine arts requirement for graduation.

PREREQUISITE: Acceptance into the Photographic Arts program

0800081 PHOTOGRAPHY II – DIGITAL DARKROOM I

GRADES 11 and 12

1 CREDIT (Spring semester, CTE Program)

This is the second course in the photography program. Students will be fully immersed in Photoshop. They will be using the program to adjust and enhance images. They will also learn the various techniques to make composites along with printing their images. Students will continue developing their own style in photography while building a portfolio of images demonstrating what they are learning and how their style is evolving. **Note:** This class will fulfill the fine arts requirement for graduation.

PREREQUISITE: Successful completion of Photography I.

0800091 PHOTOGRAPHY III – CAMERA/COMPOSITION

GRADE 12

1 CREDIT (Fall semester, CTE Program)

This is the third course in the photography program. Students should have a foundation in camera and editing of images. Students will now be concentrating on their camera technic and composition. We will be working towards creating dynamic and interesting photographs. Students will explore the use of various lens and natural lighting. Field trips for shooting opportunities will be organized to further enhance skills. Students will continue developing their own style in photography while building a portfolio of images demonstrating what they are learning and how their style is evolving.

PREREQUISITE: Successful completion of Photography II

0800101 PHOTOGRAPHY IV – LIGHTING I

GRADE 12

1 CREDIT (Spring semester, CTE Program)

Students should have a solid foundation in camera, composition and editing of images. Students will focus on an in-depth study of ambient light, use of single studio strobes and flashes. How light and lighting effects the look and mood of the subject will be studied. Students will continue developing their own style in photography while building a portfolio of images demonstrating what they are learning and how their style is evolving.

PREREQUISITE: Successful completion of Photography III

BUSINESS, FINANCE AND MARKETING CAREER CLUSTER

Accounting Program – SOMERSWORTH

Accounting Program Course Sequence

Year 1 – Accounting I and Accounting II (Two semester-long courses)

ACCOUNTING I

GRADES 11 and 12

1 CREDIT (Fall semester course, CTE Program)

Any student can benefit from this class, as we all have to pay taxes and keep financial records. This is an important course for any student going into business administration in college, planning on opening a business of his or her own, or wants to understand their own financial records. This course provides an understanding of debits and credits and the basic principles of the Accounting cycle necessary for business related careers and personal money management. Students will master the analysis and recording of transactions of a business to the preparation and interpretation of the financial statement and supporting data. Payroll deductions and related taxes are included. Excel is utilized for trial balances, worksheets, etc. Students are encouraged to participate in the Future Business Leaders of America Club (FBLA).

Accounting II would be the next course in sequence for program completion. **College Credit:** Students can earn college credit for this course through the Project Running Start program.

PREREQUISITE: Acceptance into the Accounting program

ACCOUNTING II

GRADES 11 and 12

1 CREDIT (Spring semester course, CTE Program)

In this course, students will master the operation of an automated accounting system, be able to complete simple problems using EXCEL and be able to complete accounting activities using the computer accounting system QUICK BOOKS PRO. Students are encouraged to participate in the Future Business Leaders of America Club (FBLA).

PREREQUISITE: Successful completion of Accounting I

Please Note: The Richard W. Creteau CTC in Rochester also offers this program. If students are unable to fit Somersworth's program into their daily schedule, they should speak with their guidance counselor or the career counselor to determine if attending Rochester's program is an option.

Banking and Financial Services Program – ROCHESTER

Banking and Financial Services Program Course Sequence

Year 1 – Banking and Financial Services 1 and Banking and Financial Services 2 (Two semester-long courses)

070442 BANKING AND FINANCIAL SERVICES 1

GRADES 11 and 12

1 CREDIT 1 (Fall semester course, CTE Program)

The HRCU Branch is opened to the school as well as the public providing an excellent opportunity for “hands-on” learning and exposure to all aspects of banking. Students will be trained as professional HRCU tellers. They will learn how to handle different transactions types, maintain and balance cash drawers, be familiar with HRCU’s products and services, Federal Regulations, credit union structure and history, negotiable instruments, professionalism, and gain personal financial knowledge. There will be job shadow days to the Brock Street Branch and other departments. Professional dress and appearance will be required. Opportunities for community services and marketing HRCU’s youth programs may also occur. **PREREQUISITE:** Acceptance into the Banking and Financial Services program. Students are required to submit with the application: two teacher recommendations and their resume. An interview with instructor is also required. Students must have a minimum GPA of 2.25.

070452 BANKING AND FINANCIAL SERVICES 2

GRADES 11-12

1 CREDIT 1 (Spring semester course, CTE Program)

Students will continue to advance in teller line duties working at the high school branch along with learning more financial services skills including basic member service techniques, cross selling, financial fraud, and the latest in banking technology through independent study. Internship days will be required on either the teller line or another department in need of project help, such as filing, mailings, preparation for community events, planning of CU 4 Reality event at the high school, and financial education outreach within Rochester Elementary Schools. Students will continue to be held to professional standards and adhere to HRCU’s policies and procedures.

PREREQUISITE: Successful completion of Banking & Financial Services 1 and manager’s approval.

Marketing Program – SOMERSWORTH

Marketing Program Course Sequence

Year 1 – Marketing I (One full-year course)

Year 2 – Marketing II (One full-year course)

MARKETING I

GRADES 11 and 12

2 CREDITS (Full-year course, CTE Program)

This full-year course is part of a 2-year program of instruction in marketing. Topics covered include basic marketing and economic concepts, the free enterprise system, legal and ethical issues concerning marketers, selling, advertising and promotion. In addition, students have the opportunity to develop career goals and occupational skills related to marketing which are relevant in today’s global economy. Students will be encouraged to participate in DECA (An association for marketing students) and the Marketing Lab/Topper Shoppe for practical internship experience. *This course fulfills the Economics graduation requirement.* Completing Marketing 1 will give you the opportunity to earn 3 dual enrollment credits for *Understanding Business* through Central Maine Community College. [21st CLE: A.1, A.3, A.7 & A.8] **PREREQUISITE:** Acceptance into the Marketing program.

MARKETING II

Grade 12

2 CREDITS (Full year course)

Looking to build on your existing marketing skills? This course is designed for those who have already completed Marketing I course or an equivalent. Focus on a deeper understanding of the key marketing tools of advertising, PR, promotions and digital marketing. We consider effective use of marketing funds (including profitability, return on marketing investment and financials from a marketing perspective), as well as explore the latest marketing trends – from changes in consumer marketing to social media marketing. Students will be required participate in DECA. Students will obtain their skills and knowledge in these functions through classroom instruction, group and individual projects, the operation of the Topper Shoppe, and partnerships with local businesses. [21st CLE A8.1, A8.2, A8.6]

PREREQUISITE: Successful completion of Marketing I and permission from the teacher

Please Note: Dover CTC also offers this program. If students are unable to fit Somersworth’s program into their daily schedule, they should speak with their guidance counselor or the career counselor to determine if attending Dover’s program is an option.

EDUCATION AND TRAINING CAREER CLUSTER

Teacher Education Program – SOMERSWORTH

Teacher Education Program Course Sequence

Year 1 – Teacher Education, Multiple Levels I (One full-year course)

Year 2 – Teacher Education, Multiple Levels II (One full-year course)

926 TEACHER EDUCATION, MULTIPLE LEVELS I

GRADES 11 and 12

2 CREDITS (Full-year course, CTE Program)

This hands-on course will allow students to take what they have learned in Intro to Teacher Education to the next level. This teacher-training program will blend classroom time with internship work in the Topper Tots classrooms along with internships at local public schools. You will observe children to learn about their growth and development. You will also be able to use the observed information to plan a curriculum that is both developmentally appropriate and based on the current children's interests. You will be asked to think critically about the classroom environment and how children learn best. Students will also learn how to create a portfolio. The portfolio process will be introduced and its importance stressed.

PREREQUISITE: Acceptance into the Teacher Education program

927 TEACHER EDUCATION, MULTIPLE LEVELS II

GRADE 12

2 CREDITS (Full-year course, CTE Program)

This hands-on course is for those who have successfully completed Teaching of Multiple Levels I. Students are given greater responsibility for the day-to-day workings of the Topper Tots classrooms. In addition to developing lesson plans, the curriculum includes planning field trips, guest speakers, student assessments, and parent conferences. The high school students learn to establish a relationship with parents to involve them in different areas of their child's education. Some Teaching of Multiple Levels students choose to spend the year completing an internship at local public schools, outside community preschools, or special education programs.

PREREQUISITE: Successful completion of Teacher Education I

Please Note: The Richard W. Creteau CTC in Rochester also offers this program. If students are unable to fit Somersworth's program into their daily schedule, they should speak with their guidance counselor or the career counselor to determine if attending Rochester's program is an option.



Jayde Burley Class of 2017

GOVERNMENT & PUBLIC ADMINISTRATION CAREER CLUSTER

NAVAL SCIENCE /NJROTC (Navy Junior Reserve Officers Training Corps) Program - DOVER

NJROTC Program Course Sequence

Year 1 – Naval Science I and Naval Science II (Two semester-long courses)

Year 2 – Naval Science III and Naval Science III (Two semester-long courses)

Please Note: NJROTC is designed to serve students in grades 9-12. However, because of other courses students are required to enroll in, NJROTC is typically not started until the junior year.

Program Description: Helping Today's Youth Meet Life's Challenges. The Dover High School NJROTC program mission is to instill in students the values of citizenship, leadership, service to the United States, personal responsibility, and a sense of accomplishment. The goal of the program is to develop a student mentally, morally, and physically so they are prepared to successfully navigate their future paths in life. Everything we do is based in the fundamental core of:

1. Citizenship
2. Leadership
3. Academic excellence all the time

NJROTC is designed to create favorable attitudes, impressions, and skill sets for students as they set a path for success in post-secondary education, entering the technical workforce, or service in the military. A solid foundation that develops core competencies in leadership, management, policy analysis, human resources management, and information technology is provided to each student. The program is taught by an instructor who is a retired Senior Naval Officer. The accredited curriculum

emphasizes developing citizenship and leadership, as well as our maritime heritage. In the classroom and in the community, students learn the value of service to others and academic excellence. Each student participates in physical fitness training, academic, athletic, and drill competitions as well as other activities that promote personal responsibility and a healthy lifestyle.

What subjects are included in the curriculum?

The curriculum is based on a staged development of a student's virtual tool box exposing them to the life skills required to be successful in today's environment. Basic organization and communication skills are building blocks, opening the portal for citizenship, leadership, and core values that are instilled every day. The curriculum is developed and revised continually to keep pace with the changing climate. Building on a progression from followership to leadership the four development stages are:

- Introduction to Life Skills and Leadership
- Developing core values of Honor, Courage, and Commitment.
- Foundations of Management Skills
- Applications of Leadership and Ethics

***Application Process for Admission to the NJROTC program**

Students entering grade 9 will have their middle school records reviewed, along with a personal interview. Students in grades 10-12 must have a 2.5 grade point average and submit a CTE program application along with a type written one-page paper stating why they would like to enroll in the Navy Junior Reserve Officers Training Corps program. This will be followed by an interview by the Naval Science staff at Dover High School. Costs: \$50 for shoes.

931270 NAVAL SCIENCE I - The Introduction to Life Skills and Leadership

GRADES 9-12

1 CREDIT (Fall semester course, CTE Program)

If you have the want or desire to build a foundation of skills that will improve your chances of succeeding in today's complex world, this is the course for you! We introduce you to the precepts of citizenship, the elements of leadership, service to others, and the value of scholarship in attaining life's goals. Organization and study skills are key success traits that are explained and practiced on a daily basis during the first year of NJROTC. The lively discussions surrounding cultural studies allow you to grasp cultural differences through the study of world affairs, regional studies, and cultural awareness. Guest speakers provide their points of views on subjects as operational leadership, community involvement, and college scholarship opportunities. The physical mission of this course is obtained by playing team sports and games, teambuilding exercises, and marching.

PREREQUISITE: Acceptance into the NJROTC program* (see above for application process information).

932270 NAVAL SCIENCE II – Develop Core Values of Honor, Courage, and Commitment

GRADES 10-12

1 CREDIT (Spring semester course, CTE Program)

Building upon the foundation of "Introduction to Life Skills and Leadership" course, you'll set your moral compass where a sound appreciation for the core values of Honor, Courage, and Commitment are explained and put to practice on a daily basis. Classroom instruction includes deeper discussions on leadership; maritime geography as it relates to national resources, landforms, climate, soil, bodies of water, people, governments, military and geopolitics. Current event discussions provide you an opportunity to voice your opinion on topics ranging from military actions, to solving hunger on local streets. You will be able to understand the approaches to effective leadership and factors influencing behavior in leadership roles. Progressing in the unit's structure, you will have an opportunity to be promoted and exercise increased responsibilities by leading first year cadets in a multitude of extracurricular events (see below).

PREREQUISITE: Successful completion of Naval Science I

933270 NAVAL SCIENCE III – Foundations of Management Skills

GRADES 11 and 12

1 CREDIT (Fall semester course, CTE Program)

How important is it to have an understanding of managing a project before hitting the workforce as an adult!! At this point of your life skills development you have a grasp of what values it takes to be a top notch leader. Next you will add the skill it takes to evaluate the challenge of managing a process, the qualities of an effective manager, and finally, how to evaluate performance and give instruction. Classroom discussions include how attention to detail becomes a key component in successful career development. You will also gain keen insights to sea power and national security, naval operations and support functions. Additional subjects include an introduction to applied physics as it pertains to electromagnetic energy and weapon systems and aircraft operations. Again, you will have the opportunity to be promoted to staff positions and exercise increased responsibilities by managing the operations, administration, public affairs, and supply departments of the NJROTC unit. **Note:** Fulfills ½ a math credit.

PREREQUISITE: Successful completion of Naval Science II

934270 NAVAL SCIENCE IV –Leadership Applications and Professional Ethics

GRADES 11 and 12

1 CREDIT (Spring semester course, CTE Program)

This is where it all comes together! As the leaders of approximately 100 fellow cadets, this is your command! The leadership practicum is designed to give you supervised practical application of previously studied leadership theories. You will be afforded the opportunity to apply those leadership traits outside of the classroom during several field trips. The introduction of ethics becomes an added layer to the leadership continuum and allows for a focused engagement for practicing ethical leadership techniques. By practicing your leadership style, you will have the opportunity to put your legacy into the history of this program. You will then analyze the reasons for the varying degrees of success throughout the year. You will become aware of the techniques used to increase motivation, develop goals and activities for a work group, and the proper ways to set a leadership example. You will also be provided access to ACT/SAT preparation courses, guidance in selecting a college and pursuing available scholarships. Classroom activities include seminars, reading assignments, classroom presentations, and practical work with younger cadets. Seniors are mentored/guided in their preparation for life after high school including college preparation, scholarship applications, and the variety of choices that are available to them.

PREREQUISITES: Successful completion of Naval Science III

NJROTC Extra-Curricular Activities

NJROTC cadets participate in a number of outside, or extra-curricular, activities throughout the school year and during the summer months. These opportunities are designed to stimulate learning by hands-on experience and to reinforce classroom instruction. Some of these activities include:

- School and local activities such as parades, community service projects and events, academic, athletic, drill, marksmanship, and orienteering events and competitions.
- Leadership training of about 1 week during the spring and summer months to include Basic Leadership Training, Leadership Academy, and Science Technology Engineering and Math (STEM) programs at major universities.

HEALTH SERVICES CAREER CLUSTER

(NOTE: Health Science Programs are offered in both Dover and Rochester)

Health Science Technology: LNA I & II (2-year program) - DOVER

Health Science Technology Program Course Sequence Options

Health Science – Track 1

Year 1 – Health Science Technology I (One full-year course)

Year 2 – Health Science Technology II (One full-year course)

Health Science – Track 2

Year 1 – Health Science Technology I (One full-year course)

Year 2 – Firefighter Academy II (EMT) (One full-year course)*

**Required: Entrance requirements for Firefighter II and successful completion of Health Science with a grade of 80%.*

Program Description: Licensed Nursing Assistants (LNAs) work under the direction of RNs and LPNs and provide basic patient care and assist with nursing procedures. LNAs care for elderly, newborns, and children with special needs as well as those recovering from illness, injury or surgery, or individuals with disabilities in their own homes. LNAs typically have a great deal of patient contact as they are responsible for monitoring patient vital signs such as temperature, pulse, respirations and blood pressure. The duties of a LNA often include helping with activities of daily living, including personal hygiene, meal service, and restorative activities.

The Health Science I (LNA I) program includes the basic curriculum for a nursing assistant. Focused clinical experience in long-term care to obtain competency in all skills is required by NH State Board of Nursing. In addition to preparing for the LNA I and II exam, students involved in this career cluster will also have the opportunity to view and research the many opportunities associated with a career in the Health Sciences. Career strands include but are not limited to: Health Information Technology, Nutrition, Nursing, Medical Laboratory Science, Optometry, Pathology, Pharmacology, Surgical Technology, Emergency Medical Services, Exercise and Sports Medicine, Holistic Healthcare, Medical Imaging, etc. The program emphasizes professional behavior in the workplace, ethics, and accountability in the health care fields as per industry expectations/standards. Certificates for Job Shadows/Internships opportunities for specific health care career interest are also available.

931260 HEALTH SCIENCE I (LNA I)

GRADE 11 (Grade 12 on space available basis)

2 CREDITS (Full year course, CTE Program)

PREREQUISITE: Acceptance into the Health Science Technology program *(see below for additional admission requirements)

The course will reveal various healthcare occupations and will provide the basic skills needed to practice in a healthcare setting. Instruction includes medical terminology, anatomy and physiology with an emphasis on body systems, disease process, and disorders. The HST I program utilizes the New Hampshire Board of Nursing-Nursing Assistant program approved curriculum providing 160 hours of theory instruction and 60 clinical hours in an Assisted Living and Long Term Care facilities. Successful completion of this program and the NH State License written & skills exam will allow the student to apply for a NH Board of Nursing License to practice as a Licensed Nurse Assistant. Students will also complete an American Heart Association Health Care Provider & Automatic External Defibrillator (AED) certification. Students accumulate clinical hours, evenings, weekends and after-school. They are expected to arrange for their own transportation.

Note: Fulfills a science credit **Costs:** State LNA written and skills licensure exam, \$100; on-line license, \$35; Live-Scan fingerprinting, \$55, Uniforms \$25, and other health care equipment \$10. Prices are subject to change without notice.

College Credit: Qualified students have the opportunity to earn college credits.

***Additional admission requirements:** HST students must be at least 16 year of age, provide two references, and successfully complete an entrance interview. Each year all HST I students must agree to a criminal background check, a physical examination, TB test, and provide a copy of their current immunization record. Annual flu shots are also recommended. Uniform, duty shoes and watch with a second hand are required. Requirements are subject to change.

932260 HEALTH SCIENCE II (LNA II)

GRADE 12

2 CREDITS (Full year course, CTE Program)

Continue the study of medical terminology, body systems and the associated disease processes. Emphasis is placed on critical thinking skills, analyzing professional/ethical characteristics required of healthcare professions. Continue to practice and enhance skills and obtain an Advanced Skills for Healthcare Providers & Restorative Certificate. Instruction includes advanced skills for healthcare providers that include classroom theory and lab, as well as, observation of advanced clinical skills at area healthcare facilities including Wentworth Douglass Hospital. Explore specialized careers within the healthcare field and to coordinator a job shadow and /or internship opportunity. The course provides students with a strong foundation of knowledge and skills to successfully transition into post-secondary health care education. **Note:** Fulfills a science credit

PREREQUISITE: Successful completion of Health Science I** (see below for additional requirements)

****Additional requirement for Health Science II:** HST students who participate in off-site clinical experiences are required to take a drug screening urinalysis Additional drug screening may be administered randomly. At the start of the semester students are required to have their LNA licenses. In addition, students must have documentation for the following: TB test, recent physical, flu shot (seasonal), criminal background check, and full uniform. Students cannot go off-site for clinical experience without these requirements being completed. Students who have not met these requirements at the start of class will not be able attend clinical until these requirements are satisfied.

SEE "LAW, PUBLIC SAFETY AND SECURITY CAREER CLUSTER" FOR INFORMATION ON THE FIREFIGHTER ACADEMY II COURSE FOR STUDENTS INTERESTED IN THE TRACK 2 OPTIONS

Health Science Technology Program – ROCHESTER

Health Science Technology Program Course Sequence

Year 1 – Health Science Technology 1 (Full year course)

Year 2 – Health Science Technology 2 (Full year course)

080551 HEALTH SCIENCE TECHNOLOGY 1

GRADE 11

2 CREDITS (Full year course, CTE Program)

During the first year of this course, students are introduced to the field of health care and will investigate specific job opportunities in the health care industry. Students study the history of health care, medical terminology, ethical and legal aspects, microorganisms, and safety issues such as fire, body mechanics and infection control. After completing the anatomy and physiology, nutrition, CPR and first aid units, the students may travel to various community health care agencies for observation. Students will learn hands-on skills in our simulated hospital environment. Upon successful completion of HST I, students will have the opportunity to take the HSTII program to continue with their studies and may participate in the LNA program, gain college credit for medical terminology and participate in clinical settings.

PREREQUISITE: Acceptance into the Health Science Technology Program and instructor approval

080571 HEALTH SCIENCE TECHNOLOGY 2

GRADE 12

2 CREDITS (Full year course, CTE Program)

The second year is for students who have a definite career interest. There is more in-depth study of body systems, disease processes, diagnoses, treatments and rehabilitations along with investigation into human growth and development and pharmacology. They investigate current health issues and consumer information. Students learn multiple health care skills on the assistant level and will travel to health agencies for clinical observation/practice in an area of their interest. Upon successful completion a certificate of competency is issued. Students are expected to arrange for their own transportation to and from field sites. **Note: This is a Running Start Course and students are eligible to receive college credit. Students will incur costs taking HST 2.**

PREREQUISITE: Career and Technical Education application required. Students need to have met all competencies for HST 1 and approval of instructor.

HOSPITALITY & TOURISM CAREER CLUSTER

Culinary Arts Program – SOMERSWORTH

Culinary Arts Program Course Sequence

Year 1 – Culinary Arts I (One full-year course)

Year 2 – Culinary Arts II (One full-year course)

CULINARY ARTS I

GRADE 11 and 12

2 CREDITS (Full year course, CTE Program)

This course is designed to educate students to meet the ever-increasing demands of the food service industry. Culinary Arts I provides realistic hands-on experience in the principles of working in and operating a kitchen/dining room through the operation of our own Mulligan's Grill restaurant. The course covers quantity preparation techniques for both the culinary and baking areas of the kitchen. Also covered in the first year of the program are cooking methods, safety and sanitation, commercial equipment use, recipe terminology, measurement skills, food service technology and customer service techniques. The ProStart Curriculum, sponsored by the National Restaurant Association is used in this program.

Cost: There is a fee of approximately \$45 to cover the required uniform(s).

PREREQUISITE: Acceptance into the Culinary Arts program; Must turn 16 prior to September 30th.

CULINARY ARTS II

GRADE 12

2 CREDITS (Full year course, CTE Program)

In the second year of the program, students will gain advanced training in food service skills. Culinary Arts II provides the opportunity to obtain knowledge and experience needed to meet the requirements for entry into post-secondary education courses or jobs within the foodservice industry. Many areas taught in first year are explored more deeply in Culinary II such as advanced sauces, knife skills and bakery techniques. New skills for second year students include meat and poultry fabrication, menu development, food cost procedures, sugar cookery and advanced baking skills. Extensive use of computers and research are incorporated as well.

Students in Culinary Arts II receive instruction in the Servsafe Food Safety course and have the option to test for and receive a nationally recognized certification from National Restaurant Association Education Foundation. **College credits:** Both courses offer the option for students to participate in the Running Start Program and receive college credits while still in high school through Lakes Region Community College.

Please Note: *Dover CTC also offers this program. If students are unable to fit Somersworth's program into their daily schedule, they should speak with their guidance counselor or the career counselor to determine if attending Dover's program is an option.*

PREREQUISITE: Successful completion of Culinary Arts I

Events & Sports Management -ROCHESTER

This is a new program offering from the R. W Creteau CTC in Rochester with an anticipated start date Fall 2015. Interested students should refer to the CTC's website for more details on this program.

Restaurant Management Program - ROCHESTER

Restaurant Management Program Course Sequence

Year 1 – Restaurant Management I (One full-year course)

Year 2 – Restaurant Management II (One full-year course)

080792 RESTAURANT MANAGEMENT 1

GRADE 11

2 CREDITS (Full year course, CTE Program)

This program offers students the chance to work in a restaurant atmosphere while learning the different tasks of various professionals in the food and restaurant industry. Students will learn about safety and sanitation, professional cooking, the duties and responsibilities of the chef, prep cook, baker, host, server, and manager, as well as industry job seeking and keeping skills. Students will be responsible for the successful management of the Raider House Restaurant. Careers related to food service will be presented from a management perspective.

PREREQUISITE: Career and Technical Education application required.

080812 RESTAURANT MANAGEMENT 2

GRADE 12

2 CREDIT (Full year course, CTE Program)

This course is a continuation of Restaurant Management 1. This program offers students the chance to work in a restaurant atmosphere while learning the different tasks of various professionals in the food and restaurant industry. Students will learn about safety and sanitation, professional cooking, the duties and responsibilities of the chef, prep cook, baker, host, server, and manager, as well as industry job seeking and keeping skills. Students will be responsible for the successful management of the Raider House Restaurant. Careers related to food service will be presented from a management perspective.

PREREQUISITE: Successful completion of Restaurant Management 1

HUMAN SERVICES CAREER CLUSTER

Cosmetology Program – DOVER

Cosmetology Program Course Sequence – Please Note: Cosmetology is a three-year, 10-credit CTE Program

Year 1 – Cosmetology I (One full-year course)

Year 2 – Cosmetology II (One full-year, double block course)

Year 3 – Cosmetology III (One full-year, double block course)

Program Description: Never out of style, a career in cosmetology offers outstanding creativity and glamour. The cosmetology industry is an exciting, adventurous and creative field full of color, fashion, and diversity. We take pride in ourselves in helping students acquire the knowledge and necessary skills to enter the field of hair design, nail technology, skin care, and makeup. Students will work on both mannequins and live models throughout the three-year program. Acquire the skills and knowledge necessary for entry-level employment and to pass the NH State Board of Cosmetology Exam. This is NH's only 1,500 hour Cosmetology Licensing program at the High School level. So, come join us and become one of the few High School Students to earn their Cosmetology license!! **Note:** All Cosmetology students have the opportunity to complete additional Lab hours through this program. See the Cosmetology Instructional Staff for more details.

931250 COSMETOLOGY I

GRADE 10

2 CREDITS (Full-year course, CTE Program)

Begin with basic theory and in the practical skills classroom. Explore hands-on laboratory work consisting of hair sculpting, hair design, haircutting, Manicuring, pedicuring, skin care and make-up application. After basic training hours are met you will move into a higher level as the program and curriculum become more diverse and comprehensive. Professional ethics is a vital component to the process. **Costs:** Supplies, uniform, and NH Cosmetology registration fees \$100.00 (subject to change).

PREREQUISITE: Acceptance into the Cosmetology Program

932250 COSMETOLOGY II

GRADE 11

4 CREDITS (Full-year, double block course)

Build on the development of clinic and lab practices continuing in the classroom and the clinic/salon floor working on school clients and mannequins. Theory instruction related to chemical texture and smoothing, hair coloring, diseases and disorders and anatomy & physiology. After basic training and hours are met you will enter into a higher level as the program and curriculum become more diverse and comprehensive. Junior and senior students are placed in the school salon after basic skills training and the required training hours are met for that level. Our training program encompasses a powerful, all-inclusive cosmetology curriculum delivered through a strong step-by-step, hands-on approach. **Costs:** Lab and supplies fees \$75.00 (subject to change).

PREREQUISITE: Successful completion of Cosmetology I with a minimum of 250 hours accumulated

933250 COSMETOLOGY III

GRADE 12

4 CREDITS (Full-year, double block course)

Knowledge of hair services are continued with attention to refining skills, speed and accuracy and working with salon clients which is designed to show new techniques while developing each individual's special interest within the cosmetology field. You will complete project based salon management allowing you to explore all aspects of spa and salon operations; including physical design, inventory and financial operations. The final phase ends with the preparation for the final exam required for licensure in the cosmetology industry. **Note:** All licensing fees and equipment is the responsibility of the graduate. Completion of Cosmetology I,

II, and III fulfills ½ a math credit. **Costs:** Supplies and lab fee \$75.00 (subject to change)

PREREQUISITE: Successful completion of Cosmetology II with a minimum of 750 hours accumulated

INFORMATION TECHNOLOGY CAREER CLUSTER

Computer Network Technician Program - SOMERSWORTH

Computer Network Technician Program Course Sequence

Year 1 – Computer Network Technician (Full-year course)

Year 2 – Computer Network Technician (Full-year course)

958 COMPUTER NETWORK TECHNICIAN I

GRADES 11 and 12

2 CREDITS (Full-year course, CTE Program)

This is a full-year two-credit course where students will learn maintenance and trouble-shooting skills for computer and network systems. It is designed for the student who wants to gain the skills necessary to install and configure operating systems, assemble and configure a microcomputer from constituent parts, maintain and troubleshoot computer and network systems, design an industry-standard server and workstation, troubleshoot and repair subsystems and peripherals, and much more. This course will also parallel the A+ and Network + national standards. The knowledge of today's computer and networking technology will provide many opportunities for students who successfully complete this course. **Note:** This course meets the state of New Hampshire Department of Education computer education requirement. [21st CLE A9.1-9.5]

PREREQUISITE: Acceptance into the Computer Network Technician program

959 COMPUTER NETWORK TECHNICIAN II

GRADE 12

2 CREDITS (Full-year course, CTE Program)

This course is designed as a continuance of Computer Network Technician I. The student will learn and develop further in-depth maintenance and systems skills. In addition, this course will further prepare the student for the A+ Exam—a nationally recognized test for computer technicians. [21st CLE A9.1-9.5]

PREREQUISITE: Successful completion of Computer Network Technician I

LAW, PUBLIC SAFETY AND SECURITY CAREER CLUSTER

Seacoast Firefighting & EMS C.A.D.E.T. Academy - DOVER

Seacoast Firefighting & EMS CADET Academy Course Sequence

Year 1 – Firefighter Academy I (One full-year course)

Year 2 – Firefighter Academy II (One full –year course) (Note: This course can also be taken to complete the Health Science Technology program – Track 2 option)

931210 FIREFIGHTER ACADEMY I

GRADE 11 (Grade 12 on a space available basis)

2 CREDITS (Full –year course, CTE Program)

PREREQUISITE: Acceptance into the Seacoast Firefighting & EMS CADET Academy* (See below for additional requirements).

932210 FIREFIGHTER ACADEMY II (EMT)

GRADE 12

2 CREDITS (Full-year course, CTE Program)

Do you want to become a highly-trained, highly-skilled professional that touches people's lives in positive ways? The Seacoast Firefighting and EMS C.A.D.E.T. Academy is all about people making a difference, and it attracts special individuals--- Individuals with integrity, motivation and pride. So, if that sounds like you, get ready to make an impact in your community. This two-year program is collaboration with Dover High School, the State of New Hampshire's Department of Safety, and the Fire Departments of Dover, Portsmouth, Somersworth, Rochester, Barrington and Durham. The program starts in your junior year with the NH Fire Standards and Training Commission Firefighter I Certification. This first year follows a public safety core where you gain experience and knowledge of the firefighter's responsibilities. The senior year consists of over 150 hours of Emergency Medical Technician (EMT) training, testing and clinical experience that makes you eligible to take the EMT Certification Exam at age 18. The remainder of the year covers a variety of career modules that include Fire Inspection; Fire and Arson Investigation; Fire Prevention and Public Education; Airport Rescue and Fire Fighting; Incident Command Systems; Firefighter Safety and Survival; the laws governing emergency services, policies and procedures, and a survey of careers related to fire service. **College Credits:** Students who successfully complete years 1 and 2 of the Academy are eligible for 9 college credits (6 credits for Firefighting I and 3 credits for EMT Certification) at participating community colleges. Students are strongly encouraged to continue their training at the community college level or higher to earn credits for Firefighting II Certification and an associate degree. Students also have the opportunity to earn and submit volunteer Student Service Learning hours throughout the year.

PREREQUISITES: Successful completion of Firefighter I or Health Science I. Firefighter II cadets participate in off-site clinical experiences and are required to take a drug screening urinalysis "Rapid Five" at a cost of \$40.00. Additional drug screening may be administered randomly. Students must submit a CTE program application for each year. An interview is also required.

***Additional Acceptance Requirements:** Student limitations: Before being accepted into the Academy, each student must have a current medical examination comparable to the National Fire Protection Association Standard #1582. Students are evaluated for heights phobia, claustrophobia; they should not be considered obese and they must have the stamina and physical ability to work in untenable conditions for several consecutive 30-minute durations. **Student costs and responsibilities:** A \$75 testing fee is required in order for the student to take the National Registry Emergency Medical examination. In addition, students are required to purchase two sets of midnight blue trousers, one pair of black oxford shoes, and a 1½ inch black belt, two long- and two short-sleeved shirts. A parent or guardian must comply and sign the completed application and agree to comply with all rules and regulations cited on the special application prior to acceptance into the Academy. **Note:** Firefighter I training and class work takes place off-site at the Liberty North End Fire Station at 262 Sixth Street in Dover. Transportation to and from the North End facility is provided from DHS. **This is a competitive entry program limited to 15 students per course.**

MANUFACTURING CAREER CLUSTER

Precision Machining Program – ROCHESTER

Precision Machining Program Course Sequence

Year 1 – Precision Machining I (One full-year course)

Year 2 – Precision Machining II (One full-year course)

080672 PRECISION MACHINING 1

GRADES 11 and 12

2 CREDITS (Full-year course, CTE program)

Students enrolled in the first year of this two-year program will demonstrate technical ability on machine tool equipment and hand tools related to the machine tool. Attention to detail, precise measurement and focus are highly recommended skills that will be developed and expanded through this course. Students will gain a complete understanding of the CNC machine tool's operation, metal working industry and requirements expected from a production machinist. Students will develop knowledge and understand of CNC machine tool operation and G-Code and M-Code terminology. Students will learn advanced machining competencies requiring lab hands on participation to meet and complete lab assigned projects. Student safety is held at the highest level of priority.

PREREQUISITE: Acceptance into the Precision Machining Program

080692 PRECISION MACHINING 2

GRADE 12

2 CREDIT (Full-year course, CTE Program)

Students continuing their enrollment in this two year program will gain understanding of industry standard CNC machine tool's operation, and a full understanding of G-Code and M-Code terminology and application. Students will understand the metal working industry and requirements expected from a production machinist. Students will meet advanced machining competencies requiring 97% shop hands on participation consisting of real time machining on a production level for both manual and CNC machining. Following all safety procedures will be continually enforced. Students will demonstrate personal growth / student professionalism through applied knowledge and skills in resume writing, job application writing, and job interviewing.

PREREQUISITE: Successful completion of Precision Machining 1.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS **(STEM) CAREER CLUSTER**

Biotechnology/Bio-Manufacturing Academy - DOVER

Biotechnology Program Course Sequence

Year 1 – Honors Biotechnology I and Honors Biotechnology II (Two, semester-long courses)

Program Description: Biotechnology and Bio-Manufacturing technology are growing fields with a wide range of challenging educational, learning and work opportunities. Students who major in Biotechnology/Bio-Manufacturing are prepared for positions in many career areas associated with the biopharmaceutical, research, health and medical science industries. This program is ideal for students who enjoy science and mathematics with a focus on the life sciences.

921310 HONORS BIOTECHNOLOGY I

GRADES 11-12

1 CREDIT (Fall Semester, CTE Program)

Biotechnology is the use of living organisms to solve problems or make useful products. Acquire basic laboratory skills in a variety of tasks that include testing, sampling and analysis of various organisms, and materials. Experiment with techniques such as DNA isolation, gene manipulation, and molecular cloning. Understand how the biotechnology industry operates, career options, and further opportunities in biotechnology. Explore applications of Bioinformatics, analysis of Bioethics, the roles of federal regulatory agencies, principles of Genetics, concepts in Immunology, and techniques of Molecular Biology.

Note: Fulfills Biology credit. **College Credit:** Qualified students have the opportunity to earn college credits.

PREREQUISITES: Acceptance into the Biotechnology Program; Successful completion of Honors or CP Physical Science

922310 HONORS BIOTECHNOLOGY II

GRADES 11-12

1 CREDIT (Spring Semester, CTE Program)

Explore advanced applications of concepts including Bioengineering in Agriculture, Alternative Energy resources, Applied Genetics, Bioethics of Stem cell therapies, Bioremediation, Genomic studies, PCR advancements and Pharmacogenomic assessment. Learn to use professional biotechnology equipment and master new laboratory protocols. Conduct independent research using GMP's and SOP's. Present results to fellow classmates and conduct peer reviews. Assume lab technician duties and prepare lab materials, maintain equipment, analyze potential experimental sources of error, and act as role models for the Biotech I students. **Note:** Fulfills ½ English credit

PREREQUISITE: Successful completion of Honors Biotechnology I

Engineering Program - SOMERSWORTH

Engineering Program Course Sequences

Manufacturing Engineering – Track 1

Introduction to Engineering Design

Digital Electronics

Principles of Engineering

Computer Integrated Manufacturing

Architectural Engineering – Track 2

Introduction to Engineering Design

Digital Electronics

Principles of Engineering

Engineering Design: Architecture

Program Description: The Engineering Program at Somersworth CTC utilizes the nationally recognized “Project Lead the Way (PLTW)” program as the basis of its curriculum. The program is designed to help students explore “high tech”-related careers in different types of engineering to prepare them to enter postsecondary education programs. Additionally, the Engineering Program helps prepare students for entry level engineering-technology jobs such as in many of the local advanced manufacturing companies in the seacoast area.

The Program Course Sequence: As listed above, the Engineering program allows students to focus on one of two areas of engineering – manufacturing or architecture.

Introduction to Engineering Design – This is the first course in this program. It is an open elective that interested all students in grades 9-12 can take. Students do not have to have applied to the Engineering program to take this course.

Digital Electronics (DE) and Principles of Engineering (POE) – Students that would like to take either of these courses, would need to submit an application and be accepted into the Engineering program. Students can take either DE or POE first, but must have successfully completed both before they can take the Computer Integrated Manufacturing or the Engineering Design: Architecture courses. In order to become Engineering Program completers, students must complete all of the courses in one of the four-course sequences listed above.

The Engineering Program also includes a capstone course, Engineering Design and Development. This course allows students to develop their own independent research projects to even further deepen their understanding and application of engineering concepts. Students interested in taking this course should speak with the instructor as permission is required.

884 INTRODUCTION TO ENGINEERING DESIGN (IED)

GRADES 9, 10, 11, 12

1 CREDIT (Fall semester, elective)

IED is an introductory course which develops students’ problem-solving skills, with emphasis placed on the concept of developing a 3-D model or solid rendering of an object. Students focus on the application of visualization processes and tools provided by modern state of the art computer hardware and software titled, “Key Creator”. This modern computer-based process replaces the traditional hand drawing methods. The course will emphasize the design and development process of a product and how a model of that product is produced, analyzed, and evaluated using a computer-aided design system. Various design applications will be explored with discussion of possible career opportunities. **Note:** This course meets the computer education graduation requirement. [21st CLE A8.43 A8.4]

PREREQUISITE: None. Students can enroll in this class without submitting an application for the Engineering program.

885 DIGITAL ELECTRONICS (DE)

GRADES 9, 10, 11, 12

1 CREDIT (Spring semester, CTC Program)

DE is a course of study in applied digital logic. The course is patterned after the first semester course in digital electronics taught in two- or four-year colleges. Students will study the application of electronic logic circuits and devices and apply Boolean logic to the solution of problems. Such circuits are found in watches, calculators, video games, computers, and thousands of other devices. The use of smart circuits is present in virtually all aspects of our lives and its use is increasing, rapidly making digital electronics an important course of study for a student exploring a career in engineering or engineering technology. Using Electronic Workbench, the industry standard, students will test and analyze simple and complex digital circuitry. Students will design circuits using electronics workbench, export their designs to a printed circuit auto routing program that generates printed circuit boards, and construct the design using chips and other components. [21st CLE A8.3, A8.5]

PREREQUISITE: Acceptance into the Engineering Program; concurrent enrollment in college prep mathematics

886 PRINCIPLES OF ENGINEERING (POE)

GRADES 9, 10, 11, 12

1 CREDIT (Fall semester, CTC Program)

POE is a broad-based survey course designed to help students understand the field of engineering and engineering technology and career possibilities. Students will develop engineering problem-solving skills that are involved in post-secondary education programs and engineering careers. They will explore various engineering systems and manufacturing processes. They will also learn how engineers address concerns about social and political consequences of technological change. The main purpose of this course is to answer the question Is a career in engineering or engineering technology for me? [21st CLE A8.6, S1.1]

PREREQUISITE: Acceptance into the Engineering Program; concurrent enrollment in college prep mathematics

887 COMPUTER INTERGRATED MANUFACTURING (CIM)

GRADES 11, 12

1 CREDIT (Fall semester, CTC Program)

This course builds upon the computer solid modeling design skills developed in IED. Students will be presented with design problems that require the use of "Key Creator" to develop solutions to the problems. They will evaluate the solutions using mass property analysis (study of the relationship among the design, function and material used), and make appropriate modifications and use prototyping equipment to produce three-dimensional models of the solution. Students will be expected to communicate the process and results of their work though oral and written reports. [21st CLE A2.1, A7.1, A9.2]

PREREQUISITE: IED, DE, and POE; concurrent enrollment in college prep mathematics

889 ENGINEERING DESIGN: ARCHITECTURE

GRADES 11, 12

1 CREDIT

The Engineering Design: Architecture course will investigate the use of Cadsoft Envisioneer, a 3D Architectural/Interior/Landscape design software application in residential design. Students will create a 2D Floor Plan and 3D Model along with elevations, foundation and plot plan. Students will also generate virtual tours of their enhanced interior design.

Engineering applications, problem solving, and passive solar and active solar along with building green will be examined. [21st CLE A3.1, A6.2, A8.1, A8.4, A8.6]

PREREQUISITE: Successful completion of IED, DE and POE engineering courses; concurrent enrollment in college prep mathematics.

888 ENGINEERING DESIGN AND DEVELOPMENT (EDD)

GRADE 12

1 CREDIT (Schedule will vary based on student interest, CTC Program)

This capstone course involves engineering research in which students work in teams to research, design, and construct a solution to an open-ended engineering problem. Students apply principles developed in the four preceding courses and are guided by a mentor. They must present progress reports, submit a final written report and defend their solutions to a panel at the end of the school year. [21st CLE A3.1, A7.1, A7.3, A9.4]

PREREQUISITE: Successful completion of IED, DE, POE and either CIM or Architecture courses; permission of the instructor.



Nikki Norbert Class of 2017

TRANSPORTATION, DISTRIBUTION & LOGISTICS CAREER CLUSTER

Automotive Collision Technology Program – DOVER

Automotive Collision Technology Program Course Sequence

Year 1 – Automotive Collision Technology I (One full-year course)

Year 2 – Automotive Collision Technology II (One full-year course and one spring semester course)

921230 AUTOMOTIVE COLLISION TECHNOLOGY I

Grade 11(Grade 12 on a space available basis)

2 CREDITS (Full-year course, CTE Program)

Dings and dents got you down? From frame to finish, explore hand and power tools required to transform your weathered wagon. Experience what it's like working with sheet metal, body fillers and plastics. Utilize materials and fasteners. Explore panel and glass repair, vehicle surface preparation and masking. Concerned about money? Practice and perfect the skill of estimates. All this and more as you discover what it is like to work in the automotive collision industry. **Costs:** A lab fee of \$40.00 will be required for a personal student respirator.

PREREQUISITE: Acceptance into the Automotive Collision Technology program; Must be 16 by September 30th.

922230 AUTOMOTIVE COLLISION TECHNOLOGY II

Grade 12

3 CREDITS (1 Block Fall Semester AND 2 Blocks Spring Semester)

Accidents happen! Why not advance your skills in the art of vehicle restoration and custom fabrication.

Examine frame damage measurement, replacement and realignment. Work on electrical systems, restraints and chassis.

Want to make it shine? Enhance skills in the art of airbrushing, pin striping, detailing, color matching and custom painting.

Come explore careers in the automotive industry as you gain skills that will last a lifetime. **College Credit:** Qualified students have the opportunity to earn college credits. **Costs:** A lab fee of \$40.00 will be required for a personal student respirator.

PREREQUISITE: Successful completion of Automotive Collision Technology I

Automotive Technology - SOMERSWORTH

Automotive Technology Course Sequence

Year 1 – Automotive Technology I (One full-year course)

Year 2 – Automotive Technology II (One full-year course)

935 AUTOMOTIVE TECHNOLOGY I

GRADE 11

2 CREDITS (Full-year course, CTE Program)

This course will give students hands-on training in the repair and diagnosis of automotive systems. Time will be spent in the classroom learning the procedures and in the shop practicing the skills learned. Major areas of study include brakes, steering and suspension systems, and engine performance. Students will be introduced to the computer systems in automobiles and how to diagnose and repair problems with the computer systems. Students will learn how to do a wheel alignment, repair brakes, and diagnose problems. [21st CLE A2.1, A2.2, A3.2, A7.1-7.3, A8.2-A8.4, A9.3, S1.1, S1.2]

PREREQUISITE: Acceptance into the Automotive Technology program; Must be 16 years old prior to September 30th.

936 AUTOMOTIVE TECHNOLOGY II

GRADES 12

2 CREDITS (Full-year course, CTE Program)

In the second year students will receive advanced training in the repair and diagnosis of modern automobiles. More emphasis will be placed on engine performance and computer systems. Students will learn the complex workings of the electrical systems. Areas covered are wiring, lights, battery, starters, and alternators, along with the use of multi-meters. Students will also learn the state inspection laws and will be able to perform a state safety inspection on a car. Students will be exposed to the business side of the automotive trades and will gain experience as service writers and in ordering repair parts. At the conclusion of the second year, students should be able to pass the ASE test in brakes, electrical, and front ends. [21st CLE A2.1, A2.2, A3.2, A7.1-7.3, A8.2-A8.4, A9.3, S1.1, S1.2]

PREREQUISITE: Successful completion of Automotive Technology I

CAREER TECHNICAL EDUCATION EXPLORATORY COURSES

943 WOODWORKING TECHNOLOGY I

GRADES 10, 11, 12

1/2 CREDIT

This course is a project-based introduction to the tools, techniques, and technology of the woodworking industry as it is today and how it is changing to meet the needs of the future. Students will form their own companies, make their own wood products, and become aware of the tools, machines, and materials to work with wood. [21st CLE A2]

944 WOODWORKING TECHNOLOGY II

GRADES 10, 11, 12

1/2 CREDIT

This course will build on the basic skills learned in Woodworking Technology I. Students will be instructed in the safe use of stationary shop equipment including but not limited to table saw, band saw, and jointer as well as hand tools and portable power tools. Students will learn the methods and techniques necessary to complete a major project such as a piece of furniture, cabinet, bookcase or other approved project. This course is suggested for students interested in the construction trades or woodworking as a hobby or career. [21st CLE A2]

PREREQUISITE: Woodworking Technology I

946 HOME OWNERSHIP

GRADES 10, 11, 12

1/2 CREDIT

Students will learn about the process of buying a home including searching the real estate market, using a realtor, obtaining financing for a house, home inspections, and appraisals. Students will also learn several items that should be researched before making an offer to purchase a home. The course will focus on consumer rights and responsibilities as well as how to get the most of the various industries that the consumer must go through when purchasing a house. [2st CLE A6, A7]

945 BASIC HOME REPAIR

GRADES 10, 11, 12

1/2 CREDIT

Students will learn about the common problems that homeowners encounter in dealing with owning a house and the items that need regular maintenance. There will be a focus on safety in making repairs and on what items an un-trained homeowner can safely attempt and what problems should be dealt with by a professional. Students will learn about the process of obtaining a building permit and when it is necessary. [21st CLE A2, A5]

947 GREEN & ENERGY EFFICIENT TECHNOLOGY

GRADES 10, 11, 12

1/2 CREDIT

This course will first stress what "going green" really looks like. Then the students will learn about the certification and ratings commonly used in energy efficient housing, appliances, home heating systems, and cars. Next, the student will be exposed to alternative types of housing, heating & cooling systems, and ways the natural environment can be used to help free us from the energy dependence with which most Americans are forced to contend. [21st CLE A2, A7]

960 COMPUTER EDUCATION

GRADES 9, 10, 11, 12

1/2 CREDIT

This course focuses on consumer education in the area of computer technology. Students completing the course will receive instruction on the current technology and concepts surrounding the use of personal computers and networks. This course meets the state of New Hampshire Department of Education computer education requirement. [21st CLE A9.1-9.5]

PREREQUISITE: Current network privileges

934 INTRO. TO FOODS

GRADES 9, 10, 11, 12

1/2 CREDIT

An introductory course focusing on fundamentals of cooking with emphasis on health and safety. Meal preparation and nutrition will be central topics.

REQUIREMENT: Students may not be enrolled in the culinary arts program.

954 AMERICAN ADVERTISING

GRADES 9, 10, 11, 12

1/2 CREDIT

This course is an introduction to the principles and practices of advertising. We will discuss and breakdown the history and influence of advertising in our culture. In this course, we will explore these roles in the marketplace, the elements of a successful advertisement, and we will examine how American advertising both mirrors society and creates it. This course will explore the art, history, technology, and culture in American advertising.

955 FASHION MERCHANDISING

GRADES 9, 10, 11, 12

1/2 CREDIT

The Fashion Merchandising course is an introductory course that teaches the concepts of entry-level business and fashion fundamentals. The following list of skill standards prepares the student in fashion merchandising with the fundamentals of basic fashion and business concepts, terminology, fashion cycles, textile fibers, garment styles and parts, retail merchandise categories, retail business fundamentals, and fashion promotion. [21st CLE A1.1, A1.2, A1.4]

953 SPORTS MARKETING

GRADES 9, 10, 11, 12

1/2 CREDIT

Sports Marketing is a specialized course which provides students with the knowledge of operation of the sports industry. This course is designed to equip students with entry-level competencies in the areas of sponsorship, promotion, advertising, legal contracts, agents, event marketing, and communications. Students will participate in a Virtual Business Simulation, creating a football franchise. Students will also create in-game promotions for Somersworth High School athletic events. [21st CLE A1.4, A1.5]

929 INTRODUCTION TO TEACHER EDUCATION OF MULTIPLE LEVELS

GRADES 9, 10

1/2 CREDIT

This course will examine the career choice of Teaching of Multiple Levels. It will explore planning for and working in a preschool and infants/toddlers setting. Topics will include the history of education, developmentally appropriate practice, also to include observation and assessment of children. Students will broaden their understanding of the field of Education, and its importance to the community.

931 CHILD DEVELOPMENT

GRADES 11, 12

1/2 CREDIT

This course will explore how life begins. The physical, emotional, social, and intellectual development of child from infancy through early childhood will be explored. Several different childhood development theories will be discussed. Other topics to be covered will include conception, parental development, birth defects, labor, and birth. This course is a running start course in conjunction with Lakes Region Community College.

CHILD HEALTH, SAFETY, AND NUTRITION

GRADES 11, 12

1/2 CREDIT

This course will explore children and how important their nutrition is in their life. This course is a variety of health, nutrition and safety concepts. These concepts will teach individuals to implement preventive health and safety practices based on New Hampshire Childcare Licensing Regulations. Students will be able to develop menus for meals and snacks which are nutritious, appealing, and age-appropriate for children of all ages. Recognition and treatment of child-abuse victims will be addressed. This course also explores the importance of safety in children. This course is a running start course in conjunction with Great Bay Community College. This course will meet the health required credit.

ART, MUSIC MOVEMENT AND DRAMA

GRADES 11,12

½ CREDIT

This course will explore children and how important art, music and movement is in their life. This course will also explore dramatic play and how important play is with children. This course will also teach you how to use creativity in young children through the provision of developmentally appropriate activities in the areas of art, music, dramatic play, and movement. The various methods and materials used to stimulate a young child's creative impulses will be explored. This course is a running start course in conjunction with Great Bay Community College. This course will meet the required Art credit

ADOBE PHOTOSHOP

GRADES 10, 11, 12

1/2 CREDIT

This course will show you how to use Photoshop to perform many different image processing techniques. In this course, you will learn how to use several tools for selecting parts of images, and will move, duplicate, and resize images. You will learn to use layers, layer effects, filters, lighting and texture effects, painting and blending, and color modification. Also, you will learn how to create images of different formats for different applications. This course is eligible your 1/2 computer credit or 1/2 art credit, but both. Photoshop students can earn college credit through the Running Start program sponsored by Great Bay Community College. Running Start is available to juniors and seniors only and a nominal fee is charged. This is a RUNNING START class. [21st CLE A1.1, A1.4, A1.5, A2.1, A2.2, A3.2, A7.1-A7.3, A9.1-A9.5, S1.1, S1.2]

PREREQUISITES: All students must have current network permission

898 ADOBE ILLUSTRATOR

GRADES 10, 11, 12

1/2 CREDIT

Adobe Illustrator software is used to create comprehensive vector graphics as logo's and illustrations. This course covers drawing, typography, compound paths, effects, basic 3D objects, layers, masks, patterns, blends, and colors. This course is eligible your 1/2 computer credit or 1/2 art credit, but both. This is a RUNNING START class. [21st CLE A1.1, A1.4, A1.5, A2.1, A2.2, A3.2, A7.1-A7.3, A9.1-A9.5, S1.1, S1.2]

PREREQUISITES: All students must have current network permission

895 FLASH

GRADES 10, 11, 12

1/2 CREDIT

Adobe Flash allows digital media designers to integrate video, text, audio, and graphics. Basic through more advanced features teach students how to create interesting, graphics-rich movies that include sound, animation, and interactivity. Students will be introduced to new Flash features including the bone, art deco, and 3-D tools. Flash will enhance webpage experiences by providing high-end visual effects that enhance the viewer's experience while visiting a website.

PREREQUISITES: All students must have current network permission



Camden Tillinghast Class of 2017

