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THE DOVER SCHOOL DISTRICT  
SCHOOL ADMINISTRATIVE UNIT #11  
McCONNELL CENTER  
61 LOCUST STREET SUITE 409  
DOVER, NEW HAMPSHIRE 03820-4132  
TEL (603) 516-6800 FAX (603) 516-6809

July 10, 2014

**REQUEST FOR QUALIFICATIONS**  
**Dover High School & Regional Career Technical Center**  
**Needs Assessment, Site Selection & Design Services**

You are cordially invited to submit qualifications for **Dover High School & Regional Career Technical Center Needs Assessment, Site Selection & Design Services** in accordance with the attached specifications, terms and conditions. Prospective respondents are advised to read this information over carefully prior to submitting.

Twelve (12) Copies of the Qualifications must be submitted in a sealed envelope, plainly marked:

**Dover High School & Regional Career Technical Center**  
**Needs Assessment, Site Selection & Design Services**  
**Business Office**  
**Dover School District – SAU 11**  
**61 Locust Street, Suite 409**  
**Dover NH 03820**

All proposals/bids must be received by **August 6, 2014 at 12:00 p.m. EST**

KMT/mfg  
Attachments

**\*IMPORTANT:** *IF you have not already, please [click here](#) and sign up on our website in order to be notified of any future bids associated with your service.*

*Vendors wishing to respond to a bid request with alternates to specifications must notify the School District no less than five (5) business days prior to the bid request opening date. If the proposed changes are acceptable, the School District will advise other potential respondents, thereby maintaining equality in the bid process. Failure to advise the School District could result either in rejection of the alternate proposal or in an untimely extension of the sealed bid process.*

*Vendors may be asked, as part of the bid evaluation process, to supply company financial information. This data will be held in the strictest confidence and be utilized only to help assess the stability of a responding firm. The records will be returned to you after identifying the successful respondent to the bid request.*



DOVER  
SCHOOL DISTRICT

## REQUEST FOR QUALIFICATION

Request type	Qualification
Title	<b>DHS/CTC Needs Assessment, Site Selection &amp; Design Services</b>
Date	July 10, 2014

### I. INTRODUCTION

The Dover School District invites qualified educational design teams to submit proposals for consideration to provide a facility needs assessment, a site assessment and architectural / engineering design services for a renovation or new High School and Regional Career Technical Center, including the surrounding campus. The needs assessment study is the first phase of planning in the design and construction project. The successful applicant will be able to design a progressive 21<sup>st</sup> century educational facility that is adaptable to future requirements, has low operating costs and can meet the needs of the state's fastest growing community for years to come. This may include moving to an open campus design.

Extensive experience in planning, development of a facility needs assessment, a site assessment and providing architectural/engineering design services for a renovated or new High School and Regional Career Technical Center are essential criteria for selection and absolutely required due to the complexity of school operations. Educational Design teams are asked to submit statements of qualifications, experience in school planning, design and construction administration, including references of other school projects that have involved their respective teams.

Educational design teams may partner with firms with significant experience with schools to submit a proposal. In this event, qualifications of all partners shall be submitted with the proposal.



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### II. PROJECT DESCRIPTION

Dover High School was originally built in 1967 with the Regional Career Technical Center added in 1989. Both sections of the facility, while cutting edge in their times, are woefully underequipped to meet the needs of a 21<sup>st</sup> century learning community. Last year a Vision Committee was created by the School Board to identify the philosophy of the school moving forward. The district also solicited input from the citizen's group "Dover Listens" related to this project. Based on feedback from those groups, as well as staff and faculty, it has been determined that the new facility should be constructed or updated to contemporary standards to enhance student achievement and provide the highest-quality educational experience for District students and staff. This would include programming space for all curricular and extracurricular activities, including interscholastic athletics, band, music and drama as well as the most up-to-date advancements in sustainable technology and security. For example, the new facility and campus must:

- Support current and evolving technology
- Provide flexible spaces for classroom and lab work tailored to curriculum and departmental needs
- Incorporate spaces that can be utilized by the community at large (auditorium, gymnasium, etc.)
- Consist of a layout that enhances pedestrian traffic flow through the building and grounds
- Include entrances that allow the community to enter and interact with the facility without disrupting student learning
- Take into account the vehicle traffic flow for arrival and dismissal, understanding the impact on the main roads and the middle school campus
- Utilize sustainable building and renewable energy design for maximum energy efficiency

The District seeks to retain a team who is able to provide architectural and site development expertise within an educational environment to meet the above comprehensive needs of the District, in collaboration with District staff, students and the Dover, NH community and to determine the most effective approach to creating a contemporary High School and Career Technical Center.

Related services shall include but are not limited to sustainable design services, services regarding LEED or other similar initiatives and certification, and other planning services the firm may have experience in providing to school districts.



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### III. INFORMATION AVAILABLE

The Dover High School and Regional Career Technical Center (CTC) currently employs approximately 192 teachers (both full and part time) with a student population of around 1,300. The current facility, located on 44 acres which include parking lots and athletic fields, is approximately 222,000 square feet, 27,000 of which are dedicated to the CTC. The exact budget and timetable for construction has not been determined, however, the state of New Hampshire has recently committed \$13.5M in Capital Operating Funds for the CTC portion of the project, which will be approximately \$18M of the total budget.

Please find attached:

Wordle from the Vision Committee

Dover High School and Regional Career Technical Center Program of Studies 2014-15

Aerial map of the current campus

### V. TIMELINE

As part of their response to this Request for Qualifications vendors shall:

- Provide information on current workload and describe how the team would accommodate this project.
- Outline the design schedule to be implemented to meet the expected project requirements and construction.
- Describe the methods the team will use to maintain the implemented schedule.



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### VI. GENERAL REQUIREMENTS

Vendors submitting qualifications must respond in writing to all requirements of this Request for Qualifications (RFQ). Responses should reflect detailed considerations of the issues and opportunities presented by this specific project. Any additional, relevant information may be included with the submittal requirements.

### **No late, email or facsimile proposals will be accepted.**

Costs incurred for the preparation of responses to this RFQ are the sole responsibility of the vendor. The Dover School District reserves the right to select or reject any vendor that it deems to be in the best interest to accomplish the project specified. The School District reserves the right to accept on one or more items of a submission, on all items of a submission or any combination of items. The School District reserves the right to discontinue the selection process at any time prior to the awarding of a contract. The School District reserves the right to waive defects and informalities of the submissions.

**Requests for Clarification:** Any and all requests for clarification regarding the District's expectations under this Request for Qualifications should be directed in writing to Karen M. Taylor, Business Administrator at [k.m.taylor@dover.k12.nh.us](mailto:k.m.taylor@dover.k12.nh.us) by July 30, 2014.

Procurement information shall be a governmental record to the extent provided in NH RSA 91-A: 4 and RSA 91-A: 5 and shall be available to the public. Proprietary information shall be considered a governmental record. Vendors seeking to restrict public access to information contained in a response shall address concerns with the Business Administrator prior to submission of the response.

#### **Prohibited Contact:**

Representatives from candidate firms are prohibited from making any contact with members of the Joint Building Committee, School Board and District staff with regard to this Request for Qualifications except to seek clarification of the requirements as noted above. The District reserves the right to disqualify any candidate firm found to have improperly contacted members of the Joint Building Committee, School Board or District staff with regard to this Request for Qualifications.

#### **Candidate Firm Selection Schedule:**

Issuance of Request for Qualifications:	July 10, 2014
Deadline for Submissions:	August 6, 2014
Review of Submissions:	August 7-18, 2014
Selection of Finalists:	August 19, 2014
Interview of Finalists:	September 9-16, 2014
Proposed JBC/School Board Action:	September 22, 2014



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### **VI. SUBMITTAL REQUIREMENTS (any missing items may result in rejection of the proposal)**

#### **Insurance**

The successful vendor will be required to submit certificates of insurance showing minimum liability limits of \$2,000,000.00, including professional liability. The types of liability coverage and workers compensation participation shall be identified. Thirty day notice is required for cancellation of policy and Dover School District shall be listed as an additional insured.

#### **Independent Contractor Relationship**

The vendor shall perform services as an independent contractor, and shall have and maintain complete control over all of its employees, agents, and operations. Neither the vendor nor anyone employed by it shall be, represent, act, purport to act or be deemed to be the agent, representative, employee or servant of the Dover School District.

The vendor selected by this Request for Qualifications will be working as an independent contractor and will be required to take out and keep in force all permits, licenses, certifications, other approvals, and or insurance that may be required by the Dover School District, any local or regional governmental agency, the State of New Hampshire, or the federal government. Failure to comply with any of these items would be grounds for immediate cancellation of the contract.

#### **Licenses and Permits**

All State of NH & local codes, permits and licensing requirements must be met by anyone performing work on city property. The vendor will be required to obtain permits prior to commencing any work. Local permit fees will be waived by City. Copies of such permits and licenses will be forwarded to the Business Administrator for the file prior to work commencing.



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### VII. SELECTION

A selection committee will review submissions. After review of submissions and prior to final ranking, the committee may, at its discretion, conduct interviews with a limited number of firm(s). The Committee may, at its discretion, visit sites representing the work of a specific firm. If the School District desires to interview a firm, that firm will receive notification of the date and time of the interview. Vendors who are interviewed should anticipate interviews that focus on their approach to this project and the design team professionals who will be directly involved in the project.

The Owner is under no obligation to grant interviews to any vendor receiving a copy of this RFQ and/or submitting a written response to this RFQ.

The Committee will rank the vendors and negotiate with the most qualified vendor on price, terms and conditions. The Committee's recommendation will be submitted to the School Board for consideration. School Board approval is required for the award of a bid and contract.

#### CRITERIA FOR EVALUATION SHALL INCLUDE:

- Demonstrated experience in providing service required for school projects of similar size and scope to our anticipated project.
- Quality of information based on completeness, relevance, conciseness and organization of materials.
- Qualifications of design team members to lead project effort. This must include the actual team that will be assigned to this project, not just available staff or consultants. At least one team member assigned to this project must be an architect currently licensed in the State of New Hampshire and AIA certified.
- Demonstrated ability to accurately develop needs and project budgets and maintain those throughout the project.
- Response of references.
- Creativity in developing unique design solutions in school projects.
- Availability of resources to complete the project.
- Demonstrated expertise in sustainable building and renewable energy projects.
- Demonstrated ability to meet schedules and proposed project budgets.
- Firm's demonstrated ability to assist the Owner in gaining public opinion and support.
- Firm's ability to meet insurance requirements.



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### VIII. RESPONSE FORMAT

The items listed below shall be submitted with each submission in the order shown. Each section should be clearly labeled, with pages numbered and separated by tabs. Failure by a Submitter to include all listed items will result in their submission being rejected.

#### Tab I – Cover Letter

Provide a cover letter indicating your firm's understanding of the requirements relating to this submission. The letter must be brief and formal from the submitter that provides information regarding the firm's interest in and ability to perform the requirements of this RFQ. A person who is authorized by the organization to enter into an agreement with the Dover School District will sign the letter. **Please include all contact information.**

#### Tab 2 – Acceptance of Conditions

Indicate any exceptions to the specifications, terms and conditions of this RFQ, including the Scope of Services.

#### Tab 3 – Company Background

- Years in business under present name.
- Any business name changes and the reason for the change.
- Name and address of each office location.
- Ownership structure (Corporation / Partnership).
- Names and titles of officers in the company.
- Company trade organizations / associations / affiliations.
- Description of the firm's philosophy.
- Describe any project that resulted in assessment of liquidated damages, stipulated damages or monetary deductions for not meeting intermediate and completion deadlines against the firm within the last five years. Describe the causes of the delays and the amounts assessed. Describe any outstanding damage claims for projects in which any firm was involved within the last five years.
- Describe the conditions surrounding any contract (or portion thereof) entered into by the firm that has been terminated for cause, or which required completion by another party, within the last five years. Describe the reasons for termination and the amounts involved.
- Describe any debarment or suspension from performing work for the federal government, any state or local government, or any foreign governmental entity, against the firm.



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### VIII. RESPONSE FORMAT CONT.

#### Tab 4 – Qualifications

- Describe firm qualifications, experience and project understanding.
- Provide resumes for key personnel (architectural, space planning, site planning, mechanical, structural and electrical) that will be assigned to this project.
- Provide breakdown of team member roles and responsibilities; identifying the project manager for each team member.
- Provide background on the team, including if they have worked together before and if so, on what projects.
- Demonstrate the firm’s qualifications and experience in School specific projects, highlighting experience with Career Technical Center programs of a similar size.
- Demonstrate the firm’s qualifications and experience with energy conservation in sustainable building projects, including knowledge of potential outside funding sources.

#### Tab 5 – Project Manager

- Identify the Project Manager, including experience and qualifications related to School design and construction.
- Show the organization of the proposed design team.

#### Tab 6 – Firm Resources

- Describe the firm’s personnel resources available to the Project Manager.
- Describe key personnel to be assigned from within the firm and any key outside sub-consulting firms for this project.

#### Tab 7 – References

- Provide references (with contact name and telephone number) of similar design projects for which your company has, in whole or in part, provided services. If the responding firm is legally contracting a firm with experience in planning in this type of facility the subcontracted or partner firm must also provide references of similar design projects that the subcontracted/partner firm has in whole or in part provided.
- Provide Client references for the Project Manager.
- Provide References for the Project Team, if they have worked as a team in the past.



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### VIII. RESPONSE FORMAT CONT.

#### Tab 8 – List of Ongoing and Completed Projects

- Provide a list of similar projects in which your company is currently involved, or has been involved.
- Please list project description and status.

#### Tab 9 – Customer Support

- Describe the firm's physical availability to the Dover School District in terms of communication, meetings and fieldwork.
- How will distance from the project site and the Dover School District affect the response time to critical matters pertaining to the project?
- Please include a complete and separate list of all School Projects in which only this firm, or a consulting school specialty firm, was primarily responsible.

Proposals should be formatted to 8.5"x11" pages and contents bound. Submissions shall be sealed and clearly marked "**Dover High School and Regional Career Technical Center Needs Assessment, Site Selection & Design Services.**"



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## REQUEST FOR QUALIFICATION

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 Title: **DHS/CTC Needs Assessment, Site Selection & Design Services**  
 Date: July 10, 2014

**CONTACT INFORMATION: SIGNATURE REQUIRED:**

<b>Official Entity Name</b>		<b>FOB Information:</b>	
<b>Address:</b>			
<b>City, State, Zip</b>		<b>Availability:</b>	
<b>Email address:</b>		<b>State of Incorporation</b>	
<b>Warranty/guarantee:</b>		<b>Price holds for:</b>	
<b>Date:</b>		<b>SSN or EIN:</b>	
<b>Telephone #:</b>		<b>Fax #:</b>	
<b>Signature:</b>		<b>Title:</b>	

Check here if appropriate: \_\_\_\_\_ **(X) NO BID**

**Bid Protests**

- A. Any actual or prospective bidder who is aggrieved in connection with the solicitation or award of a bid or contract may protest and seek resolution of complaints with the Business Administrator. A protest with respect to an invitation for bids or request for proposals shall be submitted in writing prior to the time for the opening of bids on the closing day for proposals, unless the aggrieved person did not know and should not have known of the facts giving rise to such protest prior to bid opening or the closing date for proposal. In that event, the protest shall be submitted within three (3) calendar days after the aggrieved person knows or should have known of the facts giving rise thereto.
- B. If a satisfactory resolution of the protest is not achieved by submitting a complaint with the Business Administrator, the person submitting the protest shall submit a written appeal to the Superintendent within three (3) calendar days of a decision by the Business Administrator.
- C. Purchasing procedures shall be stayed pending a decision of the Superintendent unless the Superintendent decides that the award of a contract is necessary to protect substantial interests of the School District.



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### **BID, RFP AND QUOTE TERMS AND CONDITIONS**

- 1. BID ACCEPTANCE AND REJECTIONS:** The Dover School District (DSD) reserves the right to accept any bid, and to reject any or all bids; to award the bid to other than the low bidder if deemed "bid most advantageous to the School District"; to accept the bid on one or more items of a proposal, on all items of a proposal or any combination of items of a proposal and to waive any defects in bids.
- 2. FINAL BID PRICE:** Terms and FOB point are always part of the bid. FOB POINT IS ALWAYS TO BE DOVER, NH UNLESS OTHERWISE INDICATED BY THE BIDDER. IT IS THE BIDDER'S RESPONSIBILITY TO SO DESIGNATE A FOB POINT OTHER THAN DOVER. If the bidder has any special payment or delivery clauses which could affect the final delivery price of an item up for bid, that too shall be made part of the bid. If, however, this is not included in the bid, the seller will be solely responsible for any increased prices due to any circumstances.
- 3. LATE PROPOSALS/BIDS:** Any bids received after specified date and time will not be considered, nor will late bids be opened.
- 4. PAYMENT TERMS:** It is the custom of the Dover School District to pay its bills within 20 – 30 working days following delivery of, and receipt for, all items covered by the purchase order. In submitting bids under these specifications, bidders should take into account all discounts, both trade and time, allowed in accordance with the above payment policy.
- 5. BRAND NAMES:** When the item is offered of a brand that is not known for use and/or reputation and financial stability is not well and favorably known to these officials, bids on such unknown brand may be rejected because of this lack of knowledge alone. Prospective bidders with such unknown brand should give information concerning it to the DSD Business Administrator so that it may be checked into for bids for the coming year. The bidder will state in the proposal the brand name and any guarantees of the material he/she proposes to furnish. The brand name is to be for the material that meets all specifications.
- 6. SUBCONTRACTORS:** Where a project involves utilizing subcontractors, and the project is completed satisfactorily, the Dover School District reserves the right to request proof of payment to subcontractors by the general contractor prior to making final payment to the general contractor.
- 7. PROPER DOCUMENTATION:** Any respondent to a bid request should sign off on and return to the Business Office the original Bid Documentation Package which explains the scope of the bid request. Said signature, in the spaces provided, indicates receipt of, familiarity with and understanding of, and acceptance of the specifications provided, except as otherwise noted by the respondent.
- 8. BID RESULTS:** The Business Office will **NOT respond to phone inquiries** for Bid Results, other than to identify the apparent low bidder and his total bid price quotation. Individuals or company representatives may secure a comprehensive bid analysis of a particular bid request by either attending a bid opening (which is open to all interested parties); by coming to the Dover School District Business Office after a bid opening and asking to look through the file or by sending a written request for the bid analysis along with a **self-addressed stamped envelope**.





Program of Studies 2014-2015

# Dover High School & Regional Career Technical Center



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***PLEASE NOTE: Descriptions of courses in this catalog do not constitute a guarantee that all courses will be taught during the coming school year. Dover High School reserves the right to cancel any class due to under-enrollment, scheduling issues, or budgetary constraints.***

***Dover School District,  
SAU #11***

*61 Locust Street, Suite 409  
Dover, NH 03820-3753  
603-516-6800*



**Antonia Fernandez**, Interim  
Superintendent

**Karen Taylor**, Business Administrator

**Christine Boston**, Director of Pupil Personnel Services

**Paula Glynn**, Director of Curriculum, Instruction, & Assessment

**Peter Wotton**, Athletic Director

**Dover School District  
Mission Statement**

***Strengthening our community by  
educating every child, every day!***

**Dover High School  
Mission Statement**

***We as an educational community inspire  
excellence and address our students'  
academic, career and social needs. We  
challenge our students to meet high  
expectations in an environment that is  
safe, supportive of creativity, and  
nurturing of mutual respect and personal  
responsibility.***

**Dover High School  
and Regional Career  
Technical Center**

*25 Alumni Drive  
Dover, NH 03820  
603-516-6900*

**Peter Driscoll**, Principal

**Jon M Altbergs**, Dean of Instruction

**David Bennett**, Dean of Students

**Kimberley Stephens**, Dean of Students

**Louise Paradis**, Director of Career &  
Technical Education

**Linda Madden**, Student Services/Special  
Education Coordinator

## *ABOUT DOVER HIGH SCHOOL*

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Founded in 1851, Dover High School and Regional Career Technical Center serves the city of Dover as well as the towns of Barrington and Nottingham. Dover High School has approximately 1350 full time students, and as part of the Tri-City Regional Career-Technical system, welcomes an additional 80 students to its vocational and technical programs from sending schools, including Rochester, Somersworth, and Marshwood High School in Maine.

Dover High Schools offers a curriculum designed to meet the needs of diverse learners. Courses include opportunities for students to acquire and strengthen basic skills as well as opportunities to do college-level work through Advanced Placement courses and dual-enrollment programs.

In addition to academics, Dover High School offers a variety of co-curricular activities and athletic programs to foster student involvement and build community.

## *EXPECTATIONS FOR STUDENT LEARNING*

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Dover High School's curriculum, co-curricular activities, and athletic programs are intended to inculcate the following expectations for student learning:

### *Academic Expectations*

- **Access and analyze information**
- **Read, write and speak effectively**
- **Think critically**
- **Solve problems resourcefully and effectively**

### *Social & Civic Expectations*

- **Assume responsibility for one's actions**
- **Treat self and others with respect**
- **Work cooperatively with others**
- **Set personal goals for education and career**
- **Understand the importance of personal wellness**
- **Make positive contributions to the community**
- **Foster a sense of belonging among its members**

## *NONDISCRIMINATION POLICY*

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It is the policy of Dover High School not to discriminate in its education programs, activities or employment practices on the basis of race, color, national origin, language, religion, age, sex or handicap under the provisions 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 705120 of the Rehabilitation Act of 1973 and the Education for all Handicapped Children Act of 1975. **Sexual harassment** is a form of unlawful discrimination and is against school district policy. Sexual harassment is described as an unpleasant environment caused by an unwelcome verbal or physical conduct of a sexual nature that interferes with an individual's academic performance. **A concern or complaint concerning sexual discrimination should be made to Louise Paradis (516-6978) or Donna Frank-Berchulski (516-6937).** Any person having inquiries concerning Dover High School's compliance with the regulations implementing these laws may contact the Dover School System **(516-6804)**. Any person may also contact the Assistant Secretary for Civil Rights, U.S. Department of Education or the Director, U.S. Department of Education, Office for Civil Rights, Region I, John W. McCormack Post Office and Court House Square Room 502514 Boston, Massachusetts 02109.

## ACCREDITATION

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Dover High School and Regional Career Technical Center is accredited by the New England Association of Schools and Colleges (NEASC). NEASC is a non-governmental, nationally recognized organization whose affiliates include elementary through collegiate institutions offering post-graduate programs. NEASC's Commission on Public Secondary Schools explains accreditation as follows:

*Accreditation of public secondary schools by the New England Association of Schools and Colleges indicates that the educational institution has conducted a self-evaluation of all of its programs and hosted a visiting committee to evaluate the institution in terms of its own stated educational goals and the seven Standards for Accreditation of the Commission on Public Secondary Schools.*

*The Standards for Accreditation are a research-based set of practices and concepts that provide guidance to schools on all aspects of the education -- academic, civic, and social -- of the young people under their care. The Standards which are considered to be living documents are reviewed and revised, as necessary, every five years. The process of review includes surveys of all member schools, specific consideration of feedback provided by schools that have recently undergone an accreditation visit, an appraisal of recent, relevant educational literature, and in-depth discussions at the Commission level. As needed, third parties, including consultants, are contracted to conduct relevant research to inform the revision of the Standards. The Standards tend to be reflective of current trends in research on public education without espousing one particular mode of thought.*

*The awarding of accreditation signifies that the school has met Commission Standards at an acceptable level and is willing to both maintain those Standards and to improve its educational program by implementing the recommendations of the visiting committee and the Commission. Continued accreditation is dependent upon a school demonstrating ongoing, reflective progress to improve teaching and learning and the support of teaching and learning.*

*Membership in and accreditation by the NEASC is similar to membership in professional organizations such as the American Bar Association and the American Medical Association. In each case, a commitment toward continual self-evaluation, a pledge to self-improvement, and a desire to maintain the Standards for Accreditation are necessary.*

## *A MESSAGE TO STUDENTS AND PARENTS*

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Dear Students and Parents,

The goal of the Program of Studies is to serve as a reference guide for you and your family as you plan your high school experience. It contains specific information about course offerings as well as general information about our programs and services. It is our attempt to simplify the complex and serious task of planning and selecting an appropriately challenging course of study. At Dover High School, we strive to create diverse pathways to allow all students to reach their potential and leave with the skills, knowledge, and attitudes necessary to pursue their post-secondary goals.

Our mission statement calls on us to inspire excellence. As you use this Program of Studies to chart your academic course, we ask that you keep our mission in mind. Focus on the big picture. What are your goals during and after high school? Choose a challenging course of study and do not be afraid to stretch yourself academically. Few people ever regret aspiring to new heights.

We urge you to be involved not only in the academic life of Dover High School, but in all aspects of our learning community. We offer a number of extracurricular activities. Find one that excites your passions.

The Dover High School Staff is here to work with you, our students and parents, to plan a successful high school experience. We urge you to maintain open communication with us as we forge an alliance to help all our students meet their full potential.

**Peter Driscoll**  
Principal

**Louis Paradis**  
Director of Career &  
Technical Education

**Jon M. Altbergs**  
Dean of Instruction

**David Bennett**  
Dean of Students

**Kimberly Stephens**  
Dean of Students

**Sally Thorn**  
Guidance Director

## *GUIDANCE SERVICES*

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A full range of guidance services is available to students and their parents/guardians. Students must make an appointment to see their Guidance Counselor, while regular individual counseling can be arranged by parents/guardians, professional staff and students. Students may receive advice on selection of courses, have their academic records reviewed, receive career information and acquire information on colleges.

Parents/Guardians are encouraged to contact the Guidance Office concerning any issues impacting a student's social adjustment or academic progress. In addition, the results of school authorized and aptitude testing can be reviewed individually with students and parents/guardians.

All student records are kept and maintained according to federal and state regulations. Parents/Guardians of students needing to inspect student records should contact the Guidance Office.

Dover High School will not release copies of records or personal information about any student unless a signed release form from the parent/guardian or 18 year old student is received, except when providing information to recruiters from the Armed Forces. As required by provision in the No Child Left Behind Act, the Guidance Office provides student directory information upon request to the various branches of the Armed Forces. To "Opt-Out" of these lists, written notification by the parent/guardian, or 18 year old student must be provided to the Guidance Office.

## *PLANNING A COURSE OF STUDY*

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This Program of Studies has a lot of valuable information that is important for students to know and remember as they go through high school. Students should talk with their parents, Guidance Counselor and teachers to help them make the best selections. Make sure to review the graduation requirements as well as course descriptions to help you decide which classes to take. Make sure to consider your interests and think about what you might want to do after high school. Use the course descriptions and Meeting College Requirements for College Admissions sections to learn about the various courses offered that can help you explore different career fields. Students and parents who carefully consider these things when making course decisions will see the four years students spend in high school as the stepping stone to their future whether going to college, into the military, or directly into the workforce.

## *SCHEDULES AND CLASS STANDING*

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Freshmen, Sophomores, and Juniors are expected to be in school for the full school day and be enrolled in seven classes per semester. Seniors who qualify for early release may be eligible to enroll in six classes per semester. Please note that independent studies, NovaNET credit recovery, and courses taken outside of Dover High School do not necessarily count toward this total.

Student athletes must be aware that decisions to reduce their course load may make them ineligible to participate. Questions about eligibility should be discussed with the student's counselor or the Athletic Director.

Students must earn a minimum of six credits to be a sophomore, twelve credits to be a junior, and eighteen credits to be a senior.

## *GRADUATION REQUIREMENTS*

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To meet the needs of diverse learners and acknowledge the value of varied post-secondary plans, Dover High School has a tiered diploma system.

Students are required to earn a **minimum of 26 credits to be awarded a Dover High School diploma.**

Dover High School will award a **Diploma of Distinction** to students who earn a total of **no less than 28 credits with a cumulative GPA of 3.0 or above.**

<b>Required Courses for Standard Diploma and Diploma of Distinction</b>	
<b>Subject</b>	<b>Credits</b>
English	4 credits
Mathematics (must include Algebra I)	4 credits
Social Studies (must include Global Studies, Economics, American Government, US History)	2 ½ credits
Science (must include 1 credit each in physical sciences and biological sciences, and .5 credits in earth sciences)	3 credits
Arts Education	1 credit
Computer Education	½ credit
Wellness Education (must include 1 credit Physical Education & ½ credit Health)	1 ½ credits
<b>Electives (Distinction)</b>	<b>9 ½ Credits (11 ½)</b>
<b>TOTAL (Distinction)</b>	<b>26 credits (28 credits)</b>

Upon recommendation of counselors and, if applicable, case managers, **students may be approved for a 20 credit ‘basic’ diploma**, which meets the state minimum requirements for high school graduation.

<b>Required Courses for Basic Diploma</b>	
<b>Subject</b>	<b>Credits</b>
English	4 credits
Mathematics (must include Algebra)	3 credits
Social Studies (must include ½ credit Global Studies, Economics, American Government, and 1 credit US History)	2 ½ credits
Science (must include 1 credit each in physical sciences and biological sciences)	2 credits
Arts Education	½ credit
Computer Education	½ credit or demonstrate proficiency
Wellness Education (must include 1 credit Physical Education & ½ credit Health)	1 ½ credits
Electives	6 Credits
<b>TOTAL</b>	<b>20 Credits</b>

## ***NEW HAMPSHIRE SCHOLARS PROGRAM***

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Dover High School is part of the New Hampshire Scholars program, a state and national initiative encouraging students to take a more rigorous course load in high school. The New Hampshire Scholars Initiative 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 necessary 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**

<b>English:</b>	<b>4.0 Credits</b>
<b>Mathematics:</b>	<b>4.0 Credits (Algebra I, Geometry, Algebra II, math elective)</b>
<b>Science:</b>	<b>3.0 Credits (Biology, Chemistry, Physics or other lab science)</b>
<b>Social Studies:</b>	<b>3.5 Credits</b>
<b>World Language:</b>	<b>2.0 Credits</b>

**Must also complete an individualized career component**

## ***MEETING GRADUATION REQUIREMENTS THROUGH INTERDISCIPLINARY CREDITS***

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Dover High School students often have alternative means of meeting graduation requirements. The chart below shows how interdisciplinary credits may be earned to meet graduation requirements. In some instances, a combination or sequence of courses will meet all or part of a graduation requirement. Please refer to the chart on the next page for further information.

Requirement	Course, Course #	Credits Met
Arts Education	All Visual Arts and Music Courses, 50's	Varies
	Theatre Arts I, 104260	1/2
	Theatre Arts II, 104261	1/2
	Unified Dramatics, 108863	1/2
	Intro to Woodworking Tech, 990232	1/2
	Woodworking and Design, 921270	1/2
	Wood Sculpture and Design, 922270	1/2
	Housing and Interior Design, 935230	1/2
Arts Education & Computer Education	Honors Intro to Engineering Design <b>AND</b> Honors Principles of Engineering, 921392 & 922350 with portfolio	1/2 each
Science	Intro to Life Science, 990212	1/2
	Intro to Animal Science, 990216	1/2
	Animal Science I, 901212	1/2
	Equine Science I, 901213	1
	Animal Science II, 902210	1
	Animal Science III 903310	1
	Equine Science II, 902215	1
	Equine Science III, 903215	1
	Aquaculture, 990215	1/2
	LNA I, 931260	1
	LNA II, 932260	1
	Honors Biotechnology I, 921310 (Biology credit)	1
	Honors Biotechnology II, 922310 (Biology credit)	1
	Naval Science II, 932270	1/2
Cosmetology II, 933250	1/2	
English	Honors Biotechnology I <b>AND</b> II, 921310 & 922310	1/2
Social Studies	Naval Science I, 931279 (Global Studies)	1/2
	Naval Science I <b>AND</b> Naval Science III, 931270 & 933270 (American Government)	1
	Naval Science II, 932270	1/2
Mathematics	Building Construction Technology I <b>AND</b> II, 921220 & 922220	1
	Naval Science III, 933270	1/2
	Cosmetology III, 933250	1/2
Computer Education	Intro to Engineering Technology, 990228	1/2
	Honors Intro to Engineering Design, 921392	1/2
	Honors Principles of Engineering, 922350	1/2
	Yearbook Design and Production I & II, 915212	1
	Computer Literacy Basics, 915214	1/2
	Advertising, 915216	1/2
	Microsoft Word and PowerPoint, 915218	1/2
	Microsoft Excel, 915220	1/2
	Microsoft Webpage Development, 915222	1/2
	Intro to Programming Using Alice, 915224	1/2
	VISUAL BASIC Programming, 915329	1/2
	C++ Programming, 915229	1/2
	Game Design Programming, 915226	1/2
	Game Design Programming II, 915227	1/2
Computer Technology I, 921240	1	
Computer Technology II, 922240	1	

## MEETING REQUIREMENTS FOR COLLEGE ADMISSION

Colleges prefer applicants who have taken a challenging high school program, who have demonstrated a strong work ethic, and who have shown development of skills and knowledge through a solid grade point average. In addition, many colleges will accept students with average grades who have demonstrated particular skills or exceptional qualities of character and leadership. As you plan, consider the guidelines below:

4-Year Colleges		2-Year Colleges, 3-Year Nursing Programs, Technical Schools	
Courses should be taken at the College Prep level or higher. <b>AP and Honors Courses are highly encouraged for applicants to 4-year schools.</b>		Courses can be a blend of College Prep and general level as well as CTC courses in a student's intended vocation.	
English	4 credits	English	4 credits
Social Studies	3-4 credits	Social Studies	3 credits
Mathematics	4 - 5 credits, including at least Algebra II	Mathematics	3 - 4 credits, including at least Algebra II
Science	3 - 5 credits	Science	3 - 4 credits
World Language	2 - 5 credits in the same language depending on college or major	World Language	0 - 3 credits depending on college or major
Electives	10 or more credits of electives should be chosen from those available based on personal interests, educational goals, and diploma type		

## SUGGESTED SEQUENCE OF COURSES

FRESHMAN YEAR	SOPHOMORE YEAR
English 9 Math – Algebra I or Geometry Science – Physical Science/Earth Science Social Studies – Intro to Economics and Global Studies Physical Education I World Language – Spanish I, French I, or Latin I Electives –Computer, Art, Music, or Career Tech	English 10 Math –Geometry or Algebra II Science – Biology Social Studies – American Government Physical Education II and Health World Language – Spanish II, French II, or Latin II Electives –Business, Art, Music, or Career Tech.
JUNIOR YEAR	SENIOR YEAR
English 11 Math – Algebra II or Pre-Calculus Science – Chemistry Social Studies – US History (required) World Language – Spanish III , French III, or Latin III Electives – Advanced courses in Business, Art, Music, Career Tech or Core Departments	English Electives Math –Pre-Calculus or Calculus or other math elective Science – Physics or other science elective Social Studies Elective World Language – Spanish IV, French IV, or Latin IV Electives – Advanced courses in Business, Art, Music, Career Tech or Core Departments

## *EARLY GRADUATION*

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Students are encouraged to spend four years completing their high school education choosing from the rich array of courses available. Meeting requirements in less time is possible, but not recommended in most cases. In special circumstances, it is appropriate for a student to graduate early and Dover High School will work closely with such students to meet their needs. Any student who is contemplating graduation in less than four years is strongly encouraged to see his or her counselor to initiate the process no later than the midpoint of the junior year. Approval by the Principal is required.

## *COURSE SELECTION/COURSE RECOMMENDATION*

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Course selections will be based on a student's four year plan, teacher and counselor recommendations, and parent input. Students are encouraged to choose courses that are appropriately challenging. If there are any questions concerning a course or any doubts concerning success in a particular course, these concerns should be discussed with the appropriate teacher and counselor prior to the selection of courses.

Recommendations are designed to help ensure success in course work. Should a student wish to enroll in a course not recommended, the student and parent must complete an override form, which is available in the Guidance Office. Approval of the Dean of Instruction is required.

Enrollment in some courses may be limited. Should a limit be necessary and unless otherwise noted, priority will be given in the following order: seniors, juniors, sophomores, and freshmen.

## *ADVANCED COURSEWORK*

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Any student who wishes to take advanced course work or Advanced Placement classes may do so at Dover High School. Administrators or the student's guidance counselor will assist students in identifying alternative means of taking such classes if they are not available at the high school. These alternative means may include taking courses at a different public school or a private school, through distance education courses, or at a college/university. Credit may be given provided the course comports with applicable district policies, state standards and course competencies. The student is responsible for any tuition, transportation, fees or other costs incurred for enrollment in such courses.

## *COURSE CHANGES*

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Selecting a course is a commitment to follow through to the best of one's ability. Students are encouraged to make any changes to their course choices or preliminary schedules prior to the start of the fall semester. Once school begins, course changes will be limited to placement issues or schedule conflicts. All student-initiated changes must occur within the first five days of the course. No lateral moves will be considered without extenuating circumstances and the approval of the academic coordinator. Teacher-initiated changes will be considered for placement issues at any time during the year with the permission of the parent, counselor, academic coordinator, and Dean of Instruction.

## *ALTERNATIVE PROGRAMS*

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Dover High School recognizes that students have opportunities to earn both high school and college credits beyond its walls. DHS also recognizes that students may earn these credits for a variety of reasons, including both enrichment and remediation. Dover Adult Learning Center, Virtual Learning Academy Charter School, and other approved and accredited programs may be accepted toward the requirements for a high school diploma with **prior approval** of the Principal or Dean of Instruction.

Dover High School students who take enrichment courses at other educational institutions may have the grade for these courses recorded as transfer credit on their transcript, but credit towards graduation will not be granted **unless prior approval is granted by the Principal or Dean of Instruction**.

Grades earned for credit recovery courses in summer school, NovaNET, or DALC (Dover Adult Learning Center) will be noted on the student's transcript and credit will be awarded for the corresponding course failed during the academic school year. This grade, however, will not affect the student's grade point average or class standing. In addition, grade for the credit recovery course will not affect the original grade for NCAA Core Course eligibility requirements or athletic eligibility for the first quarter the following year.

The **Dover Alternative Program** provides an alternative setting to assist students in successfully pursuing their high school diploma. Admission to this program is determined by the Alternative Program Admissions Team.

## *OTHER LEARNING OPPORTUNITIES*

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There are many other opportunities for students to gain knowledge and skills in a variety of areas. The programs offered, usually during the summer, are a place where students can focus in on a certain subject or area of study, complete volunteer work, or even train for a specific discipline. Examples of these programs are: the Advanced Studies Program at St. Paul's School; study abroad programs such as the Putney Student Travel Program; community service programs through Landmark Volunteers; athletic programs which are usually held at colleges and boarding schools; and leadership programs such as the National Policy Institute at Bates College. These programs are very competitive and rigorous and some can be very expensive. There are many scholarships available and sometimes you can find a comparable program at a more local setting. All of these programs are excellent stepping stones along to path to post secondary education and are something colleges and universities look very favorably upon. However, students do not earn high school credit for them and all expenses incurred are the responsibility of the student.

## *CAREER PLANNING*

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The goal of the Career Services Office at Dover High School and Regional Career Technical Center is to prepare all students with the knowledge and skills necessary to make well-informed career choices and to be productive in their careers. A variety of career exploration tools including work-based learning activities provide structured experiences that connect school with emerging careers. These activities are provided through the **Career Services Office**.

**The Internship Program** is a supervised, work-based training experience that is related to the student’s college and/or career plan. This program provides students with the opportunity to earn school credit, develop on-site occupational skills, and relate academic knowledge to careers and the world of work.

**The Cooperative Education Program (COOP)** is a supervised work-based training experience related to a student’s career and technical program. The program provides the opportunity to earn school credit while developing occupational skills specific to their career technical program.

**The Job Shadow Program** is a work-based learning activity that typically includes spending a day in a business setting learning about a career field and taking part in pre- and post-shadow activities. Although this program is targeted for sophomores, interested juniors and seniors may also participate. Most job shadows are student-initiated. The Career Services Office maintains a list of businesses that host job shadow experiences.

**The Career Services Office** works collaboratively with the Guidance Department to provide comprehensive career development services to students at Dover High School and Regional Career Technical Center. Ongoing career exploration and planning activities include: guest speaker events highlighting specific topics or career clusters, peer orientation to “Career Cruising” computer career program, and networking opportunities with local businesses. The Career Services Office and the school library house resources for teachers that relate career information to academic disciplines. All current resources, events, job and apprenticeship listings, and program information can be found on the DHS web page: [www.dover.k12.nh.us/ctc](http://www.dover.k12.nh.us/ctc).

### *PATHWAYS WITHIN EACH CAREER INTEREST AREA*

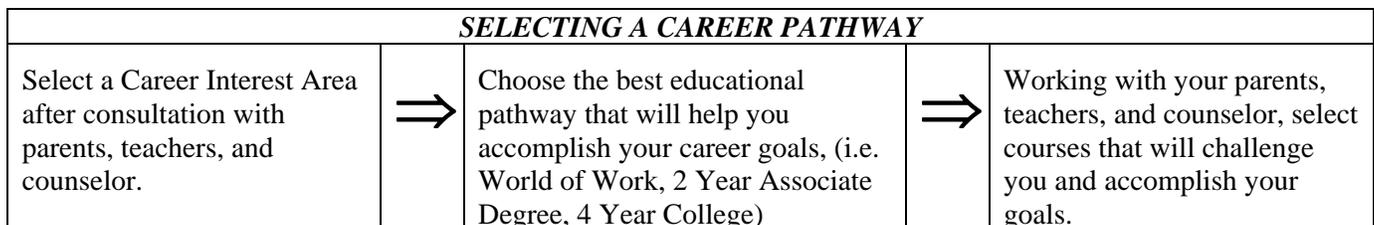
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Courses and experiences at Dover High School and Regional Career Technical Center have been designed to include, wherever possible, a career focus. This will provide an essential connection between school and career planning and preparation. Students are encouraged to select a career path suited to their interests and abilities.

The Pathway to the **WORLD OF WORK** is designed to prepare students to graduate from high school and go on to successfully participate in the workforce.

The Pathway to a **TWO-YEAR ASSOCIATE DEGREE PROGRAM** is offered to students who plan to further their education after graduation by earning an associate degree before entering the workplace. Many students elect to follow the 2 plus 2 route. Once the student has earned an associate degree, he/she can seek entrance into a four-year college to complete a baccalaureate degree.

The Pathway to a **FOUR-YEAR COLLEGE DEGREE PROGRAM** is for students who are planning to continue their education at a four-year college after high school.



## *GRADE POINT AVERAGE, RANK, AND HONOR ROLL*

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The official **Grade Point Average (GPA)** is calculated each semester based on final averages. GPA is computed by dividing the career credits attempted into the total career grade points.

For the purpose of determining **Honor Roll**, an interim GPA is calculated each quarter using quarter grades for the purpose. Students with an interim GPA of 3.70 or higher with no grade below an **83** earn **High Honors** for the quarter. Students with an interim GPA of 3.00 or higher and no grade below a **73** earn **Honors** for the quarter.

**Class Rank** is determined by sorting members of a graduating class by their GPA.

## *GRADING AND QUALITY POINT SCALE*

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GRADE	SCORE	REGULAR	HONORS & ADVANCED PLACEMENT
A+	98-100	4.33	5.33
A	93-97	4.00	5.00
A-	90-92	3.67	4.67
B+	87-89	3.33	4.33
B	83-86	3.00	4.00
B-	80-82	2.67	3.67
C+	77-79	2.33	3.33
C	73-76	2.00	3.00
C-	70-72	1.67	2.67
D+	67-69	1.33	2.33
D	63-66	1.00	2.00
D-	60-62	0.67	1.67
F	0-59	0.00	0.00

A	90-100	OUTSTANDING ACHIEVEMENT	M	MEDICAL EXEMPTION
B	80-89	SUPERIOR ACHIEVEMENT	I	INCOMPLETE
C	70-79	COMPETENT ACHIEVEMENT	P	PASSING/CREDIT
D	60-69	UNSATISFACTORY (not prepared for advanced work in certain subjects).	W	WITHDREW - No Credit
F	0-59	FAILING – NO CREDIT	WF	WITHDREW - Failing

## *COURSE INCOMPLETES*

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An **Incomplete** may be extended to a student if extenuating circumstances prohibit a student from completing a course's work by the end of the term. Incompletes must be cleared within 14 calendar days of the close of a term; if the Incomplete is not cleared, the current grade will be assigned unless approval to extend the Incomplete is granted by the Principal or Dean of Instruction.

## *ADVANCED PLACEMENT*

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The Advanced Placement (AP) program allows students the to engage in college level courses and the opportunity to earn college credit while attending Dover High School.

At the conclusion of the course, students take the corresponding AP exam in May, on a date set by the College Board. Students who earn a score of 3 or higher on the AP exam may be eligible for advancement placement or course credits at many colleges and universities in the United States.

Any student who is capable of and wishes to take advanced placement courses is permitted to do so. Note, however, that AP courses require students to make a commitment to meeting individual course requirements, which include, but are not limited to, completing summer work and certain prerequisites to enrollment. Failure to meet course requirements will preclude a student from enrolling or maintaining enrollment in the class.

A completed AP course on a student transcript will stand out in the admissions process, so students are strongly encouraged to enroll in AP courses. More importantly, students are encouraged to take a course load that prepares them for completing advanced work.

<b>Advanced Placement Courses</b>	
AP Biology	AP Language and Composition
AP Calculus AB	AP Literature and Composition
AP Calculus BC	AP Statistics
AP Chemistry	AP Studio Art
AP European History	AP United States History

## *DUAL ENROLLMENT AND COLLEGE-LEVEL COURSEWORK*

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Dover High School offers dual-enrollment programs, which allow students to earn college credits while earning credits toward their high school diploma. These programs play a significant role in promoting access to higher education and lowering the costs associated with obtaining a college degree.

**Project Running Start** offers DHS juniors and seniors college credits through the New Hampshire Community College System. Students who wish to earn NHCCS credit will be required to pay a fee significantly below regular college tuition. See your counselor for more information.

**SNHU in the High School** offers DHS sophomores, juniors, and seniors college credits through Southern New Hampshire University. Students who wish to earn SNHU credit will be required to pay a small fee. See your counselor for more information.

**POST-SECONDARY CREDITS**  
Available to DHS and CTC Students

DHS/CTC Class/Program	College Class(es)	Institution	College Credits	Type of credit
Accounting II	Accounting & Financial Reporting	Great Bay Community College	3	Running Start
Anatomy & Physiology I & II	Introduction to Anatomy and Physiology	Southern NH University	3	Dual enrollment
Animal Science III	Introduction to Veterinary Technology	Great Bay Community College	3	Running Start
Automotive Technology I & II	Automotive systems I	Lakes Region Community College	3	Articulation
	Introduction to Automotive Service	Manchester Community College	3	Running Start
Biotechnology I	Intro to Biotechnology	Great Bay Community College	4	Running Start
	Intro to Biotechnology	Southern Maine Community College	4	Articulation
Building Construction Technology I & II	Methods of Construction I Theory, and Methods Lab I & II	Manchester Community College	3	Articulation
Computer Tech II	IT Essentials PC Hardware & Software	Great Bay Community College	3	Articulation
			3	Running Start
Culinary I & II	Culinary Fundamentals, Bakery Production, Sanitation, Dining Room Management	Lakes Region Community College	12	Running Start
Drawing III & IV	Introductory Drawing	Southern NH University	3	Dual enrollment
Electrical Technology II	AC/DC Theory	Lakes Region Community College	5	Running Start
Finite Math	Applied Finite Math	Great Bay Community College	3	Running Start
Fire Fighter Academy I & II	Fire Fighter I, 3 credits and Fire Fighter II (EMS Certification), 6 credits	Lakes Region Community College OR Southern Maine Community College	9	Articulation
Health Science Technology I & II	Medical Terminology	Great Bay Community College	3	Running Start
Honors Writing for College	College Composition I	Great Bay Community College	3	Running Start
Pre-Engineering Academy 4-course Honors sequence	PLTW 101; PLTW 103; PLTW 103; PLTW 104	New Hampshire Technical Institute (NHTI)	Up to 12	Running Start
		39 participating PLTW colleges	Up to 9	Articulation
Photography II	Introduction to Photography	Southern NH University	3	Dual enrollment
Topics in Applied College Mathematics	Topics in Applied College Mathematics	Great Bay Community College	3	Running Start

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

**Running Start Program** through the Community College System of New Hampshire: Qualified high school teachers offer college-level courses to students in the HS environment for a moderate fee; college transcript.

**Dual Enrollment:** High school students take university-level courses as part of their regular high school schedules for a moderate fee; college transcript.

## *TESTING PROGRAM*

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### **GRADE 11**

The **NECAP** (New England Common Assessment Program) is part of the required statewide assessment program. All juniors are tested in reading, mathematics and writing in the fall and are tested in science in the spring. The results of this test determine the school's ranking under NCLB legislation.

### **GRADES 10-12**

**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, utilizing the Armed Services Vocational Aptitude Battery (ASVAB), is available at no cost or obligation to the student.

### **GRADES 10-11**

**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. This test is given in October and should be taken by all sophomores and juniors considering post-secondary education.

**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.

### **GRADES 11-12**

**ACCUPLACER** – Juniors and seniors may take the Accuplacer test in English and mathematics to help determine college readiness.

### **GRADES 11-12**

**SAT** – The Scholastic Assessment Test is required for many post-secondary institutions. All students in their junior year considering post-secondary education should take these tests in the spring and repeat them at least once in the fall of the senior year.

**ACT** — The ACT is an alternative to the SAT accepted by all post-secondary institutions. The ACT measures proficiency in English, math, reading, and science.

### **GRADES 11-12**

**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.

## *DOVER HIGH SCHOOL LIBRARY*

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Dover High School library is one of six libraries in the DoverNet consortium. The online catalogs of Dover's five school libraries and the Dover Public Library use the KOHA integrated library system. The online catalog is accessible from classrooms and homes with internet access.

10,000 books, 40 magazine subscriptions, two daily newspapers and six NOOKS containing more than 80 e-books comprise the print collection. Students may borrow books from other New Hampshire libraries through interlibrary loan.

Computers provide students with access to internet, electronic databases and Microsoft Office applications. Databases include EBSCOhost with full text magazine and newspaper articles, and Easy Bib for citation, note taking and outlining research papers. Students may access the databases at school and from home.

Digital cameras and camcorders, LCD projectors, TVs, DVD players, and a DVD collection are available for classroom use.

The librarian is eager to help students locate online and print information, select reading material, and evaluate the accuracy of information posted on the internet. The library is an active learning environment, full of students and teachers conducting research.

The DHS library can be found on-line at <http://www.dover.k12.nh.us/dhslibrary>.

## *INTERSCHOLASTIC ATHLETICS & NCAA REQUIREMENTS*

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Students who plan to play at a Division I, Division II, or Division III college or university should check the NCAA website for current eligibility standards regarding core courses, test scores and grade-point average. Approved courses and all requirements are available at [www.eligibilitycenter.org](http://www.eligibilitycenter.org).

<b>Athletic Teams</b>		
<b>Fall Season</b>	<b>Winter Season</b>	<b>Spring Season</b>
Varsity Football	Varsity Boys Basketball	Varsity Baseball
JV Football	JV Boys Basketball	JV Baseball
Reserves Football	Freshman Boys Basketball	Reserves Baseball
Varsity Boys Soccer	Boys Varsity Ice Hockey	Boys Tennis
JV Boys Soccer	Winter Track (boys & girls)	Spring Track (boys & girls)
Reserves Boys Soccer	Alpine Ski (boys & girls)	Varsity Softball
Varsity Golf (boys & girls)	Varsity Girls Basketball	JV Softball
JV Golf (boys & girls)	JV Girls Basketball	Reserves Softball
Varsity Field Hockey	Reserves Girls Basketball	Girls Tennis
JV Field Hockey	Swim & Diving (boys & girls)	Varsity Boys Lacrosse
Reserves Field Hockey	Varsity Cheerleading	JV Boys Lacrosse
Varsity Cheerleading	JV Cheerleading	Reserve Boys Lacrosse
JV Cheerleading	Gymnastics	Varsity Girls Lacrosse
Varsity Girls Soccer	Girls Varsity Ice Hockey	JV Girls Lacrosse
JV Girls Soccer		Special Olympics
Reserves Girls Soccer		Boys Volleyball
Cross Country (boys & girls)		
Girls Varsity Volleyball		
Girls JV Volleyball		

## *EXTRA-CURRICULAR OPPORTUNITIES*

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**ANIME CLUB:** The Anime Club is open to all persons devoted to the art forms of Anime and Manga. Activities include watching and discussing appropriate films, book exchange and sharing, as well as a sampling of Japanese culture and language skills.

**CLASS LEADERSHIP:**

**Senior Class** - The Senior Class members have enjoyed more than three years at Dover High School. During the final year, we meet frequently to discuss and plan the year's activities. These may include holiday food drives, ski trips, spaghetti dinner, senior banquet, senior prom and graduation. We are always in need of volunteers and welcome the participation of all class members.

**Junior Class** - In an effort to have a good time, build teamwork, and teach/practice leadership and responsibility, the Junior Class sponsors and participates in various school events and community service activities. Events might include class trips, spirit week competitions, student-faculty basketball, semi-formal, prom show, and junior prom.

**Sophomore Class** - The Sophomore Class is involved in organizing a community project, a service project for the school as well as various fundraisers, dances, and trips to build the class treasury. All sophomores are encouraged to attend the meetings and to become a contributing member of their class.

**Freshman Class** - Elections for freshman class leadership is held in the fall. Meetings are held to discuss a variety of events such as Spirit Week activities, and fund raising activities to build a strong class treasury. The focus also includes planning class trips and community based projects. Much time is spent building school spirit and a sense of involvement in the school. All freshmen are encouraged to participate.

**DECA:** DECA is an association for marketing students. It has more than 108810,000 members in 90% of high schools throughout the country. DECA's mission is to develop leadership abilities, social/business etiquette, civic responsibility, ethical behavior, and to understand the role of the free enterprise system in a global economy.

**DRAMA CLUB:** The Dover High School Drama Club is composed of students school-wide who wish to participate in various aspects of the theater. In addition to acting in the all-school production, students participate in such activities as fundraising, costuming, makeup, stage management and all other various crews that go to make up an entire production. Everyone is part of the show in an ensemble approach. The group participates in improvisations to build confidence, exercise creativity, and establish unity in moving forward to the common goal -- "the play's the thing!"

**ECO: The Environmentally Conscious Organization:** ECO's mission is to be an environmental task force, promoting and implementing sustainable practices for the Dover High School community. The group aims to bring positive environmental change to the school by encouraging active participation in the improvement of the local and global environment by raising awareness and performing service projects.

**ESCOFFIER CLUB:** Is a leadership club for the culinary program. Students are provided opportunities to exhibit their culinary skills at the SkillsUSA competition and throughout the extracurricular activities (catering after-school events).

**FBLA:** A national association for students preparing for careers in business and business-related fields. Students enrolled in business courses are provided opportunities to develop business knowledge and skills and promote civic and personal responsibilities through their participation in local chapters, state-wide and national meetings, workshops and conferences..

**FCCLA:** Family Career and Community Leaders of America is a national student organization that helps young adults address important personal, family, work, and societal issues through Family and Consumer Science courses. All students are invited to participate in local, state, and national events and conference.

**FFA:** Future Farmers of America is a national organization for agriculture students. FFA has over 500,000 members nationwide and serves students interested in the science, business, and technology of agriculture. Students participate in various co-curricular activities such as fairs, interscholastic competitions, and state and national meetings.

**FRENCH CLUB:** The Dover High School French Club is open to all students enrolled in any French course. Each month students organize fun activities and food with a French theme. Some of the events enjoyed by club members are: games, eating at a French restaurant, the Christmas party where we exchange gifts, the big Mardi Gras Party with members of the Latin and Spanish Clubs, the Poisson d'Avril (April's Fool Day) treasure hunt. The French Club also sponsors the AIDS Awareness Day. Each year there is a trip to either France or Quebec. Many club members go on the trips that are open to all French students not just club members.

**GAY/STRAIGHT ALLIANCE (GSA):** The Dover High School GSA, Gay/Straight Alliance is a support and advocacy group that is committed to educating and helping the community with diversity and cultural issues, including sexual orientation and discrimination. Members participate in various activities, which consist of community service; attending local LGBT events and conferences, develop educational workshops and forums and sponsor lectures and guest speakers. All students, staff and faculty are welcome to participate and join this organization.

**G.E.M.S.(Girls (into) Engineering, Math, Science):** GEMS is open to any student interested in the fields of Engineering, Math and Science. Members participate in job shadows, job tours, and connect to a mentor in a chosen field. They also work with middle school girls in an activity relating to Science, Math, or Engineering.

**GRANITE STATE CHALLENGE:** Granite State Challenge is a television academic quiz tournament produced and broadcast by NH Public Television. Thirty-two teams are selected each year from NH high schools. Each team consists of four regular members and two alternates.

**INKSPOT:** The Dover Inkspot, a student-directed writing club, is dedicated to promoting a culture of writing through the publication of a literary magazine, hosting of open mikes and literary events, and pursuing other forms of writing-based research. The Inkspot provides a supportive environment in which students who have an interest in writing can explore, whether for fun or publication, in the company of like-minded peers who appreciate the written work and can give constructive feedback.

**INTERACT:** Interact is a Rotary-sponsored service club for young people age 14-18 or secondary-school-aged students. All Interact clubs carry out at least two service projects yearly - one that serves the school or the community and another that furthers international understanding. Every Interact club is sponsored by a Rotary club, which provides guidance on a continuing basis. In addition, Interactors often form a service partnership with the sponsoring Rotarians, lending their enthusiastic support to a variety of Rotary projects.

**KEY CLUB:** The Key Club is a community service organization, serving the surrounding area. Affiliated with Kiwanis, Key Club Chapters are located throughout the United States as well as in other countries. The DHS Key Club participates in many activities, including working at bi-monthly Red Cross Blood Drives, running a Blood Drive at the high school, working at local soup kitchens, organizing bike-a-thons for charity, and helping at the Coastal Cleanup. People are welcome to get involved at any time throughout the year.

**LATIN CLUB:** The Latin Club is designed to give students in Latin an opportunity to meet with classmates and organize fun social events with a classical theme. Some projects will be based upon service to the community and to our school. The highlight of the year is the annual Roman Banquet, held in the spring. Other events include a Halloween party with members of the French and Spanish Clubs, a Latin certamen with Latin students from St. Thomas Aquinas High School, Classics Day sponsored by the New Hampshire Classical Association, Junior Classical League Events, and other activities and fund raisers.

**MATH TEAM:** This club is open to students who enjoy math. Dover High School is part of the Tri-State Math League where students from local schools compete at meets held on the first Wednesday of every month from October through April. Participating schools take turns hosting these events. Each school team is made up of 10 students from all grades, and any student beyond those 10 may participate at a meet as an alternate. Participating students compete in 3 of the 5 individual categories, and work cooperatively in two teams of 5 in the team round. At the final meet, trophies are awarded to the top school as well as the top student from each grade. Scholarships are awarded to the top two seniors in the league.

**NATIONAL TECHNICAL HONOR SOCIETY (NTHS)** This honor society recognizes outstanding scholastic achievement for students enrolled in career and technical education programs. Membership criteria include scholastic excellence, community service, leadership, professional attitude and exemplary attendance.

**NATIONAL HONOR SOCIETY:** The National Honor Society bases membership on four qualities. (1) Scholarship on overall grade point average of 3.7 (2) Service in school and in the community (3) Leadership in class, clubs, sports, and community activities (4) character - responsible, honest, cooperative, tolerant, fair, etc. Students who qualify in all four areas, are invited to become members in their sophomore, junior or senior years. Members participate in group and individual service projects, state conventions, the annual Induction Ceremony and fund-raisers for those activities.

**PHOTOGRAPHY CLUB:** This club is comprised of students who are interested in getting together to engage in the art of photography, which includes observing, discussing and creating photographic images. Focus will be on using various cameras, including 35 mm SLR Manually Adjustable Film Cameras, Digital Cameras and Cell Phone Cameras. The club is open to all students. A minimal fee of \$15.00 to use the Darkroom / Developing Supplies will be required and students must have their own 35mm SLR Manually Adjustable Film Cameras and/or Digital Cameras.

**PROJECT SEARCH: UNH SEMINARS FOR ADVANCED HIGH SCHOOL STUDENTS** is a program that is designed to provide an on-campus, intellectually-challenging experience for gifted and talented high school juniors and seniors. A second purpose of the program is to serve as an experimental teacher-training program for graduate students. SEARCH is sponsored by the Education Department and the Center for Educational Field Services at the University of New Hampshire and works in cooperation with the fourteen public high schools in Southeastern New Hampshire. Students attend lectures followed by a small group discussion led by a graduate student in the teacher education program. The program design of SEARCH encourages the active participation of students.

**SKILLSUSA:** An association of trade and technical students, this national organization serves over a quarter of a million students. SkillsUSA provides quality education experiences for students in leadership, teamwork, citizenship, and character development. The SkillsUSA program includes local, state, and national competitions in which students demonstrate career-related competencies and leadership skills. The Dover Chapter includes students enrolled in the following CTE programs: Auto Collision Technology, Automotive Technology, Building Construction, Computer Technology, Cosmetology, Culinary Arts, Engineering Technology, and Electrical Technology.

**SPANISH CLUB:** The Spanish Club is a great way to have fun and participate in Hispanic cultural activities (such as homemade pinatas). We enjoy great food from the various Spanish speaking countries of the world and socialization in the numerous fiestas that we will have during the year. It is open to any student enrolled in a Spanish course. Throughout the year we will hold a series of exciting events ranging from the Copa Dover Soccer Tournament to the performance and filming of a short Spanish play.

**STUDENT COUNCIL:** The Student Council is comprised of about forty students from each of the four grade levels. Any student who attends Dover High School can participate and is welcome. The Student Council sponsors many activities each month of the school year. In the fall, the Student Council sponsors Spirit Week. This activity-packed week has something for everyone, including mezz decorating, Powder Puff and the well- attended Spirit Week Dance. During the month of November, the Student Council organizes the annual Can Drive. The goal of this event is to gather 1000 cans to donate to the area needy. During the winter months, some of the activities include dances, clothing drives, Seat Belt Safety Awareness, and special activities for members.

**ULTIMATE FRISBEE CLUB:** The Ultimate Frisbee Club is an intramural athletic club designed to promote the sport of ultimate Frisbee in the Dover community and the larger New England region. Ultimate Frisbee is a fast paced sport that combines skills similar to those in football, soccer, lacrosse and field hockey. It is growing quickly as a competitive sport in New England regional high schools. This club is open to students, faculty and staff.

**VEGETARIAN AND VEGAN CLUB:** “Veggie” Club is a venue for vegetarians and vegans to connect for support and to share experiences and ideas about the vegetarian and vegan lifestyles. Activities include making t-shirts, Holiday Feast, pizza party, and charity fundraisers such as “Empty Bowls” with World Arts Club.

**WORLD ARTS CLUB:** This group is an ever changing club, because it is driven by its members. The group enjoys community activities throughout the Tri-City area. The group is interested in many aspects of the creative arts. Exploration of theater, film/animation, and music are also some of our activities.

**YEARBOOK:** We welcome dedicated workers to help create and produce the Dover High School Yearbook, “Profile”. The development of the theme, cover, page designs, copyright, and marketing, are all a part of each new yearbook. Come join us and be a part of the Yearbook Team!

**YOGA CLUB:** Yoga Club participants are taught basic yoga positions and gradually move on to more difficult poses. Yoga improves flexibility, strengthens and tones muscles, and helps relieve stress. No experience is required.

**YOUTH-TO-YOUTH:** This student led organization is devoted to promoting a drug free lifestyle through sponsored speakers at assemblies, presentations in schools and many recreational activities. Last year, we taught D.A.R.E. classes at all Dover elementary schools and spoke at conferences throughout the state. Recreational activities may include floor hockey league, hiking, volleyball, wall climbing, Canobie Lake trip, monthly dinner meetings and a lock-in called Midnight Madness. Annual events that we do to make a difference include Red Ribbon week, Jump Up Day, Blue Ribbon week, Sudden Endings, Haunted House, Kiss a Senior Goodbye and D.A.R.E. graduations.

### ***STUDENT AIDE PROGRAM***

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Juniors and Seniors may serve as an aide for a teacher or department. These programs support student learning and enrollment must be approved by the appropriate teacher, academic coordinator or office staff and guidance. Aiding does not carry credit. **A student may serve as an aide for only one teacher per semester.**

## DRIVER EDUCATION

### DRIVER EDUCATION

Grade 10-12

.25 Credit

The purpose of this course is to prepare students to become safe and responsible motor vehicle operators. Successful completion of this course is a prerequisite for students who wish to obtain a New Hampshire state driver's license prior to age 18. The course complies with all state guidelines and fulfills all state requirements for driver education. The course consists of 30 hours of classroom instruction. Practical topics, such as basic vehicle maneuvers, driving in adverse conditions, and the rules and regulations of our state's highway system, will be covered. Concurrent with classroom activity, the course includes 10 hours of in-car practical instruction. In-car instruction affords the student the opportunity to apply the knowledge gained in the classroom and to practice new skills. This course also includes 6 hours of in-car observation time that allows students the opportunity to watch other students practice. This time serves as a review of skills the observer has already completed, or as a preview to a new skill. After successful completion of the course, each student will be issued a certificate that is required by the Department of Motor Vehicles for all license candidates that are under the age of 18.

## INDEPENDENT STUDY

### INDEPENDENT STUDY

Grades 11-12

credit & length vary

Independent study is an opportunity for juniors and seniors who have demonstrated the ability to do advanced work and have successfully completed the course offerings in a particular academic area. Students interested in the independent study option must:

- Select a topic
- Obtain a faculty mentor who will act as an advisor and evaluator
- Develop a course outline which will include objectives, topics to be covered, methods of assessment, duration of course, and credit to be awarded
- Complete an application for independent study and obtain approval of parent, counselor, academic coordinator and Dean of Instruction.

Independent studies will be recorded on a student's transcript as "Independent Study: Subject Area".

# ENGLISH DEPARTMENT

The English Department believes that every individual must have knowledge of the basic skills of reading, writing, speaking, listening, visual awareness, and research in order to communicate in everyday situations, to hold a job, and to promote his or her social and personal development. Additionally, every student should be introduced to the humanizing influences of literature. To this end, the department offers a sequential program of courses on various levels. While all levels emphasize the basic skills, each level provides a comprehensive program tailored to the differing needs of Dover High School students. Students must successfully complete at least one English credit during their senior year.

Courses for which honors credit is awarded carry distinct expectations. Students can expect to write 3-4 essays per quarter that require synthesis of critical material from multiple sources. Reading material is challenging both in textual difficulty and in conceptual sophistication. The research component of these courses requires insightful, original thought substantiated by significant, documented evidence. Mastery of complex vocabulary is an important component of honors level work. Honors courses require an average of at least five hours of homework per week. An honors student is an independent learner who comes to class fully prepared to participate.

## **101330 HONORS ENGLISH 9**

Grade 9 1.00 Credit/Year

What types of literature exist in the world and why? Honors English 9 challenges students to think critically about the timeless human need to tell stories and the genres that shape their accounts and fantasies. Beginning with myth and folk tales, students will read representative works from many cultures, examining to what extent story is a cultural mirror. Students will study the elements of various genres through close reading of works such as *The Odyssey*, *Animal Farm*, *In the Time of the Butterflies*, *The Joy Luck Club*, *Persepolis*, *Romeo and Juliet*, *Othello*, numerous short stories and poetry. Honors students write intensively, practicing narrative, descriptive, expository and persuasive forms and producing a substantial research paper. Active participation is required.

**REQUIRED:** The completion of a summer reading assignment is required.

## **101220 COLLEGE PREP ENGLISH 9**

Grade 9 1.00 Credit/Year

This course is an introduction to the major literary genres. Students will read classic as well as contemporary short stories, novels, plays, essays, and poetry from around the world, asking what human values are universal, which ones are culture-bound? How does one's culture both mold stories and affect the ways in which they are read? Through this exposure, students will improve comprehension by learning a variety of study skills and reading strategies that cross disciplines. Exploring literature in a variety of ways and responding in writing, students begin to find personal voice in their essays. Freshmen participate in a thorough library orientation unit that culminates in a research paper done in conjunction with one of the other academic disciplines. Possible readings include *The Odyssey*, *Sunrise Over Fallujah*, *Nectar in a Sieve*, *Persepolis*, *Romeo and Juliet* and various poems and short stories.

### **101110 ENGLISH 9A**

Grade 9

0.50 Credit/Semester

This course is designed for freshmen needing to improve their basic reading skills. Students receive intensive, individualized instruction through materials which expose them to literature from around the world. Students explore mankind's need to record histories and tell stories by reading myths, folk tales, poetry, novels and plays. There is intensive work on developing strategies to build reading comprehension and vocabulary. Students are also required to read self-selected/teacher approved novels of appropriate difficulty. Small group activities will provide discussion opportunities. There are writing activities imbedded throughout the program to build basic skills and increase fluency.

### **101111 ENGLISH 9B**

Grade 9

0.50 Credit/Semester

This is a continuation of the program begun in English 9A. Students may, however, begin the program either semester.

### **102330 HONORS ENGLISH 10**

Grade 10

1.00 Credit/Year

Honors English features intensive literature study and the practice of numerous expository writing forms. Students write analytically as they study short stories, *Antigone*, *Julius Caesar* and/or *Macbeth*, *To Kill a Mockingbird*, *The Sunflower*, *The Catcher in the Rye* and novels of choice. Students are encouraged to observe challenges to individual characters and the choices they make, contemplating the forces that shape human identity. There are numerous opportunities to write creatively, but the main focus is on the mastery of rhetorical models such as definition, compare/contrast and cause and effect. The research unit culminates in a fully documented persuasive essay. Vocabulary study and grammar practice are weekly. Class participation is a key component of Honors English.

**REQUIRED:** Successful completion of Honors English 9, or CP 9 with teacher recommendation. The completion of a summer reading assignment is also required.

### **102220 COLLEGE PREP ENGLISH 10**

Grade 10

1.00 Credit/Year

Having looked at world cultures in the freshman year, sophomores contemplate cultural influences that shape them personally. Literature units include *Julius Caesar* or *Macbeth*, *Of Mice and Men*, *Tuesdays With Morrie*, *The Curious Incident of the Dog in the Night-time*, *The Catcher in the Rye*, *To Kill a Mockingbird*, short stories, novels of choice and a substantial work of nonfiction. Discussions and projects ask students to consider choices they see characters make and to assess their own values. There is an emphasis on expository writing models, with focus on the development of a clear prose style and an authentic voice. A major persuasive essay requires significant research. Vocabulary and grammar study are an important part of the class

**102110 ENGLISH 10A**

Grade 10 0.50 Credit/Semester

This course emphasizes basic communication skills. Activities will include hands-on exercises and the use of computers. This level of instruction focuses on the writing process and reading for purpose. Students will also exercise oral communication skills and learn to appreciate various forms of literature such as short stories, essays, poetry, plays, and novels. Literature may include *Death of a Salesman*, *Absolutely True Story of a Part-Time Indian*, *Room*, *When the Legends Die*, *Of Mice and Men* and *The House on Mango Street*.

**102111 ENGLISH 10B**

Grade 10 0.50 Credit/Semester

This is a continuation of the program begun in English 10A. Students may, however, begin the program either semester.

**101950/101951 ENGLISH RECOVERY 9A + 9B**

Grades 9-12 0.50 Credit/Semester

The policy of the Dover High School English Department requires that a student complete each year of English in sequence before earning credit for the next. Therefore, a student who fails freshman, sophomore or junior English will have the option of earning that credit in a semester course called English Recovery. The genre-based curriculum will focus on literature unique to this course; there will be an emphasis on writing, vocabulary and the mastery of basic English skills. Readings will be chosen from novels, short stories, contemporary essays and poetry, including song lyrics. Assignments will be individualized.

**102950/102951 ENGLISH RECOVERY 10A + 10B**

Grades 10-12 0.50 Credit/Semester  
See course #101950

**103950/103951 ENGLISH RECOVERY 11A + 11B**

Grades 11-12 0.50 Credit/Semester  
See course #101950

**103330 HONORS ENGLISH 11**

Grade 11 1.00 Credit/Year

This course involves a complete survey and critical analysis of American literature from the Puritans through twentieth century poetry, drama, and fiction as well as contemporary selections of non-fiction. Students demonstrate their understanding of literature by writing term papers on both an American poet and an American novelist. Weekly compositions based on the literature stress the principles of organization and logical development and the use of a variety of writing techniques. Grammar is taught in a prescriptive manner in order to address needs. Students also present a variety of speeches and panel discussions throughout the year. Preparation for the SAT is emphasized. Students are expected to sign up for American Literature projects in June and participate in a Summer Reading Program.

**REQUIRED:** Successful completion of Honors English 10, or CP 10 with teacher recommendation. The completion of a summer reading assignment is also required.

### **103220 COLLEGE PREP ENGLISH 11**

Grade 11 1.00 Credit/Year

The aim of this course is to provide students with a sequential exposure to American Literature from the age of the Puritans to the 21<sup>st</sup> Century. Works such as *The Crucible*, *The Scarlet Letter*, *The Adventures of Huckleberry Finn*, *The Red Badge of Courage*, *The Great Gatsby*, *A Farewell to Arms* and *The Things They Carried* challenge students to read perceptively and interpret literature maturely. Short stories and poetry by famous authors are taken from an anthology. Students will be expected to develop essays using critical analysis, comparison and contrast, and thesis development. Class work helps to nurture articulate and effective speaking as well as capable viewing and listening. Preparation for the SAT is emphasized.

### **103110 ENGLISH 11A**

Grade 11 0.50 Credit/Semester

This course emphasizes the American experience as it expressed in important literature. Reading selections may include *The Crucible*, poetry and essays about the Puritan era, various short stories from colonial times, Civil War accounts, and *Huck Finn*. Students learn to read interpretively and view videos which support their development as critical consumers of media. Practice of various types of business and workplace writing prepares students for employment. Grammar, spelling, and vocabulary are also an important part of this course.

### **103111 ENGLISH 11B**

Grade 11 0.50 Credit/Semester

This is a continuation of the program begun in English 11A. Students may, however, begin the program either semester.

### **103240 AMERICAN STUDIES**

Grade 11 2.00 Credits/Year

This course is an interdisciplinary, thematic study of different perspectives of Americans from the Reconstruction (1865) through present day. American literature is interconnected with American history. American Studies is designed to connect the historical and literary past to the America experienced today. **This course affords a credit in both 11<sup>th</sup> grade English and American History.** Using primary sources, fiction, non-fiction, film, and music, students will learn to be open to the ideas of other Americans while appreciating the reality of historical events through the eyes of people who were there. This is a student-centered course, providing an opportunity for active learning through activities such as debate, interviews, journalism, and theater.

### **103399 ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION**

Grade 11 2.00 Credits/Year

The AP English Language and Composition course is designed to help students become skilled readers of prose written in a variety of rhetorical contexts and to become skilled writers who compose for a variety of purposes. This college-level course provides students with opportunities to develop the skills which will help them write effectively and confidently in their future academic pursuits and in their professional and personal lives. Students read complex texts from the traditions of American Literature, as well as numerous essays and

other pieces from more contemporary sources. The Advanced Placement program offers a test in May, and successful students have the opportunity to earn up to 4 college credits.

**REQUIRED:** Teacher recommendation.

### **104399 ADVANCED PLACEMENT LITERATURE AND COMPOSITION**

Grade 12

2.00 Credits/Year

AP English 12 is designed for students desiring the challenge of college level work. Students will improve their skills of literary analysis during a year of intensive study of thematic units incorporating but not limited to British Literature. Using *Adventures in English Literature* and *Literature and Composition* as the main texts, students will study representative works of every genre. Major units of study include the origins of English (“Beowulf” and “The Canterbury Tales”), inquiry into the nature of good and evil (“Paradise Lost”, *Frankenstein*, *The Picture of Dorian Gray*, and *Heart of Darkness*), contemplation of conformity and rebellion (*Hamlet*, *Lord of the Flies*, and *Atonement*) and the investigation of several classic novels of choice. Students will also read and respond to contemporary nonfiction, short stories and poetry. Class participation is a vital part of the experience, with opportunities to make presentations and to lead class discussion. Substantial time will be devoted to preparing for the AP exam which is given in May.

**REQUIRED:** Teacher recommendation. **Summer reading of three novels with one 1,000 word essay due the first day of school is a requirement.**

### **104284 BRITISH AUTHORS**

Grade 12

0.50 Credit/Semester

This course examines the foremost writers in the British tradition. Students study both the literary highlights and the history of the British people. This survey course emphasizes the most prominent literary movements from the Anglo-Saxons to the present century. Outside independent reading is assigned to reinforce themes and ideas covered by the class. A major research project and seminar-style presentation is required. *Not offered for 2014-2015.*

### **10415 APPLICATIONS OF ENGLISH**

Grade 12

1.00 Credit/Year

Applications of English is designed to prepare students for the many challenges facing their generation in the working world. The class will provide experience with many aspects of the workplace including interoffice relationships, business ethics and etiquette, unnecessary exploitation, reading and understanding technical documents, job hunting tactics, interview skills and basic technical writing. Class work and participation are essential elements of success in this course. Students will develop a portfolio which will both demonstrate the knowledge they have attained and be useful in the job application process.

### **104110/104111 SENIOR ENGLISH 12A + 12B**

Grade 12

0.50 Credit/Semester

This course incorporates hands-on and applied units to reinforce the skills necessary for the world of work and life in the age of information and communication. A variety of reading, writing, speaking, listening and viewing activities provide practice with practical language skills. Readings include selections from *Short Stories*, *Scholastic Scope Literature*, several plays and at least two novels. Students will be encouraged to be aware of current events and the challenges of living in the 21<sup>st</sup> Century.

### **104260 THEATRE ARTS I**

Grade 12 0.50 Credit/Semester  
Grades 10- 11 for fine arts or elective credit only.

Students will study the basics of the theater world. Acting, voice and diction, theater history and stagecraft will be explored. Class activities which foster group support, trust and cooperation are stressed. Students will experience acting and workshop activities that create a greater understanding of the acting process. The class will read and study two plays during the semester. Students are expected to demonstrate competence in oral and written expression, as well as participate in performance-oriented activities. Active participation in Drama Club productions is strongly encouraged.

### **104261 THEATRE ARTS II**

Grade 12 0.50 Credit/Semester  
Grades 10-11 for fine arts or elective credit

Students will continue their studies of the theater world and will focus on further improvement of their performance skills by participating in in-depth character study work, as well as continued acting workshops. Students will be reading, performing and analyzing two additional plays in class, and will direct classmates in one-act plays. Students will examine various career opportunities offered in the theater field. Active participation in Drama Club or theatrical productions is strongly encouraged.

**REQUIRED:** Successful completion of Theatre Arts I or permission of teacher

### **104264 POETRY AND CREATIVE WRITING**

Grade 12 0.50 Credit/Semester  
Grades 10-11 for elective credit

This course will examine various forms of writing including poetry, one-act plays, personal memoirs, short stories and essays. Students will review poetic technique such as form, meter and imagery while also working on the fundamentals of prose writing. Students will produce a writing portfolio, and will read and critique published pieces of writing. Emphasis is on the development of confident and creative personal voice. Please note that this is a writing-intensive course. *Not offered for 2014-2015.*

### **104266 FILM STUDIES**

Grades 11 & 12 0.50 Credit/Semester  
Grade 11 for elective credit

This course is designed for students interested in learning about film and how it reflects culture, history and society. Students will be viewing major film classics (such as *Citizen Kane*, *On the Waterfront*, and *The Birds*) in class, and will then use their reading, writing, research and discussion skills to analyze connections between life and film. Students will also examine the historical and aesthetic implications of films, as well as explore film making terminology and technique. Along with weekly writing and reading assignments, a research paper and a creative project are required. Please note that this is a writing-intensive course.

### **104268 JOURNALISM I**

Grade 12 1.00 Credit/Year  
Grades 10-11 for elective credit

In this semester course students will learn all aspects of journalism – business, editorial, and production. Topics and training include the history and future of American journalism; First Amendment law and journalistic ethics; editing and copy editing; graphic design and photojournalism; grant writing and advertising sales; organizational communications and business management; media marketing and public relations. Students will practice all forms of journalistic writing.

### **104269 JOURNALISM II**

Grade 12 1.00 Credit/Year  
Grades 10-11 for elective credit

This course is designed for devoted students to take their journalistic skills to the next level. In this semester-long course students will continue to improve their journalism skills from Journalism I by developing, producing and publishing our monthly newspaper, The Tide, as well as writing stories for our website, The Tide Online, and The Newswave. Students will apply for positions on staff at the beginning of the semester and will continue to better their journalistic ability through all aspects of journalism – business, editorial, and production. Editorial and managerial positions are generally filled by experienced and dedicated students. ) This course may be repeated for elective credit.

**REQUIRED:** Successful completion of Journalism I

### **104270 PUBLIC SPEAKING AND DEBATE**

Grade 12 0.50 Credit/Semester  
Grades 10-11 for elective credit.

Public speaking and debate provides a forum for discussing the vital and important issues in today's world. This course is designed to explore the power of language and give students an opportunity to practice a variety of actual speaking situations. Focus will be on the refinement of lifelong speaking skills including voice projection, oral reporting, argumentation and persuasion, introductions and acceptance speeches, and group and panel discussions. The key components of this course are oral presentation skills, extensive research, critical thinking and writing.

### **104272 MYTHOLOGY**

Grade 12 0.50 Credit/Semester  
Grades 10-11 for elective credit

This course introduces students to the world of mythology while placing its emphasis on the study of the Classical Greek culture. Students, along with studying the ancient myths, will read ancient texts, plays, epics, and poetry of the time period. During the course, students will discover how references to mythology not only influenced many philosophies and attitudes of modern culture, but have also influenced today's art, literature, and music. Requirements include "round table" discussions, weekly writings (journals and papers), reading assignments, oral presentations, tests/quizzes, a research paper and creative projects.

### **104372 HONORS MYTHOLOGY**

Grade 12 0.50 Credit/Semester

This course focuses on the Archetypes of the Hero and the Hero's Quest. The writings of Joseph Campbell, Carl Jung and others through the ages will be studied to understand how mythology came to influence all of

Western Literature. A study of the Greek Gods and their myths in Edith Hamilton's *Mythology* will start the class, followed by close readings of classic and contemporary texts, including Stephen Mitchell's new full translation of the *Iliad*. Contemporary novels will be read to further expand and understand the Hero's Quest. These novels are currently: *The Hobbit*, *Life of Pi*, and *The Wizard of Oz*. Requirements include: weekly writings (journals, study guides and papers), reading assignments, oral presentations, dramatic interpretations, tests/quizzes, an in-depth MLA research paper and research-based creative projects.

### **104274 DYSTOPIAN LITERATURE I**

Grade 12 0.50 Credit/Semester

What is Dystopia? "Dystopia" is a noun, meaning an imaginary place or state in which the condition of life is horrific due to deprivation of information, oppression or terror. This course will examine the depiction of dystopian societies as presented in *1984* by George Orwell, Huxley's *Brave New World*, William Golding's *Lord of the Flies* and selected short stories of Ray Bradbury. Students will study how these societies are created and maintained through an examination of two major forms of Dystopian control – the Huxleyan: where people are amused into complacency and the Orwellian: where people are scared into submission. Through an examination of these societies, students will gain an understanding of basic political thought, what a Dystopian society is and how the governments in these societies operate. Please note this is a reading- and writing-intensive course. *Not offered for 2014-2015.*

### **104275 DYSTOPIAN LITERATURE II**

Grade 12 0.50 Credit/Semester

This course continues the study of dystopian societies by focusing on political language, spin, propaganda, and other ways of limiting or controlling information through language. This class will provide an in-depth examination of our own society and its Dystopian elements by giving students an opportunity to make comparisons between current and historical events in our society and events from the readings. Could our country become a Dystopia? Is it already? Through readings such as Stephen King's *The Running Man*, Margaret Atwood's *The Handmaid's Tale*, Bradbury's *Fahrenheit 451* and selected short stories of Kurt Vonnegut, students will attempt to answer these questions. Please note this is a reading- and writing-intensive course. *Not offered for 2014-2015*

### **104378 HONORS PHILOSOPHY**

Grade 12 0.50 Credit/Semester

Do we have free will or are we controlled by fate? Is human nature good, bad, or created by each individual? Does the complexity of the universe and the human body prove the existence of a creator or the wonders of evolution? Philosophy is the pursuit of wisdom and truth. This course will offer in-depth exposure to a variety of philosophical topics and will allow students the opportunity to explore their own opinions on these important issues. Through such readings as Vonnegut's *Cat's Cradle*, Albert Camus' *The Stranger* and a variety of philosophical essays and short stories, students will gain a better understanding of major philosophical ideas and in the process, themselves. Please note this is a reading- and writing-intensive course.

### **104379 HONORS WRITING FOR COLLEGE**

Grade 12

0.50 Credit/Semester

In this course students learn to write clearly and effectively for defined audiences through a variety of rhetorical strategies. The goal of the course is to achieve college-level compositions, such that students are part of a partnership with Great Bay Community College, earning college credit. This course will study popular essayists like E.B. White, Joan Didion, and others to serve as models for writing. Students will show a variety of analytical and interpretive skills in their writing portfolios, in addition to creating a researched essay.

### **104280 SPORTS LITERATURE**

Grade 12

0.50 Credit/Semester

Employing the vehicles of sports-related fiction and nonfiction, this course will teach the essential skills of critical thinking, analysis, research and composition. Students will be exposed to a broad variety of sports-based literature such as *The Old Man and the Sea*, *The Bear*, *The Mexican*, *The Curse of the Bambino*, *The Natural*, *The Boys of Summer*, *The Great American Novel* and others. The commentary of revered sports columnists such as Frank Deford, George Will, Mitch Albom, Dan Shaunessey and Bob Ryan will be read and discussed. Students will read the biography of a sports figure of their choosing, and self-select a sports-related topic for a research paper. Through this process students will glean insight into the composition of a successful athlete and person, and create an enduring personal definition of sportsmanship and the ethics of competition.

### **104282 MYSTERY AND SUSPENSE**

Grade 12

0.50 Credit/Semester

This course is a survey of the tradition of mystery fiction and its unique conventions. Beginning with the 19<sup>th</sup> Century origins of the genre to modern writers such as Dennis Lehane, students will examine the role of the detective character and the idea of the reader as detective. Students will explore the sub-genres of locked room mysteries, cozies, hardboiled detectives and police procedurals and will note the emergence of the modern independent female investigator. Students will be exposed to a broad spectrum of authors such as Sir Conan Doyle, Agatha Christie, Saki, Dashiell Hammett, Damon Runyan, Raymond Chandler, Ellery Queen, Shirley Jackson, Lawrence Sanders, Sara Paretsky, Sue Grafton, and Brandan DuBois. In addition to reading a combination of short stories and novels, students will keep a journal and research an author or sub-genre, create a visual, write an original mystery or dramatize one. Please note this is a reading- and writing-intensive course. *Not offered for 2014-2015.*

### **104283 THE FOLK TALE AS BOTH HISTORY AND LEGEND**

Grade 12

0.50 Credit/Semester

In this unique course, students will analyze elements of storytelling and techniques of fiction. They will study the characteristics of various genres: the myth, the legend, the fable and the folk tale. They will read examples of each genre and analyze stylistic and narrative changes which accrue as popular tales are passed down through successive generations. Students will investigate how myths and legends begin in a regional context and represent the evolved histories of a culture. Please note this is a reading- and writing-intensive course. *Not offered for 2014-2015.*

### **104285 MEMOIRS AND MORE**

Grade 12 0.50 Credit/Semester

Grade 11 for elective credit

We all have stories to tell, whether they belong to us or to others whom we have observed. This course will examine creative ways to tell a true story. The act of putting into words an event or a lifetime requires choosing what to include and what to leave out, how to use language to enhance the retelling, and how to weave in messages, motifs and mood. By reading memoirs, meditative essays, travel writing, and cultural criticism, students will study authors who do it well, including David Sedaris, Jeannette Walls, Jon Krakauer and Annie Dillard. Students will practice the art of creative nonfiction by producing a writing portfolio of their own. *Not offered for 2014-2015.*

### **104287 HONORS SHORT FICTION AND CREATIVE NON-FICTION**

Grade 12 0.50 Credit/Semester

We all have stories to tell; some of them are fiction and some are non-fiction. Students will read short stories that are exemplars of form, such as Ernest Hemingway's "A Clean, Well-Lighted Place", Flannery O'Connor's "A Good Man is Hard to Find," and Raymond Carver's "Distance." In addition, we will look at stories that are experimental in nature, such as those by Gabriel Garcia Marquez, Pam Houston and Sherman Alexie, and even memoirs, meditative essays, travel writing, and creative non-fiction. Students will study the form, style, and literary techniques of this unique blending of genres. The course is both reading and writing intensive, including a researched study of a particular author and a student portfolio of creative work.

### **104288 SHAKESPEARE – TAUGHT AND PERFORMED THROUGH THE ARTS**

Grade 12 1.00 Credit/Year

This performance and literature based course is designed for students who are interested in learning about the life and the works of William Shakespeare. Plays, such as *Anthony and Cleopatra*, *As You Like It*, and *A Midsummer Night's Dream*, are not only examined in the traditional way, but students will also use dramatic performances, literature, music, dance, poetry, visual arts, culinary arts, nature's arts, and storytelling to immerse themselves in the Bard's works. Students will also research the everyday lives of Shakespeare and his peers to help round out their understanding of Shakespeare's life. The 18-week course will culminate in a small and intimate "Day at the Globe Festival" for invited family and friends.

**REQUIRED:** Successful completion of 11<sup>th</sup> Grade English. *Not offered for 2014-2015.*

### **104290 SCIENCE FICTION LITERATURE**

Grade 12 0.50 Credit/Semester

As humanity develops, so does its tools. Our growing technology, space odysseys, fear of the unknown and humanity's place in the universe are often debated among writers of our time. This course seeks to examine a twentieth-century outlook on science fiction literature. Students will read a variety of novels including Frank Herbert's *Dune* and William Gibson's *Neuromancer* along with a free choice semester novel that hits significant themes of science fiction writing through the years. Students will also couple their reading of the texts with writing analytical and persuasive research papers about concepts and themes that arise through our discussions and reading.

### **105510 ESOL - ENGLISH SPEAKERS OF OTHER LANGUAGES**

Grades 9-12 2.00 Credits/Year

Placement of ESOL students into one of four instructional levels is determined by assessment of language proficiency. Instruction includes all domains of language, listening, speaking, reading and writing, The American culture will also be emphasized. Students will receive direct instruction as well as additional structured study time. One credit may be used to satisfy the English requirement and the remaining credit may be used as an elective. This course may be repeated for credit upon recommendation of instructor. **RECOMMENDATION:** Permission of teacher and guidance counselor and based upon assessment

### **108830 FOUNDATIONS OF LITERACY I**

Grade 9-12 2.00 Credits/Year

This course will use Scholastic System 44, a metacognitive systematic approach that helps students understand that the English language is a finite system of 44 sounds and 26 letters that can be mastered. Basic decoding and encoding, as well as aspects of phonemic awareness will be taught and reinforced. Students will read and discuss stories to reinforce skills and may also complete class projects. **Enrollment based on review of assessments and recommendation of case manager or counselor.**

### **108831 FOUNDATIONS OF LITERACY II**

Grades 9-12 2.00 Credits/Year

This course is designed for students who are transitioning from systematic instruction in phonemic awareness to reading comprehension skills. Students will have access to both Scholastic Systems 44 and Scholastic Read 180. Students will read a variety of literature both independently and as a class to improve reading comprehension. There will also be a selection of writing exercises associated with the class readings designed to address writing skills. **Enrollment based on review of assessments and recommendation of case manager or counselor.**

### **108820 LITERACY LAB**

Grades 9-12 1.00 Credit/Year

The Literacy Lab provides reading and writing instruction designed to meet specific academic needs. Students will have the opportunity to improve vocabulary, increase fluency, improve written and oral communication skills and improve reading comprehension. Students will participate in project based learning activities designed to meet high school standards. **Students who successfully complete Literacy Lab will earn an English credit. Enrollment based on review of assessments and recommendation of case manager or counselor.**

### **108810 FRESHMAN READ 180/Grade 9**

Grade 9 1.00 Credit/Year

This course will assist students in developing reading comprehension through an interactive program and direct instruction. Read 180 is one of the premier reading intervention programs. It is used in over 15,000 classrooms across all 50 states and is proven to assist students to achieve measurable gains. Students will read in every class and utilize reading strategies to reinforce comprehension. Each student will monitor and evaluate his/her own progress with the instructor. **Students will earn one English credit upon completion**

**of the Read 180 program. Recommendation of reading specialist, case manager or counselor required. Enrollment based on review of assessments and recommendation of case manager or counselor.**

**108811 READ 180/Grades 10-12**

Grades 10-12 1.00 Credit/Year

This course will assist students in developing reading comprehension through an interactive program and direct instruction. Read 180 is one of the premier reading intervention programs. It is used in over 15,000 classrooms across all 50 states and is proven to assist students to achieve measurable gains. Students will read in every class and utilize reading strategies to reinforce comprehension. Each student will monitor and evaluate his/her own progress with the instructor. **Students will earn one English credit upon completion of the Read 180 program. Recommendation of reading specialist, case manager or counselor required. Enrollment based on review of assessments and recommendation of case manager or counselor.**

**108863 UNIFIED DRAMATICS**

Grades 9-12 0.50 Credit/Semester

This is an introductory level course in theater arts. Students whose reading, communication and social skills are well below grade level will have the opportunity to explore the genre of drama, working with typical peers and eventually performing in front of an audience. Two-thirds of the students in this class will be strengthening their basic language arts skills, while other students are invited to enroll to practice the skills of mentoring, modeling, and problem solving. Performances will include all students. **PREREQUISITE: MUST HAVE PERMISSION OF TEACHER TO ENROLL.**

# VISUAL ARTS DEPARTMENT

The Arts in the Dover School System are the bridge to developing a sense of personal uniqueness in each student. By integrating the visual arts into the process of continual learning, we expand each individual's creativity, critical thinking skills and problem solving abilities; while valuing diversity and individual learning styles. We are committed to opening the path of self discovery and encouraging a sense of community for all students by nurturing risk taking, exercising imagination, and preparing them for a world of possibilities. The Art Department faculty members believe every student has creative ability. Therefore, teachers are committed to help students find their individual artistic talent. The wide variety of courses allows the student to pursue a generalized art background or a more specialized foundation for a visual arts career.

<b>Fine Arts Credits to Graduate</b>			
<b>(Any Combination of Classes to earn 1.00 Credit for DHS Requirements)</b>			
<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
Creative Arts (1.00)	Creative Arts 1.00)	Creative Arts 1.00)	Creative Arts (1.00)
Intro to Art (.50)	Intro to Art (.50)	Intro to Art (.50)	Intro to Art (.50)
Drawing I (.50)	Drawing I (.50)	Drawing I (.50)	Drawing I (.50)
Drawing II (.50)	Drawing II (.50)	Drawing II (.50)	Drawing II (.50)
Unified Arts (.50)	Unified Arts (.50)	Unified Arts (.50)	Unified Arts (.50)
	Studio Painting (.50)	Studio Painting (.50)	Studio Painting (.50)
	Mixed Media (.50)	Mixed Media (.50)	Mixed Media (.50)
	Ceramics I (.50)	Ceramics I (.50)	Ceramics I (.50)
	Sculpture I (1.00)	Ceramics II (.50)	Ceramics II (.50)
	Sculpture II (1.00)	Animation & Film (.50)	Animation & Film (.50)
		Sculpture I (1.00)	Sculpture I (1.00)
		Sculpture II (1.00)	Sculpture II (1.00)
		Jewelry I (.50)	Jewelry I (.50)
		Jewelry II (1.00)	Jewelry II (1.00)
		Photography I (.50)	Photography I (.50)
		Photography II (1.00)	Photography II (1.00)

Fine Arts Concentration Sequence and Prerequisites (Programs Designed for Career and College Pursuits)					
2D Visual Arts		Any Two Art Credits		3D Visual Arts	
Intro to Art (.50)		Intro to Art (.50)		Intro to Art (.50)	
Drawing I (.50)	Drawing I (.50)		Creative Arts (1.00) Mixed Media (.50) Studio Painting (.50) Animation & Film (.50) Ceramics I (.50) Ceramics II (.50) Sculpture I (1.00) Sculpture II (1.00) Jewelry I (.50) Jewelry II (1.00) Photography I (.50) Photography II (1.00)	Sculpture I (1.00)	Ceramics I (.50)
Drawing II (.50)	Drawing II (.50)	Mixed Media (.50)			
Drawing III (.50)				Sculpture II (1.00)	Ceramics II (.50)
Drawing IV (.50)	Jewelry I (.50)	Ceramics II (.50)			
Portfolio Preparation (1.00)				Jewelry II (1.00)	
		Photography II (1.00)			

### **501500 INTRODUCTION TO THE ARTS**

Grades 9-12                      0.50 Credit/Semester

This class is an in-depth exploration and examination of processes in two-dimensional and three-dimensional art, such as drawing, painting, collage, printmaking, ceramics, sculpture, environmental and performance arts and animation / graphic design. Students will be focusing on the principle content standards of creative expression, aesthetics and criticism, as well as, cultural heritage. Talking and writing about the creative process is also introduced.

### **501514 DRAWING I**

Grades 9-12                      0.50 Credit/Semester

This course is a beginning level drawing class that covers specific drawing techniques, such as perspective, value studies, and self-portraiture. Students will learn how to use different drawing media, keep a sketchbook/journal on past and contemporary artists, and critique artworks.

**REQUIRED:** Successful completion of Intro to the Arts or submission of a portfolio

### **502514 DRAWING II**

Grades 9-12                      0.50 Credit/Semester

This course is a continuation of the concepts learned in Drawing I. Students will explore more advanced subject matter and develop how to visually communicate complex ideas. Students will also keep a sketchbook/journal, critique their own and classmate's work.

**REQUIRED:** Successful completion of Drawing I and teacher recommendation

### **503514 DRAWING III**

Grades 10-12

0.50 Credit/Semester

In this course students will build upon skills gained in Drawing I and II to solve more complex art problems. They will work on developing a personal visual voice. Students will be expected to talk and write about their art. They will also need to work on a sketch journal at home to further explore their area of interest. This course is highly recommended for students considering art school and working on a portfolio.

**REQUIRED:** Successful completion of Drawing II and teacher recommendation

### **504514 DRAWING IV**

Grades 11-12

0.50 Credit/Semester

This course is a continuation of art skills developed in Drawing III. It is designed for the serious art student. Deep exploration of subject matter will allow students to make important connections and insights about their work. Independence and personal style are encouraged. A sketch journal is an important part of their self exploration. This course is highly recommended for students considering art school and working on a portfolio.

**REQUIRED:** Successful completion of Drawing III and teacher recommendation.

**NOTE:** Qualified students who successfully complete Drawing III and IV have the opportunity to earn college credit through SNHU's dual-enrollment program.

### **501516 PHOTOGRAPHY I**

Grades 11-12

0.50 Credit/Semester

This is a class in which the student will learn the processes involved in producing quality black and white photographs. Emphasis will be on composition of images, learning to use the camera, developing negatives, enlarging photographs and presenting prints. Basic math skills will be needed (ratios and measuring) as well as the ability to read and interpret textbook readings, technical manuals and handouts. *A fee for materials is required. The student must have his/her own 35mm SLR film camera with adjustable f stops and shutter speeds.*

### **502516 PHOTOGRAPHY II**

Grade 12

1.00 Credit/Semester (G&W Days)

This course is a continuation of skills and techniques built upon in Photography I. Students will delve more deeply into personal imagery and more long term intensive projects. More special effects, darkroom manipulation, lighting techniques and computer-generated images will be addressed. *A fee for materials is required. The student must have his/her own 35 mm SLR adjustable camera.*

**REQUIRED:** Successful completion of Photography I and teacher recommendation.

**NOTE:** Qualified students who successfully complete this course have the opportunity to earn college credit through SNHU's dual-enrollment program.

### **504530 PORTFOLIO PREPARATION**

Grades 11-12

1.00 Credit/Fall Semester

This course will meet to critique work, to share problems, and work closely with the instructor and

each other to prepare an art portfolio. The student will work on refining skills and creating a strong body of work to photograph. By the end of the class, each student should have a completed portfolio ready to submit to a college or art school. ***A fee is required for materials and the Scholastic Arts portfolio submission.***  
**REQUIRED:** Successful completion of two art credits, seriousness of purpose and permission of academic coordinator.

### **501522 CERAMICS I**

Grades 10-12

0.50 Credit/Semester

In this course students will learn the many uses and treatments of clay. They will work on both hand building and wheel throwing. Every aspect of the ceramic medium from clay preparation to firing and glazing will be explored. Functional and sculptural works will be made, and students are expected to write, explain and critique their own work. ***A fee is required for materials used.***

### **502522 CERAMICS II**

Grades 11-12

0.50 Credit/Semester

Students will build upon skills learned in Ceramics I. More emphasis will be placed on mastering the potter's wheel and surface design. Students will be expected to write, talk and critique their own work. ***A fee for materials is required.***

### **501524 JEWELRY I**

Grades 11-12

0.50 Credit/Semester

This course is an introduction to metalsmithing. Students will learn basic concepts such as sawing, forging, stone setting and chain making. Students will also learn how to take a project from a sketch to a final piece. Silver, copper, brass, semiprecious stones and found objects will be used in class. The class will keep a design journal; learn about past and contemporary artists, and how to critique fine jewelry. ***A fee is required for materials and tools.***

### **502524 JEWELRY II**

Grades 11-12

1.00 Credit/Year

This course is a continuation of Jewelry I. Students will continue to learn new forging, soldering, and finishing techniques as well as building upon concepts learned in Jewelry I. Self-directed projects will be introduced during the semester as students will also focus on creating their own unique style. A design journal will be kept by each student. ***A fee is required for materials and tools.***

**REQUIRED:** Successful completion of Jewelry I and teacher recommendation.

### **505518 STUDIO PAINTING**

Grades 10-12

0.50 Credit/Semester

This course is a beginning level painting class. Students will develop an understanding of basic color theory and how it relates to various media. Pastels, acrylic paint and watercolor paint are the focus and primary media utilized for this course. In addition to learning diverse techniques with the above media, students will explore a variety of topics including self-portraiture, still life, abstraction and art history. Students will engage in critiques and develop a portfolio. ***A fee for materials is required.***

**REQUIRED:** Successful completion of Drawing I and II and teacher recommendation.

**501530 CREATIVE ARTS & COMMUNITY**

Grades 9-12                      1.00 Credit/Year

This is a fine arts course specifically designed for the “non-artist”. Emphasis is placed on an individual’s ability to perceive, experience and appreciate the complexity and beauty of the visual and performing arts in direct relation to the origins of human imagination and creativity and its contemporary construction within a democratic society. This course will explore our sense of identity, creativity and the language of visual culture through six basic creative arts modalities: visual arts, music, movement, drama, poetry and storytelling. Essentially, through experiential, authentic learning opportunities and critical inquiry, we will examine, construct and discover the power of the creative arts as it pertains to oneself, community and culture/society.

**504599 ADVANCED PLACEMENT STUDIO ART**

Grades 11-12                      1.00 Credit/Year

This class is designed for the serious art student who wishes to compile a strong portfolio to submit to the College Board. This will allow the college or art bound student to possibly receive three college credits from participating schools. The portfolio slides are examined in terms of quality, concentration, and breadth. Portfolios are submitted in May. You are not required to submit your portfolio to the College Board. Students can choose among three exams: Drawing, 2-D Design, and 3-D Design. *A fee for slides is required, app. \$20. To submit a portfolio for credit, the fee is app. \$75.*

**RECOMMENDATION:** Two years of art classes, seriousness of purpose and permission of academic coordinator.

**501526 SCULPTURE I**

Grades 10- 12                      1.00 Credit/Semester (G&W Days)

This course will deal with the basics of 3-dimensional design, such as rhythm, balance and unity. Students will explore both reduction and additive sculpture. A variety of materials and tools will be used, including wire, plaster, wood, clay and found objects. This course is recommended for students considering art school and working on a portfolio. *A fee is required for materials and tools.*

**REQUIRED:** Successful completion of Intro to 3D Art and teacher recommendation

**502526 SCULPTURE II**

Grades 10- 12                      1.00 Credit/Semester (G&W Days)

This course is designed to further students’ exploration in three-dimensional design. Students will build upon skills they learned in Sculpture I. Students will engage in in-depth exploration and examination of additive and reduction sculpture. Assignments will be more subject based as opposed to material based. Students will be expected to be more independent than they were in the previous class. They will also be expected to write, talk about and critique their own work. *A fee is required for materials and tools.*

**REQUIRED:** Successful completion of Sculpture I and teacher recommendation

### **505510 ANIMATION AND FILM PRODUCTION**

Grades 11- 12                      0.50 Credit/Semester

Students in this course will create animated and live action videos using computers, digital cameras, digital camcorders, and a variety of professional software packages. Students will learn the use of the camera, camera angles and shots, and digital editing. This challenging course will help prepare students for a career in Media Arts.

### **504489 HONORS ART**

Grade 12                      1.00 Credit/Spring Semester

This course is a continuation of Portfolio Preparation for serious and self-motivated students planning a career in art. Students design their own thesis, selecting a medium such as sculpture, drawing, photography, ceramics, painting, or jewelry that they will explore in depth. Students will be required to critique their own work and the work of others, keep a journal and digital file of their work, and document texts and resources used. The culminating experience will be the creation of a group show through which students will be involved in advertising, matting, framing, and hanging the exhibit.

**REQUIRED:** Successful completion of Drawing I, II, and Portfolio Preparation

### **508810 UNIFIED ARTS**

Grades 9-12                      0.50 Credit/Semester

This course is designed to strengthen motor and observational skills. It will encourage creative problem solving through hands-on art activities. Students will explore a wide variety of media and art vocabulary, but the direction of the course will be driven by the needs of the students. Two thirds of the students will be working towards strengthening their creative skills. The other third of the students will be provided opportunities to develop mentoring skills by working alongside and assisting their classmates.

**REQUIRED:** Permission of teacher

### **502540 Mixed Media**

Grades 10-12                      0.50 Credit / Semester

This class is an in-depth examination of processes involving the use of combinations of artistic mediums. Explorations of methods for approaching a variety of designated themes and subjects will be covered. Painting, drawing, collage, found objects, and printmaking will be used collaboratively in a collection of artworks. Students will be required to keep an artist's sketchbook for preliminary drawings, exercises, journaling, and homework assignments, as well as a class folder for handouts and instructional materials. The principle content standards, class discussions, and written reflections about the creative process will be integral parts of this course. *A fee for materials is required.*

**(REQUIRED:** Successful completion of Intro to the Arts, Drawing I, and teacher recommendation.)

# MATHEMATICS DEPARTMENT

Technology is assuming an ever-increasing role in our society, both in the workplace and in everyday life. A thorough knowledge of mathematics is the foundation upon which much of this technology is built. Students need to have even stronger backgrounds in mathematics if they are to be prepared for the internationally-competitive jobs in the 21st Century. Thus, every student at Dover High School is encouraged to take all the mathematics courses he or she can possibly handle. The mathematics department will adopt the use of the Texas Instrument 83 plus (TI 83 plus) or TI-84 plus graphing calculator. Should a student wish to purchase a calculator, we encourage students to select one of these models.

## **201110 BASIC ALGEBRA I**

Grades 9-11                      1.00 Credits/Year

This course will cover the essential topics of Algebra 1. The content of this course is to focus on (but not limited to) the following strands: Numbers and Operations of rational numbers, Geometry and Measurement, Algebra Relations & Functions, Data, Statistics, and Probability; Problem solving, Reasoning, Communications, and Connections. The student will also learn to solve equations of multiple steps, create and interpret graphs, and organize data. Upon successful completion of this course, students should take Basic Geometry.

## **201210 COLLEGE PREP ALGEBRA I**

Grade 9-10                      1.00 Credit/Year

This course will cover the essential topics of Algebra I. Students will be taught concepts from a theoretical perspective. Students will apply algebraic concepts in life situations as they develop skills and knowledge. Topics include: Rational Numbers, Integers, Polynomials, Functions, Equation solving, Linear Systems, Radicals, Quadratics, Matrices, and Problem Solving.

## **201310 HONORS ALGEBRA I**

Grade 9                              1.00 Credit/Year

A fast paced Algebra I course focusing on applying Algebra I topics. All topics from College Prep Algebra I will be covered as well as Polynomials and Rational functions. Students may enroll in Honors Geometry after successful completion of this course and teacher recommendation

## **202120 BASIC GEOMETRY**

Grades 10- 12                      1.00 Credit/Year

This course will expand in greater depth the core curriculum of Basic Algebra I and will provide the student with a greater understanding and life applications of Algebraic and Geometric concepts. The curriculum will support the state strands of Numeracy, Measurements, Functions, Data, Statistics, and Probability. Problem-solving techniques and strategies will serve as the foundation for student learning.

**NOTE:** Students who successfully complete Basic Algebra I are eligible to enroll in this course. Other students must obtain approval of Math Academic Coordinator.

**202220 COLLEGE PREP GEOMETRY**

Grade 9-12 1.00 Credit/Year

This is a course in Euclidean geometry. The majority of the course work will center on proofs, congruence, similarity, constructions, coordinate geometry, area, volume, and applications. This course will include computational geometry with algebraic applications of geometric concepts. The student will apply theorems in solving problems.

**REQUIRED:** Successful completion of College Prep Algebra I or its equivalent

**202320 HONORS GEOMETRY**

Grades 9-10 1.00 Credit/Year

This course is a study of plane and solid geometry with a focus on the logic of proof and the applications of coordinate geometry to the analysis of functions. Some of the topics include congruence, similarity, constructions, coordinate geometry, and applications.

**REQUIRED:** Successful completion of Honors Algebra I and teacher recommendation

**203230 COLLEGE PREP ALGEBRA II**

Grades 10- 12 1.00 Credit/Year

This is a second year algebra course that reinforces and expands the concepts from College Algebra I and College Geometry while introducing new concepts to expand the student's math experience. New topics include Linear Programming, Imaginary Numbers, Matrices and the use and applications using the graphing calculator. The course will include applications of Algebra in real life problems.

**REQUIRED:** Successful completion of College Prep Algebra I

**203330 HONORS ALGEBRA II**

Grades 9-11 1.00 Credit/Year

This course is a continuation of concepts learned in Algebra I. Topics will include linear equations, quadratic equations, factoring, graphing, logarithms, and progressions.

**REQUIRED:** Successful completion of Algebra I and Honors Geometry

**203130 BASIC ALGEBRA II**

Grades 10-11 1.00 Credit/Year

This course introduces the student to basic principles of Algebra II as applied to application of the everyday world. Topics include using graphs and equations, using systems of equations, linear programming, exploring and applying functions, exponential and log functions, and transforming graphs and data. Students will be required to complete a project illustrating application to the real world.

**REQUIRED:** Successful completion of Basic Algebra I Basic Geometry or approval of the Math Academic Coordinator

### **203300 TOPICS IN APPLIED COLLEGE MATHEMATICS**

Grade 11 & 12                      1.00 Credit/Year

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

This course will be taught in partnership with Great Bay Community College. Successful completion of this course will result in either three or four credits in college level math. These credits are accepted at all CCSNH Colleges and transferable to a number of two and four-year universities.

**REQUIRED:** Successful completion of CP Algebra II

### **204240 COLLEGE PREP PROBABILITY AND STATISTICS**

Grades 11 & 12                      1.00 Credit/Year

This course introduces the student to basic principles and concepts of probability and statistics as applied to the everyday world. Students are not expected to just do computations but are asked to make decisions based on results. Topics included are permutations, combinations, conditional probability, confidence intervals, hypothesis testing, measures of central tendency, standard deviation, statistical charts, and graphs.

**REQUIRED:** Successful completion of CP Algebra II

### **204250 COLLEGE PREP FINITE MATHEMATICS**

Grades 11 & 12                      0.50 Credit/Semester

In this course the student will see a return to some familiar selected topics taken from a cross section of the mathematics curriculum. The students will discover a systematic approach for collecting, organizing, and describing data. They will learn to determine both theoretical and empirical probabilities. Students will become skilled at solving a variety of finance problems.

**REQUIRED:** Successful completion of CP Alg. II

### **204260 COLLEGE PREP PRE-CALCULUS**

Grades 11 & 12                      1.00 Credit/Year

This course will spend a majority of time exploring topics related to Analytic Geometry. The student will gain experience with trigonometry and its applications. A review of functions of various types from Algebra II and an introduction to sequences and series will complete this course.

**REQUIRED:** Successful completion of CP Alg. II

### **204360 HONORS PRE-CALCULUS**

Grades 10-11                      1.00 Credit/Year

This course will apply the student's knowledge of functions and real numbers to an in-depth study of polynomial, rational, logarithmic, exponential, trigonometric, and other special functions. The study of trigonometric functions will lead into the study of vectors, complex numbers, and polar equations. A study of sequences, series, and conic sections will complete the course.

**REQUIRED:** Successful completion of Honors Algebra II and Honors Geometry

### **204290 COLLEGE PREP CALCULUS**

Grades 11-12                      1.00Credit/Semester

This course is for students who need calculus in college. Topics will include limits, definition of a derivative, functions, rate of change, maxima-minima, related rates, trigonometric derivatives and integrals, integration concepts, areas and volumes.

**REQUIRED:** Successful completion of CP Pre-Calculus.

### **204390 ADVANCED PLACEMENT CALCULUS AB**

Grade 12                              2.00 Credits/Year

This course will follow the Advanced Placement Calculus curriculum covering limits, definition of the derivative, derivatives and integrals of polynomial, exponential, logarithmic and trigonometric functions. Students will also study maxima and minima of functions, related rates, optimization, area between two curves and volumes of solids of rotation.

**REQUIRED:** Successful completion of Honors Pre-Calculus or teacher recommendation.

### **204395 ADVANCED PLACEMENT CALCULUS BC**

Grade 12                              2.00 Credits/Year

This course will complete all topics listed for AP Calculus AB. Additionally, students will study the derivatives and anti-derivates of functions given in parametric, polar and vector forms. The application of sequences and series to integration, specifically Taylor and Maclaurin series will complete the course.

**REQUIRED:** Successful completion of Honors Pre-Calculus.

### **204398 ADVANCED PLACEMENT STATISTICS**

Grades 11-12                      2.00 Credits/Year

The purpose of this course is to introduce students to the major concepts and tools for collecting analyzing, and drawing conclusions from data. Students will study many broad conceptual themes: exploring data-observing patterns and departures from patterns, planning a study, anticipating patterns, producing models using probability theory and simulation, statistical inference and confirming models.

**REQUIRED:** Successful completion of Honors Algebra II or CP Pre-Calculus

### **204270 COLLEGE PREP MATH AND MONEY MANAGEMENT**

Grades 11-12                      0.50 Credit/Semester

This course provides basic understanding of the financial world. Students will be required to make informed decisions about their personal finances in the future. This course will be a project-based look into financial planning. Student's will be required to manage all aspects of a person's financial affairs, starting with spending and borrowing, and extending through risk management, taxes, wealth accumulation, investing retirement and estate planning. **REQUIRED:** Successful completion of CP Algebra I and CP Geometry.

### **204140 BASIC STATISTICS**

Grades 11 & 12            0.50 Credits/Semester

This course introduces the student to basic principles of Statistics as applied to the everyday world. Applications may include a design of experiment project and regression project. Course topics include: statistical charts and graphs, design of experiments, measures of central tendency, variation, probability, and regression. **REQUIRED:**

Successful completion of Basic Algebra II.

### **204172 MATH APPLICATIONS**

Grades 11-12            0.50 Credit/Semester

This course is a review of the basic skills in the context of Career Technical applications. Applications will be taken from the building construction, cosmetology, culinary arts, auto technology, marketing, electrical technology, engineering technology, and floriculture.

### **204174 BASIC MATH & MONEY (Formerly Consumer Math)**

Grades 11-12            0.50 Credit/Semester

This course allows the student to experience the numerous ways mathematics come into play in the life of today's consumer. The course will challenge the student to apply mathematics to full and part-time summer and after-school jobs. Students will learn about making purchases, creating budgets, seeking credit, understanding taxes, savings, and general banking practices. Understanding math to make more informed decisions as a smart consumer is the primary goal of this course.

### **208822 & 208832 MATHEMATICS ENRICHMENT I & II**

Grades 9-12            2.00 Credit/Year

Mathematics Enrichment I will cover elementary remedial math skills, including adding, subtracting, multiplying with and without regrouping, division and divisibility, area, volume, perimeter of polygons, as well as measurement of angles and solving for missing angles. Other topics will include a review of fractions, including all four operations with like and unlike denominators. Mathematics Enrichment II will include middle school remedial math skills such as using the four operations with integers, multiplication and division with decimals, exponents, and an introduction of solving for the unknown. Students will explore the four fundamental operations with integers as well as ratios and percents. **Enrollment based on review of assessments and recommendation of case manager or counselor.**

### **208823 LIFE SKILLS ALGEBRA 1A**

Grades 9-12            2.00 Credits/Year

This course is designed to offer students the Algebra 1 curriculum at a slower pace to ensure students master work with integers, evaluations, and solving one-step and multi-step equations. An introduction to functions and rational numbers will also be covered. Basic graphing of lines and slope will be explored. Students will also study positive and negative exponents, factoring, multiplying binomials, linear and quadratic equations, graphing. Students who complete this course will earn elective math credits and be prepared to continue on to Life Skills Algebra 1B or Basic Algebra I. **Enrollment based on review of assessments and recommendation of case manager or counselor required.**

208824 LIFE SKILLS ALGEBRA IB

Grades 9-12

2.00 Credits/Year

This course is designed to offer students the opportunity to successfully complete the essential topics of Algebra 1 but at a slower pace. The content of this course is to focus on the following strands: Numbers and Operations of rational numbers, Geometry and Measurement, Algebra Relations & Functions, Data, Statistics, and Probability; Problem solving, Reasoning, Communications, and Connections. The student will also learn to solve equations of multiple steps, create and interpret graphs, and organize data. Upon successful completion of this course, students will earn their Algebra 1 credit. **Enrollment based on review of assessments and recommendation of case manager or counselor required.**

# MUSIC DEPARTMENT

Students who choose courses in the music department will develop comprehensive musicianship through listening, creating and performing in a wide range of musical styles. All music courses are based on the National Standards for the Arts and fulfill the Fine Arts requirement for graduation. Performance classes may require some extra rehearsals out of school. Attendance is an important factor in all performance class assessment. Performance classes will take part in concerts, state and regional festivals and competitions. Some performance classes will have the opportunity to travel to other states and out of the country for events. Marching Band and Color Guard students will perform at some athletic and civic events as well as shows and competitions. The Music department also offers the following co-curricular activities: Fall Color Guard, Winter Color Guard, Percussion Ensemble and Handbell Ensemble.

## 555510 BAND

Grades 9-12

1.00 Credit/Year

The band program provides opportunities for wind and percussion student musicians of all levels of ability to advance in the study of their instrument, learn to perform as an ensemble, improve musicianship, and learn basic music theory. Band is open to all students who play wind and percussion instruments, and pianists and string players who would like to try another instrument. **The band will perform as a marching band in September and October, performing at football games, parades, shows, and then as a concert band for the rest of the year, giving concerts in November, December, March and June, plus other events throughout the year.** Students may choose one of two levels of marching band participation: performance at football games, civic events and parades, or the more competitive level of commitment, performing at area shows and competitions, mostly on Saturday nights. The competitive marching band students will have additional rehearsals on one week night and Saturday afternoons. Assessment is through performance-based evaluation, written quizzes, and projects. All students will attend night rehearsals in August and Band Camp the week before school begins. Attendance at all performances is required.

## 555512 JAZZ BAND

Grades 9-12

0.50 Credit/Semester

Students in the jazz band will study and perform a variety of jazz styles and perform at least twice in public. The class is open to band members only on trumpet, sax and trombone, and to rhythm section players by audition. Students will learn the basics of improvisation and chord theory. Assessment will be based on attendance and participation. The jazz band rehearses one evening a week. **REQUIRED:** Wind players must be in band; Rhythm section players will audition for seats. Rhythm section players must read music

## 555520 CHORUS

Grades 9-12

1.00 Credit/Year

All freshmen and students who have not sung in chorus before will learn vocal techniques, posture, warm-up and vowel technique, breathing and performance skills. Throughout the course students will gain valuable musical techniques they can use to perform for one year or continue in this field for a lifetime. Music reading will be taught and emphasized. The chorus will perform at least 4 times a year both alone and with the Concert Chorale, learning 20-24 pieces of music in different styles and languages. Students will be assessed

through written quizzes, research papers and projects, as well as performances. Attendance at all performances is required.

### **555530 CHAMBER SINGERS**

Grades 10-12                      0.50 Credit/Semester

This course offers vocally/musically-advanced students the opportunity to perform at a more advanced level. A variety of repertoire will be studied from the early Renaissance to Contemporary and Jazz. The curriculum is an extension of the concepts developed in Chorus, and is therefore open only to incoming sophomores, juniors and seniors. Performance opportunities are extensive, as are the musical and personal demands on each student. Student assessment will include individual/SMART Music and opportunities to demonstrate/performance.

**Required:** Students must be in Chorus to audition for Chamber Singers. \$60.00 lab fee (SMART Music yearly subscription & vocal microphone)

### **555540 MUSIC THEORY**

Grades 10-12                      0.50 Credit/Semester

Students will explore notation, scale and chord theory, chord structure analysis and other components that make the structure of a piece of music. Students will also study an overview of music history. Students will listen to master works and determine basic composition. Also, the class will explore their own creativity through the composition of their own work in the most basic form to prepare for Song Writing and Composition.

### **555542 HISTORY OF AMERICAN MUSICAL THEATRE**

Grades 9-12                      0.50 Credit/Semester

Students will read about, watch and listen to samples of American musical theatre classics, and discuss cultural influences, implications for pop music, and trends throughout the 20<sup>th</sup> Century. This class will also address the cultural and economic influences of American history on the theatre. Assessment will consist of weekly quizzes, research papers, a project and a final exam. This course is recommended for students with an interest in pursuing a career in theatre or music as well as for those who wish to learn more about musical theatre in general.

### **551530 GUITAR I**

Grades 9-12                      0.50 Credit/Semester

Students will learn basic guitar technique, music reading, and performance skills. Students will use school guitars in class and are expected to have a guitar at home with which to practice. Assessment will be done through written quizzes and tests, as well as recitals and other performance-based experiences. *A fee for materials is required.*

### **552530 GUITAR II**

Grades 9-12                      0.50 Credit/Semester

Students who have passed Beginning Guitar with a “B” or better will move on to more advanced literature, including ensemble playing, as well as blues techniques, bass guitar and song-writing. Students will use

school guitars in class and are expected to have a guitar at home with which to practice. Assessment will be done through written quizzes and tests, as well as recitals and other performance-based experiences. *A fee for materials is required.*

**REQUIRED:** Successful completion of Guitar I or audition for the teacher

### **551532 KEYBOARD I**

Grades 9-12                      0.50 Credit/Semester

Students will learn to read music or improve their reading skills, develop keyboard skills, and understand basic music theory. Students will develop sight-reading skills, expand their keyboard repertoire, and perform as soloists or in ensembles. Assessment will be done through written quizzes and tests, improvement in performance, a final exam (both written and performance-based), and other performance-based experiences. *A fee for materials is required.*

### **552532 KEYBOARD II**

Grades 9-12                      0.50 Credit/Semester

Students will continue to improve music reading skills and keyboard experience. Composition, music history, and chord analysis will be covered. Assessment will be the same as for Beginning Keyboard/Music Theory. *A fee for materials is required.*

**REQUIRED:** Successful completion of Keyboard I, Song-Writing, or completion of two years of Band or Chorus or audition

### **555534 SONG WRITING AND COMPOSITION**

Grades 9-12                      0.50 Credit/Semester

A music theory and composition course for students who want to focus on getting their songs down on paper and write arrangements to use with rock bands or other vocal/instrumental groups. All styles of song-writing will be studied and students will have the opportunity to write for vocals and instrumentals. Assessment will include quizzes and tests as well as a portfolio of compositions.

**REQUIRED:** Successful completion of Guitar I or Keyboard I, or 2 years of Band or Chorus

### **555536 HISTORY OF JAZZ, ROCK AND POPULAR MUSIC**

Grades 9-12                      0.50 Credit/Semester

In this non-performance course, students will read, listen to and experience the roots and development of American popular music from the beginning of the 20<sup>th</sup> century through the artists and music of today. All genres of popular music will be covered including jazz, rock, R&B, and hip-hop. Assessment will be through tests, reports and student-generated projects.

### **555560 RECORDING TECHNOLOGY**

Grades 10-12                      0.50 Credit/Semester

Students will learn to compose their own beats and loops with recording software. They will utilize the software for sequencing, recording and editing. They will also develop basic understanding of how sound works and how effects, microphones and amplification are used through hands-on training with studio and live sound equipment. Students will be assessed through composition and recording projects, live sound

projects and tests/quizzes. Extra credit and studio use opportunities will be presented to students who help run sound for school events.

*This course will not be offered in 2014-2015*

# SCIENCE DEPARTMENT

The Science Department's multi-level curriculum has been designed to provide a sequential program of studies which recognizes student needs to prepare for future education as well as to prepare those students whose formal education will terminate upon graduation. To meet this goal, the curriculum addresses the need for the student to think critically, solve problems resourcefully and effectively, read, write and speak effectively, and access and analyze information.

## EARTH SCIENCE

This foundational course provides an overview of physical and historical geology. After a brief introduction on the nature of Planet Earth and earth systems science, students will investigate current theories that describe the origin of the Universe and the Solar System. Students will learn about the structure of the solid Earth, the vast extent of geologic time, and the unifying Theory of Plate Tectonics. Students will learn about the rock cycle, which describes the materials that make up the Earth and the internal and external processes that create and change them. In the laboratory, students will learn how to identify common minerals and the three types of rocks, as well as investigate the processes that control their formation.

### 301315 HONORS EARTH SCIENCE

Grade 9 0.50Credit/Semester

### 301215 CP EARTH SCIENCE

Grade 9 0.50Credit/Semester

### 301115 INTRO TO EARTH SCIENCE

Grade 9 1.00 Credit/Year

### 301515 EARTH SCIENCE

Grades 11-12 0.50Credit/Semester

This course is intended for students who did not successfully complete freshman Earth Science.

## PHYSICAL SCIENCE

This laboratory-oriented course is designed to introduce the student to concepts and interactions of matter. The course will begin with a brief review of the concepts of measurement, then go into the physics of motion and energy. A study of atomic structure, the periodic table, chemical bonding, chemical reactions, and oxidation-reduction will enable the student to understand the nature of matter and the physical processes which occur in our everyday lives. The chemistry section will conclude with a brief study of organic and nuclear chemistry. The physics will continue with electromagnetism, electrical production, energy production and use.

### 301310 HONORS PHYSICAL SCIENCE

Grade 9 0.50Credit/Semester

### 301210 CP PHYSICAL SCIENCE

Grade 9 0.50Credit/Semester

### **301110 INTRO TO PHYSICAL SCIENCE**

Grade 10 0.50Credit/Semester

### **301510 PHYSICAL SCIENCE**

Grades 11-12 0.50Credit/Semester

This course is intended for students who did not successfully complete freshman Physical Science.

### **302320 HONORS BIOLOGY**

Grade 9-10 1.00 Credit/Year

This lab course has been designed to meet the needs of students who have a special interest and aptitude in biology. The subject matter has been selected and organized to help the student develop an understanding of the major concepts and principles of modern biology. Through lecture and laboratory experimentation, emphasis will be placed on scientific investigation and inquiry into the world of life. The course is structured around six basic units including organization of living things, cells, the genetic code, evolution, ecology, and human systems.

**REQUIRED:** Successful completion of CP or Honors Earth & Physical Sciences

**This course is available to freshmen by recommendation of 8<sup>th</sup> grade Science teacher or Guidance Counselor.**

### **302220 COLLEGE PREP BIOLOGY**

Grade 10 1.00 Credit/Year

This lab course is designed to introduce the student to the world of living things. A component of the course will involve science as investigation and inquiry. Through a variety of activities, each student will participate in the scientific process. Lab experiences will be utilized to build concepts and principles that will enable the student to better understand the living world. The course is structured around six basic units including organization of living things, cells, the genetic code, evolution, ecology, and human systems.

**REQUIRED:** Successful completion of Earth and/or Physical Sciences

### **INTRODUCTION TO BIOLOGY**

Grade 10-12 1.00 Credit/Year

This course is designed to introduce the students to the world of living things. It emphasizes the practical application of biological concepts that are present in our everyday lives. This course will be activity-oriented emphasizing the basic concepts and principles that govern living things. The course is structured around six basic units including organization of living things, cells, the genetic code, evolution, ecology, and human systems.

**REQUIRED:** Students previously enrolled in Introduction to Earth and/or Physical Sciences.

### **302120 INTRODUCTION TO BIOLOGY A**

Grade 10-12 0.50 Credit/Semester

This section of Biology will explore the organization of living things, and cells.

### **302121 INTRODUCTION TO BIOLOGY B**

Grade 10-12 0.50 Credit/Semester

This section of Biology will explore genetics, evolution, ecology and human systems.

## **SCIENCE ELECTIVES**

### **303330 HONORS CHEMISTRY**

Grades 10-12 1.00 Credit/Year

Honors Chemistry is an accelerated chemistry course designed to offer students the opportunity to master the conceptual and mathematical principles of chemistry. Students interested in attending college and especially those planning on pursuing a science-related career should consider taking this course. An experimental approach is utilized so that students may investigate chemical systems and interpret findings with respect to the fundamental, unifying concepts of chemistry. It should be noted that this course is very math intensive.

**REQUIRED:** Successful completion of CP or Honors Biology and enrolled in Honors Algebra II or Honors Pre-Calculus.

**Students will be asked to complete a review assignment independently during the summer in order to move more quickly into lab work.**

### **303230 COLLEGE PREP CHEMISTRY**

Grades 11-12 1.00 Credit/Year

In this course emphasis is placed on mastery of the language, math skills, and fundamental laws and concepts of chemistry. Laboratories and demonstrations are utilized to aid the student in acquiring skills in making observations of chemical substances and reactions, recording data, and calculating and interpreting results. College Prep Chemistry is designed to meet the needs of the majority of college-bound students.

**REQUIRED:** Successful completion of Algebra, Geometry and Biology

### **303130 CHEMISTRY IN THE COMMUNITY**

Grades 11-12 1.00 Credit/Year

This course is built around societal issues as they relate to chemistry. These issues may include: water quality, use and conservation of resources, use of petroleum, chemistry of food and nutrition, chemistry of art, nuclear chemistry, air and climate, chemistry and health, and role of the chemical industry in our society. Each unit is laboratory oriented and will help students to develop the skills necessary for problem solving.

**REQUIRED:** Successful completion of Physical Science and Biology

### **304340 HONORS PHYSICS**

Grades 11-12 1.00 Credit/Year

This lab course is designed for the high ability student who has the need for greater depth of knowledge than that found in CP Physics. Learning will be done largely in a hands-on fashion with an emphasis on the use of technology as an important tool in the problem solving process. Topics covered will be classic Newtonian mechanics and kinematics (one and two dimensional motion, one and two dimensional forces, conservation of energy and momentum, rotational mechanics, gravitational effects, planetary motion, and some astronomy).

**REQUIRED:** Successful completion of Pre-Calculus and Biology

### **304240 COLLEGE PREP PHYSICS**

Grades 11-12

1.00 Credit/Year

This lab course is designed for a wide variety of students including those going on to a two-year technical or four-year college. Instruction and assessment are differentiated so that all students can find success. Learning will be done largely in a hands-on fashion with an emphasis on the use of technology as an important tool in the problem solving process. Topics covered will be classic Newtonian mechanics and kinematics (simple machines, one and two dimensional motion and forces, energy, gravitation)

**REQUIRED:** Successful completion of both Geometry and Algebra II.

### **305240 COLLEGE PREP PHYSICS II**

#### **305340 HONORS PHYSICS II**

Grades 11-12

1.00 Credit/Year

This lab course is a continuation of Physics I but will be a mix of CP and Honors students. This course is again designed for a wide variety of students including those going on to a two-year technical or four-year college. Instruction and assessment are differentiated so that all students can find success. Learning will be hands-on with an emphasis on the use of technology. Topics covered in this course will be classic electromagnetism and some aspects of modern physics (electricity, magnetism, waves, sound, light, general and special relativity).

**REQUIRED:** Successful completion of Physics I.

### **304140 HOW THINGS WORK**

Grades 10-12

0.50 Credit/Semester

This physical science course is based on exploratory learning and utilizes technology as a tool for exploration. Students will spend their time researching the science behind how everyday items work, their history and impact on society. Labs will be virtual and/or actual dissection of the item students choose to investigate. The instructor will facilitate learning through guided inquiry and place the emphasis for learning on the student. In addition, the instructor will teach to topics that arise as the students perform their research. Presentations and project reports will be turned in at the completion of each project.

**REQUIRED:** Successful completion of Physical Science

### **305250 HONORS ANATOMY AND PHYSIOLOGY I**

Grades 11-12

1.00 Credit/Year

This course is designed for students who are interested in broadening their experiences in biology. The course covers the following body systems: Introduction to the Human Body, Cells, Integument and Tissues, Skeletal, Muscular, Nervous, and Endocrine. Students will extend their understandings through lecture, laboratory work, and interactive activities related to the health careers. Students are held to high academic standards in preparation for careers in the medical profession.

**REQUIRED:** Successful completion of Biology and Chemistry

### **305251 HONORS ANATOMY AND PHYSIOLOGY II**

Grades 11 – 12

1.00 Credit/Year

This course is designed for students who have completed Anatomy and Physiology I (305250) and wish to pursue further studies on the human body. The following body systems are covered: Blood, Cardiovascular, Lymphatic and Body Defenses, Respiratory, Digestive and Body Metabolism, Urinary and Reproductive. Students will extend their understandings through lecture, laboratory work, and interactive activities related to health careers. Students are held to high academic standards in preparation for careers in the medical profession.

**Prerequisites:** Successful completion of Anatomy 305250 or instructor permission

**NOTES:** Students who have completed of both Anatomy and Physiology 305250 and 305251 may earn three credits through Southern New Hampshire University. Students may elect to take 305251 without taking 305250; however, they will **not** be eligible for credits offered through Southern New Hampshire University.

### **305320 ADVANCED PLACEMENT BIOLOGY**

Grades 11&12

2.00 Credits/Year

This course is designed to cover in-depth subject material to allow a college bound student an opportunity to receive advanced placement, credit, or both in participating colleges. This course is fast moving, yet it provides a rigorous comprehensive curriculum. Laboratory work will be used as needed so that the student will develop an understanding of the processes from which facts and theories are derived. This course duplicates a first year college course. The Advanced Placement exam is given in May.

**REQUIRED:** Successful completion of Honors or CP Chemistry and Honors or CP Biology. It is strongly suggested that students concurrently enroll in Physics. A summer assignment must be completed prior to beginning this course

### **®921310 HONORS BIOTECHNOLOGY I**

Grade 11-12

1.00 Credit/Year

### **922310 HONORS BIOTECHNOLOGY II**

Grade 11-12

1.00 Credit/Year

Please see descriptions under Biotechnology/Bio-Manufacturing Academy

### **305520 ADVANCED PLACEMENT CHEMISTRY**

Grades 11-12

2.00 Credits/Year

This second year chemistry course is designed for students who intend to go on in college majoring in the sciences, engineering, or pre-medical fields of study. In addition to a review of first year materials, the course will cover such topics as thermodynamics, kinetics, electro-chemistry, organic chemistry, and nuclear chemistry. Emphasis will be placed on a strong laboratory approach as well as independent learning situations. This course duplicates a first year college course. An advanced placement test is given by the College Testing Service of Princeton, New Jersey. The AP exam is given in May and the fee for the test is borne by the student.

**REQUIRED:** Successful completion of CP or Honors Algebra II or Pre-Calculus, and CP or Honors Chemistry. It is strongly suggested that students concurrently enroll in Physics

**NOTE:** A summer assignment must be completed prior to beginning this course

**305222 ENVIRONMENTAL SCIENCE**

Grades 10-12 0.50 Credit/Semester

This course provides students with an opportunity to study some of the major environmental issues facing society today. The method of study will allow students to come to their own conclusions regarding some of the hotly debated topics facing our society. Areas of study will include: ecology, acid rain, ozone depletion, and hazardous waste disposal.

**REQUIRED:** Successful completion of Freshman Earth and Physical Sciences and Biology

**305224 MARINE SCIENCE**

Grades 11-12 0.50 Credit/Semester

This course is for students who are interested in developing an understanding of the dynamic factors (both biotic and abiotic) that define the planet's oceans. The course is designed to include the study of both local and global marine processes, ecosystems, and organisms. The major areas of study will include the following topics: history of exploration, properties of seawater, currents, tides, waves, marine ecosystems, and biological oceanography. Studies will include laboratory activities, group work, research papers, presentations, and dissections.

**REQUIRED:** Successful completion of Earth Science, Physical Sciences and Biology

**305225 WORLD DECISIONS, SCIENCE AND CULTURE**

Grades 10-12 0.50 Credit/Semester

This course takes a historical look at the inter-relationship of science and culture. The influence science has had on society and, conversely, the effect society has had on science, will be examined by looking at trends and important events throughout history, culminating with the modern age. Historic events and popular media (literature, film, advertising, etc) will be the data set through which this changing relationship will be examined.

**REQUIRED:** Successful completion of Earth Science, Physical Sciences and Biology

**305220 INTRODUCTION TO FORENSIC SCIENCE**

Grades 11-12 0.50 Credit/Semester

Introduction to Forensic Science is an interdisciplinary course devoted to the science behind crime scene investigation. An emphasis will be placed on the biology and chemistry behind crime scene analysis. Topics may include fingerprint, blood, DNA, document, hair and fiber, and footwear analysis; identification of physical evidence; arson investigations; and overall crime scene techniques. Students will gain the skills to evaluate current research in criminalistics as well as the knowledge of scientific techniques such as microscopy and gel electrophoresis. Class periods will be primarily lab based. In addition, lectures, class discussions, individual and group projects and guest speakers will further the forensics experience. Students' evaluations will be based primarily on labs but will include tests, projects, and research paper.

**REQUIRED:** Successful completion of Biology

### **305225 PLANT BIOLOGY**

Grades 10-12 0.50 Credit/Semester

Plant biology is a laboratory-based course that explores plant structure and function with emphasis on basic cell and tissue types and the major plant organs. Plant diversity, adaptations and evolutionary history and the role of plants for food, recreation and ornamental purposes will also be explored.

**REQUIRED:** Successful completion of Biology

### **305227 ZOOLOGY**

Grades 10-12 0.50 Credit/Semester

Zoology is a laboratory-based course that will survey the nine major phyla of the Animal Kingdom. An emphasis will be placed on comparative studies of the major animal groups which will be accomplished through dissections, laboratory observations and lectures. This course includes selected topics in animal biology, physiology, anatomy, ecology, and behavior. Students will be evaluated through laboratory practicals, tests, projects, and research papers.

**REQUIRED:** Successful completion of Biology

### **305226 ENERGY AND THE ENVIRONMENT**

Grades 10-12 0.50 Credit/Semester

This course will look at energy from the standpoint of human consumption. Students will look at current options, future options, and the implications of choices in terms of viability (chemical and physical) availability, cost (monetary and environmental).

**REQUIRED:** Successful completion of Physical Science and Biology

### **305215 ASTRONOMY**

Grades 10-12 0.50 Credit/Semester

Astronomy is a project based course that engages students in individual or small group projects that will cover the solar system, the sun, lives of stars, comets, asteroids, galaxies, big bang theory, telescopes, remote sensing, modern cosmology. Final products will be individualized.

**REQUIRED:** Successful completion of Physical Science and Earth Science

### **305228 DISEASE: PAST, PRESENT AND FUTURE**

Grades 10-12 0.50 Credit/Semester

Disease: Past, Present and Future is a research, project-based course that explores the different types of disease causing organisms. The focus of the course is on prevalent diseases of the past and present and the medical and social understanding of them. The possible face of disease in the future will be explored through media sources and research of medical trends. Students will be evaluated through current events summaries, tests, projects, group discussions, and research papers.

**REQUIRED:** Successful completion of Biology

**305599 SCIENCE RESEARCH SEMINAR**

Grades 11-12

0.50 Credit/Semester

This course is designed for students who are interested in pursuing Earth Science, Physical Science or Life Science in college and possibly as a career. Students will work as part of a team with DHS faculty, and UNH professors on a publishable research project. Students will have the opportunity to be involved in various aspects of an on-going research project including (1) fieldwork and lab work; (2) data analysis and discussion; (3) publication preparation and presentation of results in various formats and venues. Students need to choose a research strand (Earth, Physical, or Life science) and may enroll for a maximum of 3 quarters.

**REQUIRED:** Student application**308810 UNIFIED SCIENCE**

Grades 9-12

0.50 Credit/Semester

Unified Science provides students with a comprehensive science education program. The course is designed to instruct students using a hands-on, lab-based format to meet individual student needs. Students work toward developing science process skills through exploration of concepts in earth, life, and physical sciences. In addition, the course offers opportunities for a limited number of students who have completed required science courses to develop their mentoring skills by serving as peer partners.

**REQUIRED:** Permission of teacher



includes the geographic area as well as historical, and cultural overview. Emphasis is placed on developing an understanding between cultures, creating an awareness of recent events in the world and understanding the effects of those events on different societies. Reading, writing, discussion, debate and cooperative learning skills and techniques will be used. Students will review historical fiction as part of the course.

## **REQUIRED SOCIAL STUDIES COURSES FOR GRADES 10&11**

### **402315 HONORS AMERICAN GOVERNMENT**

Grade 10 1.00 Credit/Year

This course will focus on the study of American Government as it relates to political movements throughout United States history. Special attention will be paid to local and state governments and current political issues, civil liberties and the political progress of minorities. An emphasis is placed on critical thinking skills, interpreting documents, and essay writing.

### **402220 AMERICAN GOVERNMENT**

Grade 10 0.50 Credit/Year

This course will focus on the study of American Government as it relates to political movements throughout United States history. Special attention will be paid to local and state governments and current political issues, civil liberties and the political progress of minorities.

### **103240 AMERICAN STUDIES**

Grade 11 2.00 Credits/Year

This course is an interdisciplinary, thematic study designed to connect the historical and literary past to the American experience today. Using primary sources, fiction, non-fiction, film, and music, students will learn to be open to the ideas of other Americans while appreciating the reality of historical events through the eyes of people who were there. This is a student-centered course, providing an opportunity for active learning through activities such as debate, interviews, journalism, and theater.

**NOTE:** This course affords a credit in both 11<sup>th</sup> grade English and American History

### **401510 ECONOMICS RECOVERY**

Grades 10-12 0.50 Credit/Semester

This course is intended for students who did not successfully complete the freshman course or for those who transferred into the district without completing this state requirement.

### **401515 GLOBAL STUDIES RECOVERY**

Grades 10-12 0.50 Credit/Semester

This course is intended for students who did not successfully complete the freshman course.

**403399 ADVANCED PLACEMENT US HISTORY**

Grade 11 2.00 Credits/Year

AP United States History is a challenging course designed to provide a college-level experience and can earn students college credit. It is a yearlong survey of American history from the age of exploration to the present. An emphasis is placed on critical thinking skills, interpreting documents, and essay writing. Students will need solid reading and writing skills as well as a willingness to devote considerable time to homework and study to be successful.

**NOTE:** The completion of a summer reading assignment is also required

**403330 HONORS UNITED STATES HISTORY**

Grade 11 1.00 Credit/Year

Students enrolled in this course will study the material described in College Prep American History in a more intensive manner. The analysis of primary source documents, use of collegiate level readings, and completion of a research paper are staples of this course. An objective of this course is to develop strong reading, writing and analytical skills allowing the student to become a well-versed and articulate critical thinker.

**403230 COLLEGE PREP UNITED STATES HISTORY**

Grade 11 1.00 Credit/Year

This course will focus on the history of the American people through a thematic approach. It will incorporate the study of the interrelationship between America and Europe, i.e., economic, political and social relationships. The background to the Spanish American War, World Wars I and II, the Cold War and Vietnam are some of the areas that will be covered. Written reports are part of the College Prep requirements.

**403130 UNITED STATES HISTORY A**

Grade 11 0.50 Credit/Semester

This course will highlight America's development as a world power and its impact on world events. Emphasis will be placed on the continued development of reading, writing and study skills through a hands-on practical approach.

**REQUIRED:** Teacher and counselor recommendation

**403131 UNITED STATES HISTORY B**

Grade 11 0.50 Credit/Semester

This course is a study of the American people utilizing a thematic approach. Emphasis will be placed on the continued development of reading, writing and study skills through a hands-on practical approach.

**REQUIRED:** Teacher and counselor recommendation

## **SOCIAL STUDIES ELECTIVES:**

### **405210 CURRENT EVENTS**

Grades 9-12                      0.50 Credit/Semester

Current events delves into international, national, and local events as they pertain to the political and social problems of today. Daily newspapers and magazines are used to support student writing and class discussions.

### **405212 HISTORY OF WESTERN CIVILIZATIONS**

Grades 10-12                      0.50 Credit/Semester

*Offered in even-numbered school years.*

In this course, students will study the ancient civilizations of Egypt, the Fertile Crescent, Greece, and Rome. The course will be taught as an enrichment course focusing on the history, geography, art, religion, and other cultural contributions of these ancient civilizations.

### **405214 HISTORY OF MEDIEVAL EUROPE THE RENAISSANCE AND BEYOND**

Grades 10-12                      0.50 Credit/Semester

*Offered in even-numbered school years.*

This is a continuation of the Western Civilizations course focusing on the fall of Rome, the study of the Byzantine Empire, Medieval Europe, the Renaissance, The Scientific Revolution and beyond. The political, cultural, and religious changes that occurred throughout Western Europe will be examined.

### **405216 CRIMINAL LAW**

Grades 10-12                      0.50 Credit/Semester

This course is designed to provide an introduction to criminal law. Emphasis is placed on learning about the United States' court systems, lawmaking, individual legal rights and responsibilities, as well as an in-depth look at the criminal investigation process through the eyes of the police, defense, and prosecution. Field trips, small group activities, guest speakers and simulation exercises are used within this course.

### **405218 PSYCHOLOGY**

Grades 10-12                      1.00 Credit/Year

Students will study the uniqueness and dynamic growth potential inherent in every individual. They will examine the ways people behave, express emotions, perceive the world, solve problems, and relate to everyday life. Some group experiments and demonstrations will be used to involve the student in the learning process. A research paper and oral presentations are requirements of this course.

### **405220 SOCIOLOGY**

Grades 10-12                      0.50 Credit/Semester

Through this course, students will come to appreciate and understand the complexities of social life. Students will analyze the roles people play and behavioral patterns associated with the roles. Social forces such as: adolescence, race relations, prejudice, social changes, the family, culture, family abuse and education will be studied. A research paper and oral presentations are requirements of this course.

**405236 HISTORY OF THE FAR EAST & CENTRAL ASIA**

Grades 10-12                      0.50 Credit/Semester

*Offered in odd-numbered school years.*

Nearly one-half of the world's population reside between the land of the rising sun and the subcontinent of India. While some of the great philosophies and religions of the world originated in this area, the people who live here have not always been able to overcome chronic problems such as famine and civil strife. This course examines the historical, technological, and cultural developments of the civilizations located in this part of our world. Course work includes: reading and discussion, developing skills in map reading, problem solving, research techniques, and writing essays and research papers.

**405238 HISTORY OF THE MIDDLE EAST & AFRICA**

Grades 10-12                      0.50 Credit/Semester

*Offered in odd-numbered school years.*

When we study the Middle East and Africa, we will focus on mineral and natural resources such as gold, oil, diamonds and political and civil warfare. This area has influenced many cultural traditions enjoyed in the west. This course examines the historical, technological, and cultural development of the civilizations located in this part of the world. Course work includes: reading, discussions, map reading, problem solving, research techniques, writing essays and research papers.

**405240 WOMEN'S HISTORY**

Grades 10-12                      0.50 Credit/Semester

This course focuses on the forgotten women: the midwife, the pioneer, the women whose husband left her for the gold fields, the battlefield nurse and the other quiet heroines in America's past. It also takes into consideration the status of today's American women in society as compared to the status of women throughout the world. Students will use a variety of original source material, contemporary news articles and timely video programs to develop an understanding of how roles changed in answer to social demands. The course will culminate with a project wherein students discover the history within their families.

**405242 COMPARATIVE GOVERNMENTS**

Grades 11-12                      0.50 Credit/Semester

This course will focus on the government systems around the globe. With the United States as a point of reference, students will compare and contrast our system to that of others. Students will gain an understanding of the historical arguments of governments and their functions as well as observe the results. A research paper and oral presentations are required components for this course.

**REQUIRED:** Successful completion of American Government

**405244 NATIVE AMERICANS OF NORTH AMERICA**

Grades 10-12                      0.50 Credit/Semester

This course will examine the social, spiritual, and cultural history of American Indians revealing their distinct and diverse history. Students will examine literature, art, film and other media to enhance understanding of

both Indian culture and the history of North America. Students will read novels, write research papers and complete a technology based project during the course.

### **405222 WORLD RELIGIONS**

Grades 9-12                      0.50 Credit/Semester

This course will examine the major world religions from a secular viewpoint. The course will follow the development, growth and impact that religion has had on the world. By examining relative documents, beliefs, practices, and doctrine, students will be better able to understand events that make-up and continue to influence world events. Religions examined will include Judaism, Christianity, Islam, Buddhism, Hinduism, and others as time permits.

### **405224 SPORTS AND ECONOMICS**

Grades 10-12                      0.50 Credit/Semester

This course will focus on fields of economics that relate to sports including franchising, labor economics, salary caps, public financing and revenue sharing. Particular attention will be paid to current day, real-world applications of economics in the sporting world. This will be accomplished through readings (books, newspapers, magazines). Students will also be required to design and present a final project on economics at work in sports.

**REQUIRED:** Successful completion of Economics

### **405226 LEADERSHIP AND LEADERS**

Grades 11-12                      0.50 Credit/Semester

This course is designed for the student who is inspired to lead. Students will study the theory and practice of leadership as they explore the varied principles that apply to their own lives. Analyzing current debates in literature and media and the relationship between theory and practice of leadership are core components of this course. Topics include behavior, power and authority, individual motivation, cohesion, team and group effectiveness and crisis leadership. Students are expected to actively participate in the learning process. Extensive readings, self-analysis and writing are required components of the course.

### **405228 POLITICS AND THE MEDIA**

Grades 10-12                      0.50 Credit/Semester

This course will focus on the role of the media in history and politics. Students will look at the origins of the media in politics and its evolution to today. With a defined focus of the media, students can better understand how elections and rivalries are shaped. Media tracking, research projects and oral presentations are required components of the course. *Please note that this is a reading intensive class.*

**REQUIRED:** Successful completion of American Government.

### **405230 AMERICAN POPULAR CULTURE: 70'S TO THE PRESENT**

Grades 9-12                      0.50 Credit/Semester

From Watergate to the Touch-screen phones, students will get a comprehensive view of the United States cultural history and how it applies to their lives. Students will review the cultural, economic, and political

changes to the landscape with the change from an Industrial country to an Information/Technology-based country. A research project and oral presentations are required components for this course.

**405232 HISTORY AND CULTURE OF THE SEACOAST AND NEW HAMPSHIRE**

Grades 9-12                      0.50 Credit/Semester

This course will focus on Dover, the seacoast and NH area from pre-colonial settlement through the 20<sup>th</sup> century. Students will explore how historical events, economics, and geography of the area affected the lives of citizens, impacted local and national history, and created the current culture. Research, accessing and analyzing information, written communication, and reading will be among the academic skills students will apply and improve throughout the course.

**405234 INTRODUCTION TO ARCHAEOLOGY**

Grades 9-12                      0.50 Credit/Semester

This course will provide students with an introductory level experience in studying culture through the excavation of physical remains. Case studies will highlight ancient societies and illustrate the various methods used to interpret them. Particular attention will be paid to the rich opportunities for understanding local history including the excavation digs at Strawberry Bank in Portsmouth and South Berwick, Maine.

**405599 AP EUROPEAN HISTORY**

Grades 10-12                      2.00 Credits/Year

The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. Without this knowledge, we would lack the context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. In addition to providing a basic narrative of events and movements, the goals of the AP program in European History are to develop (a) an understanding of some of the principal themes in modern European History, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing. *This course will not be offered in 2014-2015.*

# WELLNESS EDUCATION DEPARTMENT

The Wellness Education Program stresses the benefits of being physically, mentally, and socially healthy through real life application. The State of New Hampshire requires a full credit of physical education and a half credit of health for all students. The Dover High School Wellness program is designed around the 21<sup>st</sup>. century learning and performance based assessments to meet the needs of every student. Students complete these credits through a combination of required and elective courses.

We suggest the following sequence of courses:

Freshman Year	Physical Education I
Sophomore Year	Physical Education II and/or Health
Junior/Senior Years	Physical Education II and/or Wellness Elective(s)

## **701110 PHYSICAL EDUCATION I**

Grade 9 0.50 Credit/Semester

This course will be mainly fitness based for students to get moving and be physically active. Students will learn how to enhance personal and physical health and fitness. Topics include aerobic and anaerobic fitness but will be differentiated for all levels of fitness. Students will be graded on performance assessments as well as effort. In addition, team game concepts and project adventure-based activities will encourage lifetime fitness and activity will also be introduced.

***REQUIRED FOR ALL FRESHMEN***

## **702120 HEALTH**

Grades 9-10 0.50 Credit/Semester

This course stresses the physical, mental, and social aspects of health. Units will be designed to enhance a student's awareness of health related issues such as First Aid basics, nutrition, human sexuality, substance abuse and misuse and other current issues in the health field.

**REQUIRED:** Successful completion by the end of sophomore year

## **702110 PHYSICAL EDUCATION II**

Grades 10-12 0.50 Credit/Semester

This course provides skills development in at least four of the following lifetime activities. Fitness activities are included daily, including weight training and cardiovascular fitness. Physical Education II is designed for physical participation. Course offerings may include:

**Volleyball  
Badminton  
Tennis  
Frisbee**

**Golf  
Team Games  
Leisure Sports  
Weight Training**

**Table Tennis  
New Games  
Cardiovascular Fitness**

**REQUIRED:** Successful completion of Physical Education I

### **705120 PRINCIPLES OF SPORTS**

Grades 10-12 0.50 Credit/Semester

This course will provide students with the opportunity to learn the skills to participate in a large variety of sports. An integral part of this course is student presentations and participation in various sports throughout the quarter. Other topics such as Olympics, types of tournament play, adapted sports, good sportsmanship and sports ethics are also stressed.

**REQUIRED:** Successful completion of Physical Education I and Physical Education II

*This course will not be offered in 2014-2015*

### **705122 PERSONAL FITNESS**

Grades 10-12 0.50 Credit/Semester

Personal fitness is a semester course that will allow each student to improve overall fitness and involves strenuous physical participation. The students will have the opportunity to improve their body composition, flexibility, muscular strength and endurance, and cardiovascular endurance along with participation in sport specific and plyometric activities. Throughout the course, students will learn in depth about the components of overall health and fitness. As a requirement, students will construct a personal fitness program to be used as a final project. The project is designed to encourage students to live a healthy lifestyle. Students will participate in pre and post fitness tests.

**REQUIRED:** Successful completion of Physical Education I and Physical Education II

### **705124 PROJECT ADVENTURE (Formerly Outdoor Pursuits)**

Grades 10-12 0.50 Credit/Semester

This course is designed to expand on adventure-based learning activities. Each student will continue with knot work, belaying techniques and the full-value-contract. Students will experience adventure-based learning on high and low elements in addition to trust activities. Participation in a variety of outdoor experiences will also be explored.

**REQUIRED:** Successful completion of Physical Education I and Physical Education II

### **705126 ADVANCED WEIGHT TRAINING**

Grades 10-12 0.50 Credit/Semester

This extensive course is geared towards the serious fitness enthusiast. Students will design a sport specific weight-training program to include 4 days a week of weight training and one day of cardiovascular activity. Students will track their progress utilizing training logs. Various lectures on advanced weight training principles, importance of nutrition and the relationship between weight training and fat-burning will occur throughout the course. This course is designed for students looking for fitness and for athletes looking to address specific improvements in his/her sport.

**REQUIRED:** Successful completion of Physical Education I and Physical Education II and Health

### **705128 BASIC ATHLETIC TRAINING**

Grades 11-12 0.50 Credit/Semester

This course is for students interested in learning more about the field of athletic training. It will cover prevention of athletic injuries; recognition, evaluation, and assessment of injuries; immediate care of injuries; treatment, rehabilitation and reconditioning of athletic injuries; healthcare administration, professional development and responsibilities of athletic trainers. Students will obtain an understanding of anatomy and the effects of injury on the body. Various taping techniques will be learned and applied.

**REQUIRED:** Successful completion of Physical Education I

**705110 UNIFIED WELLNESS**

Grades 9-12 for Athletes            1.00 Credit/ Semester  
Grades 10-12 for Partners

This course will provide students with a comprehensive Wellness Education program. Half of the students will work toward achieving lifelong personal wellness habits by fitness training and learning positive health skills daily. The other half of the students will be provided opportunities to develop mentoring skills by practicing various techniques helping classmates in the development of habits of healthy living. Attendance at either a Regional or State Special Olympics program as a participant or volunteer is required. Athletes in Unified Wellness will receive credit for Physical Education and Health; partners in Unified Wellness will receive credit for Physical Education.

**NOTE:** PERMISSION OF TEACHER

**SPORTS PARTICIPATION**

*Students in grades 10 to 12 may earn ½ Physical Education credit for participation in, and successful completion of, no less than two seasons of an interscholastic sport between their sophomore year and first semester of their senior year. Credit will be given ONLY to those students who qualify for an end of the year award (letter, numeral, star, or certificate of participation). If a student selects this option and has not completed the required participation by the close of quarter 1 in the senior year, they will automatically be enrolled in any available physical education course during semester 2 in order to fulfill the state requirements for graduation.*

# WORLD LANGUAGE DEPARTMENT

The World Language Department believes that languages are for all students, and the selections we offer reflect this belief. Americans live and work in a multilingual environment that will increasingly demand a wider knowledge of others' languages and cultures. Our courses are designed to prepare students to meet that challenge while dramatically expanding their ability to enjoy a life made richer by the insights and wisdom of other peoples, modern and ancient.

The courses are also designed to develop the students' ability to speak, read, write, and comprehend a new language. Upper levels include preparation for the College Board tests. In addition, students examine the cultural background of the people whose language is being studied. In this age of intercultural understanding, it is increasingly important for all students to be exposed to other languages and their cultures.

World Language Course Sequence						
Latin I		French I		Fundamental French I	Spanish I	Fundamental Spanish I
Latin II		French II		Fundamental French II	Spanish II	Fundamental Spanish II
Latin III		French III		Fundamental French III	Spanish III	Fundamental Spanish III
Latin IV Honors	Latin IV	French IV Honors	French IV		Spanish IV Honors	Spanish IV

The sequence of courses beginning with Fundamental French I and Fundamental Spanish I are slower paced.

## French Language Programs

### **601220 FRENCH I**

Grades 9-12                      1.00 Credit/Year

**Let's Speak French!** Students will enjoy learning to speak French in everyday situations such as meeting friends, describing themselves and their daily activities. Through Internet projects, videos, French films and various cooperative learning activities, the students will learn about French culture in the world, life in Paris, and study two Impressionist artists. This course is designed to cover the text in great depth. This is the first course leading to French IV - Honors. The course is recommended for students who prefer a *faster paced* course.

### **602220 FRENCH II**

Grades 9-12                      1.00 Credit/Year

**Speaking French Around the World.** Students will progress to speaking French about ordering and even eating French food, about sports, shopping and about past and future events. Students will do Internet projects, and library research to learn about interesting customs in France and Francophone countries. They will view videos, French films, and participate in various creative cooperative learning activities to enhance

their speaking, reading and writing skills. This course is recommended for students who prefer a faster paced course.

**REQUIRED:** Successful completion of French I

**603220 FRENCH III**

Grades 10-12 1.00 Credit/Year

**Everyday Life & Vacation Activities.** Students will continue to learn about the daily routines of French people at home, in the city and in the country. They will also learn about French Impressionism and take a field trip to the Museum of Fine Arts - Boston. Students will expand their knowledge of the history of Paris. They will work cooperatively in various class projects. Other activities include viewing French films. This course is conducted mostly in French.

**REQUIRED:** Successful completion of French II

**604220 FRENCH IV**

Grades 11-12 1.00 Credit/Year

**From French castles to French rock!** Students will learn about French castles and kings. The class will study French through various media to better learn how to speak, read and write. Students do Internet projects using French sites to learn more about current events in French-speaking countries. Upon completion of this course students will have an excellent understanding of the French language and what makes French such an important world language. This course is conducted in French.

**REQUIRED:** Successful completion of French III

**604320 FRENCH IV HONORS**

Grades 11-12 1.00 Credit/Year

**Crème de la Crème!** This is a truly dynamic course! Each term students study a different topic *en français*: music, history, literature and art. Students sing songs from the Middle Ages to popular songs of today. They will learn more about French Post-Impressionism and Surrealism. They will study important events in French history and the Medieval and Renaissance castles of France. They will read authentic French literature. They see several French films based on history and literature. This course is conducted in French.

**REQUIRED:** Successful completion of French III. *Students with less than a B average in French III may find the Honors course too challenging.*

**601130 FUNDAMENTAL FRENCH I (Formerly French I - Part 1)**

Grades 9-12 1.00 Credit/Year

**Let's Speak French!** Students will learn to speak French in everyday situations such as meeting friends, describing themselves and their daily activities. Through, Internet projects, videos, French films and various cooperative learning activities, students will learn about French culture in the world and study two Impressionist artists. This course is designed to cover the first half of the text at a slower pace and with more practice activities. The course focuses on speaking in the present tense and emphasizes the importance of reading, writing, speaking and interacting.

*This course will not be offered in 2014-2015.*

**601131 FUNDAMENTAL FRENCH II (Formerly French I - Part 2)**

Grades 9-12                      1.00 Credit/Year

**Let's visit Paris!** In this college preparatory course students will progress to speaking French about friends, weekend plans, and ordering and even eating French food. Students will use the Internet to take a "virtual tour" of Paris. They will view videos, and a French film and study two Impressionist artists. Students will continue to participate in various cooperative learning activities to enhance their speaking, reading and writing skills at a slower pace and with more practice activities. Students will cover the second half of the first-year book. At the end of Fundamental French II, students will have completed the equivalent of French I.

**REQUIRED:** Successful completion of Fundamental French I.

*This course will not be offered in 2014-2015.*

**602120 FUNDAMENTAL FRENCH III (Formerly Fundamental French II)**

Grades 10-12                      1.00 Credit/Year

**How To Get Around France.** Students learn about activities in Paris and how to get around on the Paris Metro. They order food and drink at a cafe, shop at a market and taste some French foods. To learn more about French provinces and French-speaking countries students work cooperatively on Internet and library research projects and continue their study of Impressionist artists. They work with a partner and in small groups to practice conversation skills. Students will enjoy two French feature films with English subtitles and French Impressionists. This course continues at a more moderate pace.

**REQUIRED:** Successful completion of French I

**This is the LAST course in this series. From this point, students are encouraged to begin another language.**

*This course will not be offered in 2014-2015.*

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## Latin Language Program

**601230 LATIN I**

Grades 9-12                      1.00 Credit/Year

**Escape from Vesuvius!**

Students learn about the daily life of a Roman family and compare Roman life, customs and language to their own. They study the relationship of Latin to English in vocabulary and grammar. We discover life in ancient Pompeii and Roman Britain and experience the thrill of chariot races and gladiatorial combat. Roman mythology and culture and their impact on Western civilization are also studied.

**602230 LATIN II**

Grades 10-12                      1.00 Credit/Year

**Roman Britain and Egypt.**

This course reviews the material presented in Latin I and the students skills are increased as they follow Quintus from Roman Britain to the city of Alexandria and back. Cultural topics include life in Roman Britain and Alexandria, the baths, seven wonders of the ancient world, the Roman calendar and many aspects of

Roman religion. Students continue to strengthen their understanding of Latin vocabulary and grammar, while projects on cultural and historical events help expose similarities and differences with their own culture.

**REQUIRED:** Successful completion of Latin I

### **603230 LATIN III**

Grades 10-12

1.00 Credit/Year

#### **From Britain to Rome!**

Latin III will develop students' ability to read Latin, while increasing their understanding of Roman history. Students follow the adventures of Quintus and the manipulations of Salvius. This year students read about life in Roman Britain, the political system in Rome and the city of Rome itself. Grammar and vocabulary are reinforced in the context of reading as much Latin as possible! The course is designed to give students the tools, confidence and background knowledge to read original Latin.

**REQUIRED:** Successful completion of Latin II

### **604230 LATIN IV**

Grade 11-12

1.00 Credit/Year

#### **Stories from Roman History**

Latin IV will continue students' exploration of the Roman world and language. Students learn fascinating details about Roman history. Students will read about the emperor Domitian, his political maneuvering, his council and the senatorial career. Students will learn about recitations through Martial's epigrams, and about Roman marriages through various stories. We will study Cleopatra using a variety of sources, and learn about the flamboyance of the Empire in Petronius' *Cena Trimalchionis*. The semester ends with an introduction to poetry featuring the love poetry of Catullus. The focus will be on developing student's ability to understand Latin and expand their knowledge of and interest in the Roman world.

**REQUIRED:** Successful completion of Latin III

### **604330 LATIN IV HONORS**

Grade 11-12

1.00 Credit/Year

**From Republic to Empire.** Latin IV Honors will expand students' exploration of the Roman world and language. Students study the transition from the Roman Republic to the Roman Empire, and learn fascinating details about Roman history. We read Caesar's description of the Druids and his own army, and discover Cicero's eloquence. Students read Pliny's account of life in the eruption of Vesuvius, and learn about the flamboyance of the Empire in Petronius' *Cena Trimalchionis*. The year ends with an introduction to poetry featuring Martial's epigrams. The focus will be on developing students' ability to read original Latin, while projects and assignments on historical and cultural events will give students context for their reading. **As an Honors course, this class will require significant work and dedication.**

**REQUIRED:** Successful completion of Latin III

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# Spanish Language Programs

## **601240 SPANISH I**

Grades 9-12

1.00 Credit/Year

**Our Hispanic Neighbors.** Students will study the customs, language, food, etc., of Spanish-speaking. Using videos, and CDs students will acquire a solid knowledge of elementary Spanish, along with many interesting facts about the daily life of the millions of people who speak it.

**This course is the first in the series leading to the Honors Spanish IV course.**

## **602240 SPANISH II**

Grades 9-12

1.00 Credit/Year

**From Spain to the Americas.** In this course students continue their study of the Spanish language and culture with the addition of CD's and videos. They also study the art of Picasso, Goya, El Greco, Rivera, Kahlo.

**REQUIRED:** Successful completion of Spanish I

## **603240 SPANISH III**

Grades 10-12

1.00 Credit/Year

**A Language for the 21<sup>st</sup> Century.** Students in this course will review the grammar principles learned in Spanish I and II and consider new themes not presented there. Reading, writing and conversational skills will be sharpened as we study the history, geography and culture of many Spanish speaking countries in the world, including the United States. Videos, library work, and special projects are all part of this course; oral participation and homework are part of the grade. This course is conducted mainly in Spanish.

**REQUIRED:** Successful completion of Spanish II

## **604240 SPANISH IV**

Grades 11-12

1.00 Credit/Year

**Los Hispanohablantes.** In fourth year of Spanish students will continue to study the Spanish language and its great diversity of cultures. This course will be conducted mainly in Spanish and students will actively participate in various classroom activities.

**REQUIRED:** Successful completion of Spanish III

## **604340 SPANISH IV HONORS**

Grades 11-12

1.00 Credit/Year

**Viva Espanol!** In fourth year Spanish, students will study the Spanish language and its great diversity of cultures through literature, films and music. Students actively participate in various classroom activities. Written and reading assignments are given daily. **This course is conducted in Spanish.**

**REQUIRED:** Successful completion of Spanish III

*Students with less than a B average in Spanish III may find the Honors course too challenging.*

**601140 FUNDAMENTAL SPANISH I (Formerly Spanish I - Part 1)**

Grades 9-12

1.00 Credit/Year

**“Friends Near Home”** In this college preparatory course students will be introduced to the culture and language of the Spanish speaking people of the world. This course is designed for students who prefer a slower pace to learn the basic concepts of Spanish. This course will encompass the first half of the first year text and will also include films, videos, and CD’s. The course focuses on speaking in the present tense and emphasizes the importance of reading, writing, speaking and interacting.

**This course is the first of 3 courses ending with Fundamental Spanish III.**

**601141 FUNDAMENTAL SPANISH II (Formerly Spanish I- Part 2)**

Grades 9-12

1.00 Credit/Year

**El Mundo Hispanohablante.** In this college preparatory course students will study the language and culture of the Spanish speaking people in Latin America and Spain. This course is designed for students who prefer a slower pace to learn the basic concepts of Spanish. This course will encompass the second half of the first year text and will also include films, videos and CD’s. Successful completion of Spanish I Part 2 is the equivalent of Spanish I.

**REQUIRED:** Successful completion of Spanish I - Part 1

**602140 FUNDAMENTAL SPANISH III (Formerly Fundamental Spanish II)**

Grades 10-12

1.00 Credit/Year

**Let’s Speak Spanish!** In this course students will continue their study of the Spanish language and the Spanish speaking world. This course will use a Spanish II text, stories and videos. This course is a course for students who prefer a slower pace to learn the basic concepts of Spanish.

**REQUIRED:** Successful completion of Spanish I - Part 2

**This is the LAST course in this series. From this point, students are encouraged to begin another language.**

# GENERAL ELECTIVES

## **808840 LIFE SKILLS**

Grades 9-12

2.00 Credit/Year

This course prepares students who need support developing daily living skills and social skills for independent living as an adult. Instruction is developed to meet each student's individual needs. Topics for this course include budgeting, cooking, using the telephone, personal hygiene, choosing healthy lifestyles, and self-advocacy. **Recommendation of case manager or counselor required.**

*This class will not be offered in 2014-2015.*

## **808850 TRANSITIONS**

Grades 11-12

1.00 Credit/Semester

This course focuses on developing and generalizing daily living, vocational, and community-based skills. Instruction is developed to meet each student's individual needs based on their transition plans. Topics covered include daily living skills, self-determination skills, and employment skills. This course is appropriate for juniors and seniors and students with an extended expectation of high school completion. **Recommendation of case manager or counselor required.**

## **808852 LIFE MANAGEMENT**

Grades 11-12

1.00 Credit/Year

This course is designed to help students acquire skills directly related to life management. Focus will be placed on oral and written communication skills related to the job place. In this course, students will practice successful job search and interview techniques and create a highly developed resume and cover letter for a job of their interest. In addition, students will learn how to fill out a variety of forms used in banks, insurance companies, investment companies and employers as well as develop an understanding of the various aspects of banking, budgeting, and investments and the language associated with these. Students will also practice completing a 1040 EZ form. **Enrollment based on review of assessments and recommendation of case manager or counselor.**

## **808854 ORGANIZATIONAL STUDIES**

Grades 9-12

0.50 Credit/Semester

Organizational Studies covers a variety of skills that are necessary for success in high school and later in life. Time management, note taking strategies, planning written work, notebook organization, study skills, test taking strategies, effective research, and methods of research will be topics of study. The class time will be individual activities and homework completion. Students may repeat this course. **Recommendation of case manager or counselor required.**

### **808860 UNIFIED LEISURE ACTIVITIES**

Grades 9-12

0.50 Credit/Semester

This course is designed to allow students who have significant communication and social skills challenges the opportunity to interact with peers and enjoy leisure skill activities such as crafts, games, conversations, and other interactive activities. Participants will improve their communication and social skills, while peer partners will practice modeling, mentoring, and problem-solving skills. All students in the class will establish one or more goals and monitor their progress throughout the course.

### **808870 CAREER EXPLORATION AND PLANNING**

Grades 9-12

1.00 Credit/Semester

This course will introduce students to a wide variety of challenges they will face when joining the workforce. The class will consist of in-class activities, discussion, role-play, and more. Students will explore decision making, money management, banking, job search skills, resume writing, interviewing for a job, and applying for a job. The class time will be divided into different activities consisting of, but not limited to: teacher-led instruction, group activities, individual activities, and homework completion. Students may repeat this course. **Enrollment based on review of assessments and recommendation of case manager or counselor.**

### **808810 FUNCTIONAL MATH & READING**

Grades 9-12

2.00 Credits/Year

This program is appropriate for students who have difficulties with functional reading, writing, and math. The emphasis is on building a sight word vocabulary that is needed to function every day. Topics include safety, restaurant and supermarket words, and reading as well as filling out applications and taking messages. Math skills are addressed through activities such as consumer math skills, time, time management, and measurement. **Enrollment based on review of assessments and recommendation of case manager or counselor.**

# REGIONAL CAREER TECHNICAL CENTER

The Regional Career Technical Center provides students with a focused and unique career and technical education. By combining a CTC program with an appropriate sequence of courses in their high school, students prepare themselves for a variety of options after graduation, including four-year college programs; two-year associate and technical programs; as well as apprenticeships and entry-level positions in their career field.

## *CAREER AND TECHNICAL STUDENT ORGANIZATIONS*

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Student organizations are an essential part of a career and technical education program. Participation in a career and technical student organization (CTSO) provides an opportunity to develop leadership potential, decision-making skills, and a strong work ethic as a member of a team. CTSO students can participate at state and national conferences in competitive events and projects. All career and technical education students are encouraged to be members and to take part in CTSO activities. Active career and technical student organizations at DHS are: **DECA \*\* FBLA \*\* FCCLA \*\* FFA \*\* Skills USA**

## *TRI-CITY CAREER TECHNICAL PROGRAM OFFERINGS*

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In addition to the career technical programs offered at Dover High School and Regional Career Technical Center, students are eligible to select programs offered at Rochester and Somersworth Regional Centers. If you are interested in selecting a program at Rochester or Somersworth, please see your Guidance Counselor, the Career Technical Student Services Coordinator, or the Career Technical Director.

## *NON-TRADITIONAL CAREER OPPORTUNITIES*

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All Regional Technical Center classes and programs are open to both female and male students. The CTC staff encourages all students to consider pursuing non-traditional careers to meet the increasing demand for female automotive, engineering, construction, computer technicians; and male cosmetology, floriculture, and early childhood providers. More and more people are discovering non-traditional careers to be rewarding, fulfilling and challenging. All students should be mindful to select their CTC program based on their interests, skills, and personal goals regardless of gender.

## *CAREER SERVICES*

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The Career Services area provides a central location for students, parents, teachers and community and business partners to access and deliver career planning resources and networking opportunities. Students can visit Career Services to find leads on local employment, internships, COOP, and apprenticeship opportunities. Students can also participate in workshops on a variety of career-related topics. Career Services maintains a list of area businesses that host Job Shadow experiences. Resources are also available to teachers to integrate career development into their curriculum.

## ***CAREER TECHNICAL ENROLLMENT POLICY***

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**How does a student know if he/she is eligible to be selected for a CTC program? Here is the enrollment policy.**

- A. Based on the year that you begin the program, the order of priority for selection is as follows:**
1. Returning second year students who successfully completed Year 1, and, have the endorsement of the CTC Director.
  2. New 11th graders (juniors). Note: 10<sup>th</sup> graders [4 credits] for Cosmetology and PLTW.
  3. Returning students who have requested a different program.
  4. New 10th graders (sophomores).
  5. New 12th graders (seniors).
- B. Programs will review students based upon:**
1. The priority list above.
  2. Attendance and discipline records
  3. Academic records
- C. A student who does not gain entry into his/her first choice will be:**
1. Placed on a 'waiting list', and/or
  2. Allowed a second choice when available, and/or
  3. Notified, in order to select alternative programs.
- D. Each of the sending schools are allowed limited access to CTC programs based on enrollment numbers.** Utilization of allocated enrollments for each sending school will be a factor in admittance to a CTC program.
- F. Exceptions to this policy** may be made for students on a case-by-case basis.

## LICENSING, CERTIFICATIONS, AND OTHER CREDENTIALS AVAILABLE TO CTC STUDENTS

### **Animal Science Program**

- Pet Tech Animal CPR and 1<sup>st</sup> Aid Certification
- CGC—K-9 Good Citizen Certification (American Kennel Club)

### **Automotive Technology Program**

- Accredited by the National Automotive Technicians Education Foundation
- Automotive Service Excellence (ASE) exam.

### **Building Construction**

- OSHA-10 Certification
- CPR & 1<sup>st</sup> Aid Certifications

### **Business & Marketing**

- MOS (Microsoft Office Specialist) Certification for MS Word, MS PowerPoint, MS Excel

### **Computer Technology Program**

- Year 1: A+ certification exam
- Year 2: Network+ certification exam.

### **Cosmetology Program (1500-hour program)**

- NH Licensed Cosmetology

### **Culinary Arts**

- ServeSafe certification, National Restaurant Association Education Foundation.

### **Electrical Technology Program**

- 2-yr program partially fulfills requirements for NH State Electrical Apprenticeship Night School program
- 500-hours work experience toward Journeyman's license
- OSHA-10 certification
- Telecommunication Cabling Certificate

### **Licensed Nursing Assistant Program**

- NH State Board Licensing Exam
- Restorative Aid Certificate
- Pro-Rescuer Certification
- Advanced Skills Certificate
- Certified Phlebotomist
- Dean Vaughn Medical Terminology Certificate

### **Naval Science**

- Cadets who complete 2 years of NJROTC may enter the Army or Navy as an E-2; those who complete 3 years of NJROTC may enter Army or Navy as an E-3.
- Up to 16 college credits available to NJ-ROTC

### **Seacoast Firefighting & EMS C.A.D.E.T. Academy**

- ProBoard Accredited Firefighter I (29 States)
- Professional Rescuer CPR and AED
- NH Wildland Firefighter I
- Nat. Wildfire Coordinating Group: S-103330; S-190; I-100; L-108810
- Hazardous Materials Awareness/Operations
- Standard First Aid and the National Registry of EMT's-EMT Basic Certification

## CAREER TECHNICAL EXPLORATORY COURSES

Students may select from the Exploratory Courses to gain an introduction to and understanding of a variety of career technical programs. In each course, students develop their interests and aptitudes and investigate advanced course offerings. These half-credit courses are designed primarily for students in **grades 9 and 10**, **however juniors and seniors** may enroll on a space available basis.

### **990212 INTRODUCTION TO LIFE SCIENCES**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/Semester

This is a course that serves as an introduction to both horticulture and aquaculture. As part of the horticulture portion of the course, students will learn to care for large tropical plants in the greenhouse "jungle"; plant and care for seedlings, grow and harvest vegetables, and grow a variety of plants hydroponically in the working greenhouse; and plant and care for vegetables grown in the two school gardens. As part of the aquaculture portion of the course, students will learn to set up and maintain a freshwater aquarium, choose compatible groupings of fish, learn about fish anatomy, learn to market and price fish for sale through the "Petals & Fins" classroom store, and help care for the growing population of rescued turtles living in the greenhouse. In addition, students will identify the career opportunities associated with these fields and practice a variety of skills such as information literacy, critical thinking, cooperative group work, self-direction, and problem-solving.

**Note:** This class fulfills ½ credit science elective.

### **990216 INTRODUCTION TO ANIMAL SCIENCE**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

The Animal Science Exploratory class is designed to give students a basic knowledge of animals and an opportunity to interact with a wide variety of farm animals, horses, and domestic pets. This explore program provides students with hands-on learning. The topics covered are animal behavior, equine science, breed identification, nutrition, grooming, farm animals, and barn maintenance. Students who are successful in the explore program may further pursue their interest by taking advantage of our Animal Science I and Equine Science I class offered in their junior year.

**Note:** This class fulfills ½ credit science elective.

### **990220 INTRODUCTION TO BUILDING/ELECTRICAL TECHNOLOGIES**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

This course will engage students in applying those fundamental skills and basic knowledge related to the building and electrical technologies. This will be a hands-on and supportive experience that will give students the opportunity to properly select and safely use the materials related to these programs. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic. This program will introduce students to career and fields of specialization associated in these fields as well as skills useful in everyday life. Students will explore the technologies related to Building Construction and Electrical.

### **990222 INTRODUCTION TO AUTOMOTIVE TECHNOLOGIES**

Grades 9-10 (Grades 11-12 on a space available basis)

0.50 Credit/ Semester

This course will engage students in applying those fundamental skills and basic knowledge related to automotive repair and automotive collision technologies. This will be a hands-on and supportive experience

that will give students the opportunity to understand and experience the techniques, skills adaptations and changing technologies associated with this area. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic. Students will explore the technologies related to Automotive and Automotive Collision.

### **990226 INTRODUCTION TO COMPUTER TECHNOLOGY**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

This Course will engage students in applying those fundamental skills and basic knowledge related to the diverse and ever-changing field of computer information technology. Students are primarily introduced to information technology and computer hardware basics, compatibility issues and common errors, software installation and functions, security risks and prevention. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic. Upon successful completion of the unit course work and activities students can sit for the industry recognized CompTIA Strata examination. The exam will assess the student's knowledge of Green IT and preventative maintenance of computers. The Strata certification can be a stepping stone to higher certifications in CompTIA A+, and with specialized experience, CompTIA Network+, CompTIA Security+ and Microsoft Technology Associate certifications.

### **990228 ENGINEERING EXPLORATION**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

This introductory course will engage students in applying those fundamental skills and basic knowledge related to the diverse and ever-changing fields of engineering. The fundamental skills that engineers use on a daily basis will be introduced. Basics concepts of Computer Aided Design (CAD), robotics, the design process and related skills will be the focus of lab based activities, utilizing problem solving skills.

### **990230 INTRODUCTION TO ELECTRICAL TECHNOLOGY**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

This course will introduce students to 5 fundamental electrical skills; Residential wiring, Commercial wiring, Electronic circuitry, Telecommunication wiring and Green energy; they will be working on various lab projects and have an opportunity to work hands-on with common tools of the trade. In Addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic.

### **990232 INTRODUCTION TO WOODWORKING TECHNOLOGY**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

This Course will engage students in applying those fundamental skills and basic knowledge related to woodworking technologies. This will be a hands-on and supportive experience that will give students the opportunity to understand and experience the techniques, skills adaptations and changing technologies associated with this area. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic.

**990234 SMALL ENGINE AND HOME MAINTENANCE**

Grades 9-10 (Grades 11-12 on space available basis) .5 Credit/Semester

This course will engage students in applying those fundamental skills and basic knowledge of small engine repair and home maintenance. This will be a hands-on and supportive experience that will give students the opportunity to understand and experience the techniques, skills adaptations and changing technologies associated with this area. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21st century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic. Students will explore the technologies related to small engine maintenance, house construction, safe use of hand and portable power tools, finishing, and general home repairs

# AGRICULTURAL AND NATURAL RESOURCES PROGRAMS

The Agriculture and Natural Resources Programs offer students learning opportunities in a career area that includes urban forestry technology, environmental sciences, animal science, and commercial fish farming. The FFA serves an important role in this area by providing opportunities for students to develop leadership skills and to demonstrate technical skills by competing in local, state, and national events.

## **990212 INTRODUCTION TO LIFE SCIENCES**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

This semester-long course serves as an introduction to horticulture, aquaculture, and biochemistry. As part of the horticulture portion of the course, students will learn to care for large tropical plants in the greenhouse "jungle" and grow and harvest vegetables in the school's greenhouse and garden facilities. As part of the aquaculture portion of the course, students will learn to set up and maintain a freshwater aquarium, learn to market and price fish for sale through the "Petals & Fins" classroom store, and help care for the growing population of rescued turtles living in the greenhouse. The biochemistry portion of this course will introduce students to the exciting field of creating new and improved organisms through the manipulation of DNA. In addition, students will identify the career opportunities associated with these fields and practice a variety of skills such as information literacy, critical thinking, cooperative group work, self-direction, and problem-solving. In addition, students will identify the career opportunities associated with these fields and practice a variety of skills such as information literacy, critical thinking, cooperative group work, self-direction, and problem-solving.

**Note:** This class fulfills ½ credit science elective.

## **901215 AQUACULTURE**

All grades

0.50 Credit/Semester

This course explores the aquaculture topics introduced in Introduction to Life Sciences in more breadth and depth. Students will continue to study fish taxonomy, identification, anatomy and physiology, and behavior. Students will also study fish nutrition, fish breeding and parenting, and fish disease diagnosis and treatment. As part of this course, students will hatch and raise brook trout, collect and care for fish from the Cocheco River, and raise blue-channel catfish in the greenhouse ponds. In addition, students will learn how to set up and maintain a saltwater aquarium, study aquatic species native to New Hampshire including turtles and crayfish, and complete an original semester project. This course is perfect for those students who loved the aquaculture portion of Introduction to Life Sciences and are truly interested in aquaculture as a serious hobby or career.

**Required:** Introduction to Life Sciences

**Note:** This class fulfills ½ credit of a life science elective.

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## Animal and Equine Science (2-year programs)

### **990216 INTRODUCTION TO ANIMAL SCIENCE**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

The Animal Science Exploratory class is course designed to give students a basic knowledge of animals and an opportunity to interact with a wide variety of farm animals, horses, and domestic pets. This explore program provides students with hands-on learning. The topics covered are animal behavior, equine science, breed identification, nutrition, grooming, farm animals, and barn maintenance. Students who are successful in the explore program may further pursue their interest by taking advantage of our Animal Science I and

Equine Science I class offered in their junior year.

**Note:** This class fulfills ½ credit science elective. Space in this program is limited to 15 students per class

### **901212 ANIMAL SCIENCE I**

Grade 11(Grade 12 on a space available basis)

1.00 Credit/Semester

This is the first year of a two year program that will focus on general animal care including small large animals. The Animal Science I curriculum will focus on general Animal Science and an in-depth understanding of general animal care (both large and small), animal welfare, nutrition, breed identification, grooming, barn management, feeding and maintaining animals, the general environment to health of all the animals, and career opportunities with small animals. Animals studied include dogs, cats, rabbits, sheep, goats, reptiles, rodents, and other farm animals.

**Required:** Students must submit a CTC program application.

**Note:** This class is a science elective.

### **901213 EQUINE SCIENCE I**

Grade 11(Grade 12 on a space available basis, grade 10 if B or better in Intro) 1.00 Credit/Semester

This is the first year of a two year program that will focus on horses and horse care. The Equine Science I curriculum is based on an in-depth introduction into equine (horses), history and evolution, equine management, equine veterinary care, riding position and control, riding form and function, and related career opportunities. Some portions of this class will be conducted offsite at various Equine clinics throughout the area.

**Required:** Students must submit a CTC program application.

**Note:** This class is a science elective.

### **902210 ANIMAL SCIENCE II**

Grade 11 or 12

1 Credit (Fall Semester, 1 Block)

Students who choose the Animal Science II option will explore the fundamentals of raising and caring for animals, including nutrition, common diseases and their causes, advanced grooming techniques, animal welfare and rights, reproduction, behaviors and handling, and business management. Students will also learn how to perform CPR and first aid on cats and dogs and can receive certification in Pet First Aid and CPR. These skills are necessary for the pet owner and anyone interested in pursuing a career in animal science. During this class, skills are practiced and learned through running the grooming lab and caring for barn animals.

**Certifications available:** Animal CPR and First Aid through Pet Tech.

**Required:** Successful completion of Animal Science I and permission of CTC Director.

**Note:** This class is a science elective.

### **902215 EQUINE SCIENCE II**

Grade 11 or 12

2 Credits/Year

Students who choose the Equine Science II option will focus on veterinary care, training, management, body systems, equine evaluation, and industry as well as a survey of equine-related career opportunities. They will also gain practical experience in the barn through riding and working with the horses. These experiences provide education in form and function of both horse and rider.

Equine II Students that achieve a B or better average for the year gain 4 Credits through UNH for the Equine Care and Handling Techniques class (AAS 437)

*This is a year-long program conducted off-site at the Myrhe Equine clinic located in Rochester, New Hampshire.*

**Required:** Successful completion of Equine Science I, or permission of instructor along with proof of two or more years of sufficient equine experience, and 80% or better on the General Equine Knowledge Assessment.

**Note:** This class fulfills 1 credit science elective.

### **903215 EQUINE SCIENCE III**

Grade 12

2 Credits/Year

Students who choose the Equine Science III option have successfully completed the Equine II program and are interested in expanding on their Equine knowledge and experience. This is a hands on, independent learning experience in which students spend time investigating different facets of the Equine Industry. This includes weekly time in the High Knoll Equestrian Center horse barn, Myhre Equine Clinic, and performing job shadows.

*This is a year-long program conducted off-site at the Myhre Equine clinic located in Rochester, New Hampshire.*

**Required:** Successful completion of Equine Science II with a B average or higher.

### **@903310 HONORS ANIMAL SCIENCE III – VETERINARY SCIENCE**

Grade 12

2.00 Credits (Spring semester, 1 block)

The Animal Science III class is designed for a student who has an interest in the Veterinary Medicine Field. This is a vigorous course that takes an in-depth look at animal anatomy as well as common practices that veterinarians would explore. Genetics, reproduction, vaccinations, veterinary terminology, and maintaining medical records are some of the material covered in this class. Ethical and legal issues in veterinary medicine will also be discussed. In addition to the class work, this course will include hours at local veterinary clinics, and humane societies.

**Note(s):** Qualified students have the opportunity to earn two college credits through the Running Start program at Great Bay Community College.

This class fulfills a science elective.

**Required:** Successful completion of Animal Science I, Animal Science II, with a B- or better and permission of teacher.

### **903317 CANINE SCIENCE**

Grade 11 or 12

1 Credit (Spring Semester, 1 Block)

This class is designed for the canine (dog) enthusiast. It is a class for students who are interested in understanding canine behaviors and training. Part of the class will be a weekly training session and work with their own or a dog from the community. At the conclusion of the semester students will perform the AKC Canine Good Citizen test. Other content areas that will be studied are dog breeds and uses, dog ethics, dog grooming, agility training, showmanship, dogs life cycle, common vaccines and diseases, reproduction and nutrition. At the conclusion of the unit students will take their Pet Tech First Aid and CPR test, to certify them in Animal First Aid and CPR.

**Required:** Successful completion of Animal Science I and permission of CTC Director.

# CAREER TECHNICAL BUSINESS AND MARKETING PROGRAMS

The Business and Marketing Programs offer theory and in-depth practical application to all students. Programs are designed to assist students considering careers in marketing, management, accounting, retailing, and financial services.

*An asterisk (\*) identifies courses that partially satisfy the computer graduation requirement. An (M) identifies courses that are recommended for the Microsoft Office Specialist Certification.*

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## Business Principles (2-year business program)

### **915210 BUSINESS PRINCIPLES I**

Grades 9-12

0.50 Credit/Semester

This is the first course for the business pathway program. This course teaches students the fundamentals of business. Students will learn key terminology used in every business while understanding the importance of team work. Various subjects will be taught including marketing, office technology, finance, economics, business, and more. Coursework will be based on class assignments and projects. Students are encouraged to enroll in our FBLA club; Future Business Leaders of America.

### **915310 BUSINESS PRINCIPLES II**

Grades 9-12

0.50 Credit/Semester

This is the second course for the business pathway program. Students will be introduced to today's critical business management concepts and principles in a realistic, investigative, and enriching manner. Business operations are approached from the entrepreneurial and management perspective. Other topics covered will be business law, contracts, ethics, technology and international business. Students will construct a detailed business plan including but not limited to: executive summary, business description, market analysis, competitor analysis, marketing plan, operating plan, and financial plan. Students are highly encouraged to enroll in our FBLA club (Future Business Leaders of American) prior to the start of this course.

**Required:** Successful completion of Business Principles I.

### **915320 BUSINESS PRINCIPLES III**

Grades 10-12

0.50 Credit/Semester

This is the third course for the business pathway program. Students will be introduced to today's critical business management concepts and principles in a realistic, investigative, and enriching manner. Business operations are approached from the entrepreneurial and management perspective. Other topics covered will be business law, contracts, ethics, technology and international business. Students are highly encouraged to enroll in our FBLA club (Future Business Leaders of American) prior to the start of this course.

**Required:** Successful completion of Business Principles I and II.

### **915420 BUSINESS PRINCIPLES IV**

Grades 11-12

0.50 Credit/Semester

This is the final course in the business pathway program. Students will construct a detailed business plan including but not limited to: executive summary, business description, market analysis, competitor analysis, marketing plan, operating plan, and financial plan. Students are highly encouraged to enroll in our FBLA club (Future Business Leaders of American) prior to the start of this course.

**Required:** Successful completion of Business Principles I, II, and III.

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## Marketing (2-year program)

### **911250 MARKETING AND RETAIL STORE OPERATIONS I**

Grades 11-12

2.00 Credits/Year

In this first course of the 2-year marketing program, students will obtain the knowledge and skills required to reach a comprehensive understanding of the world of retail marketing. Students will learn purchasing, distribution, pricing for profit, promotion, successful selling techniques, and market research. Students learn and apply these skills through the day-to-day operation of the School Store. Students are encouraged to become involved in DECA (an association of marketing students). DECA is a co-curricular component of the marketing program. Students are given opportunities to develop leadership skills and to demonstrate technical skills through competition at the state and national levels.

### **912250 MARKETING AND RETAIL STORE OPERATIONS II**

Grades 12

2.00 Credits/Year

In the second part of this program for marketing, advanced business concepts are introduced in order to complete the student's understanding of the world of business and marketing. The course reinforces material learned in Marketing and Retail Store Operations I and introduces the concept of entrepreneurship, small business management and finance. Students apply learned business skills through the day-to-day management of the School Store. Students are also encouraged to continue their involvement in DECA.

**Required:** Successful completion of Marketing and Retail Store Operations I and permission of CTC Director

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## Computer Programming (2-year business program)

### **915224 \*INTRODUCTION TO PROGRAMMING USING ALICE AND PYTHON**

Grades 10-12

0.50 Credit/Semester

This is an introductory course for learning the fundamental programming concepts with the help of Alice and Python. Alice lets you explore the world of computer architecture by learning essential programming concepts using an on-screen virtual world. Python lets you write the code you need, quickly and easily. Students will use various software packages designed for creating games in small virtual worlds using 3D models.

**Notes:** This course is a prerequisite for courses Visual Basic, C++ Programming, or Game Design Programming I..

**915329 \*VISUAL BASIC 6.0 PROGRAMMING**

Grades 10-12

0.50 Credit/Semester

This course is designed to introduce students to a flexible, visual, event-driven programming language. Students will learn to work with forms, understand controls and properties, add menus, work with variables, create arrays, and work with procedures. They will also learn how to write and debug code, producing custom built operational programs.

**Required:** Successful completion of Introduction to Programming

**915229 \*C++ PROGRAMMING**

Grades 10-12

0.50 Credit/Semester

This course is an introduction to computer science using C++. Computer science is a problem-solving discipline that primarily focuses on the creation of the software systems. Students will be exposed to the elementary data structures and algorithms that are fundamental to computer science. Students will also be introduced to the object-oriented features of C++.

**Required:** Successful completion of Introduction to Programming

**915226 \*GAME DESIGN PROGRAMMING I**

Grades 10-12

0.50 Credit/Semester

This course introduces you to the exciting world of game design, covering the core concepts and giving you hands-on experience with today's most popular game design tools. Projects for this course include designing a classic arcade game and designing a 3D game environment.

**Required:** Successful completion of Introduction to Programming

**915227 \*GAME DESIGN PROGRAMMING II**

Grades 10-12

0.50 Credit/Semester

Create your own games like "Gears of War" using UDKs Unreal Engine 3. Create lifelike scenes and fantastic worlds with the same toolset used to make Gears of War and Infinity Blade. You will have all the tools you need to create great games, advanced visualizations and detailed 3D simulations on the PC and iOS. Come discover the virtual world of Gaming!

**Required:** Successful completion of Game Design Programming I

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## Business Electives

**915212 \*YEARBOOK DESIGN AND PRODUCTION I**

**915213 \*YEARBOOK DESIGN AND PRODUCTION II**

Grades 11-12

1.00 Credit/Year

This class is designed for self-directed, independent students who will enjoy a creative team-approach to producing the high school yearbook. Yearbook publication skills including creating page layouts, writing copy and captions, marketing and ad sales, photography, and computer graphics. Familiarity with graphic computer programs is desired, but not required. Students will learn all about aspects of making the book, plus learn how the yearbook business works. Students will be required to sell advertisements for the yearbook and attend after school events in order to photograph clubs/teams in action. Students will require the use of their own transportation for these activities.

**Required:** Successful completion of Microsoft Word and PowerPoint and approval from the CTC Director.

**915214 \*COMPUTER LITERACY BASICS**

Grades 9-12

0.50 Credit/Semester

This course is organized into three key parts: computing fundamentals, key applications, and on-line utilization. Learn about the various uses of the computer, basic understandings of Microsoft Word, Excel, PowerPoint and e-mail and internet principles.

### **915216 \*ADVERTISING**

Grades 10-12

0.50 Credit/Semester

This class explores the exciting world of advertising, including marketing, promotions, target markets, forms of media, advertisement layouts, and advertising campaigns. During these units, the student will be introduced to Adobe Creative Suite CS4 (Photo Shop, InDesign, and Illustrator). Students will work as a member of a team to develop an advertising campaign and create various forms of advertisements for existing products and/or services, along with creating advertisements for the student store and CTC programs. Throughout this experience, students will also learn about numerous career opportunities in business.

**Required:** Successful completion of Microsoft Word and PowerPoint

### **915218 (M)\*MICROSOFT WORD AND POWERPOINT**

Grades 9-12

0.50 Credit/Semester

Achieve your Microsoft Office 2010 Specialist (MOS) Core Certification in Word and/or PowerPoint. Advance your knowledge in Word by creating and editing documents, writing research papers; developing a resume and cover letter, embedding tables, charts, and watermarks in a document, generating form letters, mailing labels, envelopes and directories, as well as creating a professional newsletter. Students will also learn the essentials of creating presentations and enhancing them with visual elements and various presentations.

**Note:** Students can achieve a Microsoft Office Specialist Certification in Word and in PowerPoint through this course.

### **915220 \*(M) MICROSOFT EXCEL**

Grades 9-12

0.50 Credit/Semester

Achieve your Microsoft Office 2010 Specialist (MOS) Core Certification in Excel. Students will learn to create spreadsheets with embedded charts, and use formulas, functions and formatting to customize the worksheet. This course will also enable students to use what-if-analysis, financial functions, data tables, and create templates.

**Note:** Students can achieve a Microsoft Office Specialist Certification in Excel through this course.

### **915222 \* WEB PAGE DEVELOPMENT**

Grades 10-12

0.50 Credit/Semester

Students will become familiar with the overall website production process, design exercises and learn how to create a web page utilizing ADOBE Dreamweaver CS 4 webpage development software, as well as working with HTML (Hyper Text Markup Language) code. There will also be an overview on how to access the Internet through browsers and search engines.

**Required:** Microsoft Word and PowerPoint

### **915230 ACCOUNTING I**

Grades 10-12

1.00 Credit/Year

This course is an introduction to the world of accounting and business as accounting is known for being the “language of business.” Students will learn the fundamentals of accounting based on the Generally Accepted Accounting Principles (GAAP). This course will allow students to create and interpret financial information for small businesses. Students will prepare and analyze small business transactions, prepare journal entries, adjust entries, and close entries. Students will also prepare a balance sheet, income statement, statement of cash flows, post closing entries and prepare a post closing trial balance. Payroll accounting and taxes will also be discussed. Students who are interested in math and business are highly recommended for this course.

**Recommended:** Successful completion of one of the following: Algebra I or higher.

**®915320 ACCOUNTING II**

Grades 11-12

1.00 Credit/Year

Accounting II is an advanced course where students will develop a better understanding in financial accounting. Students will analyze the accounting cycle for partnerships and merchandising corporations as well as the company's stock. They will take a deeper look into purchases, cash payments, sales and cash receipts. Cash funds, depreciation, and receivables will also be discussed. Students who are interesting in pursuing a career/degree in accounting, financial management, business management, or/and entrepreneurship are recommended to take this course.

**Required:** Successful completion of Accounting I

**Note:** For a fee, students have the opportunity to earn 3 college credits through the Running Start program at Great Bay Community College.

# ENGINEERING, SCIENTIFIC, AND INDUSTRIAL TECHNOLOGY PROGRAMS

The Engineering, Scientific, Industrial Technology Programs offer theory and in-depth practical application to all students. The programs are designed to assist students in attaining realistic career goals and to prepare students for further education.

*An asterisk identifies courses that satisfy the computer graduation requirement (\*).*

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## Project Lead the Way (PLTW) for Grades 10-12

### Pre-Engineering Academy (3-year program)

The Career Technical Center has transitioned to the pre-engineering curriculum, program objectives and courses as outlined and developed by Project Lead the Way (PLTW) which utilizes a six-course sequence. The sequence is designed to help students explore technology-related careers and to prepare them



for two- or four-year technology degree programs. Each class is taught in a laboratory setting using state-of-the-art technology equipment and software. Instruction is approximately one-third theory and two-thirds application, sometimes involving mentors from industry and colleges. Class activities focus on problem solving, through project-based learning, which requires students to work in teams to generate solutions.

Students who participate and/or complete the six sequences of courses as outlined below will have the option to earn college credit, when possible, through articulation agreements, offering a seamless link between high school and college. The course sequence utilizing Project Lead the Way will include the following courses:

#### **990228 ENGINEERING EXPLORATION**

Grades 9-10 (Grades 11-12 on space available basis)

.5 Credit/ Semester

This introductory course will engage students in applying those fundamental skills and basic knowledge related to the diverse and ever-changing fields of engineering. The fundamental skills that engineers use on a daily basis will be introduced. Basics concepts of Computer Aided Design (CAD), robotics, the design process and related skills will be the focus of lab based activities, utilizing problem solving skills.

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#### **921392 \*HONORS INTRODUCTION TO ENGINEERING DESIGN**

Grade 10 (Grade 11 on space available basis)

1.00 Credit/Fall Semester

This course will develop student problem solving skills with emphasis placed on the development of three-dimensional solid models. Students will work from sketching simple geometric shapes to applying a solid modeling computer software package. They will learn a problem solving design process and how it is used in industry to manufacture a product. The Computer Aided Design System (CAD) will also be used to analyze and evaluate the product design. The techniques learned, and equipment used, is state of the art and is currently being used by engineers throughout the United States. This course is an honors level course in the pre-engineering program. Students are to complete a college preparatory sequence of courses in mathematics. Competencies (content standards) are defined by Project Lead the Way.

**Required:** Students must successfully complete CP or Honors Geometry or concurrently enrolled.

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### **922350 \* HONORS PRINCIPLES OF ENGINEERING**

Grade 10 (Grade 11 on space available basis)

1.00 Credit/Spring Semester

This is a broad-based survey course as part of the pre-engineering program as outlined by PLTW. The course is designed to help students understand the field of engineering and engineering technology and its career possibilities. Students will develop engineering problem solving skills that are involved and related to engineering careers. They will also explore the various engineering systems and manufacturing process in conjunction with the social implications and political consequences associated with technological change in our society. This is an honors level course in the pre-engineering program. Students are to complete a college preparatory sequence of courses in mathematics. Competencies (content standards) are defined by Project Lead the Way.

**Note:** Honors Technology credit will be awarded upon successful completion of this course. In addition, students can receive computer literacy (1/2 credit) and visual art (1/2 credit) credit upon successful completion of this year of the sequence and presentation of a portfolio to an approved representative of the respective department.

**Required:** Students must successfully complete CP or Honors Geometry or concurrently enrolled and the completion of Honors Introduction to Engineering Design.

### **923350 HONORS DIGITAL ELECTRONICS**

Grade 11

1.00 Credit/Fall Semester

Continuation of this Honors program, students will be introduced to digital circuits found in video games, watches, calculators, digital cameras, and thousands of other devices. Students will study the application of digital logic and how digital devices are used to control automated equipment. The use of digital circuitry is present in virtually all aspects of our lives and its use is increasing rapidly. This course is an honors level course in the pre-engineering program. Students are to complete a college preparatory sequence of courses in mathematics. Competencies (content standards) are defined by Project Lead the Way.

**Required:** Successful completion of the Honors Introduction to Engineering Design and Honors Principles of Engineering Design or permission of teacher.

### **924350 HONORS COMPUTER INTEGRATED MANUFACTURING**

Grade 11

1.00 Credit/Spring Semester

The Computer Integrated Manufacturing course is designed to apply the principles of rapid prototyping, robotics, and automation. This course builds upon the computer solid modeling skills developed in Introduction of Engineering Design. Students will use computer controlled rapid prototyping and CNC equipment to solve problems by construction actual models of their three-dimensional designs. Students will also be introduced to the fundamentals of robotics and how this equipment is used in an automated manufacturing environment. Students will evaluate their design solutions using various techniques of analysis and make appropriate modifications before producing their prototypes. This course is an honors level course in the pre-engineering program. Students are to complete a college preparatory sequence of courses in mathematics. Competencies (content standards) are defined by Project Lead the Way.

**Required:** Successful completion of the Honors Introduction to Engineering Design, Honors Principles of Engineering Design and Digital Electronics or permission of teacher.

### **925350 HONORS AEROSPACE ENGINEERING**

Grade 12

1.00 Credit/Fall Semester

The course explores the evolution of flight, flight fundamentals, navigation and control, aerospace materials, propulsion, space travel, orbital mechanics, ergonomics, remotely operated systems and related careers. In addition, the course presents alternative applications for aerospace engineering concepts. Utilizing the activity-project-problem-based (APPB) teaching and learning pedagogy, students will analyze, design, and build aerospace systems. While implementing these designs, students will continually hone their interpersonal skills, creativity, and application of the design process. Students apply knowledge gained throughout the course in a final multi-media project to envision their future professional accomplishments. This is an honors level course in the pre-engineering program. Students are to complete a college preparatory sequence of courses in mathematics. Competencies (content standards) are defined by Project Lead the Way.

**Required:** Successful completion of the Introduction to Engineering Design and Honors Principles of Engineering Design, Honors Digital Electronics and Honors Computer Integrated Manufacturing.

### **926350 HONORS ENGINEERING DESIGN AND DEVELOPMENT**

Grade 12

1.00 Credit/Spring Semester

This capstone course is designed to have students work in teams of two to four. Students will design and construct the engineering solution to an engineering problem. These problems can be student generated, part of national challenges or competitions or taken from a database of engineering problems. The major goal of this course is to apply the engineering principles and practices of the preceding courses to real-world problems. Students will also maintain a journal that will be included in their electronic portfolio. Each team will be responsible for delivering progress reports and making final presentations of their project to an outside review panel. The completed electronic portfolio will be a valuable asset and document for student to have when applying for college. This course is an honors level course in the pre-engineering program. Students are to complete a college preparatory sequence of courses in mathematics. Competencies (content standards) are defined by Project Lead the Way.

**Required:** Successful completion of the Introduction to Engineering Design and Honors Principles of Engineering Design, Honors Digital Electronics, Honors Computer Integrated Manufacturing and Aerospace Engineering.

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## **Biotechnology/Bio-manufacturing Academy** (2-semester program)

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 science.

### **®921310 HONORS BIOTECHNOLOGY I**

Grades 10-12

1.00 Credit/1 Block/Year

Biotechnology is the use of living organisms to solve problems or make useful products. In this course students will study the growth and manipulation of organisms, including their component molecules, cells, and tissues. The products of cell culture will be extracted, purified and studied for market performance. In the laboratory, students will practice current good manufacturing practices (GMP's) and standard operating procedures (SOP's). Computers will be used to analyze lab results, compile data via access to public gene and protein databanks and to research topics in Biomanufacturing. Additional topics to be addressed throughout the year include Bioethics, Federal regulation, Genetics, Immunology, and Molecular Biology.

**Note:** For a fee, 11<sup>th</sup> and 12<sup>th</sup> grade students have the opportunity to earn 4 college credits through the Running Start program at Great Bay Community College.

**Required:** Successful completion of Honors or CP Physical Science. This course meets the Biology requirement for graduation.

### **922310 HONORS BIOTECHNOLOGY II**

Grade 11-12

1.00 Credit/1 Block/Year

This course addresses the application of concepts covered in Biotech I. Topics to be investigated include Agricultural advancements, Alternative energy resources, Applied Genetics, Bioethics, Bioinformatics, Bioremediation, Evolutionary relationships, Genomics, Gene manipulation, PCR Pharmacogenomics, and Stem cells. One focus of the class is student research. Students will use GMP's and SOP's to conduct independent study inside and outside of the laboratory. Results will be shared with the Biotech I class. Additionally, Biotech II students will assume lab technician duties. They will prepare lab materials, maintain equipment, analyze potential experimental sources of error, and act as role models for the Biotech I students.

**Note:** Fulfills ½ credit English toward graduation.

**Required:** Successful completion of Honors Biotechnology I and permission of CTC Director.

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# Building Construction Technology (2-year program)

## **990220 INTRODUCTION TO BUILDING/ELECTRICAL TECHNOLOGIES**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

This course will engage students in applying those fundamental skills and basic knowledge related to the building and electrical technologies. This will be a hands-on and supportive experience that will give students the opportunity to properly select and safely use the materials related to these programs. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic. This program will introduce students to career and fields of specialization associated in these fields as well as skills useful in everyday life. Students will explore the technologies related to Building Construction and Electrical.

## **921220 BUILDING CONSTRUCTION TECHNOLOGY I**

Grade 11 (Grade 12 on a space available basis)

2.00 Credits/Year

This is the first course of the Building Construction program. This course covers the basics of building a house. Students learn about foundations, framing, rafters, roofing, insulation, drywall, trim work, flooring, windows, doors and tools. Students will learn these basics both in the class room and as they build various projects. Along the way they will learn how to identify and solve basic material, tool and safety problems. As a junior student become certified in CPR and first aid. When students complete their second year they earn 10-hour training card issued by U.S. Department of Labor (OSHA).

## **922220 BUILDING CONSTRUCTION TECHNOLOGY II (**

Grade 12

3.00 Credits/1 Block/Fall Semester **AND** 2 Blocks/Spring Semester

This is the second course of the Building Construction program which builds on techniques and skills learned in Building Construction Technology I. Energy efficient (green building) techniques will be introduced in this course as well as construction budgeting. Students will increase their skill with hand and power tools, develop a better understanding of how to utilize many forms of material, and obtain a 10 hour OSHA (Occupational Safety and Health Administration) card. With their knowledge of the field, OSHA card, CPR and First Aid certification students will make desirable employees to any employer.

**Required:** Successful completion of Building Construction Technology I and permission from the CTC Director.

**Notes:** Students completing both Building Technology 1 and 2 receive one Math credit toward graduation requirement; also, three college credits available through articulation agreement with Manchester Community College.

**Career Opportunities:** Framing Carpenter; Drywall Hanger/Finisher; Roofing and Siding Carpenter; Mill and Cabinet Carpenter; Finish Carpenter; Contractor.

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# Electrical Technology (2-year program)

## **990220 INTRODUCTION TO BUILDING TECHNOLOGY**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

This course will engage students in applying those fundamental skills and basic knowledge related to the building and electrical technologies. This will be a hands-on and supportive experience that will give students the opportunity to properly select and safely use the materials related to these programs. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic. This program will introduce students to career and fields of specialization associated in these fields as well as skills useful in everyday life. Students will explore the technologies related to Building Construction and Electrical.

## **990230 INTRODUCTION TO ELECTRICAL TECHNOLOGY**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Spring Semester

This course will introduce students to 5 fundamental electrical skills; Residential wiring, Commercial wiring, Electronic circuitry, Telecommunication wiring and Green energy; they will be working on various lab projects and have an opportunity to work hands-on with common tools of the trade. In Addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic.

## **921260 ELECTRICAL TECHNOLOGY I AND RENEWABLE ENERGY SYSTEMS**

Grade 11 (Grade 12 on space available basis)

2.00 Credits/Year

This is the first course in a two-course program that provides students the knowledge and skills necessary to enter the electrical trades as an apprentice electrician. Students during the first year of the program are introduced to electrical careers with the study of basic DC/AC theory and Ohms Law applied to various types of circuits. The students will also be introduced to the safe and proper use of all electrical hand and power tools utilized in the construction trades. Students will also receive 250 hours of hands-on work experience towards their Journeyman's license. There will be various hands-on learning activities in the lab, and a variety of classroom assignments. Students will be introduced to the latest edition of the National Electrical Code and there will always be a strong emphasis on quality work. Renewable energy is derived from generative resources that are naturally replenished, such as sunlight and wind. Solar energy can generate electricity in many ways, including photovoltaic (PV) cells and concentrated solar engines. Wind energy can generate electricity using turbines and generators. As part of the renewable Energy Systems curriculum students will learn about how solar and wind energies are converted, transmitted, stored, configured and installed.

**Costs:** All students are required to a 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.

## **®921360 ELECTRICAL TECHNOLOGY II AND RENEWABLE ENERGY SYSTEMS**

Grade 12

2.00 Credits/Year

This is the second part of a program that is designed for the student who has a definite career interest in the Electrical Trades. The student will learn and be involved in advanced residential and commercial wiring projects. Students will also be introduced to industrial motors and controls and will receive a Telecommunication Cabling Certificate. Students will also complete an OSHA 10 hour safety training program and receive an OSHA 10 card for the construction industry. Students also receive an additional 250 hours of hands-on work experience towards their Journeyman's license. Successful completion of the program will credit students with a portion of classroom and work hours required to obtain a Journeyman Electricians License. Year II is a continuation of the Renewable Energy Systems curriculum from the previous year.

**Required:** Successful completion of Electrical Technology I and permission from the CTC Director

**Notes:** Five college credits available to eligible students through the Running Start Program at Lakes Region Community College.

**Career Opportunities:** Licensed Journeyman or Master Electrician; Cable and Communications Installer; Electrical Contractor; Electrical Sales Representative; Industrial Maintenance Electrician; Alternative Energy Technician; Lineman Electrician.

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# Automotive Technology (2-year program)

## **990222 INTRODUCTION TO AUTOMOTIVE TECHNOLOGIES**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/Semester

This course will engage students in applying those fundamental skills and basic knowledge related to automotive repair and automotive collision technologies. This will be a hands-on and supportive experience that will give students the opportunity to understand and experience the techniques, skills adaptations and changing technologies associated with this area. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic. Students will explore the technologies related to Automotive and Automotive Collision.

## **921290 AUTOMOTIVE TECHNOLOGY I**

Grade 11 (Grade 12 on space available basis)

2.00 Credits/Year

This is part one of a two-part program that is designed to develop the essential skills of service, diagnosis and repair of today's automobiles. Students will be provided instruction in the areas of diagnostic testing and automotive service and repair. Safety and the development of desirable attitudes and work habits will be heavily emphasized. Automotive Technology is accredited by the National Automotive Technicians Educational Foundation (NATEF).

## **®922290 AUTOMOTIVE TECHNOLOGY II (**

Grade 12

3.00 Credits/1 Block/Fall Semester **AND** 2 Blocks/Spring Semester

This is the second part of a program that is designed for the student who has a definite career interest in automotive technology. Building on the skills and knowledge acquired in Automotive Technology I, students will expand their technical skills in areas of steering and suspension, brake systems, engine performance, and engine repair. To be successful in this career field, a person must have the ability to self-learn in order to keep up with the rapid technological changes. Automotive Technology is accredited by the National Automotive Technicians Educational Foundation (NATEF) under the authority of the National Institute of Automotive Service Excellence (ASE).

**Required:** Successful completion of Auto Technology I and permission of CTC Director; **OR** interview and approval from Automotive Technology Instructor.

**Notes:** For a fee, students who complete both Auto Tech I and II have the opportunity to earn 3 college credits through the Running Start program at Manchester Community College (articulation credit also available).

**Career Opportunities:** Automotive Technician, Parts Manager, Sales Representative, Service Manager/Writer, Specialty Technician (airplanes, watercraft, 18-wheelers, motorcycles, ski-doo's, RV's).

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## Automotive Collision Technology (2-year program)

### **990222 INTRODUCTION TO AUTOMOTIVE TECHNOLOGY**

Grades 9-10 (Grades 11-12 on space available basis) 0.50 Credit/ Semester

This course will engage students in applying those fundamental skills and basic knowledge related to automotive repair automotive collision technologies. This will be a hands-on and supportive experience that will give students the opportunity to understand and experience the techniques, skills adaptations and changing technologies associated with this area. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic. Students will explore the technologies related to Automotive and Automotive Collision.

### **990224 INTRODUCTION TO AUTOMOTIVE COLLISION TECHNOLOGY**

Grades 9-10 (Grades 11-12 on space available basis) 0.50 Credit/ Semester

This course will engage students in applying those fundamental skills and basic knowledge of automotive collision technologies. This will be a hands-on and supportive experience that will give students the opportunity to understand and experience the techniques, skills adaptations and changing technologies associated with this area. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic.

### **921230 AUTOMOTIVE COLLISION TECHNOLOGY I**

Grade 11(Grade 12 on a space available basis) 2.00 Credits/Year

This is part one of a two-year course that is designed for a student who has an interest in auto collision repair and refinishing. The class will cover many topics to include: hand and power tools, compressed air systems, vehicle construction, welding equipment and technology, working sheet metal, using body fillers, repairing plastics, service information and specifications, body shop materials and fasteners, panel and glass service, vehicle surface preparation and masking, refinishing equipment and procedures, as well as estimating damaged vehicles. The art of vehicle restoration and custom fabrication will also be explored. Work ethics and occupational service will be emphasized. Students will have the opportunity to repair and refinish damaged vehicles in the lab.

A lab fee of \$40.00 will be required for a personal student respirator.

**Required:** CTC application, entrance interview and approval of Auto Collision Instructor and Director.

### **922230 AUTOMOTIVE COLLISION TECHNOLOGY II** (This is a full-year course)

Grade 12 3.00 Credits/1 Block/Fall Semester **AND** 2 Blocks/Spring Semester

This is the second part of a program that is designed for the student who has a career interest in auto collision repair and refinishing. The class will cover advanced topics to include: body/frame damage measurement,

unibody/frame realignment, welded panel replacement, restoring corrosion protection, chassis service and wheel alignment, electrical/electronic system operation and service, restraint systems, color matching and custom painting, airbrushing and painted pinstriping, paint problems and final detailing, as well as job success and I-CAR certifications. The art of advanced vehicle restoration and custom fabrication will also be explored. Applicable senior projects may be worked into the curriculum.

A lab fee of \$40.00 will be required for a personal student respirator.

**Required:** Successful completion of Automotive Collision Technology I and permission of CTC Director.

**Career Opportunities:** Collision Repair Technician, Vintage Car Restorer, Race Care Fabricator, Estimator, Custom Painter, Insurance Adjuster, Dealership Body Shop Manager, Collision Repair Shop Owner.

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## Computer Technology (2-year program)

### **990226 INTRODUCTION TO COMPUTER TECHNOLOGY**

Grades 9-10 (Grades 11-12 on space available basis)

0.50 Credit/ Semester

This Course will engage students in applying those fundamental skills and basic knowledge related to the diverse and ever-changing field of computer information technology. Students are primarily introduced to information technology and computer hardware basics, compatibility issues and common errors, software installation and functions, security risks and prevention. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic. Upon successful completion of the unit course work and activities students can sit for the industry recognized CompTIA Strata examination. The exam will assess the student's knowledge of Green IT and preventative maintenance of computers. The Strata certification can be a stepping stone to higher certifications in CompTIA A+, and with specialized experience, CompTIA Network+, CompTIA Security+ and Microsoft Technology Associate certifications.

### **921240 \*COMPUTER TECHNOLOGY I**

Grades 10-11 (Grade 12 on space available basis)

2.00 Credits/Year

This course (an Authorized CompTIA Academy class) is an in-depth study of personal computer hardware and operating systems, this course prepares a student for the Test Out PC Pro and/or the CompTIA Strata certification exams. Focus is on identification, installation, configuration, and troubleshooting field replaceable components and Green IT. Topics include safety, electro static discharge, The Visible PC, Path to a PC Technician, microprocessors, memory, BIOS and CMOS, expansion bus, motherboards, power supplies, floppy drives, hard drives, SCSI devices, CD and DVD media, video, sound, portable PC's, printers, networks, the internet, and Windows operating systems. (CompTIA) recommends A+ knowledge and/or A+ Certification as a prerequisite and/or pathway to sitting for other advanced CompTIA certification exams.

**Required:** Successful completion of Introduction To Computer Technology or permission of teacher.

### **® 922240 \*COMPUTER TECHNOLOGY II**

Grade 11-12

2.00 Credits/Year

This is the second part of the Computer Technology program (an Authorized Cisco Systems Network Academy Information Technology Essentials class) that provides an in-depth study of the computer systems through the highly recognized Cisco Network Academy, which results in college credit through our affiliation with Great Bay Community College. Through this course, students prepare for the CompTIA A+ Certification and they receive a certificate of completion from Cisco. Focus is on advanced PC repair. Having an industry recognized Certification notably improves a student's ability to get a job in the IT industry. Additional Industry recognized certifications that can be achieved upon completing the Computer Technology II credential options may include Microsoft Technical Associate certifications (Network Fundamentals &

Windows Operating System Fundamentals), additional CompTIA certifications (Linux, Security+, Servers, IT Healthcare) IC3 Certification, and any other relevant vendor specific certifications like HP. **Required:** Successful completion of Computer Technology I and permission of CTC Director.

**Note:** Three college credits available to eligible students through the Running Start Program at Great Bay Community College.

**Career Opportunities:** Computer Engineer, Computer Repair, Network Engineer, Network Manager, Systems Analyst, Systems Engineer, Telecommunications.

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## Woodworking Technology

### **990232 INTRODUCTION TO WOODWORKING TECHNOLOGY**

Grades 9-10; Grades 11-12 on space available basis 0.50 Credit/ Semester

This Course will engage students in applying those fundamental skills and basic knowledge related to woodworking technologies. This will be a hands-on and supportive experience that will give students the opportunity to understand and experience the techniques, skills adaptations and changing technologies associated with this area. In addition, students will identify the career opportunities and fields of specialization associated with these technologies. Integrated into this program are important 21<sup>st</sup> century skills such as information and media literacy, critical thinking, cooperative work groups, self-direction, creativity and a positive work ethic.

**Notes:** This course can be used to meet the state Fine Arts requirement; lab fee applies.

### **921270 WOODWORKING AND DESIGN**

Grades 10-12 1.00 Credit/Year

This course provides a solid foundation in the techniques and skills used in traditional and contemporary woodworking. Students will learn basic skills in joinery, lathe turning, bent laminations and wood carving. Once they master the fundamentals, students will design and construct the projects of their choice under teacher supervision. Tools can range from chip carving knives to Macintosh computers.

**Notes:** This course can be used to meet the state Fine Arts requirement; lab fee applies.

### **922270 WOOD SCULPTURE AND DESIGN**

Grades 11-12 1.00 Credit/Year

This is an advanced course for experienced students who already have a basic foundation in woodworking and design skills. Through the execution of individualized woodworking projects, students learn to incorporate more advanced sculptural and aesthetic concepts into their woodworking.

**Required:** Successful completion of Woodworking and Design and permission from CTC Director

**Notes:** This course can be used to meet the state Fine Arts requirement; lab fee applies.

**Career Opportunities:** Pattern Maker; Cabinet Maker; Furniture Designer and Maker; Refinisher; Custom Woodworker.

# HEALTH AND HUMAN SERVICES PROGRAMS

Health and Human Services Programs in the Career Technical Center focus on healthy living, food service, and personal services.

## Seacoast Firefighting & EMS C.A.D.E.T. Academy (2-year program)

**931210 FIREFIGHTER ACADEMY I** Grades 11 – 12 2.00 Credits/Year

**932210 FIREFIGHTER ACADEMY II** Grade 12 only 2.00 Credits/Year

**Required:** All second-year Firefighter 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.

Help is on the way ... to put you on track toward a fast-paced, high-demand, rewarding career in Firefighting and Emergency Medical Services. 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. 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 in arts degree. Students also have the opportunity to earn and submit volunteer Student Service Learning hours throughout the year.

**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: Students entering grades 11 and 12 may apply. All Academy 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 grade level.

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# NAVAL SCIENCE /NJROTC (Navy Junior Reserve Officers Training Corps)

## Public Administration and Government (Grades 9-12)

Junior Reserve Officer Training Corps (JROTC) programs were set up as part of the National Defense Act of 1916 with the principle to maintain a national program of training centered on the young citizens attending secondary schools. The Navy JROTC program was validated during congressional hearings preceding passage of the ROTC Vitalization Act of 1964. NJROTC is not an officer-producing program, but it is designed to create favorable attitudes, impressions, and skill sets for students seeking careers in public service and government through the development of core competencies in leadership, management, policy analysis, human resources management, and information technology.

The Naval Service Training Command prescribes the courses for Naval Science.

### **What subjects are included in the curriculum?**

The Naval Service Training Command routinely updates the curriculum to include new texts, instructional materials, and lesson plans. The curriculum is developed and revised by civilian educators and NJROTC instructors. The wide variety of subjects includes the following:

- **CITIZENSHIP** -- Instillation of values of good, responsible citizenship.
- **NAVAL ORIENTATION** -- Basic introduction to the Navy's customs and traditions.
- **NAVAL OPERATIONS/ORGANIZATION** -- Familiarization with national naval strategy and daily military operations.
- **NAVAL HISTORY** -- History of the United States Navy from the colonial period to the present.
- **NAVIGATION** -- Introduction to piloting and navigation.
- **SEAMANSHIP** -- Introduction to basic seamanship and ship handling.
- **LEADERSHIP** -- Ongoing study of leadership, with opportunities to develop leadership abilities.
- **NAUTICAL ASTRONOMY** -- Study of astronomy and its use in navigation.
- **ELECTRONICS** -- Introduction to electronics as the basis for communications and weapons systems.
- **OCEANOGRAPHY** -- Information on the collection of data on the world's ocean systems.
- **DRILLS, COMMANDS, AND CEREMONIES** -- Close order drill and parade ceremonies.
- **PHYSICAL FITNESS** -- Activities to promote healthy, active lifestyles.

**931270 NAVAL SCIENCE I – The Introduction of NJROTC and Cultural Studies**

Grades 9 -12

1.00 Credit/Semester

**PURPOSE:** To introduce students to the precepts of citizenship, the elements of leadership, and the value of scholarship in attaining life goals The Cultural Studies half of the course introduces students to world cultures through the study of world affairs, regional studies, and cultural awareness.

**COURSE CONTENT:** Includes introduction to the NJROTC program; Followership / Leadership, Citizenship, the American Government; physical fitness and the U.S. Navy and introduction to the U. S. Navy. Cultural Studies delve into history, geography, religions, languages, culture, political systems, economics, social issues, environmental concerns and human rights.

**932270 NAVAL SCIENCE II - Maritime History, Leadership and Nautical Sciences**

Grades 9 -12

1.00 Credit/Semester

**PURPOSE:.** The purpose of this course is designed to engender a sound appreciation for the naval history and heritage in the United States of America. Understand maritime geography as it relates to national resources, landforms, climate, soil, bodies of water, people, governments, military and geopolitics. Comprehend approaches to effective leadership and factors influencing behavior in leadership roles.

**COURSE CONTENT:** Includes ongoing instruction into Leadership; introduction to Maritime History, including the American Revolution, Civil War, the rise of the U. S. to world power status, World Wars 1 and 2, the Cold War Era and the 1990s and Beyond; introduction to Nautical Sciences to include Maritime Geography, Oceanography, Meteorology, Astronomy, and Physical Sciences.

**933270 NAVAL SCIENCE III- Naval Knowledge, Leadership, and Nautical Skills**

Grades 9 - 12

1.00 Credit/Semester

**PURPOSE:** The purpose of this course is to further develop the understanding and importance of sea power and national security, naval operations, military and international law and naval leadership. Investigate the role of Sea Power and National Security. Demonstrate knowledge of the challenge of leadership, the qualities of an effective leader, how to evaluate performance and give instruction. Students gain a more in-depth knowledge of Naval ships and aircraft and an introduction to marine navigation and seamanship.

**COURSE CONTENT:** Includes instruction in Sea Power and National Security, Naval Operations and Support Functions, Military Law, and International Law and the Sea. Provides introduction to Ship Construction and Damage Control, Shipboard Organization and Watch Standing, Basic Seamanship, Marine Navigation, and Naval Weapons and Aircraft. Ongoing instruction in leadership, citizenship and discipline.

**934270 NAVAL SCIENCE IV**

Grades 9 - 12

1.00 Credit/Semester

**PURPOSE: Naval Science IV is a leadership practicum designed to give NS IV students supervised practical application of previously studied leadership theories and be afforded the opportunities to apply those traits and principals in a leadership situation.** Focused primarily on practical leadership techniques and implementation. The intent is to assist seniors in understanding leadership and improving their leadership skills by putting them in positions of leadership, under supervision, then helping them analyze the reasons for their varying degrees of success throughout the year. 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 to include college preparation, scholarship applications, and the variety of choices that are available to them.

**COURSE CONTENT:** Includes instruction in theoretical and applied aspects of leadership, training, and evaluation of performance. Students will become aware of the techniques used to create motivation, develop goals and activities for a work group, and the proper ways to set a leadership example. Students are provided access to ACT/SAT prep courses, guidance in selecting a college and pursuing available scholarships, and mentoring in establishing long range life goals.

**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.

**Application Process**

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 type written one-page paper stating why they would like to enroll in the Naval Science program. This will be followed by an interview by the Naval Science staff at Dover High School.

**Costs:** \$50 for shoes.

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

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 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 healthcare career interest.

*Dover High School CTC Career application & acceptance process required.*

### **931260 HEALTH SCIENCE I (LNA I)**

Grade 11 (Grade 12 on space available basis)

2.00 Credits/Year

This course will provide students the information and skills that will enable nurse assistants to provide safe quality care for patients, residents and clients. Students will demonstrate and recognize the importance of the nurse assistant's role in improving the quality of life for their patients and residents. Students will also learn critical communication skills, how to work as team members in a clinical environment. Medical Terminology Certificate course is embedded in the curriculum. HST I students will complete 180 hours of instruction and 60 hours in a clinical setting. Each is expected to successfully complete the American Heart Association Professional Rescuer CPR & AED. HST I completers will sit for the NH Board of Nursing License Nursing Assistant exam. A passing grade of 70% must be achieved prior to sitting the New Hampshire State Licensure Exam for Licensed Nursing Assistant. Students accumulated clinical hours, evenings, weekends and after-school. They are expected to arrange for their own transportation.

**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.

**Required:** HST students must be *at least* 16 year of age, provide two references, and successfully complete an entrance interview. Each year all HST I & II 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 subject to change.

**Note:** This course is a science elective. Students can also earn 3 college credits for Medical Terminology through the Running Start program at Great Bay Community Technical College.

### **932260 HEALTH SCIENCE II (LNA II)**

Grade 12

2.00 Credits/Year

HST II students will complete 145 hours of Instruction (~~LNA II~~) as well as all clinical hours and responsibilities. Students will acquire additional skills and perform tasks such as: Advanced Nursing Skills training which will include urine testing, urinary straight catheterization, oxygen administration, pulse oximeter, aseptic technique, sterile dressings, disease process and treatment common in restorative care, total

hip, knee replacement surgery and pre- and post-operative care. Clinical observations will take place at area health care facilities.

Students develop their nursing skills and professional practices through direct patient care and job shadow experience. Assessment opportunities provided by clinical instructor and industry professionals. The students will receive, on successful completion, Advanced and Restorative Skills Theory & Clinical certificates. Students will also have an opportunity to earn a Summer Internship Certificate at Boston's Children's Hospital Student Career Opportunity Outreach Program (SCOOP). Boston's Children's Hospital application & acceptance process required.

**Required:** 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.

**Note:** This course is a science elective.

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## Culinary Arts (2-year program)

### **931240 CULINARY ARTS I**

Grade 11(Grade 12 on space available basis)

2.00 Credits/Year

This innovative, creative adventure into the world of food service exposes you to culinary and pastry arts. You'll work on the same industry equipment used by chefs throughout the world. First-year students will learn about sanitation, food fundamentals, knife skills, stocks, sauces, basic cooking techniques, basic baking, food presentation, guest relations, and dining room procedures.

**Cost:** (subject to change) Uniform and shoes \$125.00

### **932240 CULINARY ARTS II**

Grade 12

4.00 Credits/2 Blocks/Year

Second-year students will focus on advanced cooking techniques and presentation, food and labor costs, purchasing procedures, food service management, catering, menu creation and design, and advanced cooking techniques and customer service. All students will assist in the operation of the CTC'S restaurant, "Gourmet Table." Students will have the opportunity to participate in leadership development and culinary competitions through SkillsUSA.

**Cost:** (subject to change) Uniform and shoes \$125.00

**Required:** Successful completion of Culinary Arts I and permission from the CTC Director

**Credentials:** ServeSafe certification for sanitation--food service sanitation examination offered through the National Restaurant Association.

**Running Start credits:** Students may earn up to 12 Running Start credits at Lakes Region Community College

**Career Opportunities:** Restaurant manager; Caterer; Executive Chef; Food Service Director; Baker/Pastry Chef; Banquet Chef.

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## Cosmetology (3-year program)

Cosmetology is a three-year program beginning in Grade 10. The objective of the program is to acquire the skills and knowledge necessary for entry-level employment and to pass the NH State Board of Cosmetology Exam with a required score of 75 percent or better. To be eligible to take the exam, each student must have successfully completed 1,500 hours of instruction. All new students are required to register with the NH Board of Cosmetology at a cost designated by the State Board. Each student is required to purchase and wear a uniform and white or black rubber soled shoes. Students will work on both mannequins and live models throughout the three-year program.

### **931250 COSMETOLOGY I**

Grade 10

2.00 Credits/Year

This course deals with the practical basics of shampooing, scalp and hair treatments, infection control, hair design, facials, make-up application, manicure and pedicure instruction.

**Cost** (subject to change): Supplies, uniform, and NH Cosmetology registration fee: \$100.00

**Required:** Good academic standing, history of good school attendance, and other criteria established by the CTC director.

### **932250 COSMETOLOGY II**

Grade 11            4.50 Credits/Year (3 blocks fall semester/2 blocks spring semester)

Second-year students improve their practical basic skills in hair design and haircutting. Chemical services are introduced in theory and practical skills for permanent waving, hair coloring and hair relaxing are implemented in the lab. Students will work on mannequins, peers and be introduced to working in the school salon on clients. Theory instruction continues with the science and math components associated with the cosmetology profession. **Cost** (subject to change): \$75.00 Lab and supplies fee

**Required:** Successful completion of Cosmetology I with a minimum of 250 hours accumulated and permission of CTC Director

### **933250 COSMETOLOGY III**

Grade 12            4.50 Credits/Year (2 blocks fall semester/3 blocks spring semester)

Students in the third year will experience and study advanced haircutting, hair coloring and texture services. Theory will consist of chemistry, electricity, anatomy and physiology, skin, and salon entrepreneurship. Cosmetology III also includes a project-based salon management unit that allows students to explore all aspects of Spa and Salon operations; including, but not limited to the physical design, inventory, and financial operation. Students will also begin preparation for their final state examination resulting in licensing by the NH Board of Cosmetology. The State Board of Cosmetology requires a grade of 75% or better in order to acquire a NH Cosmetology license. The NH State Board of Cosmetology determines the cost of the exam. All licensing fees and equipment is the responsibility of the graduate.

**Cost:** (subject to change) Supplies and lab fee \$75.00 **Required:** Successful completion of Cosmetology II with a minimum of 750 hours accumulated and permission of CTC Director.

**Career Opportunities:** Salon Receptionist, Hair Designer, Manicurist, Hair Color Technician, Platform Artist and Demonstrator, Salon Manager, Salon Owner, Instructor, Esthetician (make-up artist), State Board Inspector, State Board Examiner, Salesperson for Beauty Companies, Cosmetic Retail, Educational Specialist, Writer and Publisher of beauty industry material.

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# Family & Consumer Science

## **925280 HOUSING AND INTERIOR DESIGN**

Grades 9-12

0.50 Credit/Semester

In this course, students study housing needs and options for individuals and families throughout the life cycle, assess historical aspects and contemporary trends in housing, interiors, furniture and appliances while applying the elements and principles of design in selecting and arranging textiles and furnishings for home satisfaction. Topics of focus include: housing and furniture styles ; ownership options; wall design; negative and positive space relationships; measurements; color theory; blueprint reading; creating functional, safe and aesthetic space; perspective, elevation and isometrics drawings; model building and exploring housing-related careers. The project-based approach in the course utilizes higher order thinking, communications, creativity, and management processes in integrating housing and interior design content through the use of computer aided applications.

**Note:** This class is a Fine Arts elective.

## **925282 CLOTHING DESIGN & NEEDLEWORK I**

Grades 9-12

0.50 Credit/Semester

Perfect your ability in hand and machine sewing by applying basic stitching techniques in embroidery, quilting, pattern design and a clothing construction project. Explore a variety of new textiles used in clothing.

## **925283 CLOTHING DESIGN & NEEDLEWORK II**

Grades 9-12

0.50 Credit/Semester

Advance your sewing skills with facings, collars, plackets, bound buttonholes and linings. If you have a career interest in fashion or tailoring, this course will provide you with a foundation in creating clothing using designer patterns.

**Required:** Clothing Design & Needlework I

## **931220 EARLY CHILDHOOD DEVELOPMENT**

Grades 9, 10, 11,12

0.50 Credit/Semester

This course is designed to study human growth and development from conception through age 12 using the “ages and stages” approach. Students will study the physical, social, emotional, moral, and intellectual development of young children. Prominent theories of child psychology, learning, and play will unlock valuable insight into the inner workings of childhood as it relates to parenting and career applications. Students will practice lifetime learning skills through project-based analysis, observation, and interaction with children at one private and one public early childhood learning centers. Guidance, behavior management, and positive interaction skills will be emphasized. Experience the difference you can make in the life of a child.

**Career Opportunities:** Early childhood education, family studies, pediatric medicine, child psychology and parenting.

### **932220 CHILDHOOD DEVELOPMENT**

Grades 10, 11 &12 *only*

1.00 Credit/Year

This course is designed to study human growth and physical, social, emotional, moral, and cognitive development from conception through the pre-teen years. Prominent in-depth study of child psychology theories, research findings, learning, culture, and play will unlock valuable insights into the inner workings of childhood as it relates to parenting and career applications. Students will complete a case study utilizing project-based analysis, research, observation, and interactions with children at both, private and public early childhood learning centers. Guidance, behavior management, and positive interaction skills will be emphasized. Students will plan and present learning activities for implementation in preschool classrooms.

**Career Opportunities:** Early childhood education, family studies, pediatric medicine, child psychology and parenting.

### **935230 FAMILY AND CONSUMER SCIENCE**

Grades 9-12

0.50 Credit/Semester

In this course, students learn to set priorities and make decisions, cope with pressures and family crisis, manage personal resources, use consumer information, develop positive interpersonal relationships, establish a satisfying living environment, plan for a healthy lifestyle, meet clothing needs, cooking, and explore career options.

### **935232 FOODS AND NUTRITION**

Grades 10-12

0.50 Credit/Semester

This course will focus on the social, cultural, scientific, health, and local agricultural connections to food. It encourages wise consumer habits, engages students in effective food marketing, supports the use of reliable nutritional information, and studies the relationship of nutrients to growth and health. Students will demonstrate the use of proper measurements, equipment, safety, sanitation, food preparation skills, and creative food presentation techniques in cooking for themselves and others.

**Career opportunities:** Supports further study in culinary, health, education, agriculture, science and dietetics.

# CAREER PLANNING OPPORTUNITIES

Through the Career Services Office students have the opportunity to enroll and participate in a variety of work-based learning activities.

## **COOPERATIVE EDUCATION PROGRAM**

Grades 11-12 .25 credit for every 120 hours of training

The Cooperative Education Program (COOP) combines career and technical coursework with part-time paid work experience. Training agreements outline what students are expected to learn and what employers are expected to provide. Students develop occupational skills and apply concepts learned in the career technical classroom. Supervised work-based learning experiences enable students to gain work skills while they earn elective credit toward graduation.

## **INTERNSHIP PROGRAM**

Grades 11-12 0.25 Credit for every 120 hours of training

The Internship program can be a paid or unpaid work experience structured to help demonstrate practical applications for academic learning. Students earn school credit, develop on-site occupation skills, and relate academic knowledge to careers and the world of work. Internship opportunities are posted in the Career Services Office.

## **JOB SHADOW PROGRAM**

Grades 10-12 No Credit

Each school year, several job shadow opportunities are hosted by local businesses for students with related career interests. Students are also encouraged, as part of their own career exploration process, to arrange their own job shadow experience. Students spend a half- or full-day in a business setting learning from people already in a career field of interest. Career Services maintains a list of local businesses willing to host individual Job Shadows for interested students.



## **® GRAPHIC DESIGN/ PRINTING TECHNOLOGY I**

(Rochester)

Grade 11

2.00 Credits/Block/Year

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 (Photoshop and QuarkXpress) to layout and design your projects. The Graphic Arts industry offers a wide range of career opportunities that employs both men and women. Job titles include graphic designers, page-layout artists, camera operators, pre-press technicians, computer operators, plate makers, press operators, bindery workers, computer programmers, chemists and estimators. 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 class will fulfill the fine arts requirement for graduation.*

**PREREQUISITE:** Career and Technical Education application required.

## **® GRAPHIC DESIGN/ PRINTING TECHNOLOGY II**

(Rochester)

Grade 12

2.00 Credits/Block/Year

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 (Photoshop, Illustrator, and QuarkXpress), 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. Additionally, they will gain real-world experience by working with actual customers and learning to further develop their skills. The student 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:** Career and Technical Education application required.

## **DIGITAL MEDIA & COMMUNICATIONS**

(Somersworth)

Grades 11-12

2.00 Credits/Block/Year

This program offers eight quarter-long courses from the Arts, Audio/Video Technology & Communications Career Cluster. All classes in the program meet the state computer education requirement for graduation.

**DIGITAL MEDIA I:** Consists of courses in HTML 5, Adobe Dreamweaver, Adobe Fireworks, and Coding II.

**DIGITAL MEDIA II:** Consists of courses in Adobe Flash Professional, Adobe Premiere Pro, Adobe Photoshop, and Adobe Illustrator.

**Career Opportunities:** Web Developer, Graphic Designer, Desktop Publishing, Web Administrator, Videographer

## **BANKING & FINANCE**

(Rochester)

Business and financial operations careers are projected to grow over 24% in the next ten years. Students interested in learning financial planning, global economics and the concepts, processes, procedures and systems unique to the banking industry are highly encouraged to participate in this program. The required courses for completion of the Banking & Finance CTE Program are:

Accounting 2, Banking Professional, and World of Finance and Business. Students within Region 12 can also take component courses at their home schools if available then complete the capstone courses at the Richard W. Creteau Regional Technology Center.

### ***BANKING PROFESSIONAL***

Grades 11-12 1.00 Credit/Block/Semester

The HRCU Branch is open to the school as well as the public providing an excellent opportunity for “hands-on” learning and exposure to all aspects of banking. Professional dress and appearance will be required. Students will be trained as professional HRCU tellers and will experience all activities of working a teller window. They will learn how to handle cash, balance their cash drawers, be familiar with HRCU’s products and services, Federal Regulations, credit union structure and history, negotiable instruments, counterfeit currency, professionalism, and gain personal financial knowledge. There will be job shadow days to the Brock Street Branch and other departments. Guest lectures will be delivered by the president, members of the Board of Directors, and other HRCU employees. Students have the opportunity to become involved in the student organization, FBLA, which offers many opportunities for community service, leadership, travel and conferences. *Note: All students will be interviewed by the manager of the Spaulding Branch of Holy Rosary Credit Union and will be accepted into the class upon the manager’s approval.*

**PREREQUISITE:** Career and Technical Education application required, two teacher recommendations, and interview with instructor.

### ***WORLD OF FINANCE AND BUSINESS***

Grades 10-12 1.00 Credit/Block/Semester

Explore finance as it relates to business, banking and as an entrepreneurial enterprise. Finance will be examined from a global perspective as it relates to topics that include ethics, the law, and economic resources. This course will allow students to discover necessary skills, qualities, and tools needed to build a sturdy foundation for a profitable business. Students will assess opportunity costs and trade-offs involved in making choices about how to use economic resources. Students have the opportunity to become involved in the student organization, FBLA, which offers many opportunities for community service, leadership, travel and conferences.

**PREREQUISITE:** Career and Technical Education application required.

### **PRECISION MACHINING 1**

(Rochester)

Grade 11 2.00 Credits/Block/Year

The Precision Machining Technology program is a hands-on program that provides students with an opportunity to learn machining techniques and to develop the skills needed to enter the many career related fields related to metals/composites manufacturing. Students will learn the importance of precision measuring and cutting. Students learn to care for, set-up and operate the drill press, engine lathe, milling machine and associated machine tools. Students will be introduced to welding as well as Computer Aided Manufacturing (CAM), Computer Numerical Control (CNC), and MasterCAM software. Students will have the opportunity to work on our Haas CNC lathe and 4-axis milling manufacturing centers. Safety instruction related to the proper use of equipment and methods will be emphasized. Engineering by Design.

**PREREQUISITE:** Career and Technical Education application required

### **PRECISION MACHINING 2**

(Rochester )

Grade 12 2.00 Credits/Block/Year

The Precision Machining Technology 2 program continues with students learning more about different types of metals/composites and materials used in the manufacturing machine trades along with all aspects of Industry. This program provides more advanced study of areas covered in Precision Machining Technology 1, and students will utilize Computer Aided Manufacturing (CAM), Computerized Numerical Control (CNC), and MasterCAM software. Students will have the opportunity to work on our Haas CNC lathe and 4-axis mill manufacturing centers. Students will have many opportunities to design, set-up, and manufacture parts on the CNC machines throughout the year. Guest speakers from industry and post secondary educational representatives will offer an insight to career opportunities. Safety instruction related to the proper use of

equipment and methods will be emphasized. Engineering by Design *Note: This is a college level course and students are eligible to receive college credit.*

**PREREQUISITE:** Career and Technical Education application required, and successful completion of Precision Machining Technology 1.

### **PLUMBING TECHNOLOGY 1**

(Rochester)

Grades 11 2.00 Credits/Block/Year

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 classroom 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.

### **PLUMBING TECHNOLOGY 2**

(Rochester)

Grade 12 2.00 Credits/Block/Year

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. *Note: Successful completion of this program will allow the student to qualify the first year of the NH Apprenticeship program leading up to licensure as a master plumber.*

**PREREQUISITE:** Career and Technical Education application required, and successful completion of Plumbing Technology 1.

### **INDUSTRIAL, COMMERCIAL, & AGRICULTURAL MECHANICS (ICAM) 1**

(Somersworth)

Grade 11, 12 2.00 Credits/Block/Year

Students will learn to use the machinery, tools, equipment, and supplies needed in many occupations for today's ICAM careers. They will demonstrate the safety, use and operation of agricultural, commercial and industrial-related equipment—both hand and power operated. Major topics include stick, mig, tig, and oxyacetylene welding, metal fabrication equipment, and small engine repair and rebuilding

**Required:** Career and Technical Education Application

### **INDUSTRIAL, COMMERCIAL, & AGRICULTURAL MECHANICS (ICAM) 2**

(Somersworth)

Grade 12 2.00 Credits/Block/Year

The second year of this program is a continuation of ICAM with room for students to specialize in certain skill areas. Projects both instructor-assigned and student-planned will be utilized in this program. Upon completion of the program, a student will be qualified for employment in the field of small engine repair, metal fabrication and welding, recreational vehicles assembly, and other entry-level industrial careers.

**PREREQUISITE:** ICAM I

