

## Newmarket Jr/Sr High School Program of Studies 2024-2025

School Board Approved: 1/19/2024

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## FOREWORD

Greetings High School Students:

The information contained in the 2024-2025 Program of Studies is important and should be examined carefully as you plan your course of studies for the upcoming school year and beyond. Newmarket High School offers a rich selection of core and elective programming, designed to prepare you for success beyond high school. Classes are offered at different levels, ensuring that every student has access to programs at an appropriate level of challenge. Courses of study are outlined by academic and elective departments, including those at the Seacoast School of Technology (SST), and virtual instruction through the Virtual Learning Academy Charter School (VLACS). Other possibilities for credit go beyond traditional offerings, such as Extended Learning Opportunities (ELO), internships, college coursework and employment exploration. Each of these provide options for you to personalize experiences that can enrich and enhance your education.

I encourage you to invest in yourself by taking time to review all academic choices available to you. Teachers, counselors, and your parents should be consulted as you consider your selections, in conjunction with your goals and objectives. Thoughtful planning and informed decision-making will help you to make the most of your high school experience!

Sincerely,
Andrew Korman, PhD
Principal


## Mission Statement

Our mission is to provide opportunities for students to realize their potential in a safe and tolerant environment. Our goal is to develop a solid academic foundation of basic skills, critical thinking and creativity. We commit to fostering respect, trust, self-awareness, and an appreciation of cultural, ethnic, lifestyle, and learning diversity. We accept the responsibility for preparing our students to function successfully as productive individuals and responsible citizens in a complex and technological society. To this purpose, we, the administration, staff, parents, and students, dedicate ourselves to work together to create a community of lifelong learners.

## Newmarket Vision of a Graduate ${ }_{\text {(adopted }{ }^{\circ} \text { ct 2023) }}$

## A Newmarket Graduate is a(n)....

1. Person of Character: The mental and moral qualities distinctive to an individual exemplified through compassion, respect, responsibility, and engagement.

A person of character is someone who...

- Shows care and respect for oneself and others
- Demonstrates integrity and is accountable for their actions
- Is willing to give, receive, and ask for help
- Is engaged and willing to collaborate
- Shows resiliency when faced with challenges

2. Innovative Thinker: Uses analysis, creativity, and critical thinking skills to pursue new ideas, to develop new knowledge, to make decisions, and to solve problems.

An innovative thinker is someone who...

- Is self-reflective and learns from their mistakes
- Is inquisitive and investigative
- Is resourceful, creative, and adaptive when looking for solutions to problems
- Perseveres and stays dedicated through challenges
- Uses critical thinking when evaluating and analyzing information

3. Effective Communicator: Clearly conveys thoughts, feelings, and ideas effectively and respectfully to a diverse audience.

An effective communicator is someone who...

- Writes, speaks, and communicates to inform, influence, motivate, or entertain a variety of audiences
- Employs effective reading skills and active listening strategies to advance understanding
- Makes use of and acknowledges the impact of verbal and nonverbal communication
- Acts and responds in a manner that is appropriate to the circumstance
- Cooperates with others by respectfully listening and sharing ideas

4. Life-long Learner: Approaches life with curiosity, reflection, and resourcefulness while seeking out new knowledge, skills, and experiences.

A life-long learner is someone who...

- Keeps an open mind throughout life by identifying opportunities for continued growth and self-improvement
- Understands and connects learning with current world topics
- Takes advantage of both formal and informal opportunities to learn new skills and knowledge
- Adapts to change and is responsive to feedback
- Can locate and apply resources to solve problems

5. Active Community Participant: Being culturally aware, open-minded, and inspired to contribute to communities both locally and globally.

A person who engages in their community is someone who...

- Embraces diverse perspectives when considering issues locally, nationally, and globally
- Contributes to solutions that benefit a wider community
- Is aware of and respects other ethnicities, cultures, and lifestyles
- Understands the function of society and their role within it
- Engages those with differing opinions through respectful discussion

6. Healthy and Balanced Individual: Having the ability to take care of one's physical and emotional well-being while managing time between academics, extra-curriculars, family, social life, and work. A healthy and balanced individual is someone who...

- Demonstrates maturity and responsible decision-making
- Has the ability to set boundaries and utilize time management skills to manage priorities
- Is able to self-regulate and find outlets to manage stress
- Explores interests and curiosities
- Develops and maintains healthy relationships and social support
- Establishes good habits such as adequate sleep, healthy eating, physical activity, and self-care


Newmarket Jr/Sr High School is accredited by the New England Association of Schools and College, Inc., a non-governmental, nationally-recognized organization whose affiliated institutions include elementary schools through collegiate institutions, which offer post-graduate instruction.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality, periodically applied through a peer group review process. An accredited school or college is one that has available the necessary resources to achieve its stated purpose through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Inquiries regarding the status of an institution's accreditation by the New England Association should be directed to the administrative staff of that school or college. Individuals may also contact the Association:

New England Association of Schools and Colleges<br>3 Burlington Woods Drive, Suite 100<br>Burlington, Massachusetts 01803-4514<br>(781) 425-7700 or toll-free (855) 886-3272

## School Profile

Located 60 miles north of Boston in the Seacoast Region of New Hampshire, Newmarket has been evolving from a manufacturing town to a residential community over the past decades. Newmarket's school system serves a growing town of approximately 10,000 . Despite its growth, Newmarket retains its small-town atmosphere and great community spirit. The University of New Hampshire, Great Bay Community College, Portsmouth and Boston are in close proximity.

Newmarket Jr/Sr High School provides a comprehensive curriculum of College Prep, Honors, and Advanced Placement courses. Seven Advanced Placement courses are offered in English, Science, Mathematics and Social Studies. Fourteen Honors level courses are offered in English, Mathematics, Science, Social Studies, World Language, and selective Seacoast School of Technology programs. Advanced coursework is also offered through Dual Enrollment options through several colleges, Independent Studies, and Extended Learning Opportunities.

The Seacoast School of Technology (SST) provides students with a focused and unique career and technical education program. By combining the SST Program with an appropriate sequence of courses, students prepare themselves for a variety of options, including two- and four-year colleges and universities, apprenticeships and entry level positions in a career field. With twelve programs offered at SST, students can pursue programs such as Biomedical Science, Health Science Technology, Pre-Engineering, Welding, and Computer Science to name a few. Students may take classes at the Virtual Leaving Academy Charter School (VLACS). Special Education and ESOL services are also provided.

Newmarket Jr/Sr High School provides a wide range of athletic programs and competes in NHIAA Division IV. A wide variety of clubs and co-curricular organizations and opportunities are offered to students including National Honor Society, Student Council, Net Zero and the Interact Club.

## Graduation Requirements

The table below outlines the credits required to graduate from Newmarket High School, as approved by the Newmarket School Board.

| Subject | Credit Requirement | Required Courses |
| :--- | :--- | :--- |
| English | 4 credits | English 9, 10, 11, 12 |
| Math | 4 year math experience includes <br> 3 math credits | Algebra 1 |
| Science | 3 credits | Physical Science and Biology |
| Social Studies | 3 credits | Foundations of U.S. History, <br> Western Civilization or Geography, <br> Civics $(1 / 2$ credit $)$ and Economics <br> $(1 / 2$ credit $)$ |
| Technology Literacy | $1 / 2$ credit |  |
| Fine Arts | $1 / 2$ credit | Fine Arts or Music |
| Health | $1 / 2$ credit | PE $9(1 / 2$ credit $)$ |
| Physical Education | 1 credit |  |
| Electives | $101 / 2$ credits for the Class of 2025 <br> $91 / 2$ credits for the Class of 2026 <br> $81 / 2$ credits for the Class of 2027 |  |
| Total Graduation Requirements | $\mathbf{2 6}$ credits for the Class of 2025 <br> $\mathbf{2 5}$ credits for the Class of 2026 <br> $\mathbf{2 4}$ credits for the Class of 2027 |  |

# Traditional Courses Required at Each Grade Level 

| Freshman: | English 9 | 1 credit |
| :---: | :---: | :---: |
|  | Mathematics | 1 credit |
|  | Physical Science | 1 credit |
|  | Foundations of U.S History | 1 credit |
|  | PE 9 | $1 / 2$ credit |
|  | Health | $1 / 2$ credit |
|  | Freshman Seminar | $1 / 2$ credit |
|  | Electives | 2 credits |
| Sophomores: | English 10 | 1 credit |
|  | Mathematics | 1 credit |
|  | Biology | 1 credit |
|  | Western Civilization or Geography | 1 credit |
|  | Electives | 3 credits |
| Juniors: | English 11 | 1 credit |
|  | Mathematics | 1 credit |
|  | Science elective | 1 credit |
|  | Civics and/or Economics | $1 / 2$ credit each |
|  | Electives | $31 / 2$ credits |
| Seniors | English 12 | 1 credit |
|  | 4th year math experience | 1/2 credit |
|  | Civics and/or Economics (if not already completed) | $1 / 2$ credit each |
|  | Electives | 4 credits |

# School-to-Career Partnership and Programming and Extended Learning Opportunities 

Students may participate in a variety of programs and opportunities to earn credit toward graduation.
Extended Learning Opportunities (ELOs): The New Hampshire Department of Education defines extended learning as, "the primary acquisition of knowledge and skills through instruction or study outside of the traditional classroom methodology, including, but not limited to: independent study; private instruction; performing groups; internships; community service; apprenticeships; and, online courses." ELOs in Newmarket must be pre-approved by administration, have a faculty sponsor, and meet the competency requirements of the course/material being studied. ELOs can be used in any content area.

Community Service: Work in the community helping other people, and, at the same time, earn school credit toward graduation, possibly for credit; requires an application and administration approval. Students may perform community service for high school credit with an application. Types of community service may include volunteering at hospitals, nursing homes, daycare centers, nursery schools, veterinary clinics, town offices, food pantries, and the Salvation Army. Credit is awarded based upon the number of hours of service. Students can earn one-quarter (.25) credit upon completion of 45 hours of documented community service. A maximum of one credit can be earned during high school (upon completion of 180 hours of community service).

Job Shadowing: Explore career choices through observing people at work in a variety of jobs in the community, for several hours or a day at a time.

Internships: Spend several days or weeks at worksites related to career choices, possibly for credit; requires an application and administration approval.

Cooperative Education: Combine classroom instruction and paid or non-paid work experience related to career choice.

Independent Study: Learn independently with less supervision and direction than a typical class. Requires an application and administration approval. Students often take independent studies to learn about a specific subject not taught in their high school, or a subject that they want to further their knowledge about. The student must choose a focus, as well as request an advisor. They must fill out the Independent Study paper- work and have it approved by a parent, administrator and School Counselor, before adding it to their sched- ule and beginning the Independent Study.

Post-Secondary School and College Agreements: Take a course at a technical school or college while still studying as a student at Newmarket Jr./Sr. High School.

Apprenticeships: Work as a registered youth apprentice at a trade or technical school worksite.
Alternative Learning Plans: The purposes of alternative learning plans are to provide students with educational experiences that are meaningful, to provide students with opportunities to explore and achieve at high levels, and to meet State and District requirements to obtain a high school diploma or its equivalent. In order to maximize student achievement, this policy permits students to employ alternative learning plans that fulfill or exceed the expectations set forth by State minimum standards and applicable Board policy.

Alternative learning plans may include extended learning opportunities taken for credit or taken to supplement regular academic courses. If the alternative learning plan includes extended learning opportunities taken for credit, the provisions of Policies IMBC, Alternative Credit Options and IHBH, Extended Learning Opportunities, will apply. The granting of credit shall be based on a student's mastery of course competencies, as defined by Policies ILBA, Assessment of Educational Programs and ILBAA, High School Competency Assessments. Highly Qualified Teachers and the Principal must authorize the granting of credit for learning accomplished through extended learning opportunities. If credit is not granted, the extended learning opportunity may be used to fulfill prerequisite requirements for other courses. Please see your school counselor for more information.

## Career Clusters

Career Clusters is a national concept that organizes school curricula around broad, general career paths that the NH Department of Education is now promoting. They provide a format to link school-based learning with career-related experiences. Following the US Department of Education's generic model of sixteen large categories, the clusters consist of: Agriculture, Food \& Natural Resources; Architecture \& Construction; Arts, A/V Technology \& Communications; Business, Management \& Administration; Education \& Training; Finance; Government \& Public Administration; Health Science; Hospitality \& Tourism; Human Services; Information Technology; Law, Public Safety \& Security; Manufacturing; Marketing, Sales \& Service; Science, Technology, Engineering \& Mathematics; and Transportation, Distribution \& Logistics.

The concept of Career Clusters will help students map out their academic high school experience with the connection of college and career options for the future. You can learn more about Career Clusters on the following pages.

## Career Cluster- Business

The Business Cluster prepares students for college and careers in related occupations such as:

- Accounting
- Advertising
- Banking
- E-Commerce
- Entrepreneurship
- Finance
- Human Resources
- Insurance
- Management
- Marketing
- Purchasing
- Retail
- Sales
- Small Business Management

Why choose a career in Business?
If you want to work in a corporate environment, open your own business, or learn how to manage your own personal finances, a Business career will provide you with the opportunity to learn about business careers and help you determine your educational and employment goals.
...Better to learn now, before the expense of college.

## Is this the career path for you?

- Do you like the idea of working in an office environment?
- Do you enjoy organizing, planning, and talking?
- Do you like to work with numbers or ideas?
- Would you enjoy balancing a checkbook?
- Are you interested in following the stock market?
- Are you comfortable working in groups or with a team?
- Are you interested in owning your own business some day?
...If you answered "yes" to some of the questions above, a career in Business may be right for you!

| Business Course Options | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| :--- | :---: | :---: | :---: | :---: |
| Tech \& Society (.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ |  |  |
| Web Development (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Principles of Marketing (.5 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Accounting I (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Social Entrepreneurship (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Creative Writing (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Intro into Hospitality Management (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Current Events (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Intro to Sociology (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Personal Finance (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Probability \& Statistics (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Digital Media Arts at SST (2 credits) OR |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Marketing Technologies at SST (2 credits) |  |  | $\mathbf{X}$ |  |

# Career Cluster- Computer \& Information Technology 

## The Computer \& Information Technology Cluster prepares

 students for college and careers in related occupations such as:- Computer Support Specialist
- Web/Video Game Developers
- Database Administrators
- Application Software


## Developers

- Network Administrators
- Computer Systems Analyst
- Information Security Analyst
- Computer Network Architects
- Cloud Computing Engineer
- Software Engineer

Why choose a career in Computer
\& Information Technology?
The field of Computer and Information Technology makes use of computers to solve problems, including hardware and software. However, computer and information technology is very broad and includes programming languages, computer system design, network architecture, website design, computer animation, robotics, technical support, and many more disciplines.
...Better to learn now, before the expense of college.
Is this the career path for you?

- Do you enjoy solving complex technical issues?
- Do you like computer programming?
- Do you enjoy tinkering with computers?
...If you answered "yes" to some of the questions above, a career in Computer \& Information Technology may be right for you!


| Computer \& Information Tech <br> Course Options | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| :--- | :---: | :---: | :---: | :---: |
| Tech \& Society (.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ |  |  |
| Web Development (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Web Development II (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Programming with Python (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| CAD (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| 3D Modeling (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Architectural Design (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| International Relations (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Physics (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Pre Calculus (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Calculus (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Probability \& Statistics (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Computer Science at SST (2 credits) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |

## Career Cluster- Digital Art

The Digital Art Cluster prepares students for college and careers in related occupations such as:

- Business of Art \& Design
- Computer Animation
- Entertainment Design
- Film
- Fine Art
- Game Art
- Graphic Design
- Illustration
- Motion Design
- Photography \& Imaging
- Virtual Reality Development

Why choose a career in Digital Art?
The field of Digital Art focuses on preparing students for 21st century career options in the visual arts. Students who pursue a degree in these creative fields will be developing a professional portfolio in support of a career in design, advertisement, digital/multimedia, photography, or web design. Choices within the elective course options allow for students to shift the focus of their learning toward digital photography/editing or graphic design based learning.
...Better to learn now, before the expense of college.

## Is this the career path for you?

- Do you enjoy using computer software to bring art to life?
- Do you enjoy being creative and innovative?
- Do you enjoy seeing a project all the way through?
...If you answered "yes" to some of the questions above, a career in Digital Art may be right for you!


| Digital Art Course Options | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| :--- | :---: | :---: | :---: | :---: |
| A Little Bit of Everything Art (0.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ |  |  |
| Advanced Art ( 0.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Photography I (0.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Drawing (0.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Painting (0.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Counter Clockwise (0.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Tech \& Society (.5 credit) |  | $\mathbf{X}$ |  |  |
| Web Development (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| CAD (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| $3 D$ Modeling (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Architectural Design (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Pre Calculus (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Calculus (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Probability \& Statistics (1 credit) |  |  |  | 12 |

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## Career Cluster- Education

The Education Cluster prepares students for college and careers in related occupations such as:

- Teaching Assistants
- Preschool Teachers
- Special Education Teacher
- Kindergarten/Elementary

School Teacher

- Middle/High School Teacher
- Postsecondary Teacher
- Recreation (Camp

Director)

- Youth Leader
- Social Work/Counselor


## Why choose a career in Education?

A career in Education is for students who have an interest in exploring a career in early childhood, elementary, secondary or post-secondary teaching and guidance related services.
...Better to learn now, before the expense of college.

## Is this the career path for you?

- Do you enjoy making a difference?
- Do you like interpersonal interaction?
- Do you benefit from variety?
- Do you look forward to life-long learning?
...If you answered "yes" to some of the questions above, a career in Education may be right for you!


| Education Course Options | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| :--- | :---: | :---: | :---: | :---: |
| Tech \& Society (.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ |  |  |
| Foods I (.5. credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Accounting I (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Creative Writing (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Intro into Hospitality Management (.5 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Intro to Sociology (.5 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Intro to Psychology (0.5 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Probability \& Statistics (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Careers in Education at SST (2 cr per year) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| ELO at Newmarket Elementary School |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Spanish 1 |  |  |  |  |
| Spanish 2 |  | $\mathbf{X}$ |  |  |

## Career Cluster- Engineering

The Engineering Cluster prepares students for college and careers in related occupations such as:

- Civil, Electrical, Mechanical, or Industrial Engineering
- Civil, Electrical, Mechanical, or Industrial Technician
- Quality Control Inspectors
- Architecture and Design
- Machine Operators
- Project Management
- Data Analyst
- Academic Research

Why choose a career in Engineering?
Students should participate in the Engineering cluster if they like to design products and systems and have an interest in solving problems. The cluster is designed to place a focus on science, math, and engineering-related course work.
...Better to learn now, before the expense of college.

## Is this the career path for you?

- Are you good at and enjoy problem solving?
- Do you work well under pressure?
- Do you enjoy analyzing facts and figures and using logical thinking practices?
- Are you naturally curious and detail oriented?
...If you answered "yes" to some of the questions above, a career in Engineering may be right for you!


| Recommended Year |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Engineering Course Options | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| Tech \& Society (.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ |  |  |
| Web Development (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| CAD (.5 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| 3D Modeling (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Architectural Design (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| AP Chemistry (1.0 credits) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Physics (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Pre Calculus (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Calculus (1 credit) |  |  |  | $\mathbf{X}$ |
| AP Calculus AB (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Pre Engineering at SST (2 credits) or |  |  |  |  |

## Career Cluster- Health Science

The Health Science Cluster prepares students for college and careers in related occupations such as:

- Licensed Nursing Assistant
- Medical Assistant
- Registered Nurse
- Pharmacist/Technician
- Phlebotomist/Technician
- Radiologist, Audiologist
- Medical Doctor
- Health Informatics specialist, Case manager
- Speech pathologist
- Psychologist
- Optometrist
- Physical/Occupational Therapist
- Athletic Trainer


## Why choose a career in Health Science?

Students should consider courses in the Health Science cluster if they have an interest in healthcare careers. The healthcare industry is one of the largest providers of jobs in the United States and according to the U.S. Bureau of Labor Statistics; occupations related to healthcare are projected to have one of the fastest job growths to 2026.
...Better to learn now, before the expense of college.

## Is this the career path for you?

- Do you enjoy working with your hands?
- Do you enjoy helping people by assisting and promoting health and wellness?
- Do you like to use your abilities to integrate input from multiple sources, commit to a plan with confidence, and articulate the reasoning behind it?
...If you answered "yes" to some of the questions above, a career in Health Science may be right for you!


| Recommended Year |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Health Science Course Options | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| Health ( 0.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ |  |  |
| Personal Fitness (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Anatomy and Physiology- Movement \& More (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Anatomy and Physiology- Insides \& You (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Physics (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| AP Biology (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| AP Chemistry (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Intro to Sociology (.5 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Intro to Psychology (.5 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Pre Calculus (1 credit) |  |  |  |  |
| Calculus (1 credit) |  |  |  |  |


| Health Science Technology at SST (2 credits) OR |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| :--- | :--- | :--- | :--- | :--- |
| Biomedical Science \& Technology at SST (2 credits) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |

Career Cluster- Law, Public Safety, \& Security

The Law, Public Safety, \& Security Cluster prepares students for college and careers in related occupations such as:

- Police Officer
- Firefighting
- Lawyer
- Paralegal or Legal Asst.
- Officers of the court
- FBI
- Criminal Psychologist
- Judge
- Criminal Justice
- Home and Security
- Private Detective \& Investigator


## Why choose a career in Law, Public Safety, \& Security?

The Law, Public Safety and Security Cluster is for students interested in the broad career areas of law, public safety, and security.
...Better to learn now, before the expense of college.

## Is this the career path for you?

- Do you like the idea of protecting people?
- Can you work in the face of danger?
- Do you want to help people figure out the legal system?
...If you answered "yes" to some of the questions above, a career in Law, Public Safety \& Security may be right for you!


| Law, Public Safety \& Security <br> Course Options | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| :--- | :---: | :---: | :---: | :---: |
| Creative Writing |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Intro to Psychology |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Intro to Sociology |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Non-Fiction True Crime |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Forensics |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Criminology | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Journalism | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| World Language |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Tech \& Society |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Accounting |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Pre Calculus or |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Probability \& Statistics |  |  |  |  |
| ELO/NH Police Cadet Training Academy |  |  | $\mathbf{X}$ |  |

## Career Cluster- Life Science

The Life Science Cluster prepares students for college and careers in related occupations such as:

- Veterinary Assistant
- Veterinary Technologist \& Technician
- Biological Technician
- Biology Teacher
- Marine Biologist
- Ecologist
- Geneticist
- Biochemist
- Veterinarian
- Zoologist
- Fish \& Game

Why choose a career in Life Sciences?
Students should participate in the Life Sciences Cluster if they have an interest in careers related to the study of life and organisms. This cluster is designed to prepare students for a career focusing in field and laboratory research. .
...Better to learn now, before the expense of college.

## Is this the career path for you?

- Do you enjoy science?
- Do you enjoy research, experiments, or analyzing samples?
- Are you fascinated by life and all its scientific processes?
...If you answered "yes" to some of the questions above, a career in Life Science may be right for you!

| Life Science Course Options | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| :--- | :---: | :---: | :---: | :---: |
| Tech \& Society (.5 credit) | $\mathbf{X}$ | $\mathbf{X}$ |  |  |
| Web Development (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Pre Calculus (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Calculus (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Zoology (.5 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Physics (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| AP Environmental Science (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| AP Biology (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Anatomy \& Physiology- Insides \& You (1 credit) |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Anatomy \& Physiology- Movement \& More (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| Animal \& Plant Science at SST (2 credits) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |

## Career Cluster- Fine Art

The Fine Art Cluster prepares students for college and careers in related occupations such as:

- Artist
- Art Dealer
- Curator
- Gallery Owner/Director
- Sculptor
- Set Designer
- Fine Cultural Writer/Critic
- Exhibition Designer
- Art Historian
- Art Educator/Professor
- Art Appraiser
- Art Writer

Why choose a career in Fine Art?
This cluster aims to provide students with the means to undertake self-direction work within a broad range of disciplines. The structure of the Fine Art Cluster provides a means by which students can contextualize their work while forming a knowledge and understanding of fine art practice.

## Is this the career path for you?

- Do you enjoy creating aesthetically appealing works that capture an audience's attention?
- Do you like to express your ideas, messages or emotions through your works of art?
- Would you like to have the freedom to choose your clients and projects to work on?
- Do you enjoy working independently?
...If you answered "yes" to some of the questions above, a career in Fine Art may be right for you!


| Recommended Year |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fine Art Course Options | $\mathbf{9}$ | $\mathbf{1 0}$ | $\mathbf{1 1}$ | $\mathbf{1 2}$ |
| A Little Bit of Everything Art | $\mathbf{X}$ | $\mathbf{X}$ |  |  |
| Advanced Art |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Studio Art |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Intro to Photography |  | $\mathbf{x}$ | $\mathbf{X}$ |  |
| Ceramics |  | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Advanced Ceramics |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Counter Clockwise | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Art of Stained Glass | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Intro to Painting | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Drawing | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Intro to Woodworking |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| Advanced Woodworking |  | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |
| 3D Modeling | $\mathbf{X}$ | $\mathbf{X}$ | $\mathbf{X}$ |  |
| Web Development |  |  | 18 |  |


| Probability \& Statistics (1 credit) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |
| :--- | :--- | :--- | :--- | :--- |
| Digital Media Arts at SST (2 credits) |  |  | $\mathbf{X}$ | $\mathbf{X}$ |

## DESCRIPTION OF HIGH SCHOOL COURSE LEVELS

A student's schedule should be balanced according to his or her strengths, challenges, and interests. In subject areas where a student easily learns new content or skills, Honors, Advanced Placement, or Dual Enrolment courses should be considered. In other cases, a standard college preparatory course may be taught at a pace that enables a student who struggles with learning a particular subject to succeed. All core-courses in English, Social Studies, Science, Mathematics and World Languages have a level designation as explained below.

## Advanced Placement (AP)

Advanced Placement is reserved for those courses approved by the College Board as having met their college-level curriculum criteria during an annual AP Course Audit process. Advanced Placement courses a.) are very rigorous, b.) utilize a course of study similar to a college course, and c.) culminate in a national exam in May. These courses may require additional summer work which must be completed prior to the start of the school year. All students are strongly encouraged to take the AP exam, for which the College Board charges an exam fee to the student. Students who experience financial hardship may be eligible for fee reduction.

## Honors

Honors courses are designed for students who demonstrate exceptional academic ability, achievement, and motivation. Some College Preparatory classes offer the opportunity for students to contract for Honors designation by agreeing to be responsible for additional work.

## College Preparatory

College Preparatory course subject matter is approached in greater depth and with increased rigor. Students receive college and career-ready preparation at this level.

## Prerequisite Waiver:

Students may complete a form if they have not completed the grading requirements to enroll in a given class but wish to take the course anyway. There are classes that require a $\mathrm{B}+$ or higher average in the prior class in order to enroll in the class. Please see the following class descriptions to identify the classes that require the B+ or higher average for enrollment.

## NEW HAMPSHIRE SCHOLARS

New Hampshire Scholars is part of the State Scholars Initiative, a National program that partners with business leaders to motivate students, beginning in Grade 8, to complete a rigorous core course of study in high school - one that may give them a boost in college and careers. New Hampshire Scholars encourages and motivates all high school students to complete a rigorous core course of study that prepares them for successful transition to college coursework or technical training necessary to enter today's competitive job market.

New Hampshire Scholars gives students an edge - one that's of real value to them, the schools they attend, the companies they work for, and the communities where they live. For more information, see your school counselor or visit the NH Scholars website at www.nhscholars.org.

# COURSE DESCRIPTIONS 



## FINE ARTS

## 111 A Little Bit of Everything Art!

Grades 9-12
Prerequisite: none
$1 / 2$ credit
Just like the title says, this art course introduces students to many different art and craft projects. Students will experiment with traditional art including; drawing, painting, sculpting, and printmaking techniques. Craft projects will round out the course including; glass fusing, jewelry making, needle felting, resin art, world crafts, and many more unusual art experiences. A brief history of art and craft works is introduced. Field Trips to museums also add to a great art experience.

## 112 Advanced Art

Grades 10-12
Prerequisite: passing grade in A Little Bit of Everything Art!
$1 / 2$ credit
Do you have a passion for art? This art class allows the more focused art student to continue to be creative. This college-based curriculum will challenge the student's creativity and enhance their hands-on skills. Students will learn more advanced art techniques such as group mural projects, oil painting, graffiti art, silk screening, jewelry design, creating stoneware bowls on the pottery wheel, charcoal portraiture, choice projects and much more. They will travel to see the work of contemporary artists at local exhibitions, perform self-critiques and have the opportunity to chat with art college representatives. Most of all, they will make their own art, get a chance to try things they have never tried before, and have a great time.

## 113 Studio Art

Grades 10-12
Prerequisite: passing grade in A Little Bit of Everything Art!
$1 / 2$ credit
This studio course lets the art student design his or her own art curriculum. Students will work with the instructor daily to develop an enriching curriculum. A minimum of 10 projects will be required over the course of the semester: two paintings, two drawings, two sculptures, two prints, and two free choice projects. This will promote the idea that students will challenge themselves by engaging in more advanced art techniques. A written self-reflection is required for each project completed, as well as a digital portfolio of their projects throughout the semester. Field Trips to museums also add to a great art experience.

## 114 Introduction to Photography: From Darkroom to Digital

Grades 9-12
Prerequisite: none
$1 / 2$ credit
This course will explore not only the basic theory and practice of black and white photography but will also encompass how digital photography affects our lives each day. Students will first be introduced to the history of photography and they will practice using a 35 mm SLR camera by participating in a variety of outside photoshoots to downtown Newmarket. Next, they will experiment with camera exposure, proper lighting techniques and learn how to make interesting photographic compositions. They will explore proper chemical usage and black and white print processing procedures in the darkroom. Students will then take that knowledge and apply it to digital photography, learning how to properly use a digital camera. Students will also learn about the teacher's favorite photographers throughout the ages, fun camera controls and creative digital processing techniques. Topics include macro photography, hand coloring techniques, portraiture, low light photography and more. Students will be able to process their own digital photographs right in class. A lab fee of $\$ 40$ covers the cost of the photographic supplies used throughout the semester.

This creative, student driven and hands-on class is designed for the student who would like to pursue their passion for photography to a higher degree. Inspired by the photographers of the past and present, students will have the opportunity to learn more advanced darkroom and digital photo skills. Students will also have the ability to incorporate their own passions and interests into their curriculum. Using their knowledge of light, composition and subject matter, they are encouraged to find the "Extraordinary in the Ordinary" as they explore creative photography styles, like fashion photography, nighttime photography, splash photography, projection portraiture and more. They may use the darkroom at their convenience and are expected to hand in all assignments in a timely manner. This course will require a $\$ 40.00$ lab fee for supplies throughout the semester.

## 116 Introduction to Ceramics

Grades 9-12
Prerequisite: none $\quad 1 / 2$ credit
This course is intended for those students who are studying ceramics for the first time. It is an interesting and comprehensive introduction to the craft of clay working. The primary emphasis is on studio work, leading to a portfolio of finished pieces by the end of the semester. This course will cover all aspects of ceramics, starting with how to use your hands as a tool. Students will learn all hand-building techniques: pinching, coiling and slab work. Students will learn about the history of clay sculptures, different types of clay and their uses, a variety of firing processes and different types of glazing techniques. Students will also have the chance to experience the potter's wheel. They will learn how to properly center the clay to form a variety of plates, bowls, cups, and other utilitarian pieces. In addition to demonstrations of technique and technical assignments, the class will take a field trip to view historic and contemporary examples of fine ceramic art at a local museum.

## 117 Advanced Ceramics

Grades 10-12
Prerequisite: passing grade in Introduction to Ceramics $1 / 2$ credit
Do you love creating pieces in clay? This hands-on class will continue to expand the student's ceramics knowledge (pinch, slab, coil, and wheel throwing) with more advanced concepts. Students will spend more time on the wheel creating a variety of bowls, plates, vases, cups, and independent projects of their choice. They will learn more about glazing techniques and be allowed access to more exotic clays like porcelain and dynamic glazes. Projects may include more 3D design and sculptural pieces. Students will be able to reflect upon their experience through self-critique and participate in school art displays. A digital portfolio of their work will be kept along the way.

## 121 Counterclockwise

Grades 9-12
Prerequisite: none
$1 / 2$ credit
This dynamic class is where art and writing collaborate in a variety of unique projects. Students will be given the chance to combine their love of writing short stories, essays, and poetry with numerous drawing, painting and printmaking techniques to produce a creative art and literacy magazine called Counterclockwise. Now celebrating its 14th year, Counterclockwise is a self-produced school publication that will celebrate the creativity within our school walls. Students will also get the opportunity to work as a true team. We become editors, artistic directors, and graphic designers as we use InDesign to construct our 32-page magazine.

## 122 The Art of Stained Glass

## Grades 9-12

Prerequisite: none
$1 / 2$ credit
Throughout history, stained glass is a widely recognized and beautiful art form. Students will have the chance to learn about the history of stained glass and the stories it told. Together, we will explore the different types of stained glasses that are made, and students will get to select their favorites and create their own original suncatchers, mosaics, night lights, three dimensional pieces, window designs and more. Each student will receive their own set of tools and will learn about the cutting and grinding process, copper foiling method and soldering techniques. Learn about different artists and their exciting careers in the field of stained glass. The class will also get the opportunity to witness the beautiful Tiffany-stained glass creations at the Museum of Fine Arts in Boston.

Do you love to paint or want to learn? This introductory class is about using your creativity and challenging yourself. There are many kinds of paint and techniques to explore. Together we will experience creating art with oil paints, acrylics, watercolors, gouache, ink, spray paint, coffee and more. Students will paint on paper, canvas, glass, and wood. They will try different painting processes using different brushes, paint applicators, and 2D and 3D painting surfaces. We will explore the works of master painters and their processes and give some of them a try. A field trip to the Museum of Fine Arts in Boston will top our semester's experience, as we spend the day appreciating the works from the past to present.

## 128 Introduction to Drawing

## Grades 9-12

Prerequisite: none
$1 / 2$ credit
Do you love to draw, want to improve your drawing skills, or want to learn to draw? We will explore many types of drawing media; graphite and colored pencil, pen and ink, charcoal, oil and chalk pastel, silverpoint, alcohol markers, and many more. We will learn to implement the elements of art and principles of design, draw and shade 3D shapes, try perspective drawing, draw faces and hands, create cartoons and caricatures, and explore landscape and object drawing. Is there a specific type of drawing you'd like to explore? You'll be able to try it in class. If you make art with Procreate or Adobe Photoshop or Illustrator we can use it for projects, too.

## 129 Portfolio Design

Grades 11-12
Prerequisite: permission from teacher
$1 / 2$ credit
This course is intended for the junior or senior who plans to pursue an art career. Each student will be responsible for designing their own college admissions portfolio based on college specifications. An art portfolio should show a diverse range of skill and visual experiences. Students will demonstrate that they are able to use and experiment with a range of styles, mediums and techniques and can control, apply and manipulate mediums in a skillful, appropriate and intentional way. A minimum of 12 original pieces will be required, along with developing a personal Artist Statement at the end. Students will explore 3D design, self- portraits, landscapes, still lives and much more.

## Art Class - Aide

Grades 10-12
Prerequisite: none
$1 / 2$ credit
Are you an organized, ambitious and self directed student who doesn't mind getting their hands dirty? Are you thinking about becoming a teacher someday? This unique opportunity allows a student to step into a leadership role by providing direct assistance to a classroom teacher. Responsible students who want to help organize classroom supplies and materials, participate in community service events, communicate new ideas and offer assistance to fellow classmates, please see your classroom teacher.

## MUSIC

## Concert Band

Grades 9-12
511 College Prep
521 Honors
Prerequisite: previous experience in band at the middle or high school level and/or teacher approval 1 credit Students with a schedule conflict one semester can participate for one semester of the year. Concert Band will function as a performing ensemble composed of wind and percussion instruments. Musical and nonmusical skills such as ensemble playing, teamwork, intonation, technique, sensitivity, and balance and blend to build individual musical, and personal growth are addressed. This class will assess students based on their ability to perform the skills learned in class through performances and video assessments. The Concert Band will perform in at least once concert per semester. In addition, it will likely have several extra performances throughout the year. Participation in all performances is mandatory. For Honors credit, students will develop independent musicianship and complete additional assignments and projects. Projects might include: Auditioning for NH All-State Festival, leading ensemble warm-ups, etc. This course meets the Fine Art graduation requirement. Students may repeat this course for credit.

## 519 Instrumental Music Lessons:

Grades 9-12
Prerequisite: previous experience in band at the middle or high school level or teacher approval $\quad 1 / 2$ credit This class will allow students to have a greater individual focus on their individual instruments than the band course allows. Students will work with the teacher daily to develop an enriching curriculum. A minimum of seven projects will be required over the course of the semester: two college level concertos/sonatas, a lyrical study book, a technical etude book, and all all-state audition requirement pieces (scales, lyrical and technical etudes). Additional opportunities include learning a new instrument. A written self-reflection is required for each project, as well as an audio portfolio of their pieces throughout the semester. This class would occur separately from Concert Band and Honors Band.

Concert Chorus
Grades 9-12
512 College Prep
522 Honors
Prerequisite: none
1 credit
Students with a schedule conflict one semester can participate for one semester of the year. Concert Chorus aims to develop proper singing techniques and the basic music literacy concepts of reading and performing rhythm and pitch. Students will learn these concepts by performing choral pieces in multiple styles and genres. Students will be evaluated and graded on their ability to meet the competencies outlined in the course syllabus. Meeting these competencies will depend on independent practice outside of class time. The high school chorus will perform in at least one concert per semester. In addition, it will likely have several extra performances throughout the year.
Participation in all performances is mandatory. For Honors credit, students will develop independent musicianship and complete additional assignments and projects. Projects might include: Auditioning for NH All-State Festival, leading ensemble warm-ups, etc. This course meets the Fine Art graduation requirement. Students may repeat this course for credit.

## 513 American Pop Music

Grades 9-12
Prerequisite: none
$1 / 2$ credit
This semester-long course will explore popular music in America. Students will learn about the development of popular music since the twentieth century, including genres such as jazz, swing, musicals, country, rock and roll, Motown, disco, hip hop, pop, and others. In addition, students will learn to analyze and identify how the elements of music relate to popular music. Finally, they will discover connections between significant events in history and popular music and have the opportunity to create and perform popular styles of music.

This semester-long course will introduce students to the basics of music reading and musical theory. Solid knowledge of music theory is fundamental for students who wish to advance their musical skills. Music theory is also necessary for students who are interested in composing music. Students will learn the elements of music and their applications in beginning composition. Students will also develop their aural skills through rhythmic and melodic dictation exercises.

## 515 Piano Lab <br> Grades 9-12 <br> Prerequisite: none <br> $1 / 2$ credit

This semester-long course will instruct students in keyboard/piano techniques. The class consists of a mixture of group instruction and individual practice. Students will be graded on their individual progress and effort. Students may eventually, with approval from the instructor, choose a more specific genre of piano music to study and practice, such as chordal accompaniments, classical technique, etc. Students with previous piano experience may also join this course to enhance their skills. No previous piano experience is required for this course.

## 516 Guitar Lab

Grades 9-12
Prerequisite: none
$1 / 2$ credit
This semester-long course will instruct students in acoustic and electric guitar techniques. The class will consist of a mixture of group instruction and individual practice. Students will be graded on their individual progress and effort. Students may eventually, with approval from the instructor, choose a more specific genre of guitar music to study and practice, such as folk, jazz, reggae, etc. Students with previous guitar experience may also join this course to enhance their skills. No previous guitar experience is required for this course.

## 935 Music Production

## Grades 9-12

Prerequisite: none
$1 / 2$ credit
This course meets either the Technology Literacy or Fine Arts graduation requirement.
This semester-long course will dive into the hardware and software used to record and produce music. Topics will include properties of sound, recording hardware, sound engineering, Musical Instrument Digital Interface (MIDI), MIDI Polymorphic Expression (MPE), synthesizers, Digital Audio Workstations (DAWs), and digital notation. Students will become familiar with DAW software such as Soundtrap and Ableton and digital notation software including Noteflight. This course will emphasize the creative process of music; students will have opportunities to bring and record personal instruments or voices. Prior knowledge of music theory or songwriting is not required.

## BUSINESS



915 Accounting

## Grades 10-12

Prerequisite: none
1 credit
This course meets the 4th year math experience graduation requirement.
How do businesses prosper in tough economic times? Explore the language of business and find out. Learn the accounting cycle using manual and computerized accounting systems for sole proprietorships, partner-ships and corporations. This course will introduce students to the flow of money in business. This course is designed for students planning a career in business, finance, management, marketing, banking, accounting or business ownership.

Would you like to write a Super Bowl commercial, design a logo for a new product, or create a social media campaign for your favorite company? Marketing is an introductory course designed for students who are interested in learning and applying the marketing strategies and tactics used in the world's most successful companies. In addition, communication, interpersonal, and technology skills will be developed. Creative, hands-on projects and collaborative activities are an integral part of this course.

## 922 Social Entrepreneurship

Grades 10-12
Prerequisite: none
$1 / 2$ credit
Would you like to be a changemaker? Would you like to solve real-world social, economic, or environmental problems? This course will focus on entrepreneurship in our community, social innovation, problem-solving using design thinking, leadership and team building skills. Students will assume the role of a changemaker in order to experience empathetic leadership roles, while working to solve problems for the good of society. This course will provide students the opportunity for hands-on, high impact, experiential learning opportunities to develop and deploy effective solutions to challenging and often systemic social and environmental issues, in support of social progress.

## TECHNOLOGY LITERACY


#### Abstract

929 Technology and Society Grades 9-12 Prerequisite: none 1/2 credit Through theory and practical experience, students will address the impact of computing technology on 21st century life. Students will experience the 5 core areas of computer science including computing systems, networks and the Internet, data and analysis, algorithms and programming, and the impacts of computing on society. Students will participate in the collaborative and iterative design process to develop authentic technological artifacts to solve real-world problems.


## 933 Web Development

Grades 9-12
Prerequisite: none
$1 / 2$ credit
The ability to design, create, and edit web pages is a skill useful in many career fields. In this project-based course, students will learn to code and style web pages using HTML and CSS. Students will learn advanced techniques to build engaging, mobile-responsive websites and finish with a portfolio of computational artifacts to showcase their skills. By the end of this course, students will be able to explain how web pages are developed and viewed on the Internet, analyze and fix errors in existing websites, and create their own multi-page websites.

## 939 Web Development II

## Grades 10-12

Prerequisite: passing grade in Web Development
Web Development II builds on the HTML and CSS skills learned in Web Development in this fast-paced programming course. Students will learn advanced JavaScript programming skills to create dynamic, interactive websites. We will learn how to incorporate JavaScript into HTML files and create sites that respond to user input, collect information, and display data. In this project-based course, students will complete a portfolio website that will showcase their skills.

## 931 Programming with Python

Grades 10-12
Prerequisite: passing grade in Technology and Society and/or teacher permission
1/2 credit

Programming with Python is a fast-paced course on the fundamentals of computer programming with an emphasis on helping students develop logical thinking and problem-solving skills. Students will design, code, and test programs utilizing graphics and mathematical concepts while incorporating programming concepts such as variables, conditionals, and loops. Students will move on to more powerful programs using functions, strings, and data structures, and will demonstrate their mastery through creative programming projects driven by their interests.

## TECHNOLOGY EDUCATION


#### Abstract

944 C.A.D. (Computer Aided Design) Grades 10-12 Prerequisite: none $1 / 2$ credit This course meets the 4th year math experience and/or Technology Literacy graduation requirement. This class is an introduction to basic skills and procedures of the CAD technology field. This is a technologybased course in which the student will be using a computer to run AutoDesk software with AutoCAD, and Architectural Desktop. Topics will include multi-view drawings, floor plans, elevation plans, and dimensioning, as well as working in a professional environment. This is a hands-on course, which is technical as well as creative, and will explore the 2D aspects of the software. The student will be required to follow and observe national standards (mechanical and architectural), as well as local building codes (architectural), and professional standards throughout the duration of the course.


## 947 3D Solid Modeling

## Grades 10-12

Prerequisite: none
$1 / 2$ credit
This course meets the 4th year math experience and/or Technology Literacy graduation requirement.
This course introduces students to the use of Inventor Computer Aided Design software to produce parametric models, assemblies, and drawings for the manufacturing industry. Topics will include sketches, reference planes, relations, part modeling techniques, constraints, evaluation tools, redesign, and presentation techniques. Students will participate in a variety of engineering design challenges and create a mechanical assembly that will be produced using the 3 D printer.

## 943 Architectural Drafting and Design

Grades 10-12
Prerequisite: none
1/2 credit
This course meets the 4th year math experience, or Fine Arts, or Technology Literacy graduation requirement. We begin this design course by studying the basic drafting techniques of orthographic, pictorial, and schematic design. Using these skills, we study the design, planning, and layout of common residential house designs (Architectural Drafting). Each student will design his/her own houses with specific room layouts and floor plans. These drafting techniques will be taught both by using drafting tools and through a short introduction to Computer Aided Drafting (CAD). Each student will also build a model of their design and as a class, we will construct scale models of 2-bedroom homes from balsa wood.

## MATHEMATICS <br> 

This is the traditional course sequence from Pre-Algebra through Calculus. A change in course level can happen based on performance and teacher recommendation at the conclusion of each course. This is also subject to when in the schedule certain courses are offered in any given year.


Math electives include: Probability and Statistics or AP Statistics or Personal Finance. Speak to your teacher or counselor for more information.

## The following courses count as a 4th year math experience:

- CAD ( 5 credit)
- 3D Modeling (. 5 credit)
- Accounting (1 credit)
- Arch Drafting and Design (.5 Credit)
- Physics/Honors Physics (1 credit)
- Chemistry


## 415 Pre-Algebra

## Grade 9

Prerequisite: none
1 credit
This course will provide students with the understanding of the concepts and skills needed to be successful in Algebra I. The students study quantitative relationships \& learn to simplify \& evaluate numerical expressions and solve equations. Students will analyze situations, including real-life situations, verbally, numerically, graphically, and symbolically. In addition, students will review fractions, decimals, percents, ratio, \& proportions.Upon completion of Pre-Algebra, students should be prepared to take Algebra 1 the following year.


#### Abstract

Algebra 1 Grades 9-12 424 College Prep 425 Honors Prerequisite: passing grade in Pre-Algebra and teacher recommendation based on standardized test scores, course performance, and work habits. 1 credit Students will explore algebra through the lens of real world problems and applications. Topics include One-variable Statistics, Linear Equations, Inequalities and Systems, Functions, Introduction to Exponential Functions, Introduction to Quadratic Functions, Quadratic Equations, and Two-variable Statistics. A scientific calculator, such as the TI-30XS (Algebra 1) or TI-36XPro (Algebra $1 \&$ Algebra 2) is recommended.


## Geometry

Grades 9-12
431 College Prep
432 Honors
Prerequisite: passing grade in Algebra 1 and teacher recommendation based on standardized test scores, course performance, and work ethic. 1 credit
Essential for further study in mathematics, geometry develops logical thinking through deductive and inductive reasoning. Semester one includes a foundation of Constructions and Rigid Transformations, followed by a study of Congruence, Similarity, Right Triangle Trigonometry, Solid Geometry, Coordinate Geometry, Circles, and Conditional Probability. Proofs are a necessary part of the process but are not the emphasis in this course. A scientific calculator, such as the TI-30XS (Geometry) or TI-36XPro (Geometry \& Algebra 2) is recommended.

## Algebra II

Grades 9-12
441 College Preparatory
442 Honors
Prerequisite: passing grade in Algebra 1 and teacher recommendation based on standardized test scores, course performance, and work ethic. 1 credit
Students will expand on topics learned in Algebra I through the lens of real-world problems and applications. Topics include Sequences and Functions, Polynomials and Rational Functions, Complex Numbers and Rational Exponents, Exponential Functions and Equations, Transformation of Functions, and Statistical Inference.

## 917 Personal Finance

Grades 10-12
Prerequisite: none
1 credit
The growing emphasis on financial literacy has highlighted the need for students to learn how to navigate the financial decisions they must make and how to make informed decisions related to managing finances and budgeting, saving and investing, living independently, earning and reporting income, buying goods and services, using credit, banking and protecting against risk. Knowing, understanding and applying these concepts offers the necessary tools for addressing economic issues, both personal and societal.

## 450 Probability and Statistics

Prerequisite: passing grade in Geometry and teacher recommendation

## Grades 11-12

1 credit

Does listening to music while studying help or hinder learning? Does having a pet help people live longer? How well do SAT scores predict college success? These are just a few of the questions statistics can help you answer. In this course you will analyze one- and two-variable data with graphs and charts, make predictions for data not yet collected, learn the proper ways to conduct studies and experiments, discuss probability and what it means to be normal.

Prerequisites: passing grade in Algebra 2 and/or teacher recommendation
1 credit
The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: Exploring Data, Sampling and Experimentation, Anticipating Patterns, and Statistical Inference. Students who successfully complete the course and exam will receive credit for a one-semester introductory college statistics course. All students are required to take the AP exam.

## 452 Precalculus, Honors

Prerequisites: passing grade in Algebra 2 and/or teacher recommendation

## Grades 11-12

Students will learn the concepts and skills required for the study of calculus, college algebra, and finite mathematics. Topics covered include Polynomial and Rational Functions, Exponential and Logarithmic Functions, Trigonometric Functions, Polar Coordinates and Parametric Equations, and Conic Sections. This level of math has a high level of rigor and will prepare students for more advanced math classes.

## 460 Calculus, Honors

Grades 11-12
Prerequisite:passing grade in Algebra 2 and/or teacher recommendation 1 credit This course focuses on students' understanding of calculus concepts and provides experience with methods and applications using the big ideas of calculus: modeling change, approximation and limits, and analysis of functions. The course requires students to use definitions and theorems to build arguments and justify conclusions. The course features a multi-representational approach to calculus, with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. Topics include limit, derivatives, and integrals. This class is designed for those students who are planning a career in a STEM field but are planning on retaking calculus at the college level, and as such will proceed at a slower pace than the AP course. A graphing calculator is required for the course (TI 84 Plus CE recommended).

## 461 Advanced Placement (AP) Calculus AB

## Grades 11-12

Prerequisite:passing grade in Algebra 2 and/or teacher recommendation
Advanced Placement Calculus AB focuses on students' understanding of calculus concepts and provides experience with methods and applications using the big ideas of calculus: modeling change, approximation and limits, and analysis of functions. The course requires students to use definitions and theorems to build arguments and justify conclusions. The course features a multi-representational approach to calculus, with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. Exploring connections among these representations builds understanding of how calculus applies limits to develop important ideas, definitions, formulas, and theorems. A sustained emphasis on clear communication of methods, reasoning, justifications, and conclusions is essential. Topics include limits, derivatives, and integrals. A graphing calculator is required for the course (TI 84 Plus CE recommended).


## ENGLISH

The English department offers a four-year program designed to develop skills in reading, writing, speaking, listening, viewing and critical thinking. English electives address these skills as well. While general curriculum goals are similar at each grade level, specific requirements and presentation vary. Students are required to pass English 9, 10, 11, and 12 to graduate. Electives may not be substituted for required English credit.

Develops student ability to read for understanding, to write clearly, and to think critically. Provides an introduction to a variety of genres (novels, short stories, poetry, drama, essays, and articles) and reinforcement of literary terms. Students will also study grammar and vocabulary and will analyze texts with an emphasis on supporting all claims, both in writing and in discussion, with evidence from the literature.

## English 10: World Literature

## Grade 10

222 College Prep
223 Honors
Prerequisite: passing grade in English 9 and teacher recommendation based on standardized test scores, course performance, and work ethic. 1 credit
This course enables students to think critically, to understand and analyze different forms of literature, and to write clearly and effectively for a variety of purposes. Students will engage with texts from around the world, connecting literature from other cultures, times, and places to their own lives. Assessments include informal and formal essays, a research paper, tests and quizzes, and collaborative projects. Grammar and vocabulary instruction are woven into the curriculum.

## English 11: American Literature

## Grade 11

232 College Prep
233 Honors
Prerequisite: passing grade in English 10 and teacher recommendation based on standardized test scores, course performance, and work ethic.

1 credit
This course emphasizes skills and strategies for reading, analyzing, and writing about works of American literature, with a focus on how that literature reflects social, political, and moral issues in the United States. The English 11 curriculum focuses on The American Experience through an examination of major figures and memorable characters and their distinctive voices, hopes, and dreams as reflected across both time and genres. The overarching goal of this course is for students to become better acquainted with the rich literary history of America in order to better understand their role as an individual and as an American citizen. Students will strengthen speaking and presentation skills, work collaboratively on projects, conduct formal research, and become more proficient in writing for a variety of purposes and audiences.

## English 12: A Thematic Study of Literature

Grade 12
242 College Prep
243 Honors
Prerequisite: passing grade in English 11 and teacher recommendation based on standardized test scores, course performance, and work ethic.

1 credit
Students learn to read with deeper comprehension, write with greater precision and clarity, and listen with more critical attention. Although students read some major British works, the literature focuses on thematically related works, including non-fiction texts, tailored to the needs and interests of the class. Vocabulary and grammar are woven into the curriculum so that students may apply an understanding of syntax when reading complex texts.

## 245 AP English Literature and Composition

Grade 12
Prerequisite: passing grade in English 11 and/or teacher recommendation
1 credit
An alternative to English 4 for students who want a challenging, college-level course that meets College Board Advanced Placement Standards, this course includes the intensive and extensive study of representative works from various genres and periods. Students will read closely for detail, literary devices, and structures, participate in discussion, and write critical analyses of literary passages and works, in both impromptu and prepared essays. Students will practice with frequent, timed, on-demand essay writing, as this is the format for the AP exam. A documented literary analysis essay is required.

# ENGLISH ELECTIVES 

## 257 Writing Lab

Grades 9-12
Prerequisite: none
$1 / 2$ credit
In this course, students will produce clear and coherent writing for a range of tasks, purposes, and audiences. Students will prewrite, draft, revise and edit to improve their writing. Students will develop their skills in vocabulary, word choice, and complexity of sentence structure. This course may also support students in their writing tasks for other classes. In addition, students will explore new techniques and genres and read/analyze a variety of writing examples.

## 260 Creative Writing

Grades 10-12
Prerequisite: none
$1 / 2$ credit
What does writing an engaging and captivating story involve? How does one encapsulate a complex idea inside of a 500 -word piece of flash fiction? What does it take to create new characters? Students will seek to answer these questions by reading and writing creative works. Students will also analyze point of view, sensory details, dialogue, and so much more in order to compose pieces of writing that are thoughtful, purposeful, and unique to their individual writing styles. English department competencies covered include: Reading Literature, Narrative Writing, Reading Informational Texts, and Speaking \& Listening.

## 265 Movies that Matter

## Grades 11-12

Prerequisite: none
$1 / 2$ credit
In this course, students will carefully view, analyze, and critique acclaimed films from various genres and time periods. Students will analyze directors' choices, including cinematic techniques, and will write regularly and engage in discussions about films. English department competencies covered include: Reading Literature, Research, Analytical Writing, and Speaking \& Listening.

## 276 Sports in Literature

Grades 10-12
Prerequisite: none
$1 / 2$ credit
Sports have played an important role in American history and writing, and this course will focus on the use of sports in literature. Sports have served as the setting for novels, short stories, poetry, speech, movies, and articles. Students will explore themes such as leadership and character, success and failure, hero worship, and rivalries. Students will understand the role that organized sports has played in history, the physical and mental reasons why people participate in sports, and they will read literature about sports, athletes, and coaches, and demonstrate understanding through a variety of writing genres and projects. English Department competencies covered include: Reading Literature, Reading Informational Text, Writing \& Grammar, and Speaking \& Listening.

## 275 Nonfiction True Crime

Grades 10-12
Prerequisite: none $\quad 1 / 2$ credit
What makes an effective true crime novel? How can true crime novels be used to inform readers about history, the present, and the future? How can writers make readers want to keep reading something that deeply disturbs them? Students will explore these questions through class discussions and writing. English department competencies covered include: Reading Literature, Reading Informational Text, Writing \& Grammar, and Speaking \& Listening.

277 The Quest for Equity Throughout History and Literature
The written word has always been a powerful tool in the historical struggle for equity. By studying literature and the historical movements and times in which it was created, students will analyze the steps that individuals have taken in the struggle for equity. They will also consider steps needed in contemporary society in order to achieve full social equity. English department competencies covered include: Reading Literature, Reading Informational Text, Writing \& Grammar, and Speaking \& Listening.

Why journalism? When students learn to make sense out of their world, they become the people who will transform it. This course is designed to provide students an introduction to the foundations of journalistic practice. Students will be provided an opportunity to hone their writing skills, acquire practical knowledge and problem-solving skills, practice teamwork, and have the ability to showcase individuality and creativity. Students will encounter various article formats and work towards developing their voice using various writing styles. Students will delve into the history of journalism and various perspectives on American journalism. Students will discuss newspaper publication, journalistic ethics, and think critically about bias in reporting. Students in Journalism will focus on writing, research, oral interpretation, and analytical reading in their assessments and portfolio. English department competencies covered include: Reading Informational Text, Narrative Writing, Analytical Writing, and Speaking \& Listening.

## FAMILY AND CONSUMER SCIENCE

## 951 Foods 1

Grades 9-10
Prerequisite: none
$1 / 2$ credit
Focuses on the skills needed to be an efficient cook in everyday life. Topics include understanding the costs to prepare recipes, portion control, safety and sanitation in the kitchen. Through weekly cooking labs, students will also learn food preparation skills, including proper use and care of kitchen equipment and how to read and create recipes.

## 952 Foods II

Grades 10-12
Prerequisite: passing grade in Foods 1
1/2 credit
Includes study of ingredients and making healthy food choices. Students will build on skills learned in Foods I. Through weekly cooking labs, students will build on food preparation skills and developing skills in the kitchen.

## 964 Introduction to Baking

Grades 9-12
Prerequisite: none
$1 / 2$ credit
Overview of the art and science of baking. Students will be introduced to baking bread, quick breads, cakes and desserts. Looking at how science and art meet to the delight of all who enjoy baking or to those who enjoy eating dessert.

## 965 Introduction to Hospitality Management

Grades 11-12
Prerequisite: passing grade in Foods I and/or Clothing and Sewing
1/2 credit
*This is a dual enrollment course through Great Bay Community College.
This course will introduce students to the specialty area of business called hospitality management. Students will learn about basic operations, industry challenges, and current trends in tourism, recreation, restaurants, food service, lodging, resorts, spas, special events, conventions, travel, casinos, cruise lines, airlines, theme parks, and more. Students will gain an understanding of the foundation skills and knowledge needed for a successful career in the world's largest industry. Opportunities to explore specific industry segments in more depth are offered through field experiences and interactions with hospitality professionals.

956 Clothing and Sewing Skills
Grades 9-12
Prerequisite: none $1 / 2$ credit
Students learn sewing skills, both hand and machine, by completing projects that meet their individual interests and abilities. Projects may include a recycle bag, mittens, pajama pants, a pillow, and/or a quilt. Learn to maintain your wardrobe as part of independent living. Projects will reflect skill level on competencies.

## PHYSICAL EDUCATION AND HEALTH

All P.E. classes are co-educational. Each student is required to wear sneakers and have a complete change of clothes for good personal hygiene habits.
610 P.E. 9 Grade 9

Prerequisite: none $1 / 2$ credit
This freshman-required physical education course is the first of a progression of courses offered that strives to promote, through total body movement, the health and welfare of all students. An emphasis will be placed on personal fitness, successful teamwork, and sportsmanship. The participants will be involved in skill development and learn the rules and strategies in our co-curricular sports offerings including basketball, badminton, flag football, personal fitness, soccer, track, and volleyball.

## 613 Lifetime Fitness and Games Education

Grades 9-12
Prerequisite: none
$1 / 2$ credit
Lifetime Fitness and Games Education is geared toward educating about fitness awareness and concepts through lifetime activities. Examples of activities offered are fitness walking, and recreational sports (bowling, badminton, etc.). Pedometers will be used to help students track movement, while monitoring heart rate and other fitness measures.

## 614 Competitive PE

Grades 9-12
Prerequisite: none
1/2 credit
Competitive Physical Education is a continuance of fitness awareness and concepts through lifetime games and Activities. Activities offered will be a combination of lifetime activities and team sports, progressing into advanced skill-work, understanding of how to officiate and referee games with strategic play.

## 615 Personal Fitness

Grades 10-12
Prerequisite: none
1/2 credit
Personal Fitness will include a combination of weight training and advanced circuit training. Group fitness videos will be used in addition to weight training workouts. Principles of training and workout progression will be discussed. Students will become familiar with designing personal fitness plans.

## 617 Unified Physical Education

Grades 9-12
Prerequisite: none
1/2 credit
Unified Physical Education is geared toward educating students through a partner-participant model. The partner will guide and support the participant through various skills, activities and modified games. The purpose of this class is to have the partner take on leadership roles while supporting the participant in a more cooperative learning environment.

## 618 Yoga and Mindfulness

Grades 9-12
Prerequisite: none
$1 / 2$ credit
This course is designed to introduce students to the basic postures, breathing techniques, and relaxation methods of yoga and mindfulness practices in a safe and accessible way. Students will learn about the bene- fits of stretching, moving, and breathing freely as ways to relieve stress, relax, and focus in ways that they can transfer to their daily life.

This class will explore the New Hampshire guidelines for health education by covering the following content areas: alcohol and other drugs, injury prevention, nutrition, physical activity, family life and sexuality, tobacco, mental health, personal and consumer science, and community and environmental health. The focus will be building health skills to promote a healthy lifestyle.

## SCIENCE



The sequence of courses for most students is: Physical Science > Biology > and one additional credit in a science elective.

## Physical Science

712 College Prep
713 Honors
Prerequisite: none
1 credit
Physical Science is a gateway science course intending to spark student interest in the sciences. Students will learn about how scientists operate in a lab as well as industry applications of science through project based learning. This is a full-year course that utilizes modern scientific tools and techniques to understand the overarching concepts related to Chemistry, Physics, Technology and Earth Space Science. The curriculum integrates technology skills, laboratory skills and math skills that stress the development of critical thinking, experimental design, measuring and recording data, data analysis and interpretation, using models, communicating scientific findings and argumentation.

## Biology

Grades 10-12
722 College Preparatory
723 Honors
Prerequisite: passing grade in Physical Science and teacher recommendation based on standardized test scores, course performance, and work ethic.

1 credit
Biology is the science of life. It is a requirement for graduation. This course uses a storyline curriculum to create coherence between biology topics and encourage independent learning. Topics covered include: animal behavior, cycles of matter, energy budgets, homeostasis, photosynthesis and cellular respiration, DNA and proteins, cell structures, genetic inheritance and expression, and evolution. Classroom activities and assessments will focus on introductory biological knowledge as well as skills such as creativity, group collaboration, scientific reasoning, and observation. Honors students should be ready for more independent work on projects outside of class.

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore topics like evolution, energetics, information storage and transfer, and system interactions.

Prerequisite: passing grade in Life Science and teacher recommendation based on standardized test scores, course performance, and work ethic.

1 credit
This course will focus on the fundamentals of inorganic chemistry. It will include matter, energy, and change. It will also involve measurements and problem-solving, atomic structure, electron configurations, the Periodic Law, chemical bonding, chemical formulas and chemical equations and reactions, percent composition and empirical formulas, and stoichiometry. This course will also focus on the practical use of chemistry. It will involve physical characteristics and molecular composition of gasses, liquids, and solids, solutions, acids, bases, and salts with titration, reaction energy and reaction kinetics, chemical equilibrium, and oxidation-reduction reactions. This is a laboratory course requiring detailed laboratory reports.

734 Advanced Placement (AP) Chemistry
Grades 11-12
Prerequisite: passing grade in Chemistry and teacher recommendation based on standardized test scores, course performance, and work ethic.

1 credit
The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first year of college. For some students, this course enables them to undertake, as freshmen, second-year work in the chemistry sequence at their institution or to enroll in courses in other fields where general chemistry is a prerequisite. Students in such a course should attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems.

736 Advanced Placement (AP) Environmental Science

## Grades 11-12

Prerequisite: passing grade in Biology Honors and/or teacher recommendation none
The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Students will nurture their understanding of environmental science through inquiry-based lab investigations, field trips, and field work. The class will use these experiences to explore topics in ecosystems, biodiversity, human populations, land and water use, energy resources/consumption, pollution, and climate change.

762 Anatomy and Physiology: Movement and More
Grades 10-12
Prerequisite: currently enrolled in or passing grade in Biology
1 credit
This is a rigorous course, and the material moves quickly. Students who are considering a college track involving the medical field should take this course. However, even just being curious about how the body works is enough to get hooked. Taking $\mathrm{A}+\mathrm{P}$ : Movement and More does not mean you have to enroll in $\mathrm{A}+\mathrm{P}$ : The Insides of You. The course opens with an overview of anatomy and physiology terminology, a review of chemistry and biochemistry followed by cell biology, tissues, integumentary system, skeletal system, and muscles/ nerves. This is an advanced study of the human body's structure and function. The class will consist of lab dissections, lectures, video, discussion, and projects.
Note: Will run alternating years with A\&P: The Insides of You; this course will be offered again in 23-24
772 Anatomy and Physiology: The Insides of You

## Grades 10-12

Prerequisite: currently enrolled in or passing grade in Biology 1 credit
This is a rigorous course, and the material moves quickly. Students who are considering a career in a medical field should consider taking this course. However, even just being curious about how the body works is enough to get hooked. This class may be taken before or instead of $\mathrm{A}+\mathrm{P}$ : Movement and More. The course opens with an overview of anatomy and physiology terminology, followed by a survey of the nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. This is an advanced study of the human body's structure and function. The class will consist of lab dissections, lectures, video, discussion, and projects.
Note: Will run alternating years with A\&P: Movement \& More; this course will be offered in 24-25

Forensics applies scientific principles and practices to the operations of the criminal justice system. Students will learn in this elective how to secure a crime scene and gather many types of evidence. Through lab activities, students will analyze evidence including witness statements, fingerprints, DNA, and much more, and report their findings, as well as place their analysis in the context of the justice system. Case studies will illustrate the many uses of forensic science in criminal investigations.

Physics
Grades 10-12

## 742 College Prep

## 743 Honors

Prerequisite: passing grade in Physical Science and teacher recommendation based on standardized test scores, course performance, and work ethic. 1 credit
This class is a preparation for college physics and to develop a deeper understanding of our physical world. A strong math background is helpful, but math support is provided for those in need. In semester one, mechanics is covered in detail including vectors, motion, Newton's Laws, momentum, and energy (including mousetrap car design). Semester two covers circular motion, torque, rotational mechanics, center of gravity, and universal gravitation, electricity, and rocketry. There will be an Honors Option in this course. Honors students will be able to further their breadth of knowledge and be asked to investigate an extra topic every quarter and can choose from topics such as light, sound, vibrations, waves, color, electrostatics, electric fields, and electric potential, electric current, or electric circuits. Student designed projects with teacher approval is also an option for the honors level designation.

Not to be confused with astrology, this course will examine a number of questions about the universe. Where did the planets come from? Why do stars twinkle? Can someone ever escape from a black hole? Since the beginning of time, humans have been fascinated with the sky, the concept of the universe, and what is truly "out there." This course introduces students to astronomy, including its history, its basic laws, its modern concepts, and how it is currently being studied.
Note: This course will run alternating semesters with Zoology

## 738 Zoology

Grades 9-12
Prerequisite: none $1 / 2$ credit
This course explores the branch of biology that deals with animals and animal life, including the study of structure, physiology and development, with emphasis on evolution and animal classification. Students will explore the nine phyla of the animal kingdom through life-history research, specimen dissection and direct observation. The class is designed to study animals in great detail and will serve to foster an understanding that the animal kingdom is incredibly varied and amazing. Dissections are required.
Note: This course will run alternating semesters with Astronomy

## SOCIAL STUDIES

| Foundations of United States History | Grades 9-12 |
| :--- | ---: |
| $\mathbf{8 1 2} \quad$ College Preparatory |  |
| $\mathbf{8 1 3}$ Honors | 1 credit |
| Prerequisite: none |  |

Student historians can expect to explore the emergence of modern America through four major essential questions: What is necessary to make real change? What is the impact of place on people and culture? Whose responsibility is it? What is America's responsibility in the world? Students will be expected to participate in reading and analysis of a vast array of primary and secondary sources, critical thinking, writing, effective research, in-depth discussion and debate, and presentations using a variety of methods. Some topics to be studied include: Reconstruction of post-Civil War America, the American Civil Rights Movement, the West, the Great Depression, Current Events and WWII.

Foundations of Western Civilization
Grades 10-12
822 College Preparatory
823 Honors
Prerequisite: passing grade in Foundations of U.S. History and teacher recommendation based on standardized test scores, course performance, and work ethic.

1 credit
Students will engage in an exploration of events and civilizations that shaped Western Civilization, such as ancient Egypt, Mesopotamia, Greece and Rome. Students will also examine the Fall of Rome, the Middle Ages, the Renaissance, and the Reformation. We will use the following essential questions: What is reasoned judgment with regard to the assessment of history? What importance do cultural ancestors play in the forming of Western culture? How do major societal pieces like religion, economics, and war impact human development? How do we develop and defend historical theses? Students can expect to practice effective note taking, analysis of primary sources, and critical viewing of films. Students will also participate in lectures, class discussions, practice writing essays, educational games and developing long-term assignment schedules.

## 832 World Geography

Grades 10-12
Prerequisite: none
1 credit
This course offers students an opportunity to focus on landscape, economy, history and the complex cultures of the Western and Eastern Hemispheres, including Latin America, Canada, Asia, Europe, etc. Students will engage in a variety of map reading activities, readings, data analysis, lectures, and projects.

Civics

## Grades 11-12

## 804 College Preparatory

804H Honors
Prerequisite: passing grade in Foundations of U.S. History and teacher recommendation based on standardized test scores, course performance, and work ethic. 1 credit
Students in Civics can expect to develop their knowledge and practical application of the rights and responsibilities related to citizenship. Students will study the Constitution, the political system of the United States, the workings of local, state, national and other governments, as they relate to effective participatory citizenship. Students will be expected to engage in a variety of civic activities, develop knowledge of current events, participate in class discussion and debate, critically read and analyze both primary and secondary sources, and engage in research projects and presentations.

## Economics <br> 805 College Preparatory <br> 805H Honors

Grades 11-12

Prerequisite: passing grade in Foundations of U.S. History and teacher recommendation based on standardized test scores, course performance, and work ethic. 1 credit

This course is an introduction to fundamental economic concepts including: supply and demand, capitalism and other economic systems and theories, the complex roles of the government and financial institutions, international trade, and personal finance. Students can expect to critically read and interpret a variety of texts, charts, and graphs, participate in class discussions and debates, apply concepts to current events, conduct research, and present information in a variety of ways.

## 806 American Liberties and Rights

Grades 11-12
Prerequisite: none
1/2 credit
This course addresses amendments to the Constitution that grant civil liberties and rights to Americans. Is the Constitution a living document? Should the text be strictly interpreted, or should we look to the intent of the Founders when the Constitution was written? How do Supreme Court decisions impact your rights? A majority of the course will involve the clauses in the Bill of Rights which address individual freedoms and civil liberties. Specific topics covered include freedom of speech, the right to bear arms and the expectation of privacy.
NOTE: This class will run in alternating years; will be offered again in 25-26

## 814 Advanced Placement (AP) U.S. History

## Grades 11-12

Prerequisite: passing grade in Foundations of U.S. History and teacher recommendation
1 credit
This accelerated study of American history is both reading and writing intensive. Students can expect to study units from the Age of Exploration to the present. Students will develop a strong foundation of both historical content, analytic reading, writing and thinking skills. Emphasis will be placed on in-depth analysis of primary sources and other documents to develop and effectively defend these. Students will also participate in research, class lectures, discussion and study groups. Summer assignments are necessary for inclusion in the course.

## 839 Introduction to Psychology

Grades 11-12
Prerequisite: none
1/2 credit
This is an introduction to the field of psychology, the social science that tries to explain "why individuals act the way they do." In this course, students can expect a general survey of several areas including: research methods, psychological theories, basic brain physiology, intelligence, learning, motivation, personality, behavioral disorders, and social psychology. Students can expect to read a variety of texts, case studies, and experiments. Students will also conduct research, participate in presentations and in-depth class discussions.

## 841 Street Law

Grades 11-12
Prerequisite: none
$1 / 2$ credit
Students will develop a practical understanding and "real life" implications of the American legal system.
Students will deepen their knowledge of the fundamentals of local, state and federal law and how those laws "play out" in the lives of citizens. Students will be expected to participate in a variety of activities including lectures, in-depth discussions, research, case summaries, mock trials, and guest speakers.
NOTE: This class will run in alternating years; will be offered again in 25-26

## 842 Twentieth Century America

Grades 10-12
Prerequisite: none
$1 / 2$ credit
Have you ever wondered: What happened after WWII? Who was JFK? Who were hippies? Why was America in Vietnam? What events contributed to the events of 9/11? If so, this may be an elective of interest to you. Students in this course will study America's changing culture at home, and America's dynamic and growing role abroad in the last half of the 20th century through today. Some topics/events may include: the Cold War and its impact, the Korean Conflict, the Civil Rights Movement, America in Vietnam, Feminism, Watergate, the Reagan Revolution and the 1980's, terrorism and US foreign policy, challenges and expectations in the twenty-first century. Students will examine a variety of sources, research, data analysis, presentations and interviews, as well as produce technology-based assessments
NOTE: This class will run in alternating years; will be offered again in 24-25

This course allows students to explore local, state, national, and global issues that pertain to their everyday lives. Students will become media literate, learning how to identify bias and analyze diverse multimedia sources. Current Events will offer an objective examination of current happenings and determination of the origin of contemporary issues. Topics depend on events occurring, but some possible topics are government, economics, conflict, and politics. This course has a strong focus on media literacy, following the news and discourse.

## 848 Sociology

 Grades 11-12Prerequisite: none
$1 / 2$ credit
This is an introductory course in Sociology, the branch of the social sciences that studies the behavior patterns of groups of people and the impact those groups have on individuals. Students can expect to study sociological methods, culture, socialization, deviance, social stratification (gender, age, ethnicity), social institutions (religion, family, education, sport), and social change. Students will participate in class discussions, read and interpret data, analyze case studies, conduct research and make presentations.
NOTE: This class will run in alternating years; will be offered again in 25-26

## 851 Comparative Religions and Cultures

Grades 10-12
Prerequisite: none $1 / 2$ credit
This course is an introduction to major world religions including Hinduism, Buddhism, Sikhism, Judaism, Christianity, and Islam. Through an objective study of the founding and context, fundamental religious beliefs, sacred texts, practices, holidays/rituals, and contemporary practice, students can expect to gain a better understanding of today's complex and interconnected world through the study of culture. Students will read a variety of texts, participate in lectures, discussions, and presentations, view a variety of films, conduct research, observations, and interviews.
NOTE: This class will run in alternating years; will be offered again in 24-25

## 853 International Relations

Grades 10-12
Prerequisite: none
$1 / 2$ credit
This course serves as an introduction to international relations. Students will study our responsibilities as global citizens, the role of the United Nations, defense policy, causes of war, evolution of American foreign policy, international politics, globalization, human rights, and environmental degradation. In addition to exploring these topics, students can expect to read and analyze a variety of texts, conduct research, write reports, evaluate and interpret media, and participate in debate and in-depth discussions.
NOTE: This class will run in alternating years; will be offered again in 24-25
277 The Quest for Equity Throughout History and Literature
Grades 10-12
Prerequisite: none
1/2 credit
The written word has always been a powerful tool in the historical struggle for equity. By studying literature and the historical movements and times in which it was created, students will analyze the steps that individuals have taken in the struggle for equity. They will also consider steps needed in contemporary society in order to achieve full social equity.
NOTE: This class will run in alternating years; will be offered again in 25-26

## 854 Silk Road: Asia from Past to Present

Grades 10-12
Prerequisite: none
1/2 credit
"What is behind the economic rise of China and India? The Silk Road was an ancient trade route connecting China with Europe, and included various routes through the Middle East, Central Asia and Africa. It facilitated the transfer of goods, culture, art, religion and people across the known world. Today, countries which featured heavily on the Silk Road, particularly China \& India, are still major players in global trade and geopolitics. This class will allow students to explore the diffusion of culture and commerce from Asia to Europe across history, from ancient times to the present day. Can ancient history teach us many lessons about the rise and fall of economic powers? We'll be the ancient Silk Road with China's new Belt \& Road Initiative and taking a look at the rise and fall of various other countries that had been a part of this ancient trade route.

## 859 Criminology

Prerequisite: none
1/2 credit
Criminology provides a general introduction to the study of crime and criminal behavior. The focus will be an overview of the major criminological theories and how these theories of criminal behavior are related to the policies and operation of the criminal justice system. Crime measurement, patterns and trends in crime, and attempts to address this behavior are all discussed. This is a significantly deeper dive into the topic than addressed in Criminology and Forensics which focuses more on the measurement and analysis of the effects of criminal behavior rather than the causes and trends.

321 Spanish I
1.0 credit

Grades 9-12
Prerequisite: none
This course introduces students to the Spanish language and Spanish-speaking cultures. Basic vocabulary and idiomatic expressions are introduced at this level. Through reading stories and storytelling, basic vocabulary points are also introduced with a focus on regular present tense verbs, some irregular verbs, the concept of gender, the agreement and placement of adjectives, as well as the placement of the adverbs. Also introduced at this level are the basics of the past tense. Culture studies will focus on a brief overview of the twenty-one Spanish speaking countries, classic cultural holidays of the Spanish-speaking world and a deeper dive into the cultures seen in class novels.

## 322 Spanish II

1.0 credit

Grades 10-12
Prerequisite: Passing grade in Spanish I
The course builds on the skills formed in Spanish I. Students further develop their skills in reading and listening comprehension, and in writing and speaking proficiency. Additional vocabulary and idiomatic expressions are taught to continue building communication skills. More complex grammatical structures are introduced. Students are encouraged to practice their speaking skills in the classrooms in an organic way. Culture studies will focus on the Spanish-speaking world through current event discussions, classic cultural holidays, and independent investigation. Students are guided through their creative discoveries and personal exploration of the Spanish language and culture.

Prerequisite: Passing grade in Spanish III
Students further enhance their skills through reading and discussing Spanish literature, including poetry. Students investigate the political issues of various Spanish-speaking countries. Additional vocabulary is presented and advanced grammatical structures are introduced. The class is mostly conducted in the target language. Students engage in organic conversation in Spanish. Authentic materials for listening comprehension are used from various sources, as well as readings of current news articles. At this level, students explore personalized essential questions and embark on a guided quest to find answers. Students are empowered and encouraged to become creative thinkers through writing and answering thought-provoking questions.

Prerequisite: Passing grade in Spanish IV
Students further enhance their skills through reading and discussing Spanish literature. Additional vocabulary is presented and advanced grammatical structures are reviewed. Authentic materials for listening comprehension and the reading of current news articles are also used for this level. Prerequisite: Grade of "B" or better and teacher recommendation."

## STUDY SKILLS

## 777 Study Skills Lab I

1.0 credit

Grades 9-10
This class is for first and second-year high school students. Study Skills Lab $\mp$ delivers explicit instruction and support in academic skills such as advanced note-taking skills; utilizing information resources effectively (in print and online); writing process practice, including graphic devices for organization; and determining and applying known math skills to other content area classes and real life. The class also supplies instruction and practice in executive functioning skills such as time, materials and work management; effectively using SMART goals; understanding individual learning differences; analyzing individual learning profiles; promoting self- advocacy; and engaging in personal career/job opportunity research to develop their individual transition plan. This course is available to students as outlined in their Individualized Education Plan (IEP).

778 Study Skills Lab II
1.0 credit

Grades 11-12
This class is for third and fourth-year high school students. This class continues and expands on the work in Study Skills I in writing and math academic skills. It also continues instruction and practical application opportunities in executive functioning skills such as managing time, materials and work; effectively using SMART goals; understanding and optimizing individual learning differences; and promoting self-advocacy. Study Skills II guides individual student exploration of career/job possibilities to develop their transition plan based on student preferences, self-awareness as a learner and worker, and educational and financial requirements. Students will be given opportunities to meet and interview professionals in various professions (areas determined by student interest) and students will be assisted in experiencing job shadows and/or arranging college or training visitations. This course is available to students as outlined in their Individualized Education Plan (IEP).

## DISTANCE LEARNING OPPORTUNITIES

## VIRTUAL LEARNING ACADEMY CHARTER SCHOOL (VLACS)

目 VLACS Enrollment, Support \& Resources
The Virtual Learning Academy Charter School offers 90+ high school courses, and $40+$ dual-credit courses in which students earn college and high school credit concurrently. VLACS also offers competency recovery programs to replace lost credits, and opportunities for extended online learning. VLACS is an approved, diploma-granting NH public school and is free to all NH students. See your counselor for more information.

## SEACOAST SCHOOL OF TECHNOLOGY

Seacoast School of Technology visits NJSHS every spring for a presentation to students in Grade 10. At that time, students interested in learning more about SST opportunities may sign up for a visit to that school. Enrollment in SST courses depends on both space availability and student progress toward meeting graduation requirements. While most students begin SST courses in Grade 11, students in Grade 9 who have already completed Algebra I may enroll in Pre-Engineering I if space is available. In rare instances, some students in Grade 10 may begin enrollment in SST, with administration approval.

FIRST YEAR SST PROGRAMS

|  | NH Scholars | Lab <br> Science | 4th Year <br> Math <br> Experience | Dual <br> Enrollment |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| SST Animal and Plant Science I | STEM | X |  |  | Prerequisite: Biology |
| SST Automotive Technologies I | STEM |  |  |  |  |
| SST Biomedical Science and | STEM |  |  |  |  |
| Technology I |  |  |  |  |  |

## SECOND YEAR SST PROGRAMS

$\left.\begin{array}{|l|l|l|l|l|l|}\hline \text { Course } & \begin{array}{l}\text { NH } \\ \text { Scholars }\end{array} & \begin{array}{l}\text { Lab } \\ \text { science }\end{array} & \begin{array}{c}\text { 4th Year } \\ \text { Math } \\ \text { Experience }\end{array} & \begin{array}{c}\text { Dual } \\ \text { Enrollment }\end{array} & \begin{array}{l}\text { Elective Credits, } \\ \text { Prerequisites, etc. }\end{array} \\ \hline \begin{array}{l}\text { SST Animal and Plant Science } \\ \text { II }\end{array} & \begin{array}{l}\text { STEM \& } \\ \text { Lab } \\ \text { Science }\end{array} & \text { X } & & & \text { X }\end{array} \begin{array}{l}\text { Prerequisite: Animal and } \\ \text { Plant Science I }\end{array}\right]$

## SPECIAL EDUCATION

In our school, students with Individualized Educational Plans (IEPs) receive special education services in multiple ways.

Whenever possible, students with IEPs participate in general education classes and receive their services within that setting. For students whose needs cannot be met within the general education setting, NHS provides resource support, including Resource Programs with curricula that are modified to meet the unique needs and strengths of each student participating. Additional opportunities to meet student needs include Reading/Word Study courses and a Study Skills Lab. Students earn credit for successful completion of these courses. Students without IEPs may be eligible to enroll in these courses, pending approval of the Assistant Principal for Student Services.

Students who receive Special Education services may earn either a Newmarket High School diploma or a Certificate of Attendance, depending on courses completed and credits earned.

## ENGLISH FOR SPEAKERS OF OTHER LANGUAGES (ESOL)

Newmarket School District greatly values the diversity of languages spoken by our students. In addition, we stand firm in our commitment to ensure that every student has access to a full high school curriculum, regardless of their English language abilities.

Upon enrollment, all students complete a Home Language Survey, which helps us identify students who have experience with languages other than, or in addition to, English. Those students will then participate in a screening assessment to determine eligibility for ESOL services, which we tailor to meet the needs of each individual student.

Students in the ESOL program participate in ACCESS and/or MODEL, state-required assessments, each year. In accordance with state regulations, students who meet proficiency criteria are partially exited from the ESOL program, and we monitor their academic performance for two years. Once four (4) years have passed, if the student continues to perform well in English language courses, we exit the student fully from the ESOL program.

## NJSHS STATEMENT OF NON-DISCRIMINATION

SAU 31 does not discriminate in the administration of its admissions and educational programs, activities, or employment practices on the basis of race, color, religion, national origin, age, sex, handicap, sexual orientation or marital status. This statement reflects the mission of SAU 31 and refers to, but is not limited to, the provisions of the following laws:

Title VI \& VII of the Civil Rights Act of 1964; The Age Discrimination Act of 1967;
Title IX of the Educational Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; The Americans with Disabilities Act of 1975;

NH Law Against Discrimination (RSA 354-A) and State Rule: Ed. 303.01 (i),(j),(k).
Inquiries regarding discrimination may be directed to Superintendent of Schools, SAU 31, 186A Main Street, Newmarket, NH 03857, (603) 659-5020.

