Newmarket High School



Program of Studies

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FOREWORD

Dear High School Students:

The information contained in the 2021-2022 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) and Virtual High School (VHS). 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,

David Dalton Principal



Portrait of school by R. Callan Malone '20

CORE VALUES, BELIEFS AND LEARNING EXPECTATIONS

The staff at Newmarket Jr./Sr. High School, in partnership with students, family, and community, believe in providing each student with the opportunity to develop to his or her fullest potential in an academically rigorous, supportive, and safe environment.

PROFILE OF A NEWMARKET JR./SR. HIGH SCHOOL GRADUATE

Graduates of Newmarket Jr./Sr. High School will:

- Think creatively and critically to identify and solve a variety of complex problems
- Use technology as a tool to research, organize, evaluate, and communicate information
- Work respectfully with diverse teams, share responsibility for collaborative work, and value the individual contributions made by each team member
- Communicate effectively using oral, written, and interpersonal skills in a variety of forms and contexts
- Demonstrate knowledge and understanding of the complex issues that impact the global community such as economics, advances in technology and environmental issues
- Develop a realistic career plan for post-secondary education, skills training and/or entering the workforce

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 supports, 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, a state-required assessment, 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 two years have passed, if the student continues to perform well in English language courses, we exit the student fully from the ESOL program.

HIGH SCHOOL GRADUATION REQUIREMENTS

The table below outlines the credits required to graduate from NJSHS, as approved by the Newmarket School Board. All credits must be earned in Grades 9-12.

Please note that, generally, students may not take the same course more than once; however, the Principal may grant an exception at his/her discretion.

Subject	Credits	Specifics
English	4.0	English 1 English 2 English 3 English 4
Mathematics	4.0	Any combination of math courses Must include a full year equivalent of Algebra I (1 or 2 credits) May include one Math Experience course
Science	3.0	Physical Science Biology Chemistry
Social Studies	3.0	Foundations of U.S. History Western Civilization or Geography Civics (0.5 credit) Economics (0.5 credit)
Technology Literacy	0.5	Usually taken in Grade 9 or 10
Fine Arts	0.5	Any course in Fine Arts, Industrial Technology, or Digital Graphics
Health	0.5	Usually taken in Grade 9 or 10
Physical Education	1.0	Usually taken in Grade 9 or 10
Career Development	0.25	Completed over four years Facilitated by classroom teacher
Electives	11.5	Any subject area, once graduation requirement in that area has been met
Total credits required	28.25	

HIGH SCHOOL COURSE REQUIREMENTS AND RECOMMENDATIONS BY YEAR

GRADE 9	Credits
Mandatory Courses:	
English 1	1.0
Math	1.0
Physical Science	1.0
Modern U.S. History	1.0
Total Credits	4.0
Additional Requirements:	
Health	0.5
Physical Education	1.0
Technology Literacy	0.5
Fine and Performing Arts	0.5
Electives (to fill empty blocks)	1.5
Total Additional Credits	4.0

GRADE 10	Credits
Mandatory Courses:	
English 2	1.0
Math	1.0
Biology	1.0
Western Civilization/Geography	1.0
Total Credits	4.0
Additional Requirements:	
Electives (to fill empty blocks)	4.0
Total Additional Credits	4.0
Sophomores: Be sure to take all no to meet graduation requirements	

GRADE 11	Credits
Mandatory Courses:	
English 3	1.0
Math	1.0
Chemistry (Grades 11/12)	1.0
Total Credits	3.0
Additional Requirements:	
Civics	0.5
Economics	0.5
Electives <i>(to fill empty blocks –</i>	3.0
may now include SST and VLACS)	
Total Additional Credits	4.0

GRADE 12	Credits
Mandatory Courses:	
English 4	1.0
Math	1.0
Total Credits	2.0
Additional Requirements: Electives (to fill empty blocks –	5.0-6.0
may now include SST and VLACS)	
(Minimum number of credits	5.0)
Total credits required over 4 years	28.25

WORLD LANGUAGES

We strongly recommend World Language courses as electives beginning in Grade 9. World Language courses are year-long, worth one credit each. Many four-year colleges require a minimum of three years of one World Language or two years of two World Languages.

VLACS NEW GUIDELINES FOR 2021-2022:

- Only students in Grades 11 and 12 may enroll in VLACS courses
- Students may enroll in as many VLACS courses as they wish, but only 1.0 VLACS credit may be earned per year

SEACOAST SCHOOL OF TECHNOLOGY (SST)

- Students must apply and be accepted into SST
- There is no limit on the number of credits that may be earned through SST

VIRTUAL HIGH SCHOOL (VHS)

- Students may participate in VHS courses with administrative approval and if seats are available
- Students may enroll in as many VHS courses as they wish, but only 1.0 VHS credit may be earned per year
- If no seats are available in a particular class a fee may be required of the student in order to attend

COMMUNITY SERVICE

Students may perform community service for high school credit with an application and prior approval from administration. 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).

Students wishing to participate in this program for credit must complete the following tasks:

- Complete an application
- Seek prior approval from administration and the School Counselor
- ◆ Collaborate with the School Counselor to find a community service site
- Provide documentation verifying the number of hours of completed community service

SCHOOL-TO-CAREER PARTNERSHIP AND EXTENDED LEARNING OPPORTUNITIES

Students may participate in several programs that help students contribute to the community, and at the same time, learn to use their education in practical ways. These opportunities are called "School to Career." They include:

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.

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.

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 paperwork and have it approved by a parent, administrator and School Counselor, before adding it to their schedule 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.

CAREER DEVELOPMENT GRADUATION REQUIREMENT

All students must fulfill a career development requirement by the end of 12th grade. This requirement includes, but is not limited to, the following tasks, activities, and experiences:

- Complete an Interest Inventory
- Complete a Learning Styles Inventory
- Identify at least one Career Cluster that matches your interests and learning style
- ◆ Complete a Four-Year High School Plan and update as needed
- Attend a career fair, trade fair, or occupational fair
- ◆ Complete one job-shadow experience related to your identified Career Cluster
- Complete a resume (and update as needed)
- Visit one employment site (if applicable)
- Attend one college-representative visit or experience one employer interview
- ◆ Create a tentative post-secondary plan
- ◆ Finalize a post-secondary plan
- Complete a graduate survey

CAREER CLUSTERS and the NHS CAREER DEVELOPMENT GRADUATION REQUIREMENT: A METHOD OF ORGANIZING THE WORLD OF WORK AND HELPING OUR STUDENTS PLAN THEIR FUTURES

Technological advances and global competition have transformed the nature of work, and hence, the way we need to prepare our students for life after high school. Tomorrow's jobs will require more knowledge, better skills, and more flexible workers than ever before. Tomorrow's workers must be prepared to change jobs and careers several times, continually updating their knowledge and skills.

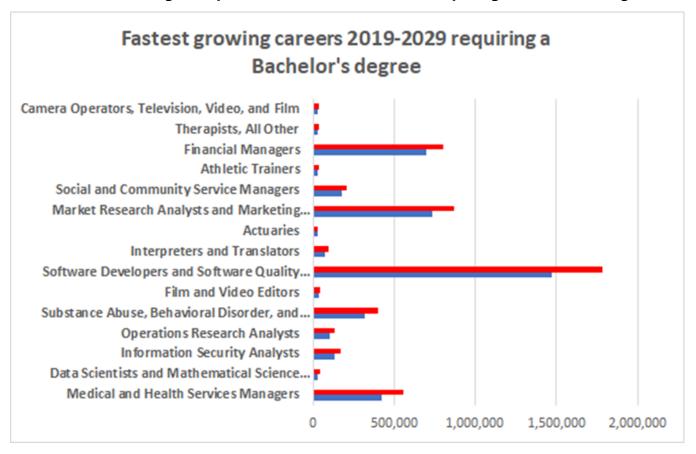
Career Clusters is a national concept that organizes school curricula around broad, general career paths that the NH Department of Education is now promoting. They provide a format to link school-based learning with career-related experiences. Following the US Department of Education's generic model 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. As the Career Development Graduation Requirement is implemented students will be able to discover and explore all of their career options using a nationally accepted, uniform system. For more information please view <u>Information About Career Clusters.</u>

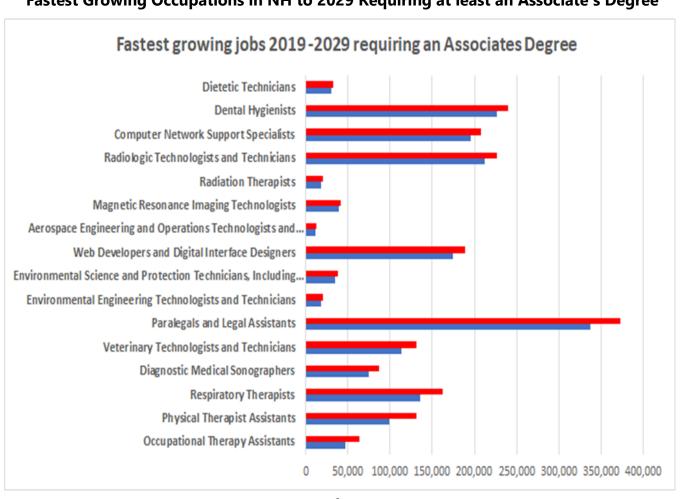
OCCUPATIONAL PROJECTIONS IN NEW HAMPSHIRE

All students at Newmarket High School should consider themselves "lifelong learners." They should realize that education cannot end after graduation. Workers of the twenty-first century will need to be highly skilled and flexible. Note the occupational charts below regarding employment in New Hampshire to year 2029 (data source: http://www.careerinfonet.org).

Fastest Growing Occupations in NH 2019 to 2029 Requiring a Bachelor's Degree



Fastest Growing Occupations in NH to 2029 Requiring at least an Associate's Degree



COLLEGE ADMISSIONS REQUIREMENTS

As college admission requirements vary, we encourage students to consult the websites and catalogs of the colleges and universities in which they are interested, to review specific admissions criteria. Students should also consult with School Counselors and teachers for recommendations regarding course planning.

Preparing for College: Number of Years Commonly Required in Different Subject Areas							
	English	College Math	Social Studies	Science	World Languages		
Competitive four-year colleges and universities: required	4+	4+	4+	4+ (with lab)	3 or more of same language or 2 each of two languages		
Four-year colleges: required or highly recommended	4	4	3	3 <i>(2 labs)</i>	2 or more of same language		
Two-year colleges: required or highly recommended	4	2 or more	2 or more	2 or more <i>(1 lab)</i>	_		
One- and two-year specialty and technical schools: required or highly recommended	4	1-3 (including Algebra 1)	2	2	_		

College math includes: Algebra I, Algebra II, Geometry, Precalculus, Calculus, AP® Calculus AB, AP® Calculus BC, Probability and Statistics, and Quantitative Reasoning.

Lab sciences include Physical Science, Biology, Chemistry, Anatomy and Physiology, and Physics.

DESCRIPTION OF HIGH SCHOOL COURSE LEVELS

All courses in the departments of English, Social Studies, Science, Mathematics and World Languages have a level designation as explained below. Students are not "tracked" by level, in that their schedule can include classes of different levels. Level placements are recommended by teachers annually and confirmed by parents.

Level AP®

Advanced Placement® (AP®) 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. AP® 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. Students who do not complete this requirement will be deemed ineligible for the AP® level course. All students are required to take the AP® exam, for which 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. Honors courses are offered on a very limited basis and only as enrollment projections permit.

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.

COURSE DESCRIPTIONS

VISUAL ARTS

111 Art I 0.5 credit Grades 9-12

This is a hands-on studio course that focuses on introducing students to a wide range of mediums. Students will experiment with drawing, painting, sculpting and printmaking techniques. Every other week, the class will work together on a one-day project. A free choice assignment, worth 10% of their final grade, will be required for each quarter. Projects are planned with an emphasis on composition, line space, form, texture, value, and color. A brief history of art and works of famous artists is introduced. Field Trips to museums also add to a great art experience!

112 Advanced Art 0.5 credit Grades 10-12

This course is designed for a more focused art student. 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 oil painting, graffiti art, silk screening, jewelry design, creating bowls on the potter's wheel, charcoal portraiture, dry point engraving, and much more. They will be required to make and use their own art sketch-book, partake in the "Plaster Cast Hands" program at the Newmarket Elementary School, and design their own digital art portfolios for college acceptance. They will travel to see the work of contemporary artists at local exhibitions, perform self-critiques and research a favorite artist who inspires them. 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 0.5 credit Grades 10-12

This studio course lets the art student design his or her own art curriculum. Within an Art I classroom environment, 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. Students will also participate in the "Friendly Friday" projects along with the Art I students to enhance their experience. A written self-reflection is required for each project completed, as well as a digital portfolio of their projects throughout the semester. *Prerequisite: Art I*

114 Introduction to Photography: From Darkroom to Digital 0.5 credit Grades 10-12

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 35mm SLR camera. 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. Students will then take that knowledge and apply it to digital photography. Students will be required to learn how to properly use a digital

35mm SLR camera. They will learn about Ms. Blake's favorite photographers throughout the ages, fun camera controls and creative digital processing techniques. Students will be able to process their own digital photographs right in class! Topics include landscape photography, hand coloring techniques, portraiture, low light photography and more. A lab fee of \$40 covers the cost of the photographic supplies used throughout the semester. *Maximum 16 students*.

116 Introduction to Ceramics

0.5 credit

Grades 9-12

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 and Pottery

0.5 credit Grades 10-12

Held within the Introduction to Ceramics classroom, this hands-on course will continue to expand the student's ceramic 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 explore the creations of different ceramic artists through artist reviews. A digital portfolio of their work will be completed by the end of the semester. *Prerequisite: Introduction to Ceramics and permission of teacher.*

118 Photography II

0.5 credit Grades 10-12

This independent study is designed for the student who has already completed the introductory Photography class and has a desire to pursue photography to a higher degree. The class is by permission of the instructor only and conducted within the Introduction to Photography classroom, if numbers permit. The student will get the chance to design their own independent curriculum from a list of more advanced photography ideas: Fashion photography, Crystal Ball Photography, Nighttime Photography, Projection Portraiture, and more. Their portfolio will consist of 12 projects (incorporating darkroom and digital technique) and a final project. Students may use the darkroom at their convenience. They must hand in all assignments in a timely manner. All printed photographs must be matted and titled. A digital portfolio of their work will be designed at the end of the semester. This course will require a \$40.00 lab fee for supplies. *Prerequisite: Introduction to Photography*

121 Counterclockwise

0.5 credit Grades 9-12

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 12th 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

0.5 credit

Grades 9-12

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. We will hear from different artists about their exciting careers in the stained-glass field. The class will also get the opportunity to witness the beautiful Tiffany-stained glass creations at the Museum of Fine Arts in Boston.

127 Introduction to Painting

0.5 credit

Grades 9-12

"I dream my painting and I paint my dream" - Vincent Van Gogh

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 Drawing 0.5 credit Grades 9-12

Do you love to draw or want to improve your drawing skills? Drawing will focus on communicating how you, as an artist, see the world through your drawings and will help you to develop your own artistic style. This course explores the elements of art and principles of design, 3D shapes, perspective drawing, facial features and proportions of the face, cartooning, and landscape drawing. You will also be able to learn about a specific aspect of drawing that you would like to know more about.

129 Portfolio Design

0.5 credit

Grades 11-12

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. A minimum of 20 original pieces will be required along with a self-reflection on each. Students will explore 3D design, self-portraits, landscapes, still lives and much more! *Prerequisite: Permission of teacher.*

MUSIC

511 Concert Band 1.0 Credit Grades 9-12

Concert Band will function as a traditional performing ensemble composed of wind and percussion instruments. Students may join the concert band upon completion of the middle school band program or with the approval of the Director. Students who have never played a band instrument must make arrangements with either the band Director or a private instructor to take instrumental lessons before being admitted into the program. Students will be assessed on the basis of their ability to perform the skills learned in class through performances and video assessments. The Concert Band will perform a minimum of three concerts during the academic year. Participation in all performances is mandatory and makes up a major portion of the students' grade. Students may, with permission from the instructors, participate in both the Chorus and Concert Band, which will meet at the same time every day. Students who are in both ensembles will be held to the same musical expectations as others, and so they may need extra practice time outside of class. *This course meets the Fine Art graduation requirement*.

512 Chorus 1.0 Credit Grades 9-12

This course is designed to develop proper singing techniques and basic music theory concepts, such as musical literacy. 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. An ability to meet these competencies will depend on independent practice outside of class time. The high school Chorus will perform in at least three major concerts per year and will likely have a number of extra performances throughout the year. Participation in all performances is mandatory and constitutes a large portion of a student's grade in the class. Students may, with permission from the instructors, participate in both the Chorus and Concert Band, which will meet at the same time every day. Students who are in both ensembles will be held to the same musical expectations as others, and so they may need extra practice time outside of class. *This course meets the Fine Art graduation requirement*.

513 American Pop Music

0.5 Credit Grades 9-12

This semester-long course will explore popular music in America from about 1900, throughout the 20th century, and continuing through to today. The class will cover a range of genres such as jazz, swing, musicals, country, rock and roll, Motown, disco, hip hop, pop, and others. Students will discover connections between major events in history and popular music at the time. Students will also be exposed to multiple songs that are now considered classics in the American popular music repertoire.

514 Music Theory 0.5 Credit Grades 9-12

This semester-long course will introduce students to the basics of music reading and musical theory. Solid knowledge of music theory is fundamental for any 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 basic elements of music and their applications in beginning composition. Students will also work to develop their aural skills through rhythmic and melodic dictation exercises.

515 Piano Lab 0.5 Credit Grades 9-12

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. *Limited to 10 students per semester.*

516 Guitar Lab 0.5 Credit Grades 9-12

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. *Limited to 10 students per semester.*

935 Music Production 0.5 Credit Grades 9-12

Have you ever wondered how songwriters and producers create music today? In this class, students will use music production software to write and produce music. They will experiment with the creation and editing of MIDI and Audio files and use one of the best software in the music industry, ABLETON, to make their music creations come to life! Prior knowledge of music theory or songwriting is not necessary but encouraged.

Students will be able to bring their own instruments or experiences to apply to the course! Students have the option of earning a digital literacy or music credit through this course. *Limited to 10 students per semester.*

TECHNOLOGY EDUCATION

The Technology Education curriculum introduces students to the skills and opportunities in the fields of graphic communications, energy and power, wood technology, technical drawing, and construction technology, through the application of organized knowledge and problem-solving techniques.

941 Intro to Woodworking: Design and Creation

0.5 credit

Grades 9-12

Design and Creation will introduce students to shop safety, tool usage, materials, basic shop math, joinery, finishing, and processes using woodworking techniques. In addition, students will learn how to design and plan projects, and learn commonly used construction techniques. Each student will design, plan, assemble and finish two projects. One project will be a construction project; the other will be a turning project. Be constructive; come build the projects of your choice. *Note: This course can be used to satisfy the Art requirement.*

942 Advanced Woodworking Technology

0.5 credit

Grades 10-12

This course is a continuation of Design and Creation. Learn to build fine furniture, cabinets, seating, containers, and structures. Greater emphasis will be placed on design, construction techniques, advanced wood joinery, and quality workmanship. Tool identification and usage will be modified with specific jig techniques and finer quality craftsmanship. *Prerequisite: Design and Creation or permission of the teacher. This course can be used to satisfy the Art requirement.*

943 Architectural Design and Drafting

0.5 credit

Grades 10-12

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. *This course can be used to satisfy the Art requirement.*

944 C.A.D. (Computer Aided Design)

0.5 credit

Grades 10-12

This class is an introduction to basic skills and procedures of the CAD technology field. This is a technology-based course in which the student will be using a computer to run AutoDesk software with AutoCAD, and Architectural Desktop. Topics will include multiview 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.

945 Art in Wood 0.5 credit Grades 9-12

This class is an exploration of the principles of design and construction through experiences such as veneering, scroll sawing, wood burning, inlay, wood turning, jewelry making, and furniture making. This course will be based on student's creativity and imagination using wood as the medium for expression. Some projects may include wood burning, string art, wooden picture frames, mirrors, turned bowls, hand-carved bowls, oval

Shaker boxes, bandsaw boxes, inlaid cutting boards, relief carvings, jewelry, etc. *This course can be used to satisfy the Art requirement.*

947 3D Solid Modeling

0.5 credit

Grades 10-12

This course introduces students to the use of Autodesk Fusion 360 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 3D printer.

BUSINESS

915 Accounting 1.0 credit Grades 10-12

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, partnerships 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. This is not considered "college math."

917 Personal Finance 0.5 credit Grades 10-12

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. *Prerequisite: Algebra*

920 Marketing 0.5 credit Grades 10-12

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 Current Business Trends

0.5 credit

Grades 10-12

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. The 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. Students in this class will participate in the NH Social Venture Innovation Challenge at the University of New Hampshire's Peter T. Paul College of Business and Economics.

923 Entrepreneurship

0.5 credit

Grades 10-12

Do you want to experience what it feels like to think and act like an entrepreneur? In this introduction to

Entrepreneurship course, students will learn how they can create value for their future employer, and perhaps one day launching their own venture. This course will allow students to practice entrepreneurial skills and identify economic or social value creation, rather than the single event of opening a business. Focus will be on opportunity recognition, sales strategies, launching a product, financial needs and human resources necessary to launch a new venture. This course will be hands-on, problem-based collaborative projects.

DIGITAL LITERACY GRADUATION REQUIREMENT

As the demand for STEAM employees increases in this competitive information age, it is more important than ever that students have the opportunity to become competent and creative critical thinkers and capable digital equipment users, to maximize their chances of gainful employment and/or college entrance. Towards this end, it is important for students to make appropriate course selections.

There is a 0.5 credit technology literacy graduation requirement, which student may obtain by taking any of the Digital Literacy course selections below, or by attending SST and passing either Pre-Engineering or Computer Programming.

929 Technology and Society

0.5 credit Grades 9-12

Through theory and practical hands-on experience, students address the emerging social and political consequences of technological change. This course allows users to collaborate with others, communicate through online communities and be creative by generating various types of web content. Students will learn about current trends in technology and new web applications. The interactive sharing of information will be experienced through different web-based programs.

Other classes that fulfill this requirement:

944 C.A.D. (Computer Aided Design)

0.5 credit Grades 10-12

See Technology Education for course description

947 3D Solid Modeling

0.5 credit Grades 10-12

See Technology Education for course description

MATHEMATICS

421 Algebra I, Part 1

1.0 credit

Grades 9-12

Students use algebra to solve practical problems. In order to develop a strong foundation with algebraic concepts, students study algebraic language, operations of signed numbers, solving word problems, and solving and graphing linear equations and inequalities. A scientific calculator, such as the TI-84 Plus CE, is recommended.

421.1 Algebra I, Part 2

1.0 credit

Grades 10-12

Students use algebra to solve practical problems. Topics include systems of equations, rational and irrational numbers, expanding and factoring polynomials, and solving quadratic equations. A scientific calculator, such as the TI-84 Plus CE, is recommended.

423 Algebra I Lab

1.0 credit

Grades 9-12

Taken concurrently with Algebra I, Part 1. Students receive direct instruction and individualized intervention to support their study of the Algebra I curriculum. Graded as Pass/Fail for elective credit. *Prerequisite: Teacher recommendation based on available assessment data.*

424 Algebra I 1.0 credit Grades 9-12

Students use algebra to solve practical problems. Topics include algebraic language, operations of signed numbers, solving word problems, solving and graphing linear equations and inequalities, systems of equations, rational and irrational numbers, expanding and factoring polynomials, simplifying radical expression and solving equations, understanding rational functions, further developing data analysis and probability skills, and solving quadratic equations. A scientific calculator, such as the TI-84 Plus CE, is recommended.

431 Geometry, College Preparatory

1.0 credit Grades 9-12

Essential for further study in mathematics, geometry develops logical thinking through deductive and inductive reasoning. Semester one includes topics of Euclidean geometry as points, lines, angles, planes, polygons, congruence, constructions, surface area, perimeter, volume, and coordinate geometry. Semester two includes topics such as similarity, circles, areas, volumes, constructions, transformations and proofs. A scientific calculator, such as the TI-84 Plus CE, is recommended. *Prerequisite: 421.1a and 421.1b or 424a and 424b*

432 Geometry, Honors

1.0 credit Grades 9-12

Essential for further study in mathematics, geometry develops logical thinking through deductive and inductive reasoning. Semester one includes topics of Euclidean geometry as points, lines, angles, planes, polygons, congruence, constructions, surface area, perimeter, volume, and coordinate geometry. Semester two includes topics such as similarity, circles, areas, volumes, constructions, transformations, and proofs. Covering all the topics of the college prep Geometry course, but more in-depth, with a theoretical approach, including the development of simple proofs. A scientific calculator, such as the TI-84 Plus CE, is recommended. *Prerequisite: 421 and 421.1 or 424*

441 Algebra II, College Preparatory

1.0 credit Grades 9-12

Students will solve basic and complex mathematical problems applying the concepts learned in Algebra I and Geometry. Semester one will target five basic areas of study: a review of Algebra I, linear equations and inequalities, systems of linear equations, quadratic equations, and functions. Semester two will include powers, roots, radicals, exponential and logarithmic functions, polynomial equations, rational functions, and quadratic relations. A graphing calculator is required for the course (TI-84 Plus recommended). *Prerequisite: 421 and 421.1 or 424*

442 Algebra II, Honors

1.0 credit Grades 10-12

Students will solve basic and complex mathematical problems by applying the concepts learned in Algebra I and Geometry. The course will review many topics covered in Algebra I Honors but will then apply them on an advanced level. Semester one topics will include functions, linear and absolute value equations, systems of linear equations, linear programming, exponential and logarithmic equations, and quadratics. Semester two topics will include polynomial equations, rational equations, irrational and complex numbers, analytic geometry and trigonometry. A graphing calculator is required for the course (TI-84 Plus recommended). *Prerequisite:* 421 and 421.1 or 424

443 College and Career Math

1.0 credit Grades 11-12

This course focuses primarily on the algebra skills needed to enter the workforce or entry-level math at community colleges. Students will develop skills in simplifying and evaluating polynomial and rational expressions, as well as solving linear equations and inequalities, quadratic equations and systems of linear equations. Emphasis will be placed on applying these skills in solving real-world problems. Topics include: a review of real numbers, equations, inequalities and problem-solving, graphing, exponents and polynomials, factoring poly-

nomials, rational expressions, advanced graphing skills, roots and radicals. *Prerequisite: 421 and 421.1 or 424, and 431 or 432*

450 Probability and Statistics

1.0 credit Grades 11-12

This course will focus on understanding and interpreting the many aspects of probability and statistics that are encountered in daily life. From election surveys to grading scales, this topic has a wide variety of applications and is useful for all students. The main content will cover analyzing and describing data that fall into the category of normal distributions and answering questions that start with "What is the chance that?" While not as computationally difficult as other math courses, this course has a high level of critical analysis. Once the foundation has been set in Probability and Statistics I, in semester two students will extend their focus to more complex statistical analyses commonly encountered in mathematical or scientific fields. Topics include special cases of normally distributed data, multiple variable regression, and binomial, Poisson, and chi-square distributions. A graphing calculator is required (TI 84 Plus recommended). *Prerequisite: 441 or 442*

451 Advanced Placement® (AP®) Statistics

1.0 credit Grades11-12

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. *Prerequisite: 450*

452 Precalculus, Honors

1.0 credit Grades 11-12

Students will learn the concepts and skills required for the study of calculus, college algebra, and finite mathematics. Topics covered in semester one will include series, sequences, equations, inequalities, functions, graphs, polynomial and rational functions, exponential functions, and logarithmic functions. Topics covered in semester two will include analytic geometry, systems, matrices, probability and statistics, and trigonometry. This level of math has a high level of rigor and will prepare students for more advanced math classes. A graphing calculator (TI 84 Plus CE recommended) is required for the course. *Prerequisite: 442*

454 Quantitative Reasoning, Honors

1.0 credit Grades 11-12

This course focuses on quantitative thinking with real-world applications. This is a college-level course that will require a high level of project-based learning and peer collaboration. Students will use and apply real-world math and be able to communicate their application and understanding with others. In addition to meeting math benchmarks, students will need to show proficiency in organization, collaboration, cooperation, and communication. Students may register with Great Bay Community College for 4 college credits. There is a \$150 fee. Financial assistance via scholarships may be available through GBCC Running Start Program. Topics covered in the first semester include: Set Theory, Logic, Number Representation, Number Theory, and the Real Number System, Equations and Inequalities, Graphs, Functions, and Linear Systems. Topics covered in the second semester include: Consumer Math and Financial Management, Measurement, Geometry, Counting Methods, and Probability Theory, Statistics, and Mathematical Systems. *Dual high school and college credit available. Prerequisite: Must meet benchmark score on Accuplacer (250-255), SAT (570 or higher), or ACT (23 or higher).*

460 Calculus, Honors

1.0 credit Grades 11-12

This course focuses on students' understanding of calculus concepts and provides experience with methods and applications through the use of 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). *Prerequisite: 452*

461 Advanced Placement® (AP®) Calculus AB

2.0 credits

Grades 11-12

AP® Calculus AB focuses on students' understanding of calculus concepts and provides experience with methods and applications through the use of 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). Because of the depth and scope of this course, this is a double block (meets daily). All students are required to take the AP® exam. *Prerequisite: 452*

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 1, 2, 3, and 4 to graduate. *Electives may not be substituted for required English credit*.

English 1: Genre Studies

1.0 Credit

Grade 9

- 212 College Preparatory
- 213 Honors

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 2: World Literature

1.0 credit

Grade 10

- 222 College Preparatory
- 223 Honors

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 3: American Literature

1.0 credit Grade 11

232 College Preparatory

233 Honors

Students increase their enjoyment of reading, broaden their horizons, and think critically about human problems. Includes a survey of American literature that explores culture, philosophy, and history, as well as the conventions of seventeenth through twenty-first century writing. Students improve the clarity and organization of their writing, and learn techniques for building vocabulary and using grammar.

English 4: A Thematic Study of Literature

1.0 credit

Grade 12

242 College Preparatory

243 Honors

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

1.0 credit

Grade 12

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. All students are required to take the AP® exam.

ENGLISH ELECTIVES

257 Writing Workshop

0.5 credit

Grades 10-12

Students interested in developing their essay writing skills will learn how to write in various rhetorical modes and develop effective written arguments with well-reasoned evidence. Students will: explore new techniques and genres; learn how to use grammar to affect style; read and analyze a variety of exemplar essays; complete a variety of written assignments, and submit a reflection at the end of the semester.

260 Creative Writing

0.5 credit

Grades 10-12

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 imagery in poetry? 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.

265 Movies that Matter

0.5 credit

Grades 11-12

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.

272 The Worlds of Science Fiction and Fantasy

0.5 credit

Grades 10-12

Students will explore the staples of the science fiction genre: aliens, technology, and time travel. We will read futuristic novels and several short stories, comparing and contrasting them to modern texts and issues. Students will also have the opportunity to read a fantasy or sci-fi book of their choice. This course will be discussion-based, but also writing-intensive. It will require students to compose essays, draft original stories, and analyze readings.

275 Nonfiction True Crime

0.5 credit

Grades 10-12

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.

277 The Quest for Equity Throughout History and Literature

0.5 credit

Grades 10-12

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.

278 Journalism 0.5 credit Grades 10-12

Exposes students to a variety of media-related roles, including reporting, editing, video broadcasting, and photography. By rotating through all of these roles, students will have exposure to a range of career positions in media.

FAMILY AND CONSUMER SCIENCE

951 Foods and Nutrition

0.5 credit

Grades 9-12

Includes study of nutrients, deficiency diseases, and making healthy food choices. Students will explore regional specialties of North America foods. Through weekly cooking labs, students will also learn food preparation skills, including proper use and care of kitchen equipment, reading recipes, safety, and sanitation.

952 Cooking for Everyday Living

0.5 credit

Grades 9-12

Focuses on the skills needed to be an efficient cook in everyday life. Topics include understanding the costs to prepare recipes, convenience foods, portion control, food labels, and vegetarian cooking. Through weekly cooking labs, students will also learn food preparation skills, including proper use and care of kitchen equipment, reading recipes, safety, and sanitation.

953 International Cuisine

0.5 credit

Grades 9-12

Explores diverse cultures, traditions, and foods from student-selected countries in Europe and South America. Students create a cookbook after researching and preparing recipes from each country. Weekly cooking labs reinforce basic cooking techniques.

954 World Cuisine 0.5 credit Grades 9-12

This class will explore the diversity of culture, traditions, and foods from student selected countries in Africa, Asia, and Australia. Students will create a cookbook from their selected countries by researching designated information then prepare recipes from each country. Basic cooking techniques will be reinforced through the weekly cooking labs.

956 Clothing and Sewing Skills

0.5 credit

Grades 9-12

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.

613 Lifetime Fitness Education

0.5 credit

Grades 9-12

Lifetime Fitness Education is geared toward educating about fitness awareness and concepts through lifetime activities. Examples of activities offered are fitness walking, Pilates, yoga, 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 Physical Education

0.5 credit

Grades 9-12

Competitive Physical Education is geared toward educating about fitness through advanced training techniques and higher intensity training. Activities offered will be a combination of lifetime activities and team sports, progressing into advanced skill-work and strategic play.

615 Personal Fitness 0.5 credit Grades 10-12

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. *Prerequisite: Completion of at least one semester of either Lifetime Fitness Education or Competitive Physical Education.*

617 Unified Physical Education

0.5 credit

Grades 9-12

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. *Prerequisite: Completion of at least one semester of either Lifetime Fitness Education or Competitive Physical Education.*

618 Yoga and Mindfulness

0.5 credit

Grades 9-12

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 benefits of stretching, moving, and breathing freely as ways to relieve stress, relax, and focus in ways that they can transfer to their daily life.

711 Health 0.5 credit Grades 9-12

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 Science Department offers courses in many fields of science. The goal of these courses is to create a scientifically literate student body, as well as to provide a foundation of knowledge and skills that will allow students to achieve success in future science courses at the collegiate level. The sequence of courses for most students is: Physical Science, Biology, and Chemistry, followed by electives.

Physical Science 1.0 credit Grades 9-12

712 College Preparatory

713 Honors

The fall semester focuses on the properties and interactions of matter as we investigate chemistry. A continuation of the fall semester, spring semester focuses on energy transformation and motion as we explore physics. Students will engage in discussions, as well as use a variety of media and resources, including books, news articles, and current scientific data, to research and study the foundations of both chemistry and physics. Students will be expected to map, interpret, and present data. Both chemistry and physics concepts will be applied to our knowledge of Earth as a system, involving relevant topics from geology, oceanography, meteorology, and astronomy. The class will be split into lecture and lab time. Physical Science introduces the fundamental skills that are needed to pursue further sciences. Both College Preparatory and Honors Classes place an emphasis on critical thinking and problem-solving skills. *Honors prerequisite: 90% or above in Grade 8 Science and Grade 8 Math.*

Biology 1.0 credit Grades 10-12

722 College Preparatory

723 Honors

Biology is the science of life. It is a requirement for graduation. The first semester begins with an overview of environmental science and ecology, including cycles of matter and invasive species, and continues into bioenergetics, the ways plants and animals get and use energy, and the study of DNA and proteins – two fundamental molecules for life. The second semester addresses cell structures like membranes, genetic inheritance and expression, and ends with evolution. Classroom activities and assessments for all students will focus on introductory biological knowledge, as well as skills such as creativity, scientific reasoning, and observation. Methods of instruction include lectures, labs, videos, and projects. Honors students should be ready for more independent work on projects outside of class, such as naturalism, history of science, scientific literature, and independent research. *Prerequisite: Physical Science or teacher recommendation. Honors prerequisite: Minimum 90% average in Physical Science.*

725 Advanced Placement® (AP®) Biology

1.0 credit Grades 11-12

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. All students are required to take the AP® exam. *Prerequisites: Physical Science (Honors) and Biology (Honors)*

726 Genetics and Biotechnology

0.5 credit

Grades 11-12

This course explores the fundamentals of genetics, such as how genes work, how gene expression is regulated, and how signals are passed from cell to cell. Students will explore current experiments and research in biotechnology as well: cloning, stem cell research, cancer treatments, and so much more. *Prerequisite: Successful completion of Physical Science Honors, and Biology Honors, or teacher recommendation.*

Chemistry 1.0 credit Grades 10-12

732 College Preparatory

733 Honors

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 gases, liquids, and solids, solutions, acids, bases, and salts with titration, reaction energy and reaction kinetics, chemical equilibrium, and oxidation-reduction reactions. Students will also study organic chemistry, biochemistry, and biotechnology. This is a laboratory course requiring detailed laboratory reports. *CP Prerequisite: Algebra I, Physical Science, Biology or teacher recommendations. Honors Prerequisite: Algebra 2 (enrolled in or completed).*

734 Advanced Placement® (AP®) Chemistry

1.0 Credit

Grades 11-12

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. All students are required to take the AP® exam. *Prerequisite: Physical Science Honors, Biology Honors, Chemistry Honors and enrolled in (or completed) Precalculus or Calculus.*

735 Environmental Science

1.0 credit

Grades 11-12

Get ready to explore the natural world and the living organisms that interact with it and consequently change it. Studying the interactions between the biotic and abiotic factors in a variety of ecosystems with a focus on environmental issues significant to the world today will be the prime directive of this course. Climate change and our energy future, acid rain, ozone depletion, nitrification of water systems, exponential population growth vs. limited natural resources, and loss of biodiversity will be topics for discussion, lectures, projects, labs and thought-provoking videos.

736 Advanced Placement® (AP®) Environmental Science

1.0 credit

Grades 11-12

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. All students are required to take the AP® exam. *Prerequisites: Algebra, Biology Honors or teacher recommendation; Chemistry (can be taken concurrently)*.

737 Earth Science 0.5 credit Grades 10-12

How was Earth first formed? What causes earthquakes and tsunamis? How do volcanoes erupt? This semester course will introduce planet Earth as a system and focus on the linkages and interactions between components of the Earth System. Topics from the disciplines of geology, oceanography, meteorology, and astronomy are explored to develop an appreciation of our planet as an integrated system. Students will engage in discussions as well as use a variety of media and resources, including books, news articles, and current scientific data, to research and study both local and global Earth systems. Students will be expected to map, interpret, and present data. *Prerequisite: Physical Science*

762 Anatomy and Physiology: Movement and More

1.0 credit

Grades 10-12

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 A+P: Movement and More does not mean you have to enroll in A+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. *Prerequisite: Biology (Grade 10 if enrolled in Biology)*

772 Anatomy and Physiology: The Insides of You

1.0 credit

Grades 10-12

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. This class may be taken before or instead of A+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. *Prerequisite: Biology (Grade 10 if enrolled in Biology)*

859 Criminology and Forensics

0.5 credit

Grades 10-12

Criminology and Forensics applies scientific principles to the operations and laws of the criminal justice system. Are shows like CSI an accurate reflection of the forensic field? How are criminal investigations aided by forensic evidence? The semester long course is co-taught between the science and social studies departments. It covers crime scene procedures from securing a crime scene to analyzing evidence like fingerprints, DNA, blood, and handwriting. Students will analyze multiple forms of evidence in class and report their findings, as well as place their analysis in the context of the justice system. Lab activities and case studies are utilized to illustrate the use of forensic science in criminal investigations. *Prerequisite: Biology (Grade 10 if enrolled in Biology)*

742 Physics, College Preparatory

1.0 credit

Grades 10-12

This class is a conceptual exploration of physics. Although mathematics is a necessary tool, math is not the main emphasis. The topics covered are similar to the Honors Physics but the depth of exploration is more project-based, using a wide variety of resources. We will experiment with labs, build models, watch science fiction movies and discuss real physics vs. Hollywood physics. Topics include vectors, motion, Newton's Laws, momentum, energy, circular motion, torque, rotational mechanics, and center of gravity. Students receiving an "A" in this course would be eligible for the second semester of Honors Physics. *Prerequisite: Geometry*

743 Physics, Honors

1.0 credit

Grades 10-12

This class is a preparation for calculus-based college physics. A strong math background is helpful. In semester one, mechanics is covered in detail including vectors, motion, Newton's Laws, momentum and energy. Semester two covers circular motion, torque, rotational mechanics, center of gravity, universal gravitation, light, sound, vibrations, waves, color, electrostatics, electric fields and potential, electric current, electric circuits, and rocketry.

Prerequisite for 743a: Algebra II

Prerequisite for 743b: C average in 743a or A average in 742a

PA1a & PA1b Advanced Placement® (AP®) Physics 1

1.0 credits

Grades 11-12

Project Accelerate (PA): A high school and university partnership course through Boston University.

AP® Physics is an algebra-based, college-level introductory physics course. Topics covered align with the College Board AP® Physics 1 syllabus and include translational motion, forces, momentum, energy, simple harmonic motion, waves, rotational motion, static electricity, direct current electronics, and electric fields. The primary instructional tool is a private online program containing instructional scaffolding, multiple assessment tools, simulations, and a suite of virtual explorations emphasizing science process practices. Although instruction is provided primarily through an online instructional tool, we want to emphasize the partnership aspect of the program. Students are not left to move through the course at their own pace. Students will be assigned time during the school day equivalent to any other major course to work in the online instructional tool. A close relationship is maintained between the university and the partner high school through regular communications between an appointed high school building liaison and a university liaison from Project Accelerate. Students selecting this course should have the potential for independent learning, and a demonstrated track record of on-time assignment production. All students are required to take the AP® exam. *Prerequisite: Algebra 2 or equivalent. Availability limited to 8 seats per school, so seniority, teacher recommendation, and PSAT scores may be used to determine placement.*

744 Meteorology 0.5 credit Grades 10-12

Meteorology introduces the study of weather, including examination of atmospheric properties and processes that control temperature, wind, precipitation, and storm systems. Students will engage in discussions as well as use a variety of media and resources, including books, news articles, and modern climate data to research and study both local and global weather patterns. Forecasting and map interpretation will be introduced through in-class weather briefings given by students and examined closely. Students will also be required to lead discussions on a variety of weather-related topics, including air pollution and climate change. Each class will be split into lecture and lab time. *Prerequisite: Physical Science, Biology, and Algebra I*

745 Astronomy 0.5 credit Grades 10-12

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. *Prerequisite: Physical Science*

746 STEM Explorations

0.5 credit

Grades 10-12

This is a hands-on, minds-on course that is based on critical thinking and the Engineering Design Process. The Engineering Design Process and scientific method guide students as they uncover ideas and concepts, utilizing critical thinking and problem-solving skills to design experiments and complete design challenges. Teamwork, creativity, and communication are all important in this student-driven, inquiry-based course. *Prerequisite: Physical Science*

SOCIAL STUDIES

Foundations of United States History

1.0 credit Grades 9-12

812 College Preparatory

813 Honors

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

1.0 credit Grades 10-12

822 College Preparatory

823 Honors

Each course is a year-long elective. In the first semester, students will engage in an exploration of events and civilizations that shaped Western Civilization, such as ancient Egypt, Mesopotamia, Greece and Rome. The second semester will include the Fall of Rome, the Middle Ages, the Renaissance, 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

1.0 credit Grades 10-12

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 0.5 credit Grades 11-12

804 College Preparatory

804H Honors

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 0.5 credit Grades 11-12

805 College Preparatory

805H Honors

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

0.5 credit Grades 11-12

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. *Prerequisite: Successful completion of Civics.*

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

1.0 credit Grades 11-12

This course will be offered in 2021-22 but not in 2022-23

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. The AP® U.S. History program is a one-year course with required summer assignments necessary for inclusion in the course. All students are required to take the AP® exam.

839 Introduction to Psychology

0.5 credit Grades 10-12

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 0.5 credit Grades 10-12

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 quest speakers.

842 Twentieth Century America

0.5 credit Grades 10-12

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.

843 **Current Events** 0.5 credit **Grades 10-12**

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 0.5 credit **Grades 10-12** Sociology

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.

851 **Comparative Religions and Cultures**

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.

International Relations 853

0.5 credit **Grades 11-12**

Grades 10-12

0.5 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.

858 0.5 credit **Grades 10-12** Art History: Rome, Tokyo, Amsterdam, and New York

This course is a focused study on art history through intensive inquiry-based learning of the Renaissance in Italy, Edo Period in Japan, Impressionism in Northern Europe, and Modern Art in the United States. Other art periods abutting those listed will also be explored chronologically. Through investigation of diverse artistic traditions, the course fosters an in-depth and holistic understanding of the history of art from global perspectives, to construct an understanding of individual works, and interconnections of art-making processes and products in history.

277 The Quest for Equity Throughout History and Literature 0.5 credit **Grades 10-12**

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.

WORLD LANGUAGES

The World Language Department offers courses in Spanish and Chinese from beginning levels through advanced studies. All courses explore both linguistic and cultural aspects of the language in order to gain a comprehensive knowledge and understanding of the Spanish-speaking and Chinese-speaking worlds. Language acquisition, comprehension of structure and practice of speech are a natural part of the second language classroom. In all levels, time is divided into the development of cultural knowledge and all four language skills: reading and listening comprehension, along with writing and speaking proficiency. The target language is used to its fullest extent appropriate to the level in each of the classes.

321 Spanish I 1.0 credit Grades 9-12

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

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 and classic cultural holidays. Students are guided through their creative discoveries and personal exploration of the Spanish language. *Prerequisite: Passing grade in Spanish I.*

323 Spanish III, Honors

This course further develops the skills acquired in Spanish I and II. Students improve all five skills: reading, listening, writing, speaking, and culture. Extensive vocabulary and additional idiomatic expressions are added to enhance the students' communication skills. Previously learned grammatical structures are reinforced and advanced grammatical structures are introduced. Students sharpen their speaking skills organically in the classroom. Students continue to explore the language and the Spanish-speaking world through viewing and discussing parts of an age-appropriate telenovela, which also serves as a springboard to explore cultural perspectives. Opportunities are provided to promote personal connections and creative thinking. *Prerequisite: Grade of 75% in Spanish II or teacher recommendation.*

1.0 credit

1.0 credit

Grades 10-12

Grades 10-12

324 Spanish IV, Honors

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, along with the review of past grammatical structures from levels I, II and III. The class is 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. *Prerequisite: Grade of 75% in Spanish III or teacher recommendation.*

325 Spanish V, Honors

1.0 credit

Grades 10-12

Students further enhance their skills through reading and discussing of Spanish literature. Additional vocabulary is presented and advanced grammatical structures are reviewed. Students are exposed to classic and contemporary Spanish and Hispano-American literature. Authentic materials for listening comprehension and readings of current news articles are also used for this level. The course is taught entirely in Spanish. Students engage in organic conversation in Spanish. Students explore personalized essential questions and embark on a guided quest to find answers. Students are empowered and encouraged to become creative thinkers. *Prerequisite: Grade of 75% in Spanish IV or teacher recommendation.*

330 Chinese Mandarin I

1.0 credit

Grades 9-12

This course introduces students to the Chinese language, culture, and history. In this course, students will begin by learning Chinese pronunciation, writing Chinese in pinyin and learning to write Chinese characters correctly. Students will learn to conduct basic Chinese conversations in certain situations. While most of the focus will be on listening, speaking, and writing, students will learn about Chinese culture and history.

331 Chinese Mandarin II

1.0 credit

Grades 10-12

Chinese Mandarin II continues the study of Chinese speaking, reading and writing skills. Students increase the numbers of characters they can comprehend and write. Students will learn more about how characters are constructed and be able to read more advanced material. Listening and speaking skills will be increased through in-class activities. Students will continue to learn about Chinese culture and history. *Prerequisite: Passing grade in Chinese Mandarin I.*

332 Chinese Mandarin III, Honors

1.0 credit

Grades 10-12

Chinese Mandarin III continues the study of Chinese speaking, reading and writing skills. Students are challenged to read longer and more in-depth reading selections in Chinese characters. Listening comprehension is increased through viewing more advanced videos and spoken materials. Speaking-skill fluency is emphasized. Students will gain an in-depth understanding of Chinese history during the year. *Prerequisite: Grade of 75% in Chinese Mandarin II or teacher recommendation.*

333 Chinese Mandarin IV, Honors

1.0 credit

Grades 10-12

Chinese Mandarin IV continues to emphasize Chinese speaking, reading and writing skills and places particular emphasis on proficiency in conversation and reading. Upon completion of this course, students should be able to speak in Chinese, with some fluency with basic conversational topics, as well as read and write short compositions using characters. Students will continue to gain an in-depth understanding of Chinese history during the year as well. *Prerequisite: Grade of 75% in Chinese Mandarin III or 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 I 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 selfadvocacy; 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).

779 Reading/Word Study

1.0 credit

Grades 9-12

Word study is designed to build word knowledge that can be applied to both reading and spelling primarily using the Wilson Reading System (WRS). WRS is a structured literacy program that directly and systematically teaches the structure of the English language. Through the program, students learn fluent decoding and encoding skills to the level of mastery. Vocabulary and comprehension skills are woven throughout each lesson. Student skills are assessed through informal evaluations to target areas of need and progress monitoring is used to gauge student academic performance. *Prerequisite: Permission from the instructor.*

DISTANCE LEARNING OPPORTUNITIES

VIRTUAL HIGH SCHOOL

To increase the number and scope of elective courses available to high school students, we partner with Virtual High School, an international collaborative of more than 600 high schools that offers more than 400 course sections.

Students must meet with their School Counselor to enroll in a VHS class. As NJSHS has a limited number of seats per semester, we cannot guarantee enrollment.

Students can log into VHS from any computer at any time, allowing them to self-direct their learning. Successful VHS students are independent learners, able to plan and complete their work on time.

For up-to-date information about offerings, visit the VHS course catalog.

KEY POINTS ABOUT VHS

- Students must meet with their School Counselor during the course selection process to register for VHS courses
- VHS requires students to log in and complete assignments at least four days per week
- VHS courses will be listed in student schedules as Virtual Learning and transcripts as "VHS [course name]"
- VHS courses run for 15 weeks, ignoring days off and school vacations. First semester courses end in mid-December, and second semester courses end in mid-May.
- VHS classes may not replace NJSHS courses to satisfy graduation requirements without prior approval of an administrator

VIRTUAL LEARNING ACADEMY CHARTER SCHOOL (VLACS)

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.

KEY POINTS ABOUT VLACS

- Only students in Grades 11 and 12 may enroll in VLACS courses
- Students may earn only 1.0 credit per year from VLACS courses
- Students may enroll in as many VLACS courses as desired, but only 1.0 VLACS credit may be earned per year
- Additional VLACS courses will not fulfill a graduation requirement and will not be included in the student's schedule, transcript, grade point average, or class rank
- VLACS courses may not be courses offered by NJSHS
- Students may take VLACS courses on their own time, or they may include 1.0 VLACS credit per year as part of their daily schedule, with prior administrative approval
- The 1.0 credit earned per year through VLACS is listed on the transcript as "VLACS [course name]"
- Students who do not follow the Newmarket grading timeline in VLACS courses will receive an Incomplete on their transcript. There is no grace period at the end of the semester. Incompletes affect eligibility for extracurricular activities if the student is taking only six courses.
- The senior completion date for full-year courses as well as Semester 2 courses will be sooner due to graduation. Completion date TBA.
- VLACS courses may be dropped without affecting a student's transcript during the Add/Drop period only
- VLACS courses dropped after the Add/Drop period have an impact on eligibility for honor roll and are recorded as follows:
 - WP Withdraw Passing
 - WF Withdraw Failing
 - WM Withdraw Medical
- No credit will be awarded for VLACS courses dropped after the Add/Drop period
- VLACS classes may not replace Newmarket courses that satisfy graduation requirements without prior administrative approval

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 (i.e., a credit check).

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 Science	4th Year Math Experience	Dual Enrollment	
SST Animal and Plant Science I	STEM	X			Prerequisite: Biology
SST Automotive Technologies I	STEM		X		Certified through National Automotive Technicians Education Foundation
SST Biomedical Science and Technology I	STEM	X		Х	Biology credit
SST Building Construction Technologies I	STEM		Х		Prerequisite: 16 years old by September 1
SST Careers in Education I	STEM & Social Science			Х	English credit
SST Computer Science I					Semester 2 Prerequisite: Introduction to Computer Science
SST Culinary Arts I	STEM & Art		X		
SST Digital Media Arts I: SST Graphic Design (Sem 1) SST Animation (Sem. 2)	STEM & Art				2 semester-based courses Art credit
SST Health Science Technologies I	STEM & Lab Science	X		Х	Prerequisite: Biology
SST Marketing Technologies I	STEM & Social Science		Х	X	Social Studies credit
SST Pre-Engineering I : SST Introduction to Engineering Design (Sem. 1) SST Principles of Engineering	STEM & Lab Science		X	Х	Science credit 2 semester-based courses Open to Grades 9-12 Prerequisite: Algebra I
SST Welding Technologies I	STEM		Х		

SECOND YEAR SST PROGRAMS

Course	NH Scholars	Lab science	4th Year Math Experience	Dual Enroll- ment	Elective Credits, Prerequisites, etc.
SST Animal and Plant Science II	STEM & Lab Science	Х		Х	Prerequisite: Animal and Plant Science I
SST Automotive Technologies II	STEM		X	Х	Prerequisite: Automotive Technologies I
SST Biomedical Science and Technology II	STEM & Lab Science	Х	X	Х	Biology Prerequisite: Biomedical Science and Technology I
SST Building Construction Technologies II	STEM		X		Prerequisites: Building Construction Technologies I and 16 years old by Sept. 1
SST Careers in Education II	STEM & Social Science			х	English Prerequisite: Careers in Education I
SST Computer Science II: SST Advanced Programming/ Java (Sem. 1) SST Advanced Programming/ C++ (Sem. 2)	STEM & Lab Science		Х	Х	2 semester-based courses Prerequisite: Introduction to Computer Science
SST Culinary Arts II	STEM & Art		X	Х	Prerequisite: Culinary Arts 1
SST Digital Media Arts II: SST Web Design (Sem. 1) SST Video Production (Sem. 2)	STEM & Art				Art 2 semester-based courses
Health Science Technologies II	STEM & Lab Science			Х	Lab Science Prerequisite: Health Science Technologies I
Marketing Technologies II	STEM & Social Science		x	Х	Social Studies Prerequisite: Marketing Technologies I
Pre-Engineering II: SST Digital Electronics (Sem. 1) Civil Engineering and Architecture (Sem. 2)	STEM & Lab Science		х	Х	2 semester-based courses Lab Science Prerequisite: Introduction to Engineering Design or Principles of Engineering
Welding Technologies II	STEM		X	Х	Prerequisite: Welding Technologies I

NEW HAMPSHIRE SCHOLARS

NH Scholars recognizes students who have exceeded the state's requirements for high school graduation. The program currently includes four pathways: Standard, STEM, Arts, and Career.

		Standard	STEM	Arts	Career
English 4 years	English 1 English 2 English 3 English 4	✓	✓	✓	✓
Math 4 years	Algebra 1 Algebra 2 Geometry One other competency	✓	✓	✓	✓
Science 3 years	Including 3 years of labs chosen from: Biology Chemistry Physics, etc. *and others as approved by indiv. schools	✓	√ * (4 years)	√*	✓
Social Studies 3.5 years	Chosen from: U.S. History World History World Geography Economics Government Psychology and others as approved by individual schools	✓	✓	✓	✓
Languages 2 years	Two years of the same language other than English	✓	✓	✓	
In addition to th	ne requirements above, three of the courses of	f study have a	dditional re	quirement	s:
Standard	None				
STEM	1 year: Chosen from Technology, Engineer Science, Math, CTE Program, Project Lead T approved by individual schools	ing, Compute he Way, Fami	rs, Advanced ly Consumer	d Manufact Science, a	turing, and others as
Arts	2 years: Chosen from Visual Arts, Fine Arts, Consumer Science, and others as approved			Graphic De	sign, Family
Career	 Career/Workforce Experience from these Successfully complete one of the follor Aligned or Career-Driven Extended Le in Formal Career Pathway Program of 	wing: Approve arning Oppor	ed NH CTE P tunity, All Se	quence Co	mponents
	 Successfully engage in a Work Based I Successfully earn one of the following Certificate, or Postsecondary Hours 			Valued Re	cognized

NJSHS STATEMENT OF NON-DISCRIMINATION

SAU 31 does not discriminate in the administration of its admissions and educational programs, activities, or employment practice 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.