

2021-2022 | Course Bulletin



THE SJA EXPERIENCE

Our Mission

This is the mission of St. Johnsbury Academy, a diverse, comprehensive, and independent educational community grounded by our traditions, our deep optimism regarding young people, and our commitment to academic excellence:

CHARACTER

To teach good character by modeling and fostering compassion, respect, responsibility, and integrity.

INQUIRY

To foster a love for learning by challenging individuals to pursue knowledge, creativity, and intellectual self-reliance.

COMMUNITY

To encourage each individual to understand his or her relationships, rights, and responsibilities within a community that is itself part of the larger world.

Contents

Course Selection Guide	3
Courses of Study	6
Freshman Humanities	6
Freshman Immersion	6
Senior Capstone	6
English	6
Social Studies	8
Mathematics	10
Science	12
Biomedical and Health Sciences Certificate Program	15
Engineering Design and Development Program	15
Environmental Studies Field Semester	16
Computer Science	16
Languages	17
English as a Second Language	20
Health and Wellness	20
Fine Arts	22
Performing Arts	23
Visual Arts	24
Driver Education	26
Career and Technical Education	26
Appendix	31
Procedure for Course Selection	31
Faculty	32
Colleges Attending	34
Sample Course Schedules	35
Board of Trustees	37
Accreditation	38

Academic Contacts

Kendra Brazeau
English as a Second Language
(802) 748-2361
kbrazeau@stjacademy.org

Elia Desjardins
Science
(802) 751-2245
edesjardins@stjacademy.org

Henry Eaton
Capstone
(802) 751-2355
heaton@stjacademy.org

David Eckhardt
Social Studies
(802) 751-2081
deckhardt@stjacademy.org

Mathew Forest
Special Services
(802) 751-2394
mforest@stjacademy.org

Patrick Guckin
Career and Technical Education
(802) 751-2320
pguckin@stjacademy.org

Steven Jolliffe
English
(802) 751-2070
stjolliffe@stjacademy.org

Patrick Kinsella
Mathematics
(802) 751-2372
pkinsella@stjacademy.org

Nikki Krysak
Library Director
(802) 751-2100
nkrysak@stjacademy.org

Liz Laverty
Computer Science
(802) 751-2082
llaverty@stjacademy.org

Ellen Meranze
Language
(802) 748-4674
emeranze@stjacademy.org

Sean Murphy '86
Guidance
(802) 751-2402
smurphy@stjacademy.org

Roseanna Prevost '84
Fine Arts
(802) 751-2036
rprevost@stjacademy.org

Denise Scavitto
Freshman Humanities
(802) 751-2414
dscavitto@stjacademy.org

Dale Urie '86
Health and Wellness
(802) 751-2342
durie@stjacademy.org

Other Contacts

Sharon Howell
Headmaster
(802) 751-2033
showell@stjacademy.org

Nicole Biggie '92
Director of Admission
(802) 751-2440
nbiggie@stjacademy.org

Tammi Cady '88
Assistant Headmaster
for Advancement
(802) 751-2010
tcady@stjacademy.org

Beth Choiniere
Assistant Headmaster
for Campus Life
(802) 751-2024
bchoiniere@stjacademy.org

John Cummings
Associate Headmaster
(802) 751-2131
jcummings@stjacademy.org

John Driscoll
Dean of Students
(802) 751-2472
jdriscoll@stjacademy.org

Henry Eaton
Interim Academic Dean
(802) 751-2050
heaton@stjacademy.org

John Lenzini
Athletic Director
(802) 751-2121
jlenzini@stjacademy.org

Carol Lyon
Assistant Headmaster
for Business Services
(802) 748-7703
clyon@stjacademy.org

James Mazzonna
Chief Information
Technology Officer
(802) 751-2371
jmazzonna@stjacademy.org

John Robillard '83
Dean of Resident Students
(802) 751-2357
jrobillard@stjacademy.org

James Ryan '89
Director of Resident Life
(802) 751-2007
jryan@stjacademy.org

Course Selection Guide

St. Johnsbury Academy is a comprehensive, co-educational secondary school serving students in grades 9 through 12 and a post-graduate year. In describing itself as comprehensive, the Academy intends that its curriculum will meet the needs of all of our students. We offer a wide range of subjects and sequences at different levels of difficulty. A careful reading of this curriculum guide will help ensure that parents and students make the best choices from the extensive options available.

Grade Progression

St. Johnsbury Academy is a four-year institution. Students normally progress from the ninth through the twelfth grades and graduate by accumulating credits through successfully passing courses of study. As long as a student has acquired sufficient credits so that they can make up missed credits and graduate with their current class, even if they have fallen behind in their required courses, they will advance from grade to grade with their class.

Graduation Requirements

In order to be granted a diploma by St. Johnsbury Academy, a student must complete four years of study at the secondary level and accumulate 26 credits. (See the chart “Graduation Requirements”).

The decisions that students and parents make in their choice of courses and in the sequence of courses are extremely important. The choices made for the freshman and sophomore years will strongly affect the options available for the junior and senior years. To help visualize several options, we have included model paths that typical students might follow at the Academy. They can be found starting on page 35.

Please refer to the individual departmental sections for further explanation of graduation requirements.

GRADUATION REQUIREMENTS

COURSE	CREDITS
Senior Capstone	1 credit
English	4 credits
Science	3 credits
Mathematics	3 credits
Social Studies.	3 credits
Physical Education	1 ½ credits
Health	1 credit
Electives	9 ½ credits
Total Needed	26 credits

St. Johnsbury Academy will not accelerate graduation. Students must achieve four calendar years of study at the secondary level in order to qualify for graduation from the Academy.

Levels of Instruction

As a comprehensive school, we admit students with a wide range of skills, interests and backgrounds. We believe that students learn best when the material that they experience is presented in a form and at a degree of difficulty matched to their previous achievement. In nearly all of our academic departments, students are homogeneously grouped; that is, they are placed in instructional sections with students of similar previous achievement and academic preparation.

All of our academic departments offer courses at four levels of instruction: basic, standard, accelerated, and Advanced Placement™ (AP).

- Students who are placed at the basic level have demonstrated a need for instruction in the foundational skills required to learn the material of the course. They benefit from a more gradual introduction to the subject material that allows them to master the content of the course with the supports that will help them achieve success.
- Students who are placed at the standard level of a course have demonstrated levels of achievement and background typical of most high school students. They possess the skills and the requisite information that enable them to be successful in this college preparatory curriculum.
- Students who are placed in the accelerated level of a course have demonstrated high levels of achievement and demonstrate deep background knowledge in the subject. They possess skills and information that enable them to master material at an accelerated pace.

Students new to the Academy are placed in various levels of instruction after careful study of standardized and placement tests they have taken, transcripts from previous schools, recommendations of teachers and guidance personnel, parental and student wishes, and consultations with the appropriate department chair. Students are not placed automatically at a given level of instruction in any department simply because they are in that level of instruction in another department. It is quite common for students at the Academy to be placed at different levels of instruction in different departments. Furthermore, if students experience success at a specific level, we encourage students to move to a higher level. In particular, it is the aim of the basic courses at the Academy to equip students to move to the standard levels of instruction as soon as possible. In each department, personnel meet regularly to make sure that students are appropriately placed.

Many of our non-academic and some of our academic courses are heterogeneously grouped; that is, a student will be placed in them without reference to already acquired skills and knowledge. Some of these courses are Senior Capstone, Physical Education, Health, and some technical courses.

After courses have been assigned, level changes are made only by the relevant Department Chair or the Academic Dean.

Advanced Placement Program

The Advanced Placement program of the College Board is offered to students who have demonstrated a superior understanding of the subject matter and have signified their desire to achieve college credit for courses taken while they are still in high school (sophomores, juniors, and seniors only). Successful completion of an AP exam is recognized by many major colleges and universities for advanced placement or credit, at their discretion. The Academy offers 30 Advanced Placement courses including: English Language and Composition, English Literature and Composition, United States History, European History, World History, United States Government and Politics, Microeconomics, Psychology, Calculus AB, Calculus BC, Statistics, Computer Science A, Computer Science Principles, Biology, Chemistry, Physics 1, Physics 2, Physics C: Mechanics, Physics C: Electricity and Magnetism, Environmental Science, Studio Art: Drawing and Painting, Studio Art: 2D, Studio Art: 3D, Music Theory, French Language and Culture, Spanish Language and Culture, Japanese Language and Culture, Latin, and the AP Capstone Program (AP Seminar and AP Research). Students who take Advanced Placement courses are required to take the nationally administered Advanced Placement exam at the end of each course. Payment for the Advanced Placement exam is due prior to the exam.

Advanced Placement Capstone Diploma™ and Certificate™ Program

The AP Capstone Program is a two-course sequence consisting of AP Seminar and AP Research that allows students to explore real-world issues while developing the analytic, research, problem solving, and communication skills that colleges look for in an applicant.

Students typically take AP Seminar in the 10th or 11th grade, followed by AP Research in 12th grade. Students who earn scores of 3 or higher in the AP Seminar and AP Research courses and on four additional AP Exams of their choosing will receive the AP Capstone Diploma. This signifies their outstanding academic achievement and attainment of college-level academic and research skills.

Alternatively, students who earn scores of 3 or higher on the AP Seminar and Research Exams only will receive the AP Seminar and Research Certificate.

SNHU in the High School Dual Enrollment Program

Southern New Hampshire University in the High School's dual enrollment program with St. Johnsbury Academy allows qualified high school students (sophomores, juniors or seniors) the opportunity to earn college credits while in high school. At St. Johnsbury Academy, designated courses have been aligned to meet the same content, rigor, and learning outcomes as that of the University. The high school teachers instructing these courses meet the University's adjunct faculty requirements and have been approved by the University. Students will have the opportunity to take advantage of the dual credit opportunities at the beginning of the courses by completing an application and submitting the course registration fee for each class. Once the registration period closes, students will not be allowed to register for college credit. Since these courses are college courses, credit will be awarded by St. Johnsbury Academy and Southern New Hampshire University. SNHU credit portability and transferability rests solely with individual colleges and universities as they have varying policies on accepting transfer credits; thus, it is the student's responsibility to obtain a transcript from SNHU and to consult with higher educational institutions to determine whether the SNHU course(s) can be transferred. Additional information regarding the program can be directed to the Director of Guidance. In order for a dual enrollment course to run, a minimum of six students must be enrolled.

Current St. Johnsbury Academy courses offered for dual credit include:

St. Johnsbury Academy Course	SNHU Course
Rhetoric and Composition ACC	College Composition I
Literature and Composition ACC	Introduction to Literature
Creative Writing ACC	Introduction to Creative Writing
Advanced Creative Writing	
United States History ACC	U.S. History II: 1865-Present
World Civilization Post 1500 ACC	World Civilizations: 1500-Present
AP European History	Western Civilization Since 1500
AP Microeconomics	Microeconomics 201
Applied Statistics ACC	Applied Statistics
Applied Calculus ACC	Calculus I: Single Variable
AP Biology	General Biology I
AP Biology Prep	General Biology II
AP Physics C: E & M	Physics I with Lab
Anatomy & Physiology ACC	Introduction to Anatomy and Physiology with Lab
Chemistry ACC	Fundamentals of Chemistry with Lab
French I ACC	Beginning French I
*French II ACC	*Beginning French II
*French III ACC	*Intermediate French I
*French IV ACC	*Intermediate French II
Spanish I ACC	Beginning Spanish I
*Spanish II ACC	*Beginning Spanish II
*Spanish III ACC	*Intermediate Spanish I
*Spanish IV ACC	*Intermediate Spanish II
*SNHU dual enrollment in French and Spanish language courses, requires beginning with Beginning French I/Beginning Spanish I.	
Additional course are being considered for the 21-22 school year.	

The Academic Support and Enrichment Services Center

The Academic Support and Enrichment Center (also known as the Learning Center) is professionally staffed with faculty representing core disciplines. The Center offers a resource for students to seek support or enrichment in their studies as they pursue their academic interests and realize their potential. Students can access the Center during their unscheduled blocks or study halls.

Grade Reporting

Grades are reported to students and parents four times a year: mid-semester and at the end of each academic term. Report cards consist of a list of courses taken, the teacher of each course, and

the grades for the period being reported. After the name of each course there is a parenthetical abbreviation which signifies the level of instruction at which the course was offered. There are five abbreviations: IS (Individualized Services), BA (Basic), ST (Standard), ACC (Accelerated), and AP (Advanced Placement). Students will earn credit in all courses that they have successfully completed after each semester of work.

The Academy acknowledges superior student achievement with two published lists, the high honor roll and the honor roll. Honor rolls are determined by mid-semester and semester grades. To achieve high honor roll status, a student must achieve an overall average of 90 or better. To achieve honor roll status, students must achieve an overall average of 85 or better.



Courses of Study

FRESHMAN HUMANITIES

All freshmen are required to take this course which satisfies 1 English and 1 Social Studies credit.

Freshman Humanities (Basic)
2 CREDITS/FULL YEAR (1911/1912)

Freshman Humanities (Standard)
2 CREDITS/FULL YEAR (1913/1914)

Freshman Humanities (Accelerated)
2 CREDITS/FULL YEAR (1915/1916)

This cross-disciplinary, writing-intensive course will introduce students to the skills necessary for their future success at the Academy. Students will apply the skills they learn in the areas of composition, critical thinking, and problem solving to the study of the human condition. Students will examine a variety of texts, both historical and contemporary, as a means of building connections to the course's guiding themes.

The course culminates in the Freshman Inquiry Project which allows students to partner with local institutions as a means of building connections to the course's guiding themes.

FRESHMAN IMMERSION

Freshman Immersion
ALL LEVELS/FALL SEMESTER (7590)

All freshmen are required to take the Freshman Immersion program in their first semester at St. Johnsbury Academy. The course is anchored in the Academy's commitment to success for each student by introducing mission-based curriculum designed to address our core values of character, community, and inquiry. As part of our transition program and commitment to our freshman families, all students are introduced to various aspects of St. Johnsbury Academy in an intentional way. Students learn about the school mission and core values, understand and commit to

student expectations, learn responsibility regarding digital citizenship, explore Academy traditions, learn how to balance student commitments and the importance of involvement in extra-curricular activities, enhance time management skills and executive functioning skill sets, and learn how to be a global citizen on an independent boarding school campus through the lens of cultural awareness, diversity, and inclusion. In addition, class time is devoted to the use of technology to enhance educational outcomes including in-depth coverage of our learning management system, Canvas, and the Google applications used by our teachers.

SENIOR CAPSTONE

1 credit required for graduation.

All seniors are required to complete a Senior Capstone investigation. The Academy sees the Capstone course as a culmination of all previous learning; it serves as an opportunity for students to demonstrate their mastery of our standards as they head to college, careers, and carry their overall Academy experience into their personal and professional lives. On Senior Capstone Day, in early December and early May, seniors present their Capstone projects to their peers, faculty members, trustees, and members of the community.

Senior Capstone (Accelerated)
1 CREDIT (7701)

This required, one-semester, heterogeneously grouped, interdisciplinary course will serve as an opportunity for seniors to demonstrate their ability to meet Academy standards as a culmination of all of their previous course work and a springboard into their post-secondary careers. The domain of the course will include three main components:

- 1. Problem-solving:** Discipline-specific research methods, field research, and critical inquiry
- 2. Communication:** Discipline-specific writing formats, editing, revision, and public speaking
- 3. Citizenship:** Defining the characteristics of a professional and acting and producing to that definition.

While the vast majority of seniors satisfy their capstone requirement in the 7701 course, other courses that satisfy the Capstone graduation requirement are:

1062 – AP Research (English Department)

7705 – Visual Arts Capstone (Fine Arts Department)

7703 – ESL Capstone (ESL Department)

4853 – Engineering Design and Development Capstone (Science Department)

7706/Spring Semester – CTE Field Studies Capstone

Must be combined with 4999/Fall Semester – Environmental Studies Field Semester. Meets every other day. (Science Department)

7707 – CTE Capstone (Career and Technical Education Department)

For more information on these offerings, see the entry for these courses in the appropriate department sections of the course bulletin.

ENGLISH

4 credits are required for graduation. For those students who have taken Freshman Humanities, 3 additional core credits are required for graduation. All students are required to complete one core English course each academic year.

The English Department recognizes a double responsibility to its students. On the one hand, students need to master specific skills essential to the proper use of language. On the other hand, students growing quickly into adulthood need to know how to write, how to read, how to create, and how to be critical thinkers in a world that demands increasingly complex choices. These are talents whose developments are interconnected, often simultaneous, and never completed in a lifetime. The English curriculum is designed to help students continue to improve their language skills and further expand their developing talents.

Core Courses

Literary Perspectives (Basic)

1 CREDIT (1031)

*Prerequisite: Freshman Humanities or equivalent
Open to Sophomores*

Literary Perspectives (Standard)

1 CREDIT (1033)

*Prerequisite: Freshman Humanities or equivalent
Open to Sophomores*

Literary Perspectives (Accelerated)

1 CREDIT (1035)

*Prerequisite: Freshman Humanities or equivalent
Open to Sophomores; with departmental approval*

This Sophomore course emphasizes the importance of inquiry while supporting skills in reading, analysis, and research. Students will identify main ideas and arguments in texts; identify ways in which writers develop these ideas through characterization, plot, structure, and other literary devices and strategies; reflect on the effectiveness of literary arguments; and consider how context and occasion influence authorial decisions and literary works.

Students will also be required to develop their own perspectives and communicate via written, oral, and visual mediums, both independently and collaboratively, and synthesize a variety of genres and texts.

Upon completion of this course, students will be able to analyze and evaluate a variety of texts and have the ability to communicate ideas, using a variety of methods, supported by evidence.

AP Seminar

1 ½ CREDITS (1060/1064)

Open to Sophomores and Juniors; with departmental approval

In the first year of the two-year AP Capstone Program sequence, students will develop and strengthen their analytic and inquiry skills, exploring in detail three to five relevant issues selected by the instructor. They will learn to consider an issue from multiple perspectives, evaluate the strength of an argument, and make logical, fact-based decisions.

During the course, students will complete a team project and presentation, an individual reflection, and an individual paper and presentation. Students are required to take the AP Seminar written exam.

Technical Communications I (Standard)

1 CREDIT (1063)

*Prerequisite: Literary Perspectives or equivalent
Open to Juniors*

This standard-level course is open to juniors who are enrolled in a technical education course and who anticipate continuing their education at a technical college or institute. Students will be introduced to the principles of effective communication in the workplace. Special attention will be given to workplace ethics. Students will research topics of personal and vocational interest, explore career plans and opportunities, and present information and opinions to various audiences. In class projects, students will solve realistic problems using critical thinking and decision-making skills.

Rhetoric and Composition (Standard)

1 CREDIT (1053)

*Prerequisite: Literary Perspectives or equivalent
Open to Juniors*

Rhetoric and Composition (Accelerated)

1 CREDIT (1055)

College credit is available through Southern New Hampshire University's dual enrollment course College Composition I.

*Prerequisite: Literary Perspectives or equivalent
Open to Juniors*

Through this Junior course, students immerse themselves in argumentative and persuasive writing. They will then refine academic writing and research skills through the Area of Inquiry research project. Thematic units provide a platform for critical thinking about American ideals and individual self-understanding.

AP English Language and Composition

1 ½ CREDITS (1058/1059)

*Prerequisite: Concurrent enrollment with AP Seminar
Open to Juniors; with departmental approval*

This two-semester course leads directly to the taking of the Advanced Placement examination in English Language and Composition in the spring. The course prepares students for the AP examination, including critical reading, rhetorical and stylistic analysis, and argumentation. Students will refine their academic writing and research skills through the Area of Inquiry research project. The class process will feature seminar discussions of the assigned readings. Although primarily a study of nonfiction texts, the course will

supplement its core readings with poetry and fiction drawn from the major periods of American literature.

Technical Communications II (Standard)

1 CREDIT (1083)

Prerequisite: Technical Communications I or with departmental approval

This course is open to seniors who are enrolled in a minimum of two blocks of technical education and who anticipate continuing their education at a technical college or institute. Students will research topics of personal and vocational interest, explore career plans and opportunities, and present information and opinions to various audiences. In class projects, students will solve realistic problems using critical thinking and decision-making skills.

Literature and Composition (Standard)

1 CREDIT (1073)

*Prerequisite: Rhetoric and Composition or equivalent
Open to Seniors*

Literature and Composition (Accelerated)

1 CREDIT (1075)

College credit is available through Southern New Hampshire University's dual enrollment course Introduction to Literature.

*Prerequisite: Rhetoric and Composition or equivalent
Open to Seniors*

This senior course teaches college-preparatory logic and analysis through reading, writing, speaking, and listening. The course examines significant works of world literature that reveal the diversity of human experience and the mandate to make the world a more humane place. Students write a variety of essays that build upon modes introduced in Rhetoric and Composition.

AP English Literature and Composition

1 CREDIT (1079)

*Prerequisites: concurrent enrollment in AP Research
Open to Seniors; with departmental approval*

This course leads directly to the taking of the Advanced Placement examination in English Literature and Composition in the spring. The course introduces and reinforces skills that will allow students to do well on the AP exam. It engages students in a wealth of literature and a range of genres, reading both widely and deeply; students also write critical analysis, including expository, analytical, and argumentative essays. Students will refine college-level critical thinking skills through

the interpretation of prose, poetry, and drama, with a focus on British literature. The Senior Capstone experience required for graduation is also embedded in the course.

AP Research

1 CREDIT (1061)

Prerequisite: AP Seminar and concurrent enrollment with Accelerated English Literature and Composition or AP English Literature and Composition
Open to Seniors; with departmental approval

Students will work on an independent research project on a topic of interest. At the end of the research project, they will submit an academic paper of about 5,000 words and defend their research through a presentation. Additionally, students will present the application of their research at our spring Capstone day.

Elective Courses

Media Studies and Production I (Accelerated)

1 CREDIT (1005)

Prerequisite: Freshman Humanities

Media Studies and Production I examines the intricacies of journalism's new frontier and explores what it means to allow words, images, and sound to interplay for effective communication with an audience of both the Academy community and the world at large. Students will explore the interplay of various means of communication and compose audio and video podcasts, visual narratives, and written articles. They will ultimately create multi-layered media projects through the use of multimedia authoring software for online publication and digital storytelling. Students will investigate 21st Century media to evaluate how messages are delivered with lasting impact and effectiveness.

Media Studies and Production II (Accelerated)

1 CREDIT (1006)

Prerequisite: Media Studies and Production I

Media Studies and Production II further examines the intricacies of journalism's new frontier and the ways in which words, images, and sound interplay for effective communication with an audience—both the Academy community and the world at large. Students will continue their exploration of various means of communication and compose nuanced audio and video podcasts, visual narratives, and written articles for publication. Additionally, students will learn and practice the mechanical, decision-making, interpersonal, and supervisory

skills required to successfully manage a professional newsroom.

Creative Writing (Accelerated)

1 CREDIT (1007)

College credit is available through Southern New Hampshire University's dual enrollment course Introduction to Creative Writing.

Open to Sophomores, Juniors, and Seniors

Students will create portfolios of their own work in the genres of short fiction, poetry, and playwriting; the portfolio will contain selections from their daily writing journal as well as finished and revised pieces. Students will read widely in these genres from selections of both older and contemporary works chosen by the class, and achieve a sophisticated understanding of the fundamental elements of those genres. The course will include field trips to attend writing festivals and poetry slams as well as trips to local colleges for readings.

Advanced Creative Writing (Accelerated)

1 CREDIT (1008)

Prerequisite: Creative Writing (Accelerated)
Open to Sophomores, Juniors, and Seniors; with departmental approval

Seniors who wish to pursue intensive study of creative writing may take Creative Writing a second time for credit. In consultation with the instructor, the students in this course will embark on a demanding course of study in two genres of his/her choice, one per quarter. These may include poetry, short fiction, script writing, the novella, and children's literature. Students taking Advanced Creative Writing will have class with Creative Writing students. Admission will be reserved for those students who have demonstrated a sincere, significant interest in pursuing creative excellence and whose post-secondary plans include creative writing study.

Public Speaking (Accelerated)

1 CREDIT (1001)

Open to Sophomores, Juniors, and Seniors

This course enables students to speak and write effectively for a wide variety of purposes and audiences. Through the study of form and communication, students learn to use storytelling, personal statements, persuasion and vocal techniques to express their ideas at formal, informal and social events. Students will leave this class able to speak confidently and comfortably in front of almost any audience.

College Writing (Standard)

1 CREDIT (1003)

Open to Juniors and Seniors

College Writing (Accelerated)

1 CREDIT (1004)

Open to Juniors and Seniors; with departmental approval

This course is designed to enhance the language and writing of skilled college-bound students. It will examine strategies for writing effective college admissions essays and will study the SAT with a particular emphasis on vocabulary, timed-writing, and reading comprehension.

SOCIAL STUDIES

3 credits are required for graduation. For those students who have taken Freshman Humanities, 2 additional core credits are required for graduation. All Students are required to complete Freshman Humanities or the equivalent; World Civilization, Post-1500, AP European History, or AP World History; and United States History.

One of the stated objectives of education is to produce good citizens. In a democracy, this means informed, involved citizens—persons who are willing and able to understand and act upon the critical issues of their times. The Social Studies are replete with controversy: questions of power, decision-making, leadership, duties of citizens, goals for the nation, freedoms for individuals, equity of opportunity, distribution of wealth, war and peace; these are issues that must be studied in their historical context, re-examined, and acted upon by each new generation of Americans. Divisions of opinion are inevitable but an informed, involved, critical thinker is better able to pursue their task of citizenship.

All Academy students are required to successfully complete Freshman Humanities, World Civilization, Post-1500, and United States History. These courses must be taken sequentially and elective courses may also be inserted into a student's curriculum. AP European History and AP World History may be substituted for World Civilization, Post-1500 and AP United States History may be substituted for United States History.

Acceptance into AP courses requires the recommendation of the department.

Core Courses

World Civilization, Post-1500 (Basic)

1 CREDIT (2911)

Prerequisite: Freshman Humanities

World Civilization, Post-1500 (Standard)

1 CREDIT (2913)

Prerequisite: Freshman Humanities

World Civilization, Post-1500 (Accelerated)

1 CREDIT (2915)

College credit is available through Southern New Hampshire University's dual enrollment course World Civilizations: 1500-Present.

Prerequisite: Freshman Humanities

This course will explore the major themes of historical change in the world from 1500 to 1800. Citizenship, government, and revolution are key strands of the course. It will also enable students to work on those Social Studies department standards that have not yet been mastered.

AP World History

1 ½ CREDIT (2916/2917)

Prerequisite: Freshman Humanities or with departmental approval

This college-level course prepares students for the Advanced Placement examination. This course focuses on developing students' understanding of world history from approximately 1200 CE to the present. Students will investigate the content of world history for significant events, individuals, developments, and processes in six historical periods while they develop essential historical thinking skills. The course focuses on five interconnected themes, encouraging students to make connections between different eras in regions, including Africa, the Americas, Asia, Europe, and Oceania. This course fulfills the World Civilization, Post-1500 requirement. This class will be held every other day in the first semester and will meet every day in the second semester.

AP European History

1 ½ CREDITS (2918/2919)

College credit is available through Southern New Hampshire University's dual enrollment course Western Civilization Since 1500.

Prerequisite: Freshman Humanities or with departmental approval

This college-level course prepares students for the Advanced Placement examination in European History. The course includes a profound study of European history

beginning with the late Middle Ages and continuing through the Cold War, including a demanding reading schedule and the practice of AP testing elements. AP European History meets for the entire year. The class will be held every other day in the first semester and will meet every day in the second semester. It fulfills the World Civilization, Post-1500 requirement. This class will be held every other day in the first semester and will meet every day in the second semester.

United States History (Basic)

1 CREDIT (2151)

*Prerequisites: Freshman Humanities and World Civilization, Post-1500
Open to Juniors*

United States History (Standard)

1 CREDIT (2153)

*Prerequisites: Freshman Humanities and World Civilization, Post-1500
Open to Juniors*

United States History (Accelerated)

1 CREDIT (2155)

College credit is available through Southern New Hampshire University's dual enrollment course U.S. History II: 1865-Present.

*Prerequisites: Freshman Humanities and World Civilization, Post-1500
Open to Juniors*

This survey course will expose students to the history of the United States in a chronological approach from the founding of the United States to the present. The course will focus on active citizenship and will highlight the study of United States history through political and economic lenses.

AP United States History

1 ½ CREDITS (2158/2159)

*Prerequisites: Freshman Humanities and World Civilization, Post-1500, AP World History, or AP European History; with departmental approval
Open to Juniors*

This Junior college-level course is taught to prepare students to take the Advanced Placement United States History exam and requires a level of critical thinking and writing commensurate with college work. This course meets for the entire year. The class will be held every other day in the first semester and will meet every day in the second semester.

Elective Courses

Vermont History and the Identity of the Northeast Kingdom

1 CREDIT (2920)

Prerequisite: Freshman Humanities

If history focuses on understanding our place in the world, then history starts in our own backyard. Vermont and the Northeast Kingdom share a long and storied history. Students will learn local history from primary sources, and the award-winning book, *Hands on the Land*, which will serve as a supplementary text. Students will participate in a variety of learning experiences, including field trips, investigation of primary sources, and self-directed research projects.

Sociology and Criminology (Standard)

1 CREDIT (2949)

Prerequisite: Freshman Humanities

This semester-long course is designed as a compliment to both our Psychology and Career Awareness Curriculum. It provides students with a general overview of Sociology while looking specifically at Criminology with a concentration on deviance and social control. Along with the topics such as, social structure/socialization, sex and gender, race and ethnicity, the family, crime, punishment, theories of deviance, recidivism and rehabilitation, this course will allow for an individual concentration relative to a social group of the student's choice. Each student will be responsible for content knowledge and individual research on this social group throughout the semester.

Economics and Public Policy (Standard)

1 CREDIT (2947)

Prerequisites: Satisfactory completion or current enrollment in U.S. History and Algebra II or with departmental approval

Economics and Public Policy (Accelerated)

1 CREDIT (2948)

Prerequisites: Satisfactory completion or current enrollment in U.S. History and Algebra II or with departmental approval

This course is meant for students who have an interest in economics, public policy, and finance. Students will explore the fundamental principles of economics with an emphasis on practical applications through behavioral economics and game theory. Students will examine the social

and economic impacts of government policy through case studies from various administrations from the 1960s to the present. Students will also design and execute behavioral economics experiments, explore personal finance strategies, and write policy papers.

AP United States Government and Politics

1 ½ CREDITS (2178/2179)

Prerequisites: Freshman Humanities and United States History
Open to Seniors or with departmental approval

This college-level course prepares students to take the AP United States Government and Politics examination. It further prepares students for roles as community leaders and responsible, active citizens using the competitive “We the People...” program, in order to strengthen their critical thinking and extemporaneous speaking skills. The “We the People...” program culminates in a State congressional hearing competition in January. Additionally, students investigate core concepts of political science: consuming and producing polls, analyzing charts and graphs, predicting voting behavior, analyzing demographic data, and understanding the essential ideas about political parties, campaigns, and elections.

Furthermore, by the end of the course, students will understand influences on the policy agenda and the process of policy making and enactment. The course will close with a study of economic naturalism. The class will meet every-other day in the first semester, and every day in the second semester.

AP Microeconomics

1 ½ CREDITS (2218/2219)

College credit is available through Southern New Hampshire University's dual enrollment course Microeconomics 200 level.

Prerequisites: Freshman Humanities and United States History
Open to Seniors or with departmental approval

This college-level course prepares students for the Advanced Placement examination in Microeconomics. Students will investigate the core concepts of microeconomics. Students taking AP Microeconomics may also elect to sit for the Advanced Placement exam in Macroeconomics with approval from the Social Studies Department Chair and Academic Dean. Additional out of class work will be required to prepare for the Macroeconomic Exam. This class will meet every-other day in the first semester, and every day during the second semester.

Modern East Asia (Accelerated) **1 CREDIT (2922)**

Prerequisites: Freshman Humanities and World Civilization, Post-1500 or with departmental approval

This course will examine the rich and complex history of East Asia, particularly the modern nations of China, Japan, and Korea and will focus on the post-1945 period. The growth of China into a world leader, the dynamism of Japanese culture, and the ongoing struggle between the north and the south in Korea will be explored. The course will take the form of a seminar, in which students will be expected to actively engage with course content in classroom discussion, as well as out of the classroom in writing.

Psychology (Standard)

1 CREDIT (2923)

Prerequisites: Freshman Humanities; open to Sophomore, Juniors, and Seniors

Psychology (Accelerated)

1 CREDIT (2925)

Prerequisite: Freshman Humanities
Open to Sophomores, Juniors, and Seniors

Students will gain a knowledge of the basic theories of human behavior and interaction through readings, discussion, multimedia, and field research

AP Psychology

1½ CREDIT (2928/2929)

Open to Juniors and Seniors; with departmental approval

This college-level course prepares students for the Advanced Placement examination in Psychology and includes an in-depth study of the biological, cognitive, developmental, social, and clinical aspects of psychology. This class will meet every day in the first semester and every other day in the second semester.

Contemporary Issues (Accelerated)

½ CREDIT (2946)

Prerequisite: Freshman Humanities

This course focuses on the study of issues that are affecting the world today and requires the use of newspapers and discussion to enhance knowledge of current events. This class will be held every other day.

Philosophy (Accelerated)

1 CREDIT (2935)

Prerequisite: Freshman Humanities

This course will introduce students to the study and uses of philosophy, as well as the history of ideas. Students take a multi-

cultural approach by reading original works of thinkers of all regions and periods, from Plato to Rumi, Axial-Age China to modern day England, and beyond. Students will examine issues such as free will, justice, religion, individual responsibility, and the quest to find meaning and fulfillment in the living of one's own life.

MATHEMATICS

3 credits required for graduation

The sequence of courses will permit students to have the following experiences in math:

- View math as a blend of patterns instead of a set of isolated topics.
- Make connections; construct models and theories that order their understanding of their environment.
- Relate mathematical ideas to everyday experiences and real-world situations.
- Discover how to adjust procedures to solve new problems.
- Spend more time on each topic, enabling invention and practice.
- Create “real” connections and study those connections from concrete to abstraction.
- Develop communication, reasoning, and problem-solving skills.

Three mathematics courses are required for graduation. The mathematics program includes course offerings designed to provide opportunities for all students to learn meaningful mathematics. At several points during their academic career, student placements are reviewed to ensure that they are working at a level consistent with their goals and achievement.

Students who take standard level courses acquire a sound preparation to pursue four-year college programs, two-year technical programs, on-the-job training, or armed forces experience. Themes that are emphasized throughout include problem-solving, applications of the ideas presented, use of the graphing calculator, writing process, and collaboration.

Students who enroll in accelerated math courses will be prepared to pursue competitive four-year college programs. These are highly motivated students with strong mathematical achievement. Themes emphasized through this sequence include problem solving, applications of the ideas

presented, theory, and an appreciation of mathematics as a language. Graphing calculators are used to facilitate the teaching of these courses. One goal of the courses in this sequence is to prepare students for AP mathematics courses and beyond. Courses in this sequence differ from the equivalent standard-level course by the pace of the course, the amount of required homework, and the level of abstraction and formal proof.

Permission to take an accelerated-level course is normally predicated by maintaining a grade of at least 80 in the previous accelerated-level course or at least 90 in the previous standard-level course.

All courses use graphing calculators and/or computers to enhance the learning of mathematics. In addition, all students are expected to write about their mathematical processes.

Algebraic Foundations I 1 CREDIT (3210)

This course is the first part of a two-part foundations of algebra course. The topics of the course will include the real number line and operations of those numbers. Exponents, powers, and order of operations will be explored through problem solving. Equations will be identified in the world around, including the workplace, and will be modeled through application. Students are taught the correct and appropriate use of a graphing calculator.

Algebraic Foundations II 1 ELECTIVE CREDIT (3212)

Prerequisite: Algebraic Foundations I

This course completes the two-part foundations of algebra course. The topics of the course include further investigation of equations and their application in the real world. Equations will be developed using technology. After investigating operations of exponents using manipulatives, students will learn to apply the concept to scientific notation. Applications of systems of equations will be studied using both algebra and analytic geometry. Data analysis and linear regression will be explored using the graphing calculator. This course will also include the language of BASIC using the programming functions of the graphing calculator.

Algebra I Full Year (Standard) 1 MATH CREDIT/1 ELECTIVE CREDIT (3216/3217)

With departmental approval. The math department placement test determines placement in the full-year Algebra I course.

Algebra I Full Year (Accelerated) 1 MATH CREDIT/1 ELECTIVE CREDIT (3218/3219)

With departmental approval. The math department placement test determines placement in the full-year Algebra I course.

Algebra I (Accelerated) 1 CREDIT (3215)

Prerequisites: Above average Placement Test and recommendation based on prior achievement; with departmental approval

This course consists of the rules of algebra with an emphasis on linear functions. Students will learn to evaluate and simplify algebraic expressions and linear equations. In addition, students in this course will evaluate, analyze, and graph functions and relations. Applications of systems of equations will be studied using both algebra and analytic geometry. Data analysis and linear regression will be explored using the graphing calculator. This course will also include the language of BASIC using the programming functions of the graphing calculator.

Integrated Math (Basic) 1 CREDIT (3251)

Prerequisites: Algebraic Foundations I and II or Algebra I (Standard)

This course provides a bridge to Algebra II. It includes an intensive review of Algebra I skills and concepts. The geometry concepts of congruence, symmetry, translations, and reflections are explored. Modeling of area and volume is investigated through two- and three-dimensional objects. Topics of statistics and probability are examined using graphing and volume, principles of proof and logic, symmetry, and transformations.

Algebra II (Standard) 1 CREDIT (3233)

Prerequisites: Algebraic Foundations I and II, Algebra I, Grade ≥ 75 ; with departmental approval

Algebra II (Accelerated) 1 CREDIT (3235)

Prerequisite: Algebra I; with departmental approval
Freshmen may start their math sequence with this course if a satisfactory score has been earned on the department placement test.

This course consists of the rules of algebra with an emphasis on linear and quadratic functions. Areas of study will include understanding and using number and operation concepts with emphasis on

the number system. The students will be introduced to styles of proving, evaluating, and simplifying algebraic expressions. There will be emphasis on solving complex or unfamiliar problems using appropriate analysis techniques and reasonable estimation. The students will learn to generalize results from specific applications. Advanced topics of solving rational expressions, transformations, and exponential growth and decay are also included.

Geometry (Standard) 1 CREDIT (3253)

Prerequisite: Algebra II; with departmental approval

Geometry (Accelerated) 1 CREDIT (3255)

Prerequisite: Algebra II; with departmental approval

This course consists of the principles of Euclidean geometry supplemented by logic. Areas of study will include basic geometric figures and relationships among them, properties of polygons with emphasis on triangles and quadrilaterals, properties of circles and related concepts, congruence and similarity, and applications of measure and area problems. The student will learn right triangle trigonometry and have an introduction to trigonometric functions.

Trigonometry (Standard) 1 CREDIT (3273)

Prerequisite: Geometry or with departmental approval

Trigonometry (Accelerated) 1 CREDIT (3275)

Prerequisites: Algebra II and Geometry or with departmental approval

This course allows the student to study many different areas within trigonometry. Topics will include angles and rotations, the unit circle and right triangle trigonometry, trigonometric functions, and circular functions and their graphs; trigonometric identities; and proofs of identities. Concepts will be applied in a variety of areas such as civil engineering and science. Students will make extensive use of graphing calculators. Arc length and polar coordinates are also included.

Precalculus (Standard) 1 CREDIT (3283)

Prerequisite: Trigonometry or with departmental approval

Precalculus (Accelerated) 1 CREDIT (3285)

Prerequisite: Trigonometry or with departmental approval

This course develops the analytic skills necessary to describe the behavior of mathematical functions. Topics include algebraic expressions, u-substitution, higher degree polynomials, rational, logarithmic, and exponential functions, function composition, inverses of functions, transformations of functions, and polynomial and synthetic division. A review of trigonometric functions and the unit circle is also included.

In this course students will explore broad applications of mathematical ideas as they pertain to the field of business, the social sciences, computer science, and number theory. The goal of this course is to prepare students to interpret data, to construct algorithms, and to build mathematical models to analyze and solve problems. Topics include probability, data analysis, sequences and series, and logic.

Applied Calculus (Standard) 1 CREDIT (3280)

Prerequisites: Trigonometry and Precalculus; with departmental approval

Applied Calculus (Accelerated) 1 CREDIT (3286)

College credit at the accelerated level, is available through Southern New Hampshire University's dual enrollment course Calculus I: Single Variable.

Prerequisites: Trigonometry and Precalculus; with departmental approval

This course will serve as an introduction or survey of the fundamentals of differential and integral calculus. Students will be encouraged to study these concepts in practical tangible applications through hands on projects, classic lectures, and direct research. While each student will learn the fundamentals of differentiation and integration, this course is not intended to be an alternative to the AP Calculus course.

Applied Statistics (Standard) 1 CREDIT (3287)

Prerequisite: Trigonometry; with departmental approval

Applied Statistics (Accelerated) 1 CREDIT (3282)

College credit at the accelerated level, is available through Southern New Hampshire University's dual enrollment course Applied Statistics.

Prerequisite: Trigonometry; with departmental approval

This course will give students an opportunity to design and conduct surveys and experiments using statistical methods.

Results of sampling and data collection will be displayed using statistical representations. Journal articles and published research will be analyzed and interpreted from a statistical perspective. The basic rules of simple probability, the fundamental counting theorem, conditional probability, and probability distributions will also be explored.

Advanced Placement

AP Calculus AB 1 CREDIT (3298)

Prerequisite: Pre-Calculus (Accelerated) grade ≥ 85 ; with departmental approval; AP Calculus AB Prep is required for students who will not continue to AP Calculus BC

This course is equivalent to the first semester of college calculus. The topics include limits, derivatives, integrals and the Fundamental Theorem of Calculus. Emphasis will be placed on conceptual understanding; reasoning with definitions and theorems, connecting concepts, implementing algebraic/computational processes, connecting multiple representations, building notational fluency, and communicating. This course follows the AP curriculum and leads directly to the Advanced Placement Calculus AB exam.

AP Calculus AB Prep $\frac{1}{2}$ CREDIT (3297)

Prerequisite: AP Calculus AB; with departmental approval

This course is a continuation of AP Calculus AB and will strengthen skills and knowledge in preparation for the Advanced Placement Calculus AB exam in the spring. AP Calculus Prep meets every-other day during second semester.

AP Calculus BC 1 CREDIT (3299)

Prerequisite: Calculus AB grade > 90 ; with departmental approval

This course is a continuation of Calculus AB and is equivalent to second semester college calculus. In addition to further study of techniques of differentiation and integration, topics include sequences and series, vector and polar functions, and some basic differential equations. This course follows the AP curriculum and leads directly to the Advanced Placement Calculus BC exam.

AP Statistics 1½ CREDIT (3289/3290)

Prerequisite: Trigonometry; with departmental approval

This two-semester course leads directly to the taking of the Advanced Placement

examination in Statistics in the spring. The topics discussed in this course include frequency, distributions and graphs, measures of central tendency, measures of variability, confidence intervals, and hypothesis tests. In the first semester, the course meets daily; in the second semester the course meets every-other day.

Post Calculus

Multivariable Calculus 1 CREDIT (3300)

Prerequisite: Calculus BC; with departmental approval

This upper-level calculus course is intended for students with a strong interest in mathematics and a solid foundation in single variable calculus. The topics of this course will include partial derivatives, gradients, constrained optimization using Lagrange multipliers, double and triple integrals with applications, as well as cylindrical and spherical coordinates, and using Jacobian matrices to change coordinate systems. Vector calculus will also be studied including line and surface integrals, divergence and curl, and the theorems of Green and Stokes. The use of computer algebra systems will be an essential part of the course.

Linear Algebra $\frac{1}{2}$ CREDIT (3301)

Prerequisites: Multivariable Calculus or SNHU dual-enrollment math course; with departmental approval

This course builds on the concepts of three-dimensional space developed in Multivariable Calculus and extends discussions of mathematical spaces to include arbitrary dimensions. Topics covered in the course will include systems of linear equations and how to solve them, the method of Gaussian elimination, matrices and linear mappings, determinants and their properties, eigenvectors and eigenvalues, and the diagonalization of matrices. The course will incorporate computer algebra systems and will seek to strike a balance between linear algebra's abstract structures and justifications and the rich collection of applications to science and engineering problems that the subject affords.

SCIENCE

3 credits required for graduation, following the sequence of Integrated Science I; Integrated Science II; and Integrated Science III.

In science courses, students participate in a course of study that will enable them to:

- Master the processes of scientific investigation, and to design, and safely conduct, evaluate, and communicate about such investigations.
- Acquire essential knowledge about the content of science in the fields of Physical Science, Life Science, and Earth and Space Science.
- Be scientifically literate, able to read and analyze scientific information.
- Engage in the authentic practice of science. They will know and understand relationships among science, technology, and human activity and how they affect the world, and understand that science involves a particular way of knowing, and understand common connections among scientific disciplines.
- Understand the history of science.

Basic courses emphasize practical applications to everyday life. Standard and accelerated courses are designed to prepare students for college-level science courses, including Advanced Placement courses. Accelerated courses emphasize the use of mathematical analysis and explore the topics at a more rapid pace, in a more rigorous manner. Permission to take an accelerated course is normally predicated on maintaining a grade of at least 85 in the previous accelerated course, or at least 90 in the previous standard course.

Core Courses

Three core science courses are required for graduation following the sequence of Integrated Science I; Integrated Science II; and Integrated Science III. Note that college preparatory chemistry topics will be integrated in the first two courses. With written departmental permission, a student may replace one of these courses with the corresponding Advanced Placement course, though it is normally recommended that students take AP courses as their second course in the subject of interest. All students should plan to complete their three core

courses before the end of their junior year. Because there are certain math prerequisites for some of these core courses, students should carefully plan their math sequence as well.

Integrated Science I (Basic)

1 CREDIT (4321)

Prerequisite: At least concurrent enrollment in Algebraic Foundations I or Algebra I

Integrated Science I (Standard)

1 CREDIT (4322)

Prerequisite: At least concurrent enrollment in Algebraic Foundations I

Integrated Science I (Accelerated)

1 CREDIT (4323)

Prerequisite: At least concurrent enrollment in Algebraic Foundations I

This laboratory course investigates living organisms and their relationships with the non-living world. Topics include the anatomy and physiology of organisms, evolution, genetics, and cellular function. Students learn to explain the interactions of life by drawing on fundamental concepts in chemistry. Emphasis is placed on developing strong science inquiry skills. The accelerated level of this course is intended for those students who have a strong background and interest in mathematics and will use abstract reasoning extensively.

Integrated Science II (Basic)

1 CREDIT (4328)

Prerequisites: Integrated Science I and Algebraic Foundations II or Algebra I

Integrated Science II (Standard)

1 CREDIT (4329)

Prerequisites: Integrated Science I and Algebraic Foundations II or Algebra I

Integrated Science II (Accelerated)

1 CREDIT (4330)

Prerequisites: Integrated Science I (Accelerated) grade >85 or (Standard) grade >90 and Algebra II (Standard) or at least concurrent enrollment in Algebra II (Accelerated)

This laboratory course draws on the disciplines of chemistry and physics to build scientific models of the interactions between matter, motion, and energy. Topics include motion in one dimension, Newton's Laws, conservation laws, chemical equations, the periodic table, and electric circuits and electrochemistry. Emphasis is placed on developing strong science inquiry skills. The accelerated level of this course is intended for students who have a strong background and

interest in mathematics and will use abstract reasoning extensively.

Integrated Science III (Basic)

1 CREDIT (4358)

Prerequisites: Integrated Science II (Basic) and at least concurrent enrollment in Algebra II (Standard)

Integrated Science III (Standard)

1 CREDIT (4359)

Prerequisites: Integrated Science II (Standard) and at least concurrent enrollment in Algebra II (Standard)

Integrated Science III (Accelerated)

1 CREDIT (4360)

Prerequisites: Integrated Science II (Accelerated) and at least concurrent enrollment in Geometry (Accelerated)

This laboratory course focuses on developing scientific questions and methods for answering them. The study of the environment as an interdependent system serves as a foundation for connecting this final core science course to prior knowledge within the traditional areas of biology, chemistry, and physics, as well as introducing students to other scientific disciplines. Topics include ecological cycles, climate, biodiversity, geology, and sustainable human use. Students will be expected to participate in field-based research and may have opportunities to contribute to ongoing local data collection efforts. The accelerated level of this course is intended for students who have a strong background and interest in mathematics, and will use abstract reasoning extensively.

Elective Courses

The following courses are intended for students who wish to explore particular scientific topics in more depth than the core courses. Elective courses—with the exception of Advanced Placement courses—cannot be used as a substitute for the core courses as a graduation requirement. An AP course can replace a core course in the same area of study (for example, AP Biology for Biology) with written departmental permission, though normally this is not recommended.

AP Biology

1 ½ CREDITS (4378/4379)

College credit is available through Southern New Hampshire University's dual enrollment course General Biology I and General Biology II.

Prerequisites: Integrated Science I (Accelerated) and Integrated Science II (Accelerated) grade >85 or (Standard) grade >90; with departmental approval

This college-level biology course investigates living organisms and their relationship with

the non-living world at a level appropriate for successfully taking the Advanced Placement Biology examination. Students must take this course both semesters, with the class meeting every other day in the second semester.

AP Chemistry

1 ½ CREDITS (4388/4389)

Prerequisites: Integrated Science I (Accelerated) and Integrated Science II (Accelerated) grade >85 or (Standard) grade >90; with departmental approval

This college-level chemistry course involves students in the study of matter and its changes at a level appropriate for successfully taking the AP Chemistry examination. Topics include the structure of matter, chemical bonding and reactions, kinetics, thermodynamics, and chemical equilibrium. Students must take this course both semesters, with the class meeting every other day in the second semester.

AP Physics 1 (4348)

AP Physics 2 (4349)

2 CREDITS

Prerequisites: Integrated Science II (Accelerated) grade >85 or (Standard) grade >90 with departmental approval and Trigonometry. Students may take this sequence as a first physics course with department approval.

This college-level, trigonometry-based physics course builds on the core physics courses at a level appropriate for successfully taking the AP Physics 1 and Physics 2 exams. It is equivalent to the first year (two semesters) of college physics taken by students majoring in the life sciences and pre-medicine. Topics studied include Newtonian mechanics, oscillations, fluid dynamics, thermodynamics, optics, electromagnetism, electric circuits, and modern physics. Significant laboratory practical work is included. Students must take both semesters of the course.

AP Physics C: Mechanics (4399)

AP Physics C: Electricity and Magnetism (4397)

2 CREDITS

College credit is available for AP Physics C: Electricity and Magnetism through Southern New Hampshire University's dual enrollment course Physics I with Lab.

Prerequisites: Integrated Science II (Accelerated) grade >85 or (Standard) grade >90 and at least concurrent enrollment in Applied Calculus (Accelerated) or AP Calculus; with departmental approval. Students may take this sequence as a first physics course with department approval.

These college level, calculus-based physics courses build on the core physics at a level

appropriate for successfully taking the AP Physics C: Mechanics and AP Physics C: Electricity and Magnetism exams. They are equivalent to the first year of college physics taken by students majoring in physics and the engineering disciplines. Topics include Newtonian mechanics, rotational dynamics, oscillations, electrostatics, electromagnetism, and circuits. Significant laboratory practical work is included. Students must take both semesters of the course.

AP Environmental Science

1 ½ CREDITS (4367/4369)

Prerequisites: Integrated Science III (Accelerated) grade >85 or (Standard) grade >90 and Algebra II (Accelerated). This course may be taken instead of Science Research Methods with departmental recommendation.

AP Environmental Science is an interdisciplinary, rigorous college-level science course that provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Students must take this course both semesters, with the class meeting every other day in the second semester.

Genetics (Accelerated)

1 CREDIT (4940)

Prerequisites: Integrated Science I (Accelerated) and Integrated Science II (Accelerated) grade >85 or (Standard) grade >90

During the first half of the course, students will investigate laboratory techniques and tools used in genetics. Model organisms will include *Drosophila melanogaster*, *Brassica rapa*, and *C. elegans* for study of inheritance patterns beyond those learned in earlier courses. During the second part of the course, students will use polymerase chain reaction technology and on-line libraries of sequenced genomes to conduct experiments that can identify the presence of genes in organisms. Students' outcomes will include an enhanced exposure to and understanding of how the field of genetics influences their lives and environments, from genetically-modified foods and medicines, to selective breeding programs of domestic animals, and other relevant applications. Treatment will be given to ethical and legal considerations as well.

Chemistry (Accelerated)

1 CREDIT (4335)

College credit is available through Southern New Hampshire University's dual enrollment course Fundamentals of Chemistry with Lab.

Prerequisites: Integrated Science I (Accelerated) and Integrated Science II grade >85 or (Standard) grade >90 and at least concurrent enrollment in Algebra II (Accelerated); with departmental approval

This course is aimed at students who want more lab-based chemistry after Integrated Science II who cannot or do not want to take AP Chemistry. This laboratory course involves students in the study of matter and its changes. Topics include the relationships between matter and energy, atomic structure, chemical bonding and reaction types, stoichiometry, the gas laws, solutions, and chemical equilibrium.

Anatomy and Physiology (Standard)

1 CREDIT (4373)

Prerequisites: Integrated Science I (Accelerated) and Integrated Science II (Standard)

Anatomy and Physiology (Accelerated)

1 CREDIT (4375)

College credit is available through Southern New Hampshire University's dual enrollment course Introduction to Anatomy and Physiology with Lab.

Prerequisites: Integrated Science I (Accelerated) and Integrated Science II (Accelerated)

Students interested in studying human biology in greater depth should consider this course. It is appropriate for students considering advanced study in fields such as medicine, medical technology, dental technology, and nursing, exercise sciences, and physical therapy.

Astronomy (Standard)

1 CREDIT (4393)

Prerequisite: Integrated Science II

This introductory course emphasizes observational aspects of astronomy. Students will learn about our place in the universe, always addressing the issue of "How do we know what we know?" Topics include the relationship between the earth and the sky, short term and long term cycles in the celestial sphere, the exploration of the solar system, light, telescopes, and stellar evolution cycles. Practical work will be done using portable telescopes on campus and using the Northern Skies Observatory (NSO), located in Peacham, Vermont. Students will make use of the robotic capabilities of the NSO to make their own research grade observations

and measurements. Professional imaging processing software will be used extensively.

Students will be expected to attend at least one night-time observing session during the semester.

Forensics (Standard)

1 CREDIT (4930)

Prerequisite: Integrated Science I (Standard); with departmental approval

This introductory course will expose students to “real life” applications of the life and physical sciences to criminal investigation. Students will use techniques of biological and chemical tools to analyze evidence found at crime scenes, including the use of DNA analysis. Students will interact with law enforcement officials, crime scene technicians, and court officials to explore career opportunities in forensics. Mock trials will play an important role in this laboratory-based course.

This course is intended for students, primarily sophomores, who find science and mathematics challenging, and who would like an intermediate course to prepare for taking Integrated Science II. Students who are interested in the topic and have completed Chemistry or Physics, especially at the accelerated level, should take Biotechnical Engineering, which has a forensics unit, instead of this course. Forensics does not qualify as a core course.

Wildlife Biology (Accelerated)

1 CREDIT (4950)

Prerequisite: At least concurrent enrollment in Research Methods and Environmental Systems (ACC) or (ST)

Students in the Wildlife Biology course will engage in an in-depth and hands-on exploration of animal-habitat relationships, illustrated through basic field zoology and natural history, evolutionary biology, and established natural resource management techniques. The course will examine the dynamics of various habitats in New England, North America, and elsewhere through field visits and use of primary literature. Topics explored include plant, tree and animal identification, principles of animal behavior, and habitat relationships, especially in wild and forested lands. Students will also discuss policy issues related to conservation and techniques to protect endangered species and threatened natural communities. Students will have multiple opportunities to interact with professionals who work to utilize and protect such resources and gain insight into careers and continuing study in this field.

Biomedical and Health Sciences Certificate Program

The Biomedical and Health Sciences Certificate Program consists of a combination of guidance, coursework, clinical experience, mentoring, and independent research to provide students with a pre-university experience in allied health. Students who satisfactorily complete all of the requirements will earn a St. Johnsbury Academy Certification in Biomedical and Health Sciences, as well as develop advantageous mentoring relationships with regional health care providers.

Students wishing to pursue the certificate should complete their core science courses and meet with the program advisor as early in their high school career as possible. See Sample Course Selections beginning on page 36.

Students must also take part in an approved internship as part of a clinical or patient care experience (either during or outside of the school day), and complete a related Senior Capstone project mentored by the program advisor.

Engineering Design and Development Program

The Engineering Design and Development Program is an elective, multi-faceted system of guidance, coursework, work experience, mentoring, and training that provides students with a pre-university experience in engineering and design. The Academy's program aims to increase the number of students—particularly young women and other students traditionally under-represented in the STeM disciplines—in science and technology programs.

Introduction to Robotics (Standard)

1 CREDIT (4849)

Open to Freshmen and Sophomores

Introduction to Robotics (Accelerated)

1 CREDIT (4848)

Open to Freshmen and Sophomores

Introduction to Robotics gives students a cross-disciplinary introduction to robotics, which will involve them in developing a

wide variety of scientific research, design engineering, programming, mathematical, presentation, and teamwork skills. As the students work in teams on weekly projects, they will develop the course's core skills to solve a variety of challenges. Students will use Lego and VEX robotics kits to design, fabricate, and program robots that meet project requirements. The accelerated level of this course is intended for those students who have a strong background and interest in mathematics, and will use algebraic reasoning extensively.

Introduction to Engineering Design and Development (Accelerated)

1 CREDIT (4850)

Prerequisite: At least concurrent enrollment in Algebra II

In this projects-based course, students use an iterative design cycle to explore a variety of engineering problems. The first half of the course is focused on developing the tools of design: understanding usability, identifying needs and analyzing solutions, working collaboratively, and communicating ideas with sketches and industry-standard modeling software (CAD). During the second half of the course, students pursue a series of independent and team projects that expose them to several different types of engineering.

Digital Electronics (Accelerated)

1 CREDIT (4851)

Prerequisite: Algebra II (Accelerated)

This course in applied logic encompasses the application of electronic circuits and devices. Students use computer simulation software to design and test digital circuitry prior to the actual construction of circuits and devices. Programming and use of microcontrollers will be included, making this course appropriate for students who wish to expand their understanding of robotics. Offered in alternate years from Game Design.

Civil Engineering and Architecture (Accelerated)

1 CREDIT (4852)

Prerequisites: At least concurrent enrollment in Physics

This overview of the fields of civil engineering and architecture emphasizes the inter-relationship and mutual dependence of both fields. Students use state-of-the-art software to solve real world problems and apply knowledge to hands-on projects and activities. By developing and implementing plans for a playground, park, or vacation

home for example, students experience first hand the job responsibilities of architects and civil engineers.

Biotechnical Engineering (Accelerated)

1 CREDIT (4854)

Prerequisites: Biology and Chemistry or Integrated Science II (Accelerated) grade >85 or (Standard) grade >90 and Algebra II (Accelerated)

The major focus of the Biotechnical Engineering course is to expose students to the diverse fields of biotechnology including biomedical engineering, biomolecular genetics, bioprocess engineering, and agricultural and environmental engineering. Lessons engage students in engineering-design problems that can be accomplished in a high-school setting related to biomechanics, cardiovascular engineering, genetic engineering, agricultural biotechnology, tissue engineering, biomedical devices, human interface, bioprocesses, forensics, and bioethics.

Game Design (Accelerated)

1 CREDIT (4855)

Prerequisite: Geometry

Students will work through the process of game design from developing a concept to testing a product. The course will begin by teaching principles of design via table top games, and then progress to the use of industry-standard game design software. Throughout the course, students will complete a variety of projects that lead to a final, original video game design. Outside experts from industry and academia will give their perspectives on careers in game design, and serve as evaluators for student projects. No prior programming experience is required. Offered in alternate years from Digital Electronics.

Engineering Design and Development Capstone (Accelerated)

1 CREDIT (4853)

Prerequisite: Introduction to Engineering Design and Development and Trigonometry
This course is intended for Seniors wishing to complete an engineering design Capstone.

In this course students will expand their understanding of engineering design and combine that with principles of engineering that will enable them to develop, brainstorm, and fabricate a product that is functional, aesthetically pleasing, and meets weight, strength of materials, and other applicable product specifications. The students will investigate possibilities, research current patents and regulations, construct a working

prototype, test the prototype in real life situations (or simulation), document their designs, and present and defend the design to a panel of experts. This course will satisfy the Senior Capstone requirement.

Applied Engineering Immersion Semester (Accelerated)

2 SCIENCE CREDITS, 1 COMPUTER SCIENCE CREDIT, AND 1 ENGLISH CREDIT (4859)

Prerequisite: Algebra 1 or equivalent
Open to Sophomores and Juniors
One science credit can take the place of Integrated Science II

The Applied Engineering Immersion Semester is an interdisciplinary course for Sophomores and Juniors interested in concentrated study within the disciplines of computer science, engineering, science modeling, and media studies. This program draws on the resources of the Sweeney Applied Engineering Center and the Emerging Technologies Laboratory to support collaborative design work toward authentic purposes. The physical sciences will serve as the focus for developing skills in programming, 3D modeling, interaction design, and media studies. As part of the program, students will begin a professional design portfolio and learn leadership skills in project management and personal networking. Students may complete their second core science requirement as part of the experience, and earn additional credits for Accelerated coursework in engineering, computer science, and media studies. This course serves as a prerequisite for upper level work in the engineering and computer science programs.

Environmental Studies Field Semester

2 SCIENCE CREDITS, 1 SOCIAL STUDIES CREDIT, AND 1 ENGLISH CREDIT (4999)

Prerequisites: Two core science courses and Geometry
Offered fall semester only
One science department credit can replace Integrated Science III.

The Environmental Studies Field Semester is an interdisciplinary immersion semester for juniors and seniors interested in concentrated study within the environmental field. This off-campus, place-based program uses outdoor, field-based projects on a network of local properties to teach fundamental concepts and technical skills while contributing to the collection of long-term ecological data. Students will complete their

third core science requirement as part of the experience and earn additional credits for Accelerated coursework in natural resource management, ecological research and monitoring, and upper level humanities. This intensive experience provides a solid foundation for pursuing further education and careers in environmental engineering, natural resources management, field research, and related disciplines. This course, combined with CTE Field Capstone (7706) will satisfy the Senior Capstone requirement.

COMPUTER SCIENCE

½ credit required for graduation

The courses in the Computer Science department focus on the idea that students should not simply be consumers of technology, but that students should be able to create technology. Although programming is a major component of computer science, computer science study also includes computational thinking, logic, problem-solving, working with algorithms, collaboration, and creativity. Our course sequence begins with introductory courses that work toward demystifying the inner workings of computers and the Internet and the applications that are integral to the daily lives of our students. Advanced coursework could include programming in multiple languages and for multiple platforms, as well as introductions to emerging technologies.

The Computer Science requirement may be satisfied by either taking the course in the Freshman year, or by taking Robotics (in the Science Department) or a higher-level computer science course, with departmental approval, before graduation.

Introduction to Computer Science (Standard)

1 CREDIT (3698)

Prerequisite: With departmental approval.

This course is designed for students who have little to no experience in programming computers. Students will learn the basics of algorithmic thinking, and design programs to solve simple problems. A number of different programming environments will be used including both highly-structured languages and high-level programming languages. Students will learn the basics of variables, loops, conditional statements and standard data structures such as arrays,

lists, and dictionaries. Students will gain familiarity with how computers work and their architecture. Students will use their computers to create and manipulate data sets and to automate tasks.

Programming JAVA (Accelerated)

1 CREDIT (3697)

Prerequisite: Geometry; with departmental approval

This course is an introduction to the structures and methods of higher-level computer programming languages. Problem solving using modular design will be an integral part of the course. Students will become familiar with conditional logic, repetition, and program input and output. Commonly used algorithms will be studied. Structured data types will include multi-dimensional arrays. Object-oriented programming will also be introduced.

AP Computer Science Principles

1 CREDIT (3700)

Prerequisites: Introduction to Computer Science or Programming JAVA; with departmental approval

This course builds on the skills and understanding from the Introduction to Computer Science course. Students follow the AP curriculum to explore the themes of creativity, abstraction, data and information, algorithms, programming, the Internet, and global impact through problem solving and real-world applications. The AP Computer Science Principles Assessment consists of two parts: a through-course assessment and the end-of-course AP Exam.

AP Computer Science A

1 CREDIT (3699)

Prerequisites: Programming in JAVA (Accelerated) grade \geq 85; with departmental approval; AP Computer Science Principles

This course reinforces concepts in JAVA Programming and leads directly to the Advanced Placement Computer Science A examination. Students follow the AP curriculum to become familiar with application design, classes and hierarchy, and complex algorithms. Additional topics include software history as well as current trends in software development. This course is appropriate for students with a strong interest in mathematics and engineering.

Advanced Topics in Computer Science — Virtual Reality (Accelerated)

½ CREDIT (3701)

Prerequisite: AP Computer Science

Description: This course is designed as an

option for more advanced students who have successfully completed AP Computer Science. This course covers the development of virtual reality worlds, including motion and physics in VR worlds, human visual perception, design practices to enable immersive experiences for users, and development of VR applications. Students will learn how to use the Unity game engine, the most popular platform for creating immersive applications. A major component of the course will be a final project where students develop their own VR worlds based on the design practices discussed during the course. Meets every other day.

LANGUAGES

Communication is necessary to establish social ties, to knit people together in relationships, to enhance cooperation, and to develop a global community. Communicative approaches for teaching languages are emphasized. The goal is to provide language learners the skills to use the target language outside of the classroom in authentic settings. Language learning is a life-long process, and our goal is to provide a foundation upon which students can build in college and elsewhere.

French

French I (Standard)

1 CREDIT (5433)

Prerequisite: Students who score below the 40th percentile on standardized reading comprehension tests should work on their basic English skills before beginning the study of French.

French I (Accelerated)

1 CREDIT (5435)

College credit is available through Southern New Hampshire University's dual enrollment course Beginning French I.

Prerequisite: 80th percentile or above on standardized reading comprehension tests or outstanding performance in the previous academic year

This beginning French course is offered at both the Standard and Accelerated levels. No prior experience is needed to enroll at either level. Through a variety of learning tasks students recognize, react to, and use the basic structures, grammar, and vocabulary of the French language. Students also begin to develop an awareness of the cultures of the Francophone world. Students are encouraged to be creative with the language, independently expand their vocabulary, and

take an active role in mastering language skills. The course focuses on all four strands of language learning: reading, writing, speaking, and listening with an emphasis on speaking and listening.

French II (Standard)

1 CREDIT (5437)

Prerequisite: One year of high school French

French II (Accelerated)

1 CREDIT (5439)

College credit is available through Southern New Hampshire University's dual enrollment course Beginning French II. **Prerequisite: SNHU Beginning French I.**

Prerequisite: French I (Accelerated) or with departmental approval

This course is a continuation of the work of French I. Students continue to work toward a proficiency in French which allows them to: ask and answer questions in areas of immediate need and on very familiar topics; pronounce the language well enough to be understood; read and understand information in a simple paragraph; and write short paragraphs on familiar topics. Students continue to explore the Francophone world, with a focus on the more local areas of French influence.

French III (Standard)

1 CREDIT (5442)

Prerequisite: French II (Standard) or departmental approval

This course is designed for students interested in a third year of language study but who are not ready for an accelerated French course. Students work to increase their proficiency in all four strands of language learning: reading, writing, speaking, and listening. Tools used include short stories, music, movies, as well as a number of different applications online.

French III (Accelerated)

1 CREDIT (5445)

College credit is available through Southern New Hampshire University's dual enrollment course Intermediate French III. **Prerequisite: SNHU Beginning French II.**

Prerequisite: French II (Accelerated) or with departmental approval

The aim of this course is to continue the student's linguistic development. Students at this level work toward proficiency in French that allows them to engage in conversation about familiar topics; understand the essential points of the spoken language; read and comprehend such materials as journal articles, short stories, and *Le Petit Prince*; and write summaries, descriptions, and

social correspondence. They also continue to develop their cultural awareness and their understanding of the Francophone world.

French IV (Accelerated)

1 CREDIT (5447)

College credit is available through Southern New Hampshire University's dual enrollment course Intermediate French IV. **Prerequisite:** SNHU Intermediate French III.

Prerequisite: French III (Accelerated) or with departmental approval

This class is conducted entirely in French. Students review grammar structures contextually through their study of contemporary as well as classic works of French literature, journals, films, and music. Class activities include participating actively in discussion, often expressing a reaction or a point of view on a theme, as well as composition, usually done in class. This class is designed to help students prepare for AP French, although they are not required to move on to the course. Many of the activities and topics covered mirror activities and themes from the AP French curriculum.

AP French Language and Culture

1 CREDIT (5449)

Prerequisite: French IV (Accelerated) with a grade ≥ 85 or with departmental approval

This course, conducted entirely in French, includes individual speaking practice and analysis of more advanced grammatical concepts and structures. Students at this level work toward a proficiency in French that will prepare them for the AP Language and Culture exam. Students at this level are able to: support opinions, explain in detail, and hypothesize; sustain understanding over longer stretches of time; read and comprehend more abstract and linguistically complex texts; and write about a variety of topics with significant precision and detail. Discussions, presentations, projects, readings, and research are vehicles through which students explore the literature, history, and culture of the Francophone world.

Japanese

Japanese I (Accelerated)

1 CREDIT (5451)

Prerequisite: 80th percentile or above on standardized reading comprehension tests or outstanding performance in the previous academic year

Students speak Japanese from their first day in class and the large majority of class time is spent speaking and listening to the language. Mastery of basic structures, grammar, and

vocabulary is the standard. This course also covers the reading and writing of katakana (one of the three writing systems). Films and discussions help the students gain a deeper understanding of Japanese culture.

Japanese II (Accelerated)

1 CREDIT (5453)

Prerequisite: Japanese I or with departmental approval

This course, which is a continuation of Japanese I, focuses primarily on developing more sophisticated conversational skills and a deeper understanding of the language as a structured system of communication. Important components of this course include reading hiragana and kanji (Chinese characters) and learning direct style speech patterns. Students learn about culture through the language.

Japanese III (Accelerated)

1 CREDIT (5455)

Prerequisite: Japanese II or with departmental approval

Japanese III offers students the opportunity to further develop the four basic language skills: listening, speaking, reading, and writing. Students review and achieve mastery of both katakana and hiragana in addition to further study of kanji (Chinese characters). Culture is often discussed as it is directly related to the language of the specific lesson. Observations and reflections of visits to Japan by both students and teachers are regularly discussed.

Japanese IV (Accelerated)

1 CREDIT (5457)

Prerequisite: Japanese III or with departmental approval

This advanced-level course, which is often conducted entirely in Japanese, offers students the opportunity to learn more sophisticated ways of expressing themselves in both the spoken and written language. Emphasis is placed on reading kanji (Chinese characters). Classroom discussions, readings in the text, and supplementary magazines/videos allow students to gain deeper understanding of cultural issues.

AP Japanese Language and Culture

1 CREDIT (5460)

Prerequisite: Japanese IV or with departmental approval

The goal of this course is to prepare students for the AP Japanese Language and Culture exam as well as prepare students for intermediate-level Japanese in college.

Students broaden their knowledge of the written system through more extensive reading and polish their oral communication skills through regular conversations in Japanese with the instructor. Interdisciplinary work on aspects of Japanese culture and history is strongly encouraged.

Latin

Knowledge of Latin gives students the opportunity to understand the roots of English, the Romance languages, and the influence of classical Roman culture on today's world.

Latin I (Accelerated)

1 CREDIT (5471)

Prerequisite: 80th percentile or above on standardized reading comprehension tests or an outstanding performance in the previous academic year

Latin I introduces students to the basic elements of Latin grammar through reading and writing. Vocabulary is presented with the aim of showing the direct and indirect indebtedness of English to Latin and the reliance of the Romance languages upon Latin.

Latin II (Accelerated)

1 CREDIT (5473)

Prerequisite: Latin I or with departmental approval

This course involves both review and continuation of the study of Latin grammar, with emphasis on more complex expression in both reading and writing. The goal of the course is for students to prepare for reading Latin authors through intermediate readings that include topics such as mythology and the history of Rome.

Latin Prose (Accelerated)

1 CREDIT (5475)

Prerequisite: Latin II or with departmental approval

This course involves intensive study of a key Latin prose author, Caesar.

Latin Poetry (Accelerated)

1 CREDIT (5477)

Prerequisite: Latin Prose with departmental approval

This course continues with an intensive study of a key Latin Poet, Vergil. Students who take Latin Prose and Latin Poetry in the same school year will be prepared to take AP Latin exam. Students who elect to take this examination will receive credit for AP level study.

AP Latin

1 CREDIT (5479)

Prerequisites: Latin I and Latin II
Students must take Latin Prose and AP Latin during the same academic year.

The AP Latin course is designed to help students achieve success on the AP Latin exam. Therefore, it centers on the prose of Caesar (*Commentarii De Bello Gallico*) and the poetry of Vergil (*The Aeneid*), while developing the students' abilities to translate Latin prose and poetry into English literally; understand the passages read within their historical, cultural, and literary contexts; engage in effective analysis of passages, including elements of language, style, and purpose; better read works of Latin aloud; and learn the dactylic hexameter of Vergil's poetry.

Spanish

Spanish I (Standard)

1 CREDIT (5413)

Prerequisite: Students who score below the 40th percentile on standardized reading comprehension tests should work on their basic English skills before beginning the study of Spanish.

Spanish I (Accelerated)

1 CREDIT (5415)

College credit is available through Southern New Hampshire University's dual enrollment course Beginning Spanish I.

Prerequisite: 80th percentile or above on standardized reading comprehension tests or outstanding performance in the previous academic year

This beginning Spanish course is offered at both the Standard and Accelerated levels. In this Spanish course students build a foundation of vocabulary and language structures to be able to communicate in simple sentences about basic topics in the present tense. Understanding the language in context is emphasized through a focus on reading and listening to stories. The teacher and students use Spanish for the majority of class time as students participate in a variety of learning tasks to build their skills in the language and develop an awareness of the Spanish-speaking world.

Spanish II (Standard)

1 CREDIT (5417)

Prerequisite: One year of high school Spanish

Spanish II (Accelerated)

1 CREDIT (5419)

College credit is available through Southern New Hampshire University's dual enrollment course Beginning Spanish II. *Prerequisite: SNHU Beginning Spanish I.*

Prerequisite: Successful completion of Spanish I (Accelerated) or with department approval

This course is a continuation of the work of Spanish I. Students work toward a proficiency level that allows them to ask and answer questions about familiar topics, read and understand information in a simple article or story, and write a short paragraph about a familiar topic, in both the present and past tenses. Stories, short books, music, and videos are all used to practice the language in context and build students' understanding of Hispanic countries and culture.

Spanish III (Standard)

1 CREDIT (5422)

Prerequisite: Spanish II (Standard) or with department approval

This course is designed for students interested in a third year of language study but who are not ready for an accelerated Spanish course. Students work to increase their proficiency in using basic structures, grammar, and vocabulary of Spanish, and engage with authentic resources to continue their exploration of Hispanic cultures.

Spanish III (Accelerated)

1 CREDIT (5425)

College credit is available through Southern New Hampshire University's dual enrollment course Intermediate Spanish III. *Prerequisite: SNHU Beginning Spanish II.*

Prerequisite: Spanish II (Accelerated) or Spanish III (Standard) or with department approval

Students at this level advance to a more complex use of the language. They work toward proficiency in Spanish that allows them to: engage in conversation about familiar topics; understand the essential points of intermediate-level spoken language; read and comprehend such materials as newspaper articles and short stories; and write summaries, descriptions, and social correspondence using a variety of tenses. Students continue to develop their cultural awareness and understanding of the Spanish-speaking world.

Spanish IV (Accelerated)

1 CREDIT (5427)

College credit is available through Southern New Hampshire University's dual enrollment course Intermediate Spanish IV. *Prerequisite: SNHU Intermediate Spanish III.*

Prerequisite: Spanish III (Accelerated) or with department approval

This advanced course, conducted entirely in Spanish, includes a review of basic grammar and structures, as well as intensive work on more complex grammatical concepts. Students at this level work toward proficiency in Spanish that allows them to: participate in a wide variety of conversations, including unfamiliar situations; sustain understanding over longer stretches of time; read and comprehend longer prose; and describe and narrate in paragraphs. Readings, podcasts, videos, discussions, and presentations are vehicles by which students explore the literature, history, and culture of the Spanish-speaking world.

AP Spanish Language and Culture

1 CREDIT (5430)

Prerequisite: Spanish IV (Accelerated) or with department approval

This course, conducted entirely in Spanish, includes individual speaking practice and analysis of more advanced grammatical concepts and structures. Students at this level work toward a proficiency in Spanish that will prepare them for the AP Spanish Language and Culture exam. Students at this level are able to: support opinions, explain in detail and hypothesize; sustain understanding over longer stretches of time; read and comprehend more abstract and linguistically complex texts; and write about a variety of topics with significant precision and detail. Exploration of the literature, history, and culture of Spanish-speaking countries continues through engagement with readings, podcasts, videos, discussions, and presentations.

Spanish V (Accelerated)

1 CREDIT (5429)

Prerequisite: AP Spanish or with department approval

This course is designed as an option for students who have successfully completed the AP Spanish course and would like to continue to develop their language skills and understanding of the many facets of Hispanic culture. Topics of study will vary from year to year. Units may be designed to study the literary masters of the Hispanic world, Hispanic artists and their influence, or the diaspora of the Spanish peoples from Spain to the Americas.

ENGLISH AS A SECOND LANGUAGE

ESL courses are designed for a full academic learning environment in English. They provide direct instruction in the English language in order to enhance the proficiency level of each English language learner. Students are encouraged to use authentic English in a supportive atmosphere so that each student can achieve fluency, accuracy, and confidence. English language learners focus on the integration of all language skills, including listening comprehension, speaking, reading, writing, grammar, and vocabulary development. English language learners are asked to apply their newly acquired or improved language skills to real life situations. English language learners that proceed through the program are prepared for college admission, as well as for college level work.

Beginning English as a Second Language (Standard)

1 CREDIT (5501)

ESL level placement is determined by the department placement test score or equivalent IBT TOEFL score and departmental approval.

This course is for students who have studied basic English but are not proficient enough to receive most of their academic instruction in English. Using conversations, reading selections, grammar exercises, and writing opportunities which provide practice in grammatical structures, this course enables students to develop their listening, speaking, reading, and writing skills. Vocabulary and oral expression are emphasized, and students receive personal attention in this small class.

Developing English as a Second Language (Standard)

1 CREDIT (5502)

ESL level placement is determined by the department placement test score or equivalent IBT TOEFL score and departmental approval.

This course is for those intermediate level students who understand and use English but need considerable growth in pronunciation and fluency, grammar, reading comprehension, and writing. This is a communication-based course which requires the students to become more fluent in both speaking and writing. It unifies both receptive and productive skills with meaningful communication and is grounded in the

presentation and practice of English grammar through meaningful content.

Expanding English as a Second Language (Standard)

1 CREDIT (5503)

ESL level placement is determined by the department placement test score or equivalent IBT TOEFL score and departmental approval.

For more advanced language students who may be able to get by in English but who still need to think and work more easily in English in order to succeed in their academic courses, this course provides practice in more complex grammatical structures. The students work to develop confidence and skills in expressing their ideas and feelings correctly, both orally and in writing.

Bridging English as a Second Language (Standard)

1 CREDIT (5504)

ESL level placement is determined by the department placement test score or equivalent IBT TOEFL score and departmental approval.

This course is for non-native speakers who are able to function well in high school classes where all instruction is in English, but who must still refine and practice their English pronunciation, fluency, grammar, idioms, and writing. This course is designed to more fully prepare students for the threshold college admissions standard of 80 or above IBT TOEFL. Admission and release from this course depend not only upon language proficiency but also upon academic ability and goals and will be determined by the department chair.

ESL World Civilizations, Pre-1500 (Standard)

1 CREDIT (5515)

This social studies course is intended to provide English language learners a curriculum based on the history of early world civilizations while also developing English language skills and vocabulary. This course satisfies a required social studies credit.

ESL United States History

1 CREDIT (5517)

English language learners develop an understanding of the culture and history of the United States by critically examining major historical themes and political philosophy. This course satisfies a required social studies credit.

United States History (International)

1 CREDIT (5518)

*Prerequisite: Freshman Humanities
Open to Juniors*

International students will develop an understanding of the culture and history of the United States by critically examining major historical themes with emphasis on improving English in class discussion and writing. This course satisfies a required social studies credit.

ESL Contemporary Issues

1 CREDIT (5519)

Departmental approval required

This course introduces upper-level ESL students to major contemporary issues facing the U.S. and the world as it helps students develop fundamental research, reading, writing, and public speaking skills. This course utilizes a range of materials and provides historical context and a variety of perspectives on each issue. This course satisfies a required social studies credit.

ESL Capstone

1 CREDIT (7703)

Departmental approval required

This course satisfies the same requirements as the regular Senior Capstone course (7701), but in a way that reflects the growing English language skills of the participants.

HEALTH AND WELLNESS

1½ physical education credits are required for graduation.

1 health credit is required for graduation.

Physical Education

Normally students start to satisfy the physical education requirement by taking Introduction to Physical Education in their freshman year, which is ½ credit. In certain situations, students may satisfy this requirement by taking a dance course. However, these students must then take at least one, 1-credit course from the Physical Education offerings to satisfy the Physical Education requirement.

For those students who take Introduction to Physical Education as Freshmen, another, 1-credit course from the Physical Education

offerings is required for graduation, or by doing one of the alternatives listed:

- Taking a semester of Introduction to Dance, Advanced Dance, or Nutrition and Personal Fitness
- Playing two different Junior Varsity or Varsity sports.
- Playing the same sport for two years at the Junior Varsity or Varsity level.

Introduction to Physical Education

½ CREDIT (7551)

Open to Freshmen

The objective of this course is to educate students in the areas of fitness and health, to encourage them to engage in active lifestyles, and to improve their physical fitness. Areas of focus will include body weight exercises, weight training, agility/speed training, swimming, static/dynamic stretches, yoga, utilization of multi-apparatus equipment, which includes: weight training, kettle bells, bands, plyometric stations, exercise balls, and jump ropes.

Occasionally, a specific sport such as racquet games and basketball will be integrated, with the expectation that students will learn the motor skills and rules required to compete respectfully and effectively.

To this end students will foster a positive attitude and understanding of fitness in general, with the overall recognition that a life regulated by obtainable fitness goals can benefit one for a lifetime.

Meets every other day.

Exercise Science I (Standard)

1 CREDIT (7552)

This elective class will integrate nutrition and personal fitness as a cohesive unit in the development and maintenance of a healthy lifestyle. Students will gain an understanding of and be able to recognize the need for balance in one's life, emphasizing the importance of good nutrition and physical fitness. The class will consist of two days of classroom instruction and three days of physical training. Completion of this course fulfills one credit of Physical Education but may not be substituted for Introduction to Physical Education.

Exercise Science II (Accelerated)

1 CREDIT (7553)

Prerequisite: Exercise Science I grade >85 or with departmental approval

The purpose of this course is to cultivate

an extensive knowledge of physical fitness training and develop the ability to implement a plan into a personal fitness program to foster intrinsic motivation towards a healthy and active lifestyle now and in the future.

The class will utilize a broad spectrum of activities in order to allow the student to assemble a comprehensive plan to improve functional fitness and athleticism. The activities in the class will include body weight activities, and aerobic and anaerobic conditioning activities to strengthen the core, improve balance, coordination, and flexibility.

Sports Medicine I (Standard)

1 CREDIT (7561)

DOES NOT COUNT TOWARD PE CREDIT REQUIREMENT

This course will consist of basic anatomy, introduction to sports related injuries, and basic treatment protocol. Students will also complete hands-on labs involving taping and wrapping of various injuries.

Sports Medicine II (Accelerated)

1 CREDIT (7563)

DOES NOT COUNT TOWARD PE CREDIT REQUIREMENT

Prerequisite: Sports Medicine I with ≥ 85 or with departmental approval

Students will gain certification in American Red Cross First Aid, adult CPR, and child/infant CPR. This course will review basic anatomy but focus on advanced rehabilitation programs and taping as well as hands-on diagnostic techniques.

Competitive Games (Standard)

½ CREDIT (7550)

DOES NOT COUNT TOWARD PE CREDIT REQUIREMENT

Open to Sophomores, Juniors, and Seniors

This elective class will help students to attain the knowledgeable understanding of recreational games and activities through instruction and game play. The students will be able to participate in various games for fun and enjoyment and be able to carry them over into later life. The course would focus on examining strategies, proper sportsmanship, refereeing, rules and skills. The games that would be focused on are games that are played in Winter Carnival, floor hockey, volleyball, indoor soccer and also games that are considered to be carry-over games. A carry-over game is a game that can be played after a student finishes high school or college. The games and activities that would be covered in the carry over units would

be pickle ball and other racquet games like badminton, tennis, and ping pong, Ultimate Frisbee, basketball, etc. Depending on the semester there would also be a unit on the climbing wall and belaying as an activity either in the beginning or the end of the class to help to establish trust, cooperation and strong relationships within the class setting.

Health

Along with St. Johnsbury Academy's dedication to academics, we strongly believe in the importance of one's physical, mental, and emotional well-being. Students gain the knowledge and decision-making skills that they will use throughout their years at SJA.

The programs we offer provide our students with a base from which to build a lifetime of healthy living.

Health (Standard)

1 CREDIT (7591)

Open to Freshmen

This course readies freshmen academically and socially for the demands of life during high school and after. The course orients students to Academy traditions and prepares students for learning in the 21st century. Students are exposed to systems that develop independent learners and communicators.

The course has two components which revolve around personal choices and social obligations by including topics such as personal development, productive thinking, Choice Theory, communication skills, interpersonal awareness, substance education and stress control, mature decision-making regarding transitioning from childhood to adulthood, and community health issues. Also presented are learning styles and success strategies for today's classroom. Students will gain adult CPR certification.

Life Choices (Accelerated)

1 CREDIT (7594)

Open to Juniors or Seniors

In this Junior/Senior elective course, students will have the opportunity to explore common health and wellness topics as they prepare to transition to college, military or employment. Students will use knowledge gained to help them analyze and continue to improve their physical, social and emotional health. Emotional Intelligence and the importance of Positive Psychology in reaching one's full potential and maneuvering through life's challenges will be central themes in this

course. Strengthening resilience, dealing with common social and emotional issues such as depression, anxiety, and addiction will help empower students to lead a healthy and successful life. The course will also investigate effective communication, healthy relationships, goal setting, decision-making, understanding of sexual health/sexuality, nutritious meal planning, fitness, and basic financial management. This course fulfills an elective requirement for the Biomedical and Health Sciences Certificate Program and fulfills the health graduation requirement.

Health (Standard)

1 CREDIT (7593)

This course is an online class designed to cover the health material that is in the Freshman Health class. The class is structured around the Health Triangle, focusing on mental, physical, and social health. It is vital that the student has good time management skills as they will need to complete the course in addition to their regular course load. To receive a credit, the final test must be passed. This course fulfills the health requirement for graduation.

FINE ARTS

The mission of the Fine Arts Department is to offer instruction, resources, and a culture that inspires students to develop artistic awareness and proficiency by providing a professional environment and a comprehensive curriculum in the visual and performing arts. We believe that the exploratory creative process encourages cognitive growth and builds problem solving skills that promote resilience and flexible thinking.

Performing Arts

Music

The core offerings of the music program at St. Johnsbury Academy are the large ensemble Band and Chorus. In addition, several small ensemble groups, both curricular and extracurricular, are available.

Band (Standard)

1 CREDIT/ALL YEAR (8801)

Prerequisite: A year's experience in band or private instruction, or with departmental approval. Band may be taken multiple times for credit.

Students will rehearse and perform music

ranging widely in style and difficulty, with an emphasis on broadening their knowledge of repertoire and developing technical ability. The band performs at home football games and pep rallies, marches in selected parades, and performs in four concerts throughout the year. Students are expected to reserve all performance dates. Students who have achieved a higher level of proficiency are encouraged to audition for a number of festivals. Smaller ensembles of students with similar ability will be allowed to pursue more challenging literature. Meets every other day all year.

Chorus (Standard)

1 CREDIT/ALL YEAR (8814)

Chorus may be taken multiple times for credit.

Chorus provides students with an introduction to many styles of choral literature. Students will work to develop their reading and singing skills in an ensemble environment. The Chorus will perform four concerts per year and participate in other special performances in the community. Students are expected to reserve these times for performances. Meets every other day all year.

Jazz Band (Accelerated)

½ CREDIT (8803)

By audition only

Jazz Band may be taken multiple times for credit.

Students in the Jazz Band will explore the classical and modern jazz repertoire in this select ensemble. Development of musicianship and improvisational skills will be encouraged. The Jazz Band will perform many concerts throughout the year. It is expected that those in the Jazz Band will keep current in the concert band's repertoire and participate in the large ensemble as needed. The Jazz Band participates in many concerts throughout the year – students are expected to reserve these times for performances. Meets every other day all year.

String Ensemble (Accelerated)

1 CREDIT (8806)

By audition only

String ensemble may be taken multiple times for credit.

The String Ensemble will provide students with the opportunity to develop their skills in playing violin-family instruments as they prepare music in a small ensemble environment. Students will be involved in extracurricular performances and rehearsals.

Guitar I (Standard)

1 CREDIT (8805)

In this introductory course students will learn or refine skills such as chord identification and facility, strumming patterns, and finger-picking styles. The class emphasis is on developing the students' reading of melodic and rhythmic notation to a level that would prepare them for Guitar II.

Guitar II (Accelerated)

1 CREDIT (8807)

Prerequisite: Guitar I

Students will strengthen their skills in playing guitar-family instruments as they prepare music in a small ensemble environment. Students will be involved in extracurricular performances and rehearsals.

Music Appreciation and Theory (Standard)

1 CREDIT (8815)

Departmental approval required

The class will expand on students' understanding of music theory and harmony through improving their skills in notation, interval and chord recognition, scale construction, form, harmonic structure and analysis along with rhythmic and melodic dictation. Students will apply their understanding by composing, with the opportunity to participate in the Vermont Midi project. In addition, students will explore music literature from the Renaissance, Baroque, Classical, and Modern periods and its contribution to the development of Western music. Students should have some familiarity with notation, and some experience with keyboard instruments prior to signing up for the course.

AP Music Theory

1 CREDIT (8819)

Prerequisite: Music Appreciation and Theory (Standard); with departmental approval

Motivated music students who wish to sign up for AP Music Theory will explore the ideas in the Music Appreciation and Theory course at the college level.

Theatre

St. Johnsbury Academy offers three classes in Theatre, all of which include training in Acting and Musical Theatre. These classes will assist students in attaining crucial skills not only for the theatrical stage but for the stage of life.

Theatre I (Standard)

1 CREDIT (8824)

This introductory course will give students a general overview of Theatre. Topics include acting technique, stage movement, vocal production, improvisation, script analysis, monologue, and playwriting. A daily physical and vocal warmup will work on stretching, articulation, diction, and projection as well as theatre games and exercises. This course will also introduce the songs of Broadway musicals with a concentration on proper singing technique and basic choreography and movement. This class includes a final project and/or a public performance. This course will support work with Academy Theatre and students are encouraged to audition for Academy Theatre productions.

Theatre II (Standard)

1 CREDIT (8825)

Prerequisite: Theatre I; with departmental approval

This course builds upon the foundational skills, topics, and concepts introduced in Theatre I. In addition, we will explore the songs of Broadway musicals, acting technique, and theatre history at a deeper and more concentrated level. Classes will consist of a vocal and physical warmup concentrating on proper technique and form. Students will learn the repertoire of Broadway show tunes from a genre of musical theatre including staging, choreography, and scene work culminating in a semester showcase. This course will support work with Academy Theatre and students are encouraged to audition for Academy Theatre productions.

Theatre III (Accelerated)

1 CREDIT (8826)

Prerequisite: Theatre II

This course is for the advanced theatre student who is interested in an accelerated level of training and honing of acting and musical theatre skills including vocal technique, dance, and choreography. There will be a focus on correct theatre terminology/vocabulary, audition technique, and resume writing as well as musical theatre history and repertoire. This class will participate in a semester showcase including solo material, monologues, scene work, and musical numbers from Broadway's biggest hits. This course will support work with Academy Theatre and students are encouraged to audition for Academy Theatre productions.

Dance

The curricular dance offerings at the Academy include a focus on the modern dance technique of Martha Graham, as well as classical ballet. The program can provide students with a background in the technique appropriate for those who wish to pursue the serious study of dance in any genre. Extracurricular clubs allow students to explore other dance styles, including jazz, Middle Eastern, and African dance.

Popular Dance (Standard)

1 CREDIT (8830)

Popular Dance is a survey course on dance trends that reflect styles and popular moves of different cultures and times. Students will be introduced to various dance idioms that have evolved over the centuries: including Tango, Waltz, Square Dancing, Salsa, Jazz, Hip Hop, etc. Students will examine the roots of these styles in popular, ritual, and social evolutionary patterns. Students will gain insights into the physicality and mechanics of movement, moving through space, and partnering. Introduction to Popular Dance does not result in the waiver of one credit of physical education.

Modern Dance I (Standard)

1 CREDIT (8831)

Dance I may be taken multiple times for credit.

The modern dance technique of Martha Graham is the basis of this class, which progresses carefully from a basic and thorough introduction to an energetic, challenging, and healthful movement experience. Classes are exciting, intense, rigorous, and challenging as they focus on correct technique as well as proper body conditioning and toning. The course is appropriate for novice dancers, as well as experienced dancers who are unfamiliar with Graham technique. Athletes in any sport can benefit dramatically from this course. Some evening and afternoon attendance at dance performances and rehearsals will be required. Completion of one credit of Modern Dance results in the waiver of one credit of physical education, but may not be substituted for Introduction to Physical Education.

Modern Dance II (Accelerated)

1 CREDIT (8833)

Departmental approval required

Dance II may be taken multiple times for credit.

Modern Dance II builds on the ideas presented in Modern Dance I and is

appropriate for dancers familiar with the ideas of Martha Graham and who have mastered introductory skills. An emphasis is placed on the recognition of familiar body patterns and executing them with the precision the professional dancer or athlete. Some evening and afternoon attendance at dance performances and rehearsals will be required. Completion of one credit of Modern Dance II results in the waiver of one credit of physical education but may not be substituted for Introduction to Physical Education.

Training for the Athlete (Standard)

1 CREDIT (8835)

This course is designed to enhance athletes' agility, physical control, coordination, flexibility, and sense of timing. The course focuses on proper and safe body alignment while it develops core strength. Classes are designed to include sport-specific features for in-season training. The class also provides hardy and essential training for athletes in the off-season. This is not a dance class; it is a class for athletes making use of dance training for complementary cross-training purposes. The course allows students to gain valuable skills to improve their flexibility, range of motion, balance control, speed and agility. Completion of one credit of Training for the Athlete results in the waiver of one credit of physical education, but may not be substituted for Introduction to Physical Education.

Ballet I (Standard)

1 CREDIT (8837)

Ballet I provides training in the fundamentals of classical ballet. It focuses on acquiring basic ballet technique and terminology through the examination and assimilation of proper body alignment, turn-out, and muscle awareness. Students will learn ballet positions, terminology, proper use of the arms-legs-feet-back. Instruction will concentrate on imparting correct ballet training while students gain musicality, flexibility, coordination, agility, improved balance, and a sense of space. Completion of one credit of Ballet I results in the waiver of one credit of physical education, but may not be substituted for Introduction to Physical Education.

Ballet II (Accelerated)

1 CREDIT (8838)

Ballet II is a continuation of Ballet I on a more demanding level. Exercises are more complicated and demanding, involving

changes of direction, feet, sides, front and back. The barre work and center floor are more intricate and incorporate more use of arm and upper body movement in concert with leg work. Exercises coming across the floor and grande allegro are more varied, incorporating jumps, turns, jetes, tour jetes, multiple pirouettes, and beats in longer movement phrases and phrases with rhythmic changes. Use of the upper body and port de bras are incorporated with a focus on creating fluid and well-coordinated movement. Ballet II is a continuation of Ballet I and a preparation for further study of ballet. Completion of one credit of Ballet II results in the waiver of one credit of physical education, but may not be substituted for Introduction to Physical Education.

Visual Arts

The extensive visual art courses described below are supplemented with extracurricular activities such as the Art Club, Intaglio Society, and Fashion Club.

Foundations of Drawing and Painting (Standard)

1 CREDIT (8851)

Drawing utilizes simple material to explore both our visual perception, and the structural relationships of the world. It is a fundamental tool for effective visual communication. Drawing builds a repertoire of problem-solving strategies that can be utilized in all aspects of life and learning. Students may also explore basic painting mediums such as ink wash and watercolor. This course introduces a foundation of technical and language skills, upon which further visual art studies will be built. Weekly homework assignments are designed to reinforce the principles learned in class. Students should expect to pay a small materials fee.

Anatomy and Figure Drawing I (Standard)

1 CREDIT (8883)

Prerequisite: Foundations of Drawing and Painting

Knowledge of the structure, balance, and movement of the human figure is an essential skill in many fields of visual art, such as fashion design and animation, and an excellent training in observation and visual problem-solving for any artist. This course builds on observational drawing skills introduced and practiced in Foundations of Drawing and Painting.

Anatomy and Figure Drawing II (Accelerated)

1 CREDIT (8885)

Prerequisite: Anatomy and Figure Drawing I

This course will build upon the basics of human anatomy introduced and practiced in Anatomy and Figure Drawing I. Students will explore more deeply the bone and muscular structures, and use these ideas in the creation of large drawing compositions.

Printmaking I (Standard)

1 CREDIT (8856)

Prerequisite: Foundations of Drawing and Painting

This course is an introduction to fine art printmaking and an exploration of creative process through intaglio and relief printing. Students will create original compositions from life, develop and revise the images on copper plates and wood blocks, then print the images by hand or on an etching press. Presentation of prints for group critique and public exhibition are an important part of this course. Students will maintain a body of working proofs and artist proofs that will add breadth and depth to their art portfolios.

Printmaking II (Accelerated)

1 CREDIT (8857)

Prerequisite: Printmaking I

This course is an intermediate level fine art intaglio printmaking experience. The full range of intaglio techniques will be explored including hard and soft ground etching, aquatint, and open and spit bite, as well as all the major engraving techniques. Students will explore the creative process as they deepen their knowledge and comfort level with revising images from proof to proof in pursuit of personal voice, and continue to build their art portfolios. As in Printmaking I, group critique and the presentation of public exhibitions are an important part of this course. Students registered in this class are eligible to join Intaglio Society, and may apply for our annual workshop in Florence, Italy.

Water-Based Painting I (Standard)

1 CREDIT (8852)

Prerequisite: Foundations of Drawing and Painting

Students will learn various techniques and effects using water-based paints. They will explore watercolor, gouache, and egg tempera. Watercolor is transparent and allows light to reflect from the surface of the paper. Gouache is a type of paint consisting of a pigment suspended in water which is more opaque than watercolor and provides greater

light reflection. The course will finish with a study in egg tempera which is a permanent and fast drying painting medium using a pigment mixed with a binder (such as egg yolk). Its use dates back to the 1st century A.D. and was an easel painting method used until oil painting was invented in 1500.

The course will cover design, composition, value and color in landscape, still life, and portrait painting.

Water-Based Painting II (Accelerated)

1 CREDIT (8853)

Prerequisite: Water-Based Painting I

This class is a continuation of the skills and principles introduced in Water-Based Painting I, with added emphasis on individual painting technique and expression. Students will have the opportunity to explore a medium of their choice, polish their skills in painting, and create pigments, binders, and painting substrates. Demonstrations of water-based mediums will be balanced with lectures and individual projects.

Oil Painting I (Standard)

1 CREDIT (8893)

Prerequisite: Foundations of Drawing and Painting Materials fee required

Using the medium of oil paint, students will build upon their observational drawing skills to create compositions exploring luminosity, color, transparency, and opacity; as well as form, atmosphere, and other concepts introduced in Foundations of Drawing and Painting. Gaining knowledge about the materials and craft of oil painting will be central to the course. Students will grind pigment into oil to make their own paints, prepare their own surfaces to paint upon and learn to handle an oil/varnish medium. A \$50 studio fee will be collected.

Oil Painting II (Accelerated)

1 CREDIT (8895)

Prerequisite: Oil Painting I Materials fee required

Students continue the explorations begun in Oil Painting I, deepening the knowledge of the medium and techniques.

Photography I (Standard)

1 CREDIT (8841)

Prerequisite: Seniors and Juniors; materials fee

Students will learn the foundation principles of photography and the skills and techniques of traditional film processing and printmaking through a fine-art framework. Composition, elements of design, aesthetics, visual literacy, and communication will be

emphasized. Students will need a 35mm SLR camera with manual focus and exposure controls. A supplies fee is necessary to cover a portion of materials.

Photography II (Accelerated) 1 CREDIT (8842)

Prerequisite: Photography I
Materials fee required

Students will engage in a guided discovery of their visual voice while learning advanced principles of photography. Building upon the foundation acquired in Photography I, topics will include the zone system, on camera filters, toning, hand-coloring, and advanced printing techniques. Students will build a portfolio through exploration of different genres.

Alternative Photographic Processes (Standard) 1 CREDIT (8843)

Prerequisite: Photography I
Offered fall semester only

This course will be an exploration of historical processes, techniques and materials. In this lab-oriented, hands-on learning experience, students may engage with 19th century photographic processes such as; Anthotype, Chlorophyll, Cyanotype, Van Dyke and Kallotype. Topics will also include pinhole, solography, lumens, photo transfers, liquid emulsion, mordancage, digital negatives, contact printing and handmade emulsions. Alternative processes are an intersection of art, science, the head, heart and most importantly, the hand. It allows for a deep connection to the physical world and engages with photography through a serendipitous, experimental and creative framework with endless expressive possibilities. This course will ask students to engage and understand photography on an artistic and creative level and is well suited for students who like to experiment. This course may be taken after Photo I or any upper level photography class.

Filmmaking I (Standard) 1 CREDIT (8871)

Open to Sophomores, Juniors, and Seniors

Students will explore the fundamental principles of filmmaking. Focusing on storyboarding, cinematography, and editing, students will demonstrate that the primary means of storytelling in film is through visual composition. Students work in a collaborative environment to finish a product, and will have the opportunity to focus on specific areas of the process. Computer literacy is a helpful skill for those wishing to deepen their knowledge of editing.

Filmmaking II (Accelerated) 1 CREDIT (8873)

Prerequisite: Filmmaking I

Students will explore advanced principles of filmmaking. While furthering cinematography and editing skills, students will also study directing and script writing. Typically, the whole class collaborates on a single, long-form project. Each student focuses on one or two areas of film production to achieve expertise in those roles and explore their own aesthetic. Because of the needs of actors and locations for the films produced by this class, filming outside of the school is often required.

Digital Graphics and Design I (Standard) 1 CREDIT (8874)

Prerequisite: Foundations of Drawing and Painting
Materials fee required

This course will expose students to the process of graphic design using computer technology as a tool. Techniques of digital enhancement of photographs and scanned images, and the creation of digital images will be used to explore the principles of graphic design. Learning the use of Adobe Illustrator and Adobe Photoshop will be major components of this course. Students will work toward the production of a portfolio.

Digital Graphics and Design II (Accelerated) 1 CREDIT (8875)

Prerequisite: Digital Graphics and Design I
Materials fee required

Students will explore beyond the basics and discover the power and versatility of vector artwork in this intermediate level of Adobe Illustrator. Students will also learn the many capabilities available in Adobe Photoshop and will continue to work toward the production of their portfolio.

Fashion Design I (Standard) 1 CREDIT (8863)

Prerequisite: Foundations of Drawing and Painting
Materials fee required

Students learn the basics of sewing, design and color, and how to create a pattern through draping techniques. Figure drawing skills will be developed through creating illustrations. Students will also learn the basics of jewelry design, beading, and textile printmaking. Students will keep abreast of the current and contemporary trends in the fashion industry and will work toward the production of a portfolio.

Fashion Design II (Accelerated) 1 CREDIT (8864)

Prerequisites: Foundations of Drawing and Painting, Fashion Design I
Materials fee required

Students build upon the skills and techniques attained in Fashion Design I and create a garment from design concept to completion. Learning how to fit a mannequin and a live model will be part of the process. The semester will culminate with students participating in a professional fashion show and the production of a portfolio.

Fashion Studies (Standard) ½ CREDIT (8865)

Students will profile prominent designers and/or design houses by studying early dress. The course will begin a focused study in the 1700/1800s then progress to the turn of the century through the 1900s. Students will look at how fashion has changed through the decades, post-2000s and then compare and contrast with the fashion industry as it currently stands. Modern dress will be studied in depth, focusing on specific facets of the modern fashion industry. We will look at hallmark facets and how they have changed; trends, production, labor, socioeconomic standing, status through clothing, and emotional and psychological factors. Fashion studies will look mostly at Western fashion, specifically in Europe and North America. Meets every other day.

Clay I (Standard) 1 CREDIT (8867)

Open to Sophomores, Juniors, and Seniors

Students will be exposed to a wide variety of hand-building techniques and extensive work on the potter's wheel with a strong emphasis on both design and functionality. Students will learn to make serving bowls, pouring vessels, serving trays, coffee mugs and tumblers, lidded forms, and a variety of other pieces using hump and slump molds, coil building, slab construction, and, of course, the wheel. Students may also learn decorative carving techniques as well as the use of decorative stamps and sprigs.

Additionally, a wide variety of glazing processes will be covered including the use of slips, underglazes, engobes, overglazes, sigillattas, and traditional glazes. Students will receive initial instruction on the loading, firing, and unloading of their work.

Clay II (Accelerated)**1 CREDIT (8868)***Prerequisite: Clay I*

Clay has been used as a medium for both utilitarian purposes and artistic expression for thousands of years, crossing all cultures, lands, and groups of people. From the most primitive pit-fired pot to the most sophisticated computer-controlled kiln-fired art work, clay remains a medium of infinite fascination. This course focuses on expanding student understanding of historical, technical, and conceptual processes associated with working in clay. Students will refine their throwing skills and learn how to create complex forms such as pouring vessels, lidded vessels, and myriad other utilitarian forms. Hand-building processes will also be thoroughly examined and students will be free to choose which method(s) they prefer to pursue. Additional emphasis will be placed on surface embellishment, decorative carving, glaze experimentation, and loading, firing, and unloading kilns. Individual aesthetic expression will be highly encouraged.

Sculpture I (Standard)**1 CREDIT (8861)***Prerequisite: Foundations of Drawing and Painting*

Students will explore the creation of three-dimensional images. The course begins with simple bas-relief sculpture and proceeds to advanced sculptural forms. Students will also explore the casting process by developing reproductions of original pieces.

Sculpture II (Accelerated)**1 CREDIT (8862)***Prerequisite: Sculpture I*

Students will explore advanced sculpture work such as complex forms and the human form, drawing from the foundational skills acquired in Sculpture I. Students will also be introduced to new mediums such as stone and wood.

Art History (Accelerated)**½ CREDIT (8898)***Open to Juniors and Seniors*

Exploring history through works of art offers an approach for understanding our global community and is an effective way to review significant events from a visual perspective. From prehistory to the present, artworks will be examined in the context of their era's dominant ideas, political events, economic factors, and social structure. This approach, guided by the AP Art History model, will examine exemplars of global

artistic traditions within specific content areas. Visual literacy, critical assessment, analytical reading, class discussions, and written expression will enable students to decode art, learn from it, and appreciate the extraordinary creativity of artists throughout history. Students will complete a final research paper on the approved topic of their choosing. Meets every other day.

Portfolio (Accelerated)**1 CREDIT (8900)**

*Prerequisite: Foundation of Drawing and Painting; with departmental approval
This course is highly recommended for the junior year.*

Students will be expected to do outside reading, homework, and independent studio work as they work toward the production of a portfolio to use for application to art schools or art programs in traditional liberal arts colleges. It is recommended that this portfolio course be taken only after a student has taken at least one advanced art course that focuses on a particular medium.

AP Studio Art**1 ½ CREDIT (8899/8896)***Departmental approval required*

Students will be involved in a concentrated studio of drawing, two-dimensional art and/or three-dimensional art. Emphasis in each area begins with fundamental techniques and includes design principles, the creative process, historical perspective, and contemporary trends. All students will be expected to do substantial outside-of-class work as they complete a portfolio in one or more of these areas for submission to the Advanced Placement program. It is recommended that this portfolio course be taken only after a student has taken at least one advanced art course that focuses on a particular medium. This course will run every day first semester and every other day second semester.

Advanced Art (Accelerated)**1 CREDIT (8897)***Departmental approval required*

Students who wish to pursue intensive study in a particular medium, within the visual arts, beyond that offered in our regular offerings may take Advanced Art in a medium one time. In consultation with the instructor, the student in this course will develop a demanding course of study and artistic production. The student will be scheduled into a regular class section of a course in the particular medium of interest. Admission into this course will be reserved for those

students who have demonstrated a sincere, significant interest in pursuing artistic excellence, and will be by departmental recommendation only.

Visual Art Capstone (Accelerated)**1 CREDIT (7702)**

*Departmental approval required
Satisfies the Senior Capstone requirement*

Students who are proficient in one or more visual art mediums may choose to do a Visual Art Capstone for their senior capstone requirement. Each student will design a research-based visual art project to be presented on Capstone Day.

DRIVER EDUCATION**½ CREDIT (6000)**

Students must be age 15 or above and hold a valid Learner's Permit. NEW HAMPSHIRE STUDENTS MUST BE 16 BEFORE THE LAST SCHEDULED CLASS.

Driver Education teaches the fundamentals of driving an automobile including proper and safe driving habits. The course consists of 30 hours of classroom instruction, six hours of observation, and six hours of behind-the-wheel driving time. Enrollments often exceed the capacity of the course. Those not offered a spot in the course will be placed on a waiting list based on the same criteria. If you request to be placed on the waiting list after the course has been scheduled and the waiting list created, you will be placed at the end of the waiting list without consideration of year of graduation or date of birth. If openings occur, students will be chosen from the waiting list and notified.

CAREER AND TECHNICAL EDUCATION

The Career and Technical Education department prepares students for both post-secondary education and the world of work. We provide educational opportunities covering industry-specific skill training and credentialing, general employability skills, academic and career skill integration, and personal enrichment to students from high schools across the region. Our students are prepared for current and future educational and workplace opportunities through

hands-on learning, authentic workplace experiences, and classroom instruction.

Courses are offered in the following career clusters:

- Agriculture, Food, and Natural Resources
- Architecture/Construction
- Business and Management
- Hospitality and Tourism
- Human Services
- Transportation, Distribution, and Logistics (TDL)

These courses provide important benefits to students including career awareness and exploration, applied learning of academic skills, and an array of other outcomes, such as positive habits of mind, strong thinking skills, and the opportunity to learn about oneself and others. Some of these courses also provide in-depth knowledge and experience in a specific career field. Many courses may be taken without prerequisites.

Career Awareness

Career Exploration (Standard) 1 CREDIT (6010)

Career Exploration is designed to teach students how to engage in the career-planning process, focusing on the exploration phase. Students will be involved in hands-on activities across the Career and Technical Education's 16 career clusters to better understand themselves and how they may intersect with the world of work after college or immediately after high school. Students will partake in demonstrations, shadow different classes, and complete self-assessments to explore careers by utilizing an online navigation program and a Career Choices curriculum. They will document their learning and career plans by developing a career portfolio.

Work-Based Learning (Standard)

1 CREDIT (6012)
1 BLOCK/1 OR 2 SEMESTERS
2 CREDITS (6011)
2 BLOCKS/1 OR 2 SEMESTERS

Work-Based Learning is a unique plan of education, integrating classroom study with planned and supervised work experience. It is a partnership between St. Johnsbury Academy and community employers that allows students to participate in related career awareness and work-experience

programs. These services combine practical applications in the classroom with skills useful in the workplace and for future employment. Students have the opportunity to gain career experience, develop self-confidence, acquire necessary workplace readiness skills, and in some cases, earn a wage.

Agriculture, Food, and Natural Resources

Introduction to Natural Resources Management (Standard)

1 CREDIT (6100)
1 BLOCK/1 SEMESTER

This course is designed to be an introductory course for the Natural Resources cluster, which includes Forestry. Introduction to Natural Resources Management will emphasize the importance of inquiry and community while supporting and enriching skills in data collection, documentation, and presentation within the context of the natural resources owned and operated by St. Johnsbury Academy. Upon completion of this course, students will be able to use Microsoft Excel to collect, organize, and interpret data in the context of real-life management plans.

Forest Resources and Land Management I (Standard)

2 CREDITS (6101)
2 BLOCKS/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

This field-based course explores the ecological, economic, and social connections between timber, wildlife, soil, and water resources. In the process students will learn essential natural resource skills, such as tree identification, forest inventory, land-management planning, and timber harvesting. Students will also have multiple opportunities to interact with professionals who work to utilize and protect such resources.

Forest Resources and Land Management II (Standard)

2 CREDITS (6102)
2 BLOCKS/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

The second level of Forest Resources and Land Management is recommended for students considering post-secondary studies

and/or careers in natural resources. Students will spend a majority of their time in the field studying the principles and methods of timber cruising, management planning, and harvest operations. Students will be provided opportunities for hands-on instruction in the fundamentals of road layout, design, and constructions; tree felling, limbing, and bucking; sawmilling; firewood processing; maple-syrup production; and value-added marketing.

Architecture/Construction

Bridges, housing, water, sewer, and power distribution systems are just a few examples of human-made structures and systems connected with our natural environment.

All must be designed, engineered, and constructed by people with the goals of sustainability and long-term durability as driving forces.

Introduction to Woodworking (Standard)

1 CREDIT (6200)
1 BLOCK/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

In this introductory course, students will learn workplace safety by demonstrating the proper use of hand and power tools, safely operating powered machinery, and understanding OSHA standards for small shops. Students will explore project planning, basic design, wood selection, joinery and finishing techniques. This course is project oriented and students are responsible for the purchase of materials for personal projects.

Advanced Woodworking (Standard)

1 CREDIT (6201)
1 BLOCK/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

Students will learn more advanced skills in the areas of furniture design, construction, and finishing. Techniques will include raised panel construction, dovetail joints, wood turning, inlay, and marquetry. Students will be responsible for purchasing much of their own material.

Fine Woodworking (Standard)

2 CREDITS (6202)
2 BLOCKS/1 SEMESTER
OR 1 BLOCK/1 SEMESTER

Prerequisites: Beginning Woodworking and Advanced Woodworking

Students will learn more advanced woodworking techniques such as mortis and tenon, dovetails and veneering. Students will explore working with hand tools and mastering machinery operations. Students will discover woodworking as an art form through design, wood selection, carving and lathe work. Projects are student driven or students may choose to take on custom orders.

Introduction to Electricity (Standard)

1 CREDIT (6211/6212)

1 BLOCK/1 OR 2 SEMESTERS

2 CREDITS (6214/6215)

2 BLOCKS/1 OR 2 SEMESTERS

Open to Sophomores, Juniors, and Seniors

Students will become familiar with basic electrical principles such as Ohm's Law. Each student will acquire a basic knowledge of D.C. and A.C. circuitry, and design, wire, and analyze each circuit. Areas of study will include series and parallel circuits, combination circuits, switching circuits, use of meters, use of various power tools, residential services, appliance circuits, and blueprint reading. This course is an excellent course to strengthen skills for students contemplating entering other craft areas in the construction field. It provides a sound foundation for post-secondary study at either two or four-year colleges.

Residential/Industrial Electricity I (Standard)

4 CREDITS (6217/6218)

2 BLOCKS/2 SEMESTERS

*Prerequisite: Introduction to Electricity
Open to Juniors and Seniors*

Residential/Industrial Electricity provides advanced units of study in A.C. and D.C. circuits, motors, motor controls, conduit bending, advanced blueprint reading, and on the job training. Students participate in the State Apprenticeship program and earn credit toward their journeyman's license.

Residential/Industrial Electricity II (Standard)

4 CREDITS (6231/6232)

2 BLOCKS/2 SEMESTERS

Prerequisite: Residential/Industrial Electricity I

Residential/Industrial Electricity II provides advanced units of study in A.C. and D.C. circuits, motors, motor controls, conduit bending, advanced blueprint reading, and on-the-job training. Students participate in the State Apprenticeship program and earn credit toward their journeyman's license.

Introduction to Construction (Standard)

1 CREDIT (6203)

1 BLOCK/1 SEMESTER

In this introductory course, students will learn the basic skills used in the construction industry. Students will be introduced to shop safety, hand and power tools, and construction math. As the semester progresses, students will learn construction techniques and systems such as: floor systems, wall and ceiling framing, roof framing and applications, stair construction, and basic flooring. This course will focus on teamwork and developing proper worksite communication skills.

Construction Technology I (Standard)

2 CREDITS (6204)

2 BLOCKS/1 SEMESTER

Open to Juniors and Seniors

This course provides students with a field-based experience which focuses on frame construction and building renovations. Students will learn how to plan and design building projects. Residential projects will include framing and sheathing, roofing, and the installation of windows and doors. Basic understanding of floor systems, interior walls, and ceilings will be demonstrated on local job sites. Students will experience professionals in the field when new construction sites are part of the curriculum. The course allows students to earn an industry-recognized credential from the National Center for Construction Education and Research (NCCER).

Business and Management

Introduction To Business (Standard)

1 CREDIT (6410)

1 BLOCK/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

This course provides students with insight into the basic foundations of both successful and unsuccessful businesses, allowing students to understand the various forms that an organization can take. Students examine the importance of the environmental, social, global, economic, and technological influences on business, culture, and the economy. Students will participate in business simulations, outline activities, and group projects to enhance problem-solving, decision-making, and team-building skills.

Sales and Marketing (Standard)

1 CREDIT (6421)

1 BLOCK/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

Sales and Marketing (Accelerated)

1 CREDIT (6423)

1 BLOCK/1 SEMESTER

Departmental approval required

This course provides a foundation for understanding and applying the functions of sales and marketing within local and global economies, with a particular focus on the language of marketing, historical and current patterns and trends, economic considerations, and technological changes, opportunities, and considerations. Information is presented and explored through a variety of mediums, including chapter work, daily tasks, and small and large scale projects throughout the semester that utilize the skills of multiple styles of learning, addresses cultural components, and provides for real world application of content in a context that students can relate to.

Entrepreneurship (Standard)

1 CREDIT (6422)

1 BLOCK/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

Entrepreneurship (Accelerated)

1 CREDIT (6424)

1 BLOCK/1 SEMESTER

Departmental approval required

This course provides a foundation for students to become knowledgeable about the fundamentals of business ownership, as well as the impact of entrepreneurs on society from multiple perspectives: business owners, politicians, scientists, artists, consumers, etc. Students are encouraged to make economic and social connections and use the information to explore the creation of new businesses or additions to existing businesses. Utilizing the information gathered students explore phases of businesses from product creation through finance to experience the process of writing a business plan.

Personal Finance (Standard)

½ CREDIT (6425)

1 BLOCK/1 SEMESTER

Personal Finance will emphasize the importance of educated financial decisions. This course is intended for all students and will introduce the skills that are necessary for financial success. Topics will include saving and budgeting, banking, payment types,

credit scores, financing higher education, renting vs. owning, insurance and taxes, consumer protection, and investing. Upon completion of this course, students will receive a certificate of completion. Meets every other day.

Hospitality and Tourism

Restaurants and Food/Beverages Services

Introduction to Culinary Arts (Standard)

1 CREDIT (6510)

1 BLOCK/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

In this introductory course to the Hospitality and Tourism career cluster, students work in a live professional culinary kitchen to learn what is involved in the culinary trades and the hospitality and tourism cluster in general. Students are exposed to the production of a variety of food types, food handling, safety, sanitation, and presentation. This is an excellent course to acquire knowledge about culinary careers as well as to acquire useful skills such as kitchen safety, sanitation practices, knife skills, baking techniques, cooking methods, and recipe conversions.

Culinary Arts I (Standard)

4 CREDITS (6511/6512)

2 BLOCKS/2 SEMESTERS

Sophomores by permission only; open to Juniors and Seniors

Working in two professional settings, Culinary Arts I students learn the foundations of professional food service. Professional baking and pastry is taught for one semester in our Streeter Hall bakeshop, where students will be exposed to a broad spectrum of techniques and high-quality products. The Hilltopper Restaurant is the setting for our Culinary Prep Skills class; students rotate through all the stations of the café, preparing food for our very popular restaurant. Areas of study include yeast dough production, à la carte desserts, wedding-cake design, soups, stocks, meat fabrication and sauces, employability skills, nutrition, ServSafe, and more. Students also have the opportunity to participate in off-premise catering, fine-dining dinner, and community service.

Culinary Arts II (Standard)

4 CREDITS (6521/6522)

2 BLOCKS/2 SEMESTERS

*Prerequisite: Culinary Arts I
Open to Juniors and Seniors*

Students build on the skills learned in Culinary I by concentrating on the preparation and service of a range of menus and food styles. Students are immersed in many facets of food service and hospitality management including: menu planning, customer service, ethics, cost analysis, equipment maintenance, purchasing, and à la carte cooking. Students will become acquainted with post-secondary educational options as well as a range of career pathways. Through our current articulation agreement with a number of colleges, students who complete the two-year Culinary Arts program are eligible for a number of scholarships and waived course requirements. Students who pass the NOCTI examination receive the industry-recognized credential of “Certified Secondary Graduate” from the American Culinary Federation. St. Johnsbury Academy is one of 120 secondary programs throughout the United States accredited by the ACF.

Human Services

Introduction to Human Services (Standard)

1 CREDIT (6610)

1 BLOCK/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

In this introductory course to the Human Services career cluster, students receive an overview of the Human Services profession including social services, public safety, child development, early childhood education, health careers, geriatrics, social issues, career exploration, communication, goals, and decision making. One block each week is spent visiting area agencies and working on projects in the community.

Human and Professional Services I (Standard)

2 CREDITS (6600)

2 BLOCKS/1 SEMESTER

Open to Juniors and Seniors

This course begins with the exploration of self and community, moving into the social issues of other cultures. Students will learn about human development, ethics, social issues, and conflict resolution. Students will have internships three days each week and are in the classroom two days each week. Internships are self-selected and provide the

student with experience in at least two area agencies of their choice. May result in three college Human Services credits for qualified students. May earn three college credits per course from the Community College of Vermont.

Human and Professional Services II (Standard)

2 CREDITS (6601)

2 BLOCKS/1 SEMESTER

Open to Juniors and Seniors

Build on skills learned in Human and Professional Services I with an emphasis on providing services to individuals and families in all development stages. This course expands the exploration of social issues, ethics, conflict resolution, human development, criminal justice, and geriatric issues. Students serve internships three days each week and are in the classroom environment two days each week. Internships are self-selected and longer in length than Human and Professional Services I. Along with skill development, a secondary goal of these internships is to enhance student preparation for post-secondary life—career or college. May earn three college credits per course from the Community College of Vermont.

Transportation, Distribution, and Logistics (TDL)

Transportation, distribution, and logistics workers move people and products by road, air, rail, and water. They work as drivers, pilots, engineers, or captains; repair, maintain, design, or build the vehicles, trains, planes, and ships that move people and products; or work behind the scene to make sure the products and people get to the right place on time.

Introduction to Automotive Technology (Standard)

1 CREDIT (6910)

1 BLOCK/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

In this introductory course, students will explore entry level automotive maintenance. Students will be introduced to workplace safety, engine diagnostics, exploration of suspension and brake systems, and introduction to electrical systems. Students will also explore minor body repair. The course is designed to prepare students for Auto Technology I.

Introduction to Welding (Standard)

1 CREDIT (6806)

1 BLOCK/1 SEMESTER

Open to Sophomores, Juniors, and Seniors

In this introductory course to the Manufacturing career cluster, students are introduced to elementary practices of welding. Students explore basic welding types (SMAW, GMAW, GTAW, CRSW and Oxy-fuel welding), two types of metal cutting (Oxy-fuel and Plasma Arc), the basic welding symbols, and a weldment drawing, the basic techniques for material preparations. This course uses both group and individual projects and problem-based scenarios as instructional opportunities. Students practice general employability skills such as effective communication, interpersonal skills, and presentation skills. The course is recommended for students interested in Automotive Technology I.

Advanced Welding (Accelerated)

2 CREDITS (6807)

2 BLOCKS/1 SEMESTER

Prerequisite: Introduction to Welding (Standard)
Open to Sophomores, Juniors, and Seniors

In this advanced course, students are introduced to advanced practices of welding. Students continue to develop competence in SMAW, GMAW, GTAW in all positions, develop skills needed for AWS flat certification in SMAW, understand the metallurgy of common metal for welding, explore GTAW for Stainless and Aluminum and thin metals, and become competent understanding welding symbols and

interpreting weldment drawing. Students will also practice creating a welding project from estimating to building. This course uses both group and individual projects and problem-based scenarios as instructional tools. Students practice general employability skills such as effective communication, interpersonal skills, and presentation skills.

Automotive Technology I (Standard)

4 CREDITS (6911/6912)

2 BLOCKS/2 SEMESTERS

Open to Juniors and Seniors

Automotive Technology I offers hands-on shop experience and problem-based learning in a fully equipped mobile equipment repair (mechanics) and/or collision-repair (auto body and painting) facility. Students will learn about areas of the automotive industry as well as transferable skills that apply to automotive systems, oversee scheduling of appointments, ordering parts, managing stock items, assessing collision damage, and mixing and applying modern automotive finishes.

Automotive Technology I provides students with the knowledge and skills necessary to make informed decisions about pursuing a career in the Transportation, Distribution, and Logistics career cluster. This course is an excellent choice for all students who will need to understand and maintain their own vehicles and equipment or those who wish to follow this path to post-secondary education and employment.

Automotive Technology II (Standard)

4 CREDITS (6931/6932)

2 BLOCKS/2 SEMESTERS

Prerequisite: Automotive Technology I
Open to Seniors

In Automotive Technology II students focus their efforts in a specific career concentration continuing to build on the skills and knowledge learned in Automotive Technology I while focusing on skills and knowledge specific to their choice. Students will be encouraged to pursue further education, obtain ASE or ICAR credentials and/or seek an apprenticeship program in the industry.

Career and Technical Education Capstone (Accelerated)

1 CREDIT (7707)

Departmental approval required

This course is designed to allow students in the career and technical education department the opportunity to develop a Capstone project in their chosen field. Students will meet in a classroom every other day, where they will gain instruction and practice in research skills, oral communication skills, application of research to design, and the iterative process of prototyping, testing, researching, and redesigning their chosen project. On the alternative days, students will work with their CTE mentor/instructor working on their project design, testing, redesigning, and completing their project in their chosen field. They will present their work on Capstone Day.



APPENDIX

Procedure for Course Selection

With a wide range of courses and about one thousand students, arranging an overall schedule that enables students to achieve their desired goals within the limits of the daily schedule, available faculty, and facilities is a complex task that requires careful planning. The guidance office goes to great lengths to facilitate the scheduling process. To help enable this, the following timeline guides the process:

January

St. Johnsbury Academy begins the course selection process. Current freshmen will meet with a guidance counselor to discuss course selections for the next school year and the options available in the context of their educational plans. Student course selections will be mailed to parents for signed approval.

February

Current sophomores and juniors will meet with a guidance counselor to discuss course selections for the next school year and discuss the options available in the context of their educational plans. Student course selections will be mailed to parents for signed approval.

May

An initial schedule is distributed to each student for a final discussion with their parents and to ensure that the proper courses are listed. Student schedules produced in May will not contain teachers' names or the time at which courses meet.

August 10

Teacher course assignments, and meeting times and locations are arranged over the summer by mid-August. Student schedules are finalized and academic course loads are balanced over the summer. Up until August 10 students have the unlimited ability to change their course selections. After this date, schedules become increasingly difficult to change.

After August 10

Limited course changes and additions may be made after August 10, subject to space availability, fulfillment of prerequisites, and other considerations, subject to the constraints and schedule listed below. Between August 10 and the first day of the school year, a course change may be considered in these situations:

- The student's schedule is incomplete or unbalanced;
- The student completed a summer school course, an online course, or had work experience that enables a higher placement;
- Summer experiences lead to a change in career plans;
- A core academic class is to be replaced by another core class, or an elective course is to be replaced by another elective;
- Changing the desired course(s) does not cause a course to exceed minimum or maximum enrollment requirements. In other words, no course changes will be made that cause a course to be cancelled or that require a new section to be created.

Once the master schedule has been built (August 10), all students enrolled in AP classes are committed to completing the entire year of the AP course.

First day of the semester

Students will receive their schedules, which include the course, location and teacher name.

During Weeks 1 and 2 of the first semester

Students may change only elective classes, following the Course Change Procedure. Reasons that may lead to an approved request are listed above.

During Week 4 and Week 7 of either semester

Students may petition to change the level of the course they are in (to a lower level only) for academic courses during the week after the interim grades and the week after the mid-semester grading period. These changes must be made in coordination with the student's current teacher of the subject, the appropriate department chair, and by completing the Course Change Procedure form available through the Academic Office.

After Week 8 of either semester

No course changes may be made. If a course is dropped for any reason after week 8, the student will be denied credit in that course.

Communication among students, parents and guidance personnel is key to a successful course selection and schedule. Guidance counselors, advisors, students, and parents should be fully aware of the student's needs and each other's responsibilities. Senior year courses can be critical in the college admission process and we encourage seniors to take a challenging academic course load.

Scheduling Policies

- Freshmen must take eight credits, which must include Freshman Humanities, Health, a math course, and Integrated Science I. Most freshmen also take and Physical Education I.
- Sophomores and juniors must take eight credits of study for the year.
- Seniors must take at least seven credits, though they may take eight. Seniors who sign up for eight credits will not be allowed to drop to seven after the August 10 cutoff date.
- Students may take a fifth course in a semester if that course is Guided Studies, Freshman Study Skills, Study Skills, English as a Second Language, or a Performing Arts (acting, band, chorus, or dance) course. Students will not be allowed to drop the fifth course after the August 10 date.

Teacher/Time Request

Requests to change teachers are not honored unless the student has previously taken a class from that teacher and would prefer a new learning experience. Such a request is subject to space availability, other master schedule constraints, and must be made during the first week of school. No changes are allowed solely for a change in the time a course is offered.

Driver Education

Driver Education during the school year is a highly desired option and is requested through the course selection process with their guidance counselor. Previous requests do not carry over to the next year and must be made again each year. Acceptance into Driver Education is based on year of graduation and date of birth. Those not offered a spot in the course will be placed on a waiting list based on the same criteria. If you request to be placed on the waiting list after the course has been scheduled and the waiting list created, you will be placed at the end of the waiting list without consideration of year of graduation or date of birth. If openings occur, students will be chosen from the waiting list and notified.

Student Schedule Appeal

Occasionally, special situations arise that do not fall under the guidelines above. These may lead a student to make a special request to appeal a scheduling decision. In that case, the first appeal must be made to the Department Chair, the second appeal must be made to the Director of Guidance, and the final appeal must be made to the Assistant Headmaster for Academics.

Faculty

Academic Support and Enrichment

Elizabeth Cummings '95, Chair

B.A. BISHOPS UNIVERSITY
M.A. JOHNSON STATE COLLEGE

Joseph Grasso

B.S./M.S.T. UNIVERSITY OF WYOMING

John Mackenzie

B.A. UNIVERSITY OF MANCHESTER
M.A. UNIVERSITY OF ST. ANDREWS

Capstone

Henry Eaton

B.A. YALE UNIVERSITY
M.A. DARTMOUTH COLLEGE

Career and Technical Education

Patrick Guckin, Chair

B.A. PLYMOUTH STATE COLLEGE
M.ED. SOUTHERN NEW HAMPSHIRE UNIVERSITY

Jeff Andre

B.P.S. CULINARY INSTITUTE OF AMERICA

Bret Bourgeois '92

Paula Bystrzycki '80

A.S. CULINARY INSTITUTE OF AMERICA
B.A. NEW ENGLAND CULINARY INSTITUTE

Travis Bugbee '92

David Hale

B.A. UNIVERSITY OF MAINE
A.O.S. NEW ENGLAND CULINARY INSTITUTE

Suzanne Libbey

Johnna Kendall '96

B.A. PROVIDENCE COLLEGE

Jennifer McGarvin

B.A. THE UNIVERSITY OF VERMONT
M.A. SPRINGFIELD COLLEGE

Jason Mitchell

Abigail Murphy '94

B.A. MCGILL UNIVERSITY
M.A. JOHNSON STATE COLLEGE

Jeremy Roberts '90

Matthew Stark '96

Gary Thornton

B.A. UNIVERSITY OF NEW HAMPSHIRE

Computer Science

Elizabeth Laverty

B.A. SMITH COLLEGE
M.ED. UNIVERSITY OF CONNECTICUT

Admira Macedonci

B.S., M.A. JOHNSON STATE COLLEGE

English

Steven Jolliffe, Chair

B.A. DICKINSON COLLEGE
M.A. CALIFORNIA STATE UNIVERSITY—NORTHBRIDGE

Annie Angell

B.A., M.A. LYNDON STATE COLLEGE

Nicole Begin '88

B.A. COLBY COLLEGE
M.A.W. NORTHEASTERN UNIVERSITY

James Bentley

B.A. HAMILTON COLLEGE
M.A. UNIVERSITY OF COLORADO

Beth Choiniere

B.A., M.ED. ST. MICHAEL'S COLLEGE

Angela Drew '00

B.A. UNIVERSITY OF SOUTHERN MAINE
M.A.T. AURORA UNIVERSITY

Christopher Dussault '90

B.A. LYNDON STATE COLLEGE
M.A. ST. MICHAEL'S COLLEGE

Andra Hibbert '01

B.A. WILLIAMS COLLEGE
M.F.A. UNIVERSITY OF MASSACHUSETTS — BOSTON

Sonia Jolliffe

B.A. DEPAUW UNIVERSITY
M.ED. CALIFORNIA STATE UNIVERSITY

Jennifer Mackenzie

B.A. DARTMOUTH COLLEGE
M.ED. UNIVERSITY OF OXFORD
M.LIT. UNIVERSITY OF ST. ANDREWS

Kristin Mantius

B.A. BATES COLLEGE
M.A. MIDDLEBURY COLLEGE

Constance Morris

B.A. CONNECTICUT COLLEGE
M.ED. UNIVERSITY OF NEW ENGLAND

Kerra Photiades

B.A. ST. MICHAEL'S COLLEGE

Rebecca Sasso

B.A., M.A. UNIVERSITY OF NEW HAMPSHIRE

English as a Second Language

Kendra Brazeau, Chair

B.A. HARTWICK COLLEGE
M.A. MIDDLEBURY COLLEGE

Elizabeth Cummings '95

B.A. BISHOP'S UNIVERSITY
M.A. JOHNSON STATE COLLEGE

Robyn Greenstone

B.A. WELLESLEY COLLEGE
M.S.T. PACE UNIVERSITY

Kathryn Smith '99

B.A. COLGATE UNIVERSITY

Fine Arts

Roseanna Prevost '84, Chair

A.S. ENDICOTT COLLEGE
B.A. VERMONT COLLEGE

Jason Bergman

B.S. HOFSTRA UNIVERSITY

Emma Charow

B.A. LYNDON STATE COLLEGE

Florence Darling

B.F.A. JOHNSON STATE COLLEGE

Kimberly Darling

B.F.A. ALFRED UNIVERSITY
THE ART STUDENTS LEAGUE OF NEW YORK
M.F.A. VISUAL ART, VERMONT COLLEGE OF FINE ARTS

Marianne Handy Hraibi '65

B.F.A. BOSTON CONSERVATORY
M.S. DARTMOUTH COLLEGE

Rodney Reis '81

THE ART STUDENTS LEAGUE OF NEW YORK

Alan Rowe '72

B.S. UNIVERSITY OF VERMONT
M.A. VANDERCOOK COLLEGE

Alexander Shea

B.A. LYNDON STATE COLLEGE

Ray Walker '81

FOUNDER, NORTH CAROLINA THEATER CONSERVATORY

Guidance

Sean Murphy '86, Chair

B.S. SPRINGFIELD COLLEGE
M.ED. LYNDON STATE COLLEGE

Jennifer Anson

B.S. RUTGERS UNIVERSITY
M.A. JOHNSON STATE COLLEGE

Michelle McCaffrey '91

B.S. LYNDON STATE COLLEGE
M.A. NORTHERN VERMONT UNIVERSITY

Matthew O'Brien '09

B.A. UNIVERSITY OF NEW HAMPSHIRE

Allison Reed

B.A. BATES COLLEGE
M.A. BOSTON COLLEGE

Health and Wellness

Dale Urie '86, Chair

B.A. COLGATE UNIVERSITY
M.ED. TRINITY COLLEGE

Chris Despins '88

B.A. LYNDON STATE COLLEGE
M.S. INDIANA STATE UNIVERSITY

Tara Hemond

B.S. LYNDON STATE COLLEGE
M.S. U.S. SPORTS ACADEMY

Jesse Holden

A.S. WHITE MOUNTAIN COMMUNITY COLLEGE
B.A. JOHNSON STATE COLLEGE

Brandon Legendre '13

B.A. COLBY SAWYER COLLEGE

Kelly Urie

B.S. LYNDON STATE COLLEGE
M.ED. TRINITY COLLEGE

Languages

Ellen Meranze, Chair

B.A. MOUNT HOLYOKE COLLEGE
M.S., M.L.A. UNIVERSITY OF PENNSYLVANIA

James Callanan

B.A. ST. ANSELM COLLEGE
M.A. MIDDLEBURY COLLEGE

Sarah Callanan '90

B.A. YALE UNIVERSITY
M.A. DARTMOUTH COLLEGE

Joseph Mesics

B.A. KENYON COLLEGE
M.A. LESLEY UNIVERSITY
M.A. CORNELL UNIVERSITY

Angelica Orozco

B.A. CATHOLIC UNIVERSITY OF COLOMBIA
M.A. MIDDLEBURY COLLEGE

Catherine Reed

B.A. UNIVERSITY OF NEW HAMPSHIRE
M.A. MIDDLEBURY COLLEGE

Alicia Woods

B.A., B.S. UNIVERSITY OF FLORIDA
M.A. MIDDLEBURY COLLEGE

Library**Nikki Krysak**

B.S. STATE UNIVERSITY OF NEW YORK AT
BROCKPORT
M.L.S. INDIANA UNIVERSITY

Mathematics**Patrick Kinsella, Chair**

B.S., M.ED. UNIVERSITY OF CENTRAL
FLORIDA

Steven Badgley

B.S. KENYON COLLEGE
M.S. TEXAS A&M UNIVERSITY

Daniel Bosco

B.A. COLGATE UNIVERSITY
M.A.T. MANHATTANVILLE COLLEGE

Elizabeth Breen '97

B.S. GORDON COLLEGE

Susannah Gould '03

B.A./B.S. UNIVERSITY OF VERMONT
M.A. SOUTHERN NEW HAMPSHIRE
UNIVERSITY

Fenjens Kwok

B.S. PLYMOUTH STATE UNIVERSITY

Shari Larocque

A.S. COMMUNITY COLLEGE OF VERMONT
B.S. LYNDON STATE COLLEGE

Crystal Meunier

B.S. UNIVERSITY OF NEW ENGLAND
M.ED. PLYMOUTH STATE COLLEGE

Matthew Racenet '06

B.A. LYNDON STATE COLLEGE
M.ED. PLYMOUTH STATE UNIVERSITY

Rachel Slimovitch

B.S./B.A. UNIVERSITY OF VERMONT

Daniel Stapleford

B.A. TEMPLE UNIVERSITY

Peter Wright '84

B.S. BRYANT UNIVERSITY
M.ED. UNIVERSITY OF VERMONT

Science**Elia Desjardins, Chair**

B.A. EARLHAM COLLEGE
M.S. INDIANA UNIVERSITY BLOOMINGTON
PH.D. RENSSLAER POLYTECHNIC
INSTITUTE

Jessica Angell

B.S. THE UNIVERSITY OF VERMONT
M.A. JOHNSON STATE COLLEGE

James Baker

B.S. UTAH STATE UNIVERSITY
M.S. UTAH STATE UNIVERSITY

Jessica Bakowski

B.S., M.S. SUNY COLLEGE OF
ENVIRONMENTAL SCIENCE AND FORESTRY

Chris Buhner

B.A. RUTGERS UNIVERSITY
M.A. TEMPLE UNIVERSITY

Rose Dedam '05

A.B. BOWDOIN COLLEGE
M.S. MONTANA STATE UNIVERSITY

John Driscoll

B.S., M.ED. UNIVERSITY OF VERMONT

Edwin Eckel

A.B. BOWDOIN COLLEGE
M.S. MONTANA STATE UNIVERSITY

Mitchell Jones

B.S. GETTYSBURG COLLEGE
M.S. UNIVERSITY OF VERMONT
M.S. UNIVERSITY OF MAINE

Arlan Langmaid '80

B.A. OBERLIN COLLEGE
M.S. UNIVERSITY OF MONTANA

Terrence Reed

B.S., M.ED. UNIVERSITY OF NEW
HAMPSHIRE, DURHAM

Dr. John Sayarath

B.A. HARVARD UNIVERSITY
M.S. LYNDON STATE COLLEGE
M.S. ST. JOSEPH'S COLLEGE
M.D. ST. MATTHEW'S UNIVERSITY
SCHOOL OF MEDICINE

Thomas Viles

A.B. HARVARD UNIVERSITY
M.S. UNIVERSITY OF VERMONT

Sarah Vorhies

B.A. SMITH COLLEGE
M.ED., PH.D. YALE UNIVERSITY

Social Studies**David Eckhardt, Chair**

B.A. SAINT LAWRENCE UNIVERSITY
M.ED. THE UNIVERSITY OF VERMONT

Scott Beck

B.A. UNIVERSITY OF WASHINGTON
M.ED. THE CITADEL

Sarah Callanan '90

B.A. YALE UNIVERSITY
M.A. DARTMOUTH COLLEGE

Henry Eaton

B.A. YALE UNIVERSITY
M.ED. ANTIOCH UNIVERSITY
OF NEW ENGLAND

Glenn Ehrean

B.A. KALAMAZOO COLLEGE
M.A. MIDDLEBURY COLLEGE

Stephen Levesque

B.A., M.ED. SPRINGFIELD COLLEGE

Kathryn Lemieux '11

B.A. ST. MICHAEL'S COLLEGE

John Lovett '01

B.A. UNIVERSITY OF VERMONT
M.ED. UNIVERSITY OF NEW ENGLAND

Peter Mantius

B.A. TRINITY COLLEGE
M.A. BOISE STATE UNIVERSITY

Emmet Quinn

B.A. HARVARD UNIVERSITY
M.A. PENNSYLVANIA STATE UNIVERSITY

James Ryan '89

B.A. UNIVERSITY OF VERMONT
M.ED. LYNDON STATE COLLEGE

Denise Scavitto '99

B.A. WELLESLEY COLLEGE
M.A.L.S. DARTMOUTH COLLEGE

Lucas Weiss

B.M. WESTMINSTER CHOIR COLLEGE
M.A. COLUMBIA UNIVERSITY

Special Services**Mathew Forest '92, Chair**

B.S. PLYMOUTH STATE COLLEGE
M.S. SPRINGFIELD COLLEGE
D.A. FRANKLIN PIERCE UNIVERSITY

Frank Bowen

B.S. ARIZONA STATE UNIVERSITY
M.A. ST. JOSEPH'S COLLEGE

Lisa Bruzual

B.S. UNIVERSITY OF NEW HAMPSHIRE
M.ED. BOSTON COLLEGE

Dennis Camelio

A.B. UNIVERSITY OF MASSACHUSETTS—
LOWELL
M.ED. SUFFOLK UNIVERSITY

Aaron Carr

B.S. UNIVERSITY OF VERMONT
M.ED. SALEM STATE COLLEGE

Grace Bosco

B.A. PROVIDENCE COLLEGE

Elizabeth Davis

B.S. GREEN MT. COLLEGE
M.ED. LYNDON STATE COLLEGE

Tyler Hartshorn

B.A. UNIVERSITY OF MAINE
AT FARMINGTON
M.S. JOHNSON & WALES UNIVERSITY

Jade Huntington

B.S., M.ED. VANDERBILT UNIVERSITY

Kimberly Keach '01

B.S., M.ED. PLYMOUTH STATE COLLEGE

Karen Stark

B.S. DAEMEN COLLEGE
M.A. UNIVERSITY OF PHOENIX

CLASS OF 2020**Colleges Attending**

Bates College	Lynn College	Townson College
Becker College	Manchester Community College	Trinity College (4)
Bishop's University (3)	Massachusetts College of Pharmacy and Health Science	Troy University
Boston University (3)	Merrimack College	U.S. Air Force Academy
Case Western Reserve University	Middlebury College (2)	Unity College
Castleton University	Millikin University	University of California – Berkeley
Central Maine Community College (2)	Monterrey Center for Higher Learning of Design (Mexico)	University of California – Davis
Chapman University	New York Film Academy	University of California – Irvine (2)
Chulalongkorn University (Thailand)	New York University – Shanghai	University of California – San Diego (3)
Clarion University	New York University (2)	University of Connecticut (3)
Coastal Carolina University (2)	Nichols College	University of Hartford
Colby-Sawyer College (2)	Northern Vermont University – Johnson	University of Illinois
Concordia University	Northern Vermont University – Lyndon (6)	University of King's College
De Anza College	Northwestern University	University of Maine – Farmington
Dean College	Norwich University (3)	University of Maine – Orono (2)
DePaul University	Ontario Tech University	University of Massachusetts – Boston
Eastern Maine Community College	Pennsylvania State University	University of Miami (2)
Endicott College	Plymouth State University (6)	University of Missouri
ESIC Business and Marketing School (Spain)	Pratt Institute	University of New England
Florida International University (2)	Princeton University	University of New Hampshire
Florida South Western State College	Purdue University	University of Richmond
Full Sail University	Roger Williams University	University of Roehampton (England)
George Washington University	Rutgers University	University of Southern Maine
Guilford Technical Community College	Savannah College of Art and Design	University of Utah
Haverford College	School of Visual Arts	University of Vermont (22)
Husson University	Southern Maine Community College	University of Wisconsin – Madison
IE Business School (Spain)	St. Edward's University (2)	Vanderbilt University
International University of Health and Welfare (Japan)	St. Lawrence University	Vermont Technical College (2)
Ithaca College (2)	St. Michael's College (2)	Vrije Universiteit Amsterdam
Johns Hopkins University	Stonehill College	Wake Forest University
Johnson & Wales University (2)	Suffolk University	Washington University in St. Louis
Keene State College	The Culinary Institute of America	Wentworth Institute of Technology
Lafayette College	The University of Ohio	West Virginia University (4)
Lancaster Bible College	Thomas College	White Mountain Community College
		WyoTech (2)

SAMPLE 4-Year Course Selection

Competitive College Preparatory

For those interested in attending highly competitive colleges and universities

FRESHMAN YEAR

FRESHMAN HUMANITIES

Freshman Humanities (Accelerated)

SCIENCE

Integrated Science I (Accelerated)

MATHEMATICS

Algebra I (Accelerated)

Algebra II (Accelerated)

LANGUAGE

First of 4 courses in a single language

FRESHMAN IMMERSION

Required Freshman Orientation Course

HEALTH AND WELLNESS

Health

Introduction to Physical Education

SOPHOMORE YEAR

ENGLISH

AP Seminar or Literary Perspectives (Accelerated)

SOCIAL STUDIES

World Civilization Post-1500

(Accelerated) or

AP World History

SCIENCE

Integrated Science II (Accelerated)

MATHEMATICS

Geometry (Accelerated)

Trigonometry (Accelerated)

LANGUAGE

Second of 4 courses in a single language

ELECTIVES

Combination of courses to make **two** full blocks — chosen to complement student's academic plan

JUNIOR YEAR

ENGLISH

AP Seminar or Rhetoric and Composition (Accelerated) or AP English Language

SOCIAL STUDIES

United States History (Accelerated or AP)

SCIENCE

Integrated Science III (Accelerated)

MATHEMATICS

Precalculus (Accelerated)

LANGUAGE

Third of 4 courses in a single language and

Fourth of 4 courses in a single language

ELECTIVES

Combination of courses to make **two or three** full blocks — chosen to complement student's academic plan

SENIOR YEAR

ENGLISH

AP Research, Literature and Composition (Accelerated) or AP English Literature

SOCIAL STUDIES

United States Government and AP Electives or Microeconomics, AP United States Government and Politics

SCIENCE

Elective: Digital Electronics (Accelerated) or Civil Engineering and Architecture (Accelerated) or Biotechnical Engineering

MATHEMATICS

AP Calculus AB or BC

ELECTIVES

Combination of courses to make **two or three** full blocks — chosen to complement student's academic plan

CAPSTONE

Senior Capstone or Engineering Design and Development Capstone (Accelerated)

Students wishing to take **AP** courses in a given subject area will need to take the appropriate **AP Prep** courses as electives.

College Preparatory

For those interested in attending 4-year colleges and universities

FRESHMAN YEAR

FRESHMAN HUMANITIES

Freshman Humanities (Accelerated/Standard)

SCIENCE

Integrated Science I (Accelerated/Standard)

MATHEMATICS

Algebra I (Accelerated/Standard)

LANGUAGE

First of 3 courses in a single language

ELECTIVES

Chosen to complement academic plan

FRESHMAN IMMERSION

Required Freshman Orientation Course

HEALTH AND WELLNESS

Health

Introduction to Physical Education

SOPHOMORE YEAR

ENGLISH

AP Seminar or Literary Perspectives (Accelerated/Standard)

SOCIAL STUDIES

World Civilization Post-1500 (Accelerated/Standard)

SCIENCE

Integrated Science II (Accelerated/Standard)

MATHEMATICS

Algebra II (Accelerated/Standard)

LANGUAGE

Second of 3 courses in a single language

ELECTIVES

Chosen to complement academic plan

Combination of courses to make **two** full blocks — chosen to complement student's academic plan

JUNIOR YEAR

ENGLISH

AP Seminar, AP English Language, or Rhetoric and Composition (Accelerated/Standard)

SOCIAL STUDIES

United States History (Accelerated/Standard)

SCIENCE

Integrated Science III (Accelerated/Standard)

MATHEMATICS

Geometry (Accelerated/Standard)

LANGUAGE

Third of 3 courses in a single language

ELECTIVES

Chosen to complement academic plan

Combination of courses to make **two** full blocks — chosen to complement student's academic plan

SENIOR YEAR

ENGLISH

AP Research, AP English Literature or Literature and Composition (Accelerated/Standard)

SOCIAL STUDIES

AP or Accelerated Electives

SCIENCE

Electives

MATHEMATICS

Trigonometry (Accelerated/Standard)

ELECTIVES

Combination of courses to make **two or three** full blocks — chosen to complement student's academic plan

CAPSTONE

Senior Capstone or Engineering Design and Development Capstone (Accelerated)

SAMPLE 4-Year Course Selection

Biomedical and Health Science

For those interested in attending Biomedical and Health Sciences programs at 4-year colleges and universities

FRESHMAN YEAR

FRESHMAN HUMANITIES

Freshman Humanities (Accelerated/Standard)

SCIENCE

Integrated Science I (Accelerated/Standard)

MATHEMATICS

Algebra I (Accelerated/Standard)

LANGUAGE

First of 3 courses in a single language

ELECTIVE

Chosen to complement academic plan

FRESHMAN IMMERSION

Required Freshman Orientation Course

HEALTH AND WELLNESS

Health
Introduction to Physical Education

SOPHOMORE YEAR

ENGLISH

AP Seminar or Literary Perspectives (Accelerated/Standard)

SOCIAL STUDIES

World Civilization II Post-1500 (Accelerated/Standard)

SCIENCE

Integrated Science II (Accelerated/Standard)

MATHEMATICS

Algebra II (Accelerated/Standard)

LANGUAGE

Second of 3 courses in a single language

ELECTIVES

Chosen to complement academic plan

Combination of courses to make **two** full blocks — chosen to complement student's academic plan

JUNIOR YEAR

ENGLISH

AP Seminar, AP English Language and Comp (Accelerated), or Rhetoric and Composition

SOCIAL STUDIES

United States History (Accelerated/Standard) or AP U.S. History

SCIENCE

Integrated Science III (Accelerated/Standard)

MATHEMATICS

Geometry (Accelerated/Standard)

LANGUAGE

Third of 3 courses in a single language

ELECTIVES

Chosen to complement academic plan

Combination of courses to make **two or three** full blocks — chosen to complement student's academic plan, see sidebar

SENIOR YEAR

ENGLISH

AP Research, AP English Literature and Composition (Accelerated) or Literature and Composition (Accelerated/Standard)

SOCIAL STUDIES

Electives or AP U.S. Government and Economics or AP Microeconomics

SCIENCE

Elective

MATHEMATICS

Trigonometry (Accelerated/Standard)

ELECTIVES

Combination of courses to make **two or three** full blocks — chosen to complement student's academic plan, see below

CAPSTONE

Senior Capstone or Engineering Design and Development Capstone (Accelerated)

To pursue the Academy's Biomedical and Health Services Certificate program, choose at least two of the following electives:

- AP Biology
- AP Chemistry
- AP Physics B or C
- Anatomy and Physiology
- Forensics
- Genetics
- Biotechnical Engineering
- Psychology
- Sports Medicine I and II
- Statistics or AP Statistics

Students should also consider making room in their schedules for pursuing an internship or clinical experience through the Human Services courses.

Fine Arts Major or Art School

For those interested in attending a 2-year or 4-year art school or majoring in art at a university

FRESHMAN YEAR

FRESHMAN HUMANITIES

Freshman Humanities (Accelerated/Standard)

SCIENCE

Integrated Science I (Accelerated/Standard)

MATHEMATICS

Algebra I (Accelerated/Standard)

LANGUAGE

First of 3 courses in a single language

FINE ARTS*

Introductory Level Course

FRESHMAN IMMERSION

Required Freshman Orientation Course

HEALTH AND WELLNESS

Health
Introduction to Physical Education

SOPHOMORE YEAR

ENGLISH

AP Seminar or Literary Perspectives (Accelerated/Standard)

SOCIAL STUDIES

World Civilization Post-1500 (Accelerated/Standard)

SCIENCE

Integrated Science II (Accelerated/Standard)

MATHEMATICS

Algebra II (Accelerated/Standard)

LANGUAGE

Second of 3 courses in a single language

Third of 3 courses in a single language

ELECTIVES

Combination of courses to make **two** full blocks — chosen to complement student's academic plan

JUNIOR YEAR

ENGLISH

AP Seminar or Rhetoric and Composition (Accelerated/Standard)

SOCIAL STUDIES

United States History (Accelerated/Standard)

SCIENCE

Integrated Science III (Accelerated/Standard)

MATHEMATICS

Geometry (Accelerated/Standard)

FINE ARTS*

Combination of courses to make **four** full blocks — choice based on student's art concentration

SENIOR YEAR

ENGLISH

AP Research, AP English Literature and Composition (Accelerated), or Literature and Composition (Accelerated/Standard)

SOCIAL STUDIES

Electives

SCIENCE

Elective example: Anatomy and Physiology

MATHEMATICS

Trigonometry (Accelerated/Standard)

FINE ARTS*

Combination of courses to make **two or three** full blocks — chosen to complement student's academic plan

CAPSTONE

Senior Capstone

*Students will choose courses based on their desired concentration: **Music/Theater** or **Visual Arts**.

SAMPLE 4-Year Course Selection

Career and Technical Education: College Preparatory or Immediate Employment

For those interested in attending a 2-year or 4-year technical college or university or seeking employment

FRESHMAN YEAR	SOPHOMORE YEAR	JUNIOR YEAR	SENIOR YEAR
FRESHMAN HUMANITIES Freshman Humanities (Basic, Standard, or Accelerated)	ENGLISH Literary Perspectives (Accelerated/Standard)	ENGLISH Rhetoric and Composition (Accelerated/Standard)	ENGLISH Literature and Composition (Accelerated/Standard) or Technical Communications II
SCIENCE Integrated Science I (Basic, Standard, or Accelerated)	SOCIAL STUDIES World Civilization II (Accelerated/Standard)	SOCIAL STUDIES United States History (Basic, Standard, or Accelerated)	SOCIAL STUDIES Electives
MATHEMATICS Algebraic Foundations I (Standard) or Algebra I (Accelerated/Standard) OR an ELECTIVE from any discipline if taking Algebra I (Accelerated/Standard)	SCIENCE Integrated Science II (Basic, Standard, or Accelerated)	SCIENCE Integrated Science III (Basic, Standard, or Accelerated)	SCIENCE Elective
TECHNICAL EDUCATION Career Exploration	MATHEMATICS Geometry (Basic) or Algebra II (Accelerated/Standard)	MATHEMATICS Algebra II (Standard) or Geometry (Accelerated/Standard)	MATHEMATICS Algebra III/Trig (Standard) or Trigonometry (Accelerated)
FRESHMAN IMMERSION Required Freshman Orientation Course	TECHNICAL EDUCATION Cluster Course I Cluster Course II	TECHNICAL EDUCATION Combination or Pathway courses to make four full blocks — choice based on student's academic plan.	TECHNICAL EDUCATION Combination of Pathway courses to make four full blocks — chosen to complement student's academic plan (may include co-op second semester).
HEALTH AND WELLNESS Health Introduction to Physical Education	ELECTIVES Introduction to Computer Science (Standard) Exercise Science I or II (Standard)		

NOTE:

Students may take an approved Learning Support Program, English as a Second Language course, or Performing Arts course as a fifth course each semester. Freshman and Sophomore students not taking a 5th course will be assigned automatically to a Study Block.

Board of Trustees

Noble F. Allen EAST LYME, CONNECTICUT	Cathy Judd-Stein WINCHESTER, MASSACHUSETTS
Bruce E. Buxton SOUTH HADLEY, MASSACHUSETTS	Jesse Laflamme HANOVER, NEW HAMPSHIRE
Martha D. Cavanaugh PEACHAM, VERMONT	Erin P. Mayo FRYEBURG, MAINE
Timothy S. Cloutre ST. JOHNSBURY, VERMONT	Garth B. Moulton CHARLOTTE, NORTH CAROLINA
Peter F. Crosby WEST DANVILLE, VERMONT	James H. Murphy ST. JOHNSBURY, VERMONT
Jenis Ellingwood-Cedeno CHICAGO, ILLINOIS	Kimberly A. Silloway OAKTON, VIRGINIA
Frank A. Empsall, III ST. JOHNSBURY, VERMONT	Paul C. Simpson NAPLES, FLORIDA
Robert M. Fairbanks MONTPELIER, VERMONT	Lisa A. Warren WATERFORD, VERMONT
Nancy U. Goodrich ST. JOHNSBURY, VERMONT	Jay O. Wright POTOMAC, MARYLAND
John S. Hall DANVILLE, VERMONT	Edward R. Zuccaro ST. JOHNSBURY, VERMONT
Peter F. Hammer MIAMI, FLORIDA	

Trustee Emeriti

Samuel E. Bain BOSTON, MASSACHUSETTS	Kenneth F. Hammer ST. JOHNSBURY, VERMONT
Ernest A. Begin BARNET, VERMONT	James H. Impey ST. JOHNSBURY, VERMONT
Gregory E. Boardman GALISTEO, NEW MEXICO	William A. Julian ORLEANS, VERMONT
Karen K. Christensen ATHERTON, CALIFORNIA	Alex P. M. Ko HONG KONG
Marcia D. DeRosia SOUTH BURLINGTON, VERMONT	Jean M. Rogers VERO BEACH, FLORIDA
Gordon V. DeWitt LEBANON, NEW HAMPSHIRE	Ronald W. Steen ST. JOHNSBURY, VERMONT
John M. Farmer STOWE, VERMONT	Roderic B. Vitty NAPLES, FLORIDA
John P. Garey ST. JOHNSBURY, VERMONT	Dale R. Wells ST. JOHNSBURY, VERMONT
Allan D. Gilmour BIRMINGHAM, MICHIGAN	
Susan O. Grayson FARMINGTON, CONNECTICUT	
Lee P. Hackett BROOKFIELD, WISCONSIN	

Accreditation

St. Johnsbury Academy is a member of the New England Association of Schools and Colleges, the National Association of Independent Schools, the Independent Schools Association of Northern New England, and the Vermont Independent Schools Association.

The Academy is fully accredited by the New England Association of Schools and Colleges and has been approved by the Vermont State Department of Education. In addition, the Academy is a member of the College Entrance Examination Board and has been designated by that body as an Examination Center.

St. Johnsbury Academy admits students of any sex, race, color, religion, national or ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. It does not discriminate on the basis of sex, race, color, religion, handicap, sexual orientation, national or ethnic origin in the administration of its education policies, admission policies, scholarship programs, and athletic and other school administered programs.

The Academy shall maintain a written policy on student records that is consistent with the Family Education Rights and Privacy Act.

The student must be capable of participating in a full-time academic program, viz., four academic classes per day, with support classes as needed. The student will be satisfactorily promoted by: the public Local Education Agency or equivalent under state regulations; an approved home school plan; or a recognized or approved independent school or equivalent under state regulations; for other non-approved private schools, we will require additional information regarding the curriculum addressed and student performance. The student will be between the ages of 13 and 19 years of age at the time of enrollment or between the ages of 13 and 21 for students who are eligible for special education.

The Vermont State Department of Education in Montpelier requires Vermont private schools to publish the following statement:

16 VSA 166 Approved independent schools

(b) Approved independent schools. On application, the state board shall approve an independent school which offers elementary or secondary education if it finds, after opportunity for hearing, that the school provides a minimum course of study and that it substantially complies with the board's rules for approved independent schools. Except as provided in subdivision (6) of this section, the board's rules must at minimum require that the school has the resources required to meet its stated objectives, including financial capacity, faculty who are qualified by training and experience in the areas in which they are assigned, and physical facilities and special services that are in accordance with any state or federal law or regulation. Approval may be granted without state board evaluation in the case of any school accredited by a private, state or regional agency recognized by the state board for accrediting purposes.

(1) On application, the state board shall approve an independent school which offers kindergarten but no other graded education if it finds, after opportunity for hearing, that the school substantially complies with the board's rules for approved independent kindergartens. The state board may delegate to another state agency the authority to evaluate the safety and adequacy of the buildings in which kindergartens are conducted, but shall consider all findings and recommendations of any such agency in making its approval decision.

(2) Approvals under this section shall be for a term established by rule of the board but not greater than five years.

(3) An approved independent school shall provide to the parent or guardian responsible for each of its pupils, prior to accepting any money for that pupil, an accurate statement in writing of its status under this section, and a copy of this section. Failure to comply with this provision may create a permissible inference of false advertising in violation of 13 VSA 2005.

(4) Each approved independent school shall provide to the commissioner on October 1 of each year the names and addresses of its enrolled pupils. Within seven days of the termination of a pupil's enrollment, the approved independent school shall notify the commissioner of the name and address of the pupil. The commissioner shall forthwith notify the appropriate school officials as provided in section 1126 of this title.

(5) The state board may revoke or suspend the approval of an approved independent school, after opportunity for hearing, for substantial failure to comply with the minimum course of study, for failure to comply with the board's rules for approved independent schools, or for failure to report under subdivision (b)(4) of this section. Upon revocation or suspension, students required to attend school who are enrolled in that school shall become truant unless they enroll in an approved public school, approved or recognized independent school or approved home instruction program.

(6) This subdivision applies to an independent school located in Vermont which offers a program of elementary or secondary education through correspondence, electronic mail, satellite communication or other means and which, because of its structure, does not meet some or all the rules of the state board for approved independent schools. In order to be approved under this subdivision, a school shall meet the standards adopted by rule of the state board for approved independent schools which can be applied to the applicant school and any other standards or rules adopted by the state board regarding these types of schools. A school approved under this subdivision shall not be eligible to receive tuition payments from public school districts under chapter 21 of this title. However, a school district may enter into a contract or contracts with a school approved under this subdivision for provisions of some education services for its students.

Disclaimer

The courses and curricula described in this catalog, and the teaching personnel listed herein, are subject to change at any time by official action of St. Johnsbury Academy.

The statements in this catalog are for information only and in no way constitute a contract between the student and St. Johnsbury Academy.

St. Johnsbury Academy reserves the right to change any regulation or requirement at any time.

CHARACTER | INQUIRY | COMMUNITY



1000 Main Street
St. Johnsbury, Vermont 05819
802.751.2130
admissions@stjacademy.org
stjacademy.org