

Celebrating 12 years of student success!



LEDYARD CHARTER SCHOOL

Where you can be you!

PROGRAM OF STUDIES

2021-22
(version 5/11/21)

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LCS'S MISSION, VISION AND EDUCATIONAL BELIEFS

Introduction

Ledyard Charter School (LCS), established in February of 2009, is a non-profit, public charter high school of choice for students in the State of New Hampshire.¹ The primary purpose of LCS is to offer students whom have faced challenges in a traditional high school setting an individualized alternative educational program. We actively engage students in a robust personalized course of study, the application of 21st century concepts, skills and dispositions to real-world problems, the authentic performance of mastered competencies, and meaningful relationships with the adult community through personal advisors, mentors, apprenticeships and hands-on service learning.

Our Mission

Our mission is to provide students with real life learning experiences. We focus on creating experiential learning that will prepare students well for college, the workplace, and life as successful and happy adults. The foundation of our school lies within our belief in building strong skills in the areas of self-advocacy, organization, goal setting and attainment, self-determination, self-confidence, all while supporting the community. These skills are developed in the classroom as well as in the community with a school wide annual goal of 800 hours of community service.

Our Vision for our Students and our Learning Community

Students at Ledyard Charter School will strive to:

Think Critically:

- Students solve problems.
- Students recognize and make logical connections.
- Students formulate useful questions.
- Students gather, organize analyze and interpret data.

Communicate Effectively:

- Students write and speak clearly for a variety of purposes and audiences.
- Students transmit information through visual media.
- Students acquire information and understanding by listening to individual speakers and participating in group discussion.
- Students acquire information and understanding by reading printed and electronic material.
- Students acquire information through visual media.

Come Prepared:

¹ Students who reside outside of New Hampshire are welcome to attend LCS on a tuition basis. For more information about how to apply as a tuition student, please contact the school.

- When working alone, students demonstrate initiative, motivation, and the ability to address and complete a task.
- When working together towards the completion of a common goal, students share responsibility for their learning and that of others.
- When working together toward the completion of a common goal, students communicate clearly and constructively.
- When working together toward a common goal, students combine information gathered by all members of a group.
- When working together toward a common goal, students demonstrate support for others.

Gather and Analyze Information:

- Students access information from a variety of resources.
- Students review compiled information to determine relevance and validity.
- Students compare, contrast, and recognize connections among the various pieces of information collected.
- Students appropriately communicate compiled information in a variety of ways.

Fulfill Social and Civic Expectations:

- Students accept diversity and individual rights.
- Students demonstrate respect and consideration for themselves, others, personal and public property, and the environment.
- Students accept responsibility for their actions.
- Students advocate for themselves and for the rights of others.
- Students exhibit academic and social integrity.

School Wide Expectations

Our goal is for each student to identify his/her learning style; learn to effectively advocate for oneself; be respectful in communications and actions; acquire self-determination skills necessary to succeed; and to develop transition plans for life after high school.

- **Learning Style:** Learning style is developing an understanding of yourself and how you learn.
- **Self-Advocacy:** As a student, self-advocacy is communicating your needs so you can have control of your life.
- **Respect:** As a student, using social skills will allow you to respect yourself, your environment, and others.
- **Self-Determination:** Self-determination skills will allow you to manage and overcome obstacles in your life and to ultimately achieve success.
- **Transition:** Transition is learning to effectively manage change.

The Learning Community at Ledyard Charter School will strive to:

- Create an environment that is student first, student-centered planning and student-centered learning.
- Discover meaning in every experience, endeavor, act, and challenging experience.
- Build and maintain relationships, which are crucial in the development of every person.
- Harness our personal strengths to make a positive impact.
- Practice tolerance and acceptance, empowering ourselves and our communities to understand each other.
- Teach as we learn, striving to enhance our community.
- Live adventurously, as did our namesake, John Ledyard, who spent four months living (and learning) among the Iroquois as a college ambassador.
- Provide a quality education that meets the needs of the individual student, while attaining a standard New Hampshire High School Diploma.
- Assure all students have a plan for life after high school.

Our Education Beliefs:

1. Addressing Varied Learning Styles – Students access, absorb and grasp information differently; we cannot teach to one learning style, or we lose the opportunity to reach many.
2. Cooperative Learning – This can be an incredibly effective teaching and learning strategy if implemented properly.
3. Study Skills and Techniques – We work daily to help reinforce and build upon learned organizational, study habits, test taking strategies, time management and self-advocacy skills.
4. Buy-In – For students to make the most of what they are learning, they must buy into the experience. We must show them why it matters for them by making connection to real life applications through hands-on experiential learning.

LCS GRADUATION REQUIREMENTS

In order to graduate from Ledyard Charter School, a student must earn a minimum of 22 credits. These credits may be transferred from another high school or earned at LCS. Transfer credits are subject to review to ensure they meet state standards. Additionally, students who graduate from LCS will be required to perform and document 20 hours of community service per year. Credits are broken down into required and elective categories. A required credit is one that every student must take and pass in order to graduate. An elective credit is one that the student chooses to take.

New Hampshire State Required Subjects and Credits for High School Graduation

Required Subjects	Credit(s)
English Language Arts	4 credits
Mathematics	4 credits, including Algebra credit that can be earned through a sequential, integrated or applied program
Physical sciences	1 credit
Biological sciences	1 credit
General Science	1 credit (third science credit which can be an embedded science credit)
US and NH history	1 credit
US and NH government/civics	½ credit
Economics, including personal finance	½ credit
World history, global studies, or geography	½ credit
Information and communications technologies	½ credit, or demonstrate proficiency
Health education	½ credit
Physical education	1 credit
Arts education	½ credit
Open electives	6 credits
Totals	22 credits

CHARTERING A COURSE OF STUDY

This course of study should serve as a guide, along with other career planning materials, as students plan their high school graduation path. Courses listed within the Program of Studies will guide students in the creation and implementation of their educational plans. Course selection should be individualized to meet each student's educational and career goals. All plans should meet high school graduation requirements as well as college entrance requirements. The following is a sample schedule for students attending LCS grades 9-12.

Ledyard Charter School offers a program of study that is personalized, maximizing each student's educational experience based on standard expectations and personal goals. The program includes a Personalized Learning Plan, Advisory Program, Community Learning Project, Internships, Mentoring, and Technology-Enhanced Learning. Following are examples of courses of study:

Example of a Course of Study:

<p><u>Grade 9</u></p> <p>English (ELA) 1 1 credit Mathematics 1 1 credit Science 1 1 credit Social Studies 1 ½ - 1 credit IT ½ credit Physical Ed ½ credit Electives <u>1 - 2 credits</u> Total 6-7 credits</p>	<p><u>Grade 10</u></p> <p>English (ELA) 2 1 credit Mathematics 2 1 credit Science 2 1 credit Social Studies 2 1 credit Art ½ credit Health ½ credit Electives <u>1 - 2 credit</u> Total 6-7 credits</p>
<p><u>Grade 11</u></p> <p>English (ELA) 3 1 credit Mathematics 3 1 credit Science 3 1 credit Social Studies 3 1 credit Electives <u>2-3 credits</u> Total 6-7 credits</p>	<p><u>Grade 12</u></p> <p>English (ELA) 4 1 credit Mathematics 4 1 credit Electives <u>4 - 5 credits</u> Total 6-7 credits</p>

English Language Arts

2021-22 English Language Arts Course Offerings:

American Fiction

Students will read a variety of American fiction written in the past 20 years. Students will analyze the craft and structure of the texts. They will learn to draw connections between the lives of the fictional characters and the real world around them by analyzing the characters’ point of view and how that may affect their attitude in the world around them. Students will learn literary tools that authors use to convey a bigger message, including themes and symbolism. *(1/2 credit ELA)*

Forbidden Love

This class will explore the depths of the breadth of human relationships through works of literature from various genres and time periods. Students will read and discuss several works of fiction as a class, and incorporate writing assignments, vocabulary, and a study of romance through the ages. This class will have an optional honors level tract for qualified students; these individuals will form an independent cohort and will read college-level material with guidance and support from the instructor. *(1/2 credit ELA)*

Slice of Life

This class is focused on expository writing and capturing the world around us. Students will read fiction and nonfiction essays and short stories, while also writing their own. The class will explore topics like what it means to be human, the meaning of life, and what happiness means. Students will use journaling and other writing activities to consider their own place in the world. The class aims to give students a creative outlet to better understand themselves while reinforcing ELA skills and meeting CCSS standards. *(1/2 credit ELA)*

Dystopian Fiction

This course pairing dystopian fiction with real historical analysis. Students will read famous literary works while drawing connections and parallels to actual events throughout time. The class aims to engage students in the world around them by marrying real, impactful civics and social studies topics with compelling, emotional works of fiction. Students will read, write, and think critically as they go throughout the course, ultimately culminating in the creation of their own dystopian fiction. *(1/2 credit ELA)*

Spoken Literature

This ELA class is all about the telling of stories. We will read together a variety of Mythology, folklore and fairy tales. Students will analyze and discuss the importance of sharing stories orally and in writing. This class will reach students to sharpen their ear for good critical listening and they will step out of their comfort zone to read aloud. *(1/2 credit ELA)*

Classic Literature

This course will explore the classics in literature that have become essential reads for American students. Novels such as *To Kill A Mockingbird*, *The Lord of the Flies*, *Of Mice and Men* or *Macbeth* help build our students depth of knowledge of American culture. Students will read as a class and participate in discussion where they will explore why these books are now considered classic, and what their place is in education. *(1/2 credit ELA)*

Suspense Literature

In this class, students will be expected to increase their literacy levels by reading out loud, learning about comprehension strategies, learning how to determine the meaning of unknown words by analyzing their roots, prefixes and suffixes. One of the most important ways to get students engaged in more reading is to assign texts that are riveting, interesting, and at their skill level. Suspense Literature provides all kinds of thrills and intrinsically motivates young readers to keep reading! Reluctant readers will experience the rush of a good page-turner! *(1/2 credit ELA)*

English Language Arts Courses Taught in Previous and Future School Years:

Collaborative Storytelling

The course would revolve around the collaborative exploration of different literary genres and writing using language-based roleplaying games as the primary medium in the class. Students will work together to create their own shared worlds, characters, and stories, building off each other and going through the writing/editing process. *(1/2 credit ELA)*

Creative Writing

Through the Google Classroom platform, students will learn the craft and structure of creative writing. Students will integrate their knowledge and ideas into their own writing. They will collaborate on their stories and help each other to produce work that meets or surpasses competency components. There will be a variety of types of texts and different purposes. Students will learn to craft their work for the specific goal at hand. The entire class will take place on computers. Grammar and style will play a large integrated part in this class as well. *(1/2 credit ELA or IT)*

Debate

This course asks students to engage in civil discourse, and to employ the tools of evidence and rhetoric to more effectively engage in arguments and debate. We will learn how to research, construct, and conduct an evidence-based argument. This class will focus on both historical topics and current issues, including racial justice, climate change, U.S. policy and geopolitics. *(1/2 credit ELA)*

Global Literature

Students will read nonfiction and fiction texts that teach about cultures and lives of people and communities around the world. The class uses experiential and project-based learning to strengthen the impact of the students' learning. Students will broaden their world view and learn about places and regions to get a better sense of the world in spatial terms. Students will also learn about the environment and society, political foundations, social and cultural world history. Our goal is to become well rounded knowledgeable young adults who will participate in our community in a productive way. *(1/2 credit ELA or Global Studies)*

Human Nature in Literature

In this class, students will work to improve their critical reading skills and analysis. We will read a variety of different texts including novels, short stories, poems, and plays that explore human nature. There is also a strong emphasis on learning new vocabulary. Students will discuss the author's choices, look for literary devices and keep a journal of their observations, thoughts and reactions. *(1/2 credit ELA)*

Journalism

Read, write, discuss, public speak, and debate about issues affecting the United States and the world today. Students will use the field of journalism as a vehicle to explore both Civics and English, as they read, develop, write, and share their own beliefs about the United States and its role in their lives. *(1/2 credit ELA or Civics)*

Visual Literacy

Students will integrate their own knowledge of some works of literature into works of art using different media and techniques including acrylic paint, photography, clay, and more. They will determine what the central ideas and themes of the story are, and analyze in detail the development of the plot, and the characters. They will analyze how the characters are represented in key scenes and use those findings to create a visual representation. Students will have to

decide what details to emphasize, and which to leave out completely, and explain their choices. The class will also analyze the visual representations of other artists who depict the works of other authors. *(1/2 credit ELA or Art)*

Writing 101

In this class, students will improve their writing skills. The focus of the class is the organization and process of writing paragraphs, essays, stories, reviews, analyzes, and research papers. Emphasis is also placed on learning new vocabulary to use in writing as well as becoming a better speller. Students will learn/review all basic grammar rules and practices, focusing on one topic/technique a week. Students will also share and workshop their writing with the class. *(1/2 credit ELA)*

MATHEMATICS

A student must earn four (4.0) full credits in mathematics to fulfill graduation requirements, with minimal completion of Algebra 1 through quadratics. Listed below are suggested programs of study developed with the abilities and interests of students in mind.

2021-22 Mathematics Course Offerings:

Math Design

Students may take this semester-long class as an elective math credit or as an art credit and will experience the unique relationship between the two subjects. The class will be completely driven by hands-on artistic projects in which students will be actively learning and practicing practical math techniques. The course will help students improve their number sense and geometric comprehension. Students will explore properties of number sense, operations, and repetition. They will develop an understanding of the area, perimeter, surface area, or volume of objects. They will use similarity or congruence, along with creating translations and transformations, in creating designs. Students will manipulate information using the Pythagorean Theorem to create similar triangles. The students will hone their spatial thinking through discovery of fractals in nature. *(1/2 credit Math or Art)*

Geometry

This Geometry course is a semester-long review of basic geometric concepts and a deeper dive into those ideas. The course emphasizes the properties of geometric figures, formulas, congruence and similarity, Pythagorean Theorem, and trigonometric ratios. The course will help students develop good mathematical study skills and learning strategies. Students will explore properties of lines, planes, angles, along with triangles, quadrilaterals, polygons, and circles. They will develop an understanding of the use of formulas to solve questions involving area, perimeter, surface area, or volume. They will use information given to prove similarity or congruence, along with creating translations and transformations. Students will manipulate information using the Pythagorean Theorem to classify triangles. The students will hone their spatial thinking through use of trigonometric ratios to find heights and distances. *(1 credit Math)*

Algebra I

Full year required class taught through classroom lessons and workbooks as well as hands on projects. Students will become aware of mathematical structure through algebraic expressions. They will understand concepts of arithmetic with polynomials and radical expressions. Students will be able to create equations based on situations. They will reason appropriately using equations and inequalities. *(1 credit Math)*

Carpentry

In this course, students will learn the basics of woodworking, while simultaneously learning how to use Mathematics in a vocational trade. With workshop safety as our first priority, students will learn to use hand and power tools, understand different materials, and design their own projects using SketchUp, an online CAD (computer-aided design) program. No experience necessary: all students will start with simple projects to build skills and safety habits. The semester will culminate in a student-designed project that will be put on display before it can be taken home for years of use and enjoyment!

(1/2 credit Math)

Recreational Math

This is a semester-long course that teaches the mathematics behind games and puzzles. The term recreational math implies entertainment, and an important aspect of it involves informal study of math concepts through studying the play of games. Students will study the systems involved in games, competitive versus cooperative games, and best practices in problem-solving.

(1/2 credit Math)

Physics

This class will explore several foundational laws in math, physics, and science through theory and practical application. The objective of the class is for students to have working knowledge of the basic laws that govern our universe and everyday experience, to drive their curiosity and give them the language to discuss the movement of cosmic energies. It is also a goal of the class to excite their interest in STEM concepts and provide a sufficient basis of knowledge that can be applied to subsequent math and science classes or career fields. *(1/2 credit Math or Science)*

Mathematics Courses Taught in Previous and Future Years:

Intro to Engineering

This course explores the advancements in modern engineering, including mechanical, electrical, chemical, and biomedical fields. The course is project-based, and each unit will be driven by an over-arching experiential examination of a concept related to that particular branch of engineering. Students will learn, explore, and demonstrate their understanding of the various aspects of engineering, including geometry, physics, materials, and design. Students will work collaboratively to creatively solve problems, and the course culminates in a student-designed project *(1/2 credit Science or Math)*

Pre-Algebra

This yearlong course provides students with the opportunity to build the foundations necessary for high school math courses. The five critical areas of Pre-Algebra enrichment align with the critical areas of Algebra 1: Relationships between quantities and reasoning with equations; linear and exponential relationships; descriptive statistics; expressions and equations; and quadratic functions and modeling. *(1 credit Math)*

ALEKS

ALEKS is an adaptive online math program that supports learning through open response questioning to identify each student's strengths and weaknesses. Through true individualized learning and assessment, ALEKS delivers a personalized mathematics learning path. *(1/2 credit Math per semester)*

STEM

Taught completely through hands on projects, an interdisciplinary STEM class will promote scientific inquiry and critical thinking skills. Students will explore unifying concepts of science. They will delve into the personal, social, and technological perspectives of science knowledge. Focus will be centered on science skills for information, communication, and media literacy. Students will make sense of problems and persevere to solve them. They will reason abstractly and quantitatively while constructing viable arguments and critiquing the reasoning of others in a positive environment. The course allows students to model with mathematics. Students will use tools strategically while attending to appropriate precision. *(1/2 credit Math, Science, or IT)*

Algebra II

This yearlong class will be offered to students looking to enter college upon graduation. In this course, students will advance on topics learned in Algebra I. These topics include relations, functions, equations and inequalities; conic sections; polynomials; algebraic fractions; logarithmic and exponential functions; sequences and series; and counting principles and probability. This class will prepare students for standardized tests, as well as math skills they will need to be successful in college. *(1 credit Math)*

Practical Math

Taught completely through hands on projects that are relevant to students' lives. The course will have students make sense of presented problems and have them persevere in solving them. Students will reason abstractly and quantitatively. They will construct viable arguments and critique the reasoning of others in a positive environment. Projects will promote students to model with mathematics to creatively explore possible approaches and answers. Students will use tools strategically while attending to appropriate precision. They will seek and use mathematical structure while expressing regularity in repeated reasoning. *(1/2 credit Math)*

SCIENCE

A student must earn three (3.0) full credits in science, including 1 credit each of physical science and biological science. The third science credit may be an embedded science credit.

2021-22 Science Course Offerings:

Physics

This class will explore several foundational laws in math, physics, and science through theory and practical application. The objective of the class is for students to have working knowledge of the basic laws that govern our universe and everyday experience, to drive their curiosity and give them the language to discuss the movement of cosmic energies. It is also a goal of the class to excite their interest in STEM concepts and provide a sufficient basis of knowledge that can be applied to subsequent math and science classes or career fields. *(1/2 credit Math or Science)*

Physical Science

Full year required class taught primarily through hands on science experiments and scientific method, following the progression of topics from a high school Physical Science textbook. Students will understand that all living and nonliving things are composed of matter having characteristic properties. They will experiment with energy being stored, transferred and transformed. The students will experience the effects of force on the motion of an object. They will use technology to identify, understand and solve local and global issues. *(1 credit Science)*

Biology

This yearlong course is a study of plant life, genetics, vertebrates, microbiology, evolution and ecology with an emphasis on laboratory techniques and critical thinking. Students will explore the characteristics of living things, the nature and structure of life on earth and the chemical principles that underlie the process of life. Students gain insight into the diversity of life by participating in regular laboratory activities, cooperative learning experiences, dissection, and research activities. Through these experiments and activities, the student will show understanding of scientific processes and written lab reports. The student will also gain presentation skills that can be used in a wide variety of applied settings. *(1 credit Science)*

Intro to Psychology

This course will introduce you to the fundamental principles of psychology and to the major subjects of psychological inquiry. It has been designed to not only provide you with the tools necessary for the study of psychology but to present you with a sampling of the major areas of psychology research. Students will learn about these topics through reading and presentations and write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. *(1/2 credit Science or ELA)*

Computer Science

Bootstrap applies mathematical concepts and rigorous programming principles to create a simple videogame, and is aligned to National and State Standards for Mathematics, as well as the Computer Science Teachers Association standards and K-12 Computer Science frameworks. Students create a simple, 3-character game involving a player, a target and a danger. They design what each character looks like, and use algebraic concepts to detect collisions, handle keystrokes, and determine how they move and interact. *(1/2 credit Science or Math)*

Zoology

This course takes the overview provided by the year-long Biology course and goes in depth into the 9 phyla of the Animal Kingdom. Particular areas of interest are adaptation, natural selection and selective breeding, theories of human origins, and biomimetic robots. *(1/2 credit Science)*

Science Courses Taught in Previous and Future Years:

Science Through History

This course explores the scientific progress of humankind through discovery, invention and culture. We will examine those famous and lesser-known scientists, philosophers, engineers, mathematicians, and scholars who contributed to our collective understanding of the universe. Students will be presented with a variety of texts and videos that teach concepts and time periods and will then complete activities and projects that further illustrate and expand on those ideas. *(1/2 credit Science or ELA)*

Science Writing

Science Writing is a dual-content area course intended to introduce students to different scientific principles, while simultaneously developing their reading, writing, speaking, and listening competencies. The course will be broken into two sections. The first quarter will have students reading science articles and learning the principles behind them, developing experiments, writing lab reports, and presenting their findings. The second half of the course is dedicated to reading science fiction, learning the actual science behind the fiction, writing their own creative writing pieces, and sharing their thoughts in both written and spoken mediums. *(1/2 credit Science or ELA)*

Intro to Engineering

This course explores the advancements in modern engineering, including mechanical, electrical, chemical, and biomedical fields. The course is project-based, and each unit will be driven by an over-arching experiential examination of a concept related to that particular branch of engineering. Students will learn, explore, and demonstrate their understanding of the various aspects of engineering, including geometry, physics, materials, and design. Students will work collaboratively to creatively solve problems, and the course culminates in a student-designed project *(1/2 credit Science or Math)*

SOCIAL STUDIES

2021-22 Social Studies Course Offerings:

Civics/American Government

Civics/American Government is a required course for graduation. The focus of this course is to prepare students to participate in exercising their political responsibilities as thoughtful and informed citizens. Civics provides a basis for understanding the rights and responsibilities for being an American citizen and a framework for competent and responsible participation. Emphasis is placed on the historical development of government and political systems, and the importance of the rule of law; the United States Constitution; Federal, State and local government structure; and the rights and responsibilities of citizenship. Students will actively investigate local, state and national issues, read and participate in discussions, and develop informed arguments using a variety of writing forms. *(1/2 credit Civics)*

Economics

This is an introductory course in economic principles. The course covers both microeconomics and macroeconomics. The course will develop the student's understanding of fundamental economic principles, theories and concepts, and history. Specifically, the course aims to develop: the ability to use the tools of economic reasoning to explain, analyze and understand economic issues, and policies; the habit of reading critically, from a variety of sources, to gain information about the changing world of micro and macroeconomics; and the understanding of personal finance, economic models, and systems. *(1/2 credit Economics)*

United States/New Hampshire History

Full year required course taught using a range of sources, both historical and contemporary. Students examine the political, social, and economic development of the United States, from its early settlement and colonization to its current day. *(1 credit US/NH History)*

Social Studies Course Taught in Previous and Future Years:

Ancient Civilizations

This course explores the intersection of human history as a function of geography from the Bronze Age to the Early Middle Ages. It focuses on two main questions: *What do we value and why?* and *How has nature influenced human culture, and how have we influenced nature?* Students will explore these concepts through text, videos (including Hollywood movies and documentaries) and independent online research. They will practice working with and expressing information in visual representations, and explore scientific discoveries, technology, art, culture, and religion through hands-on projects. *(1/2 credit World History)*

Global Literature

Students will read nonfiction and fiction texts that teach about cultures and lives of people and communities around the world. The class uses experiential and project-based learning to strengthen the impact of the students' learning. Students will broaden their world view and learn

about places and regions to get a better sense of the world in spatial terms. Students will also learn about the environment and society, political foundations, social and cultural world history. Our goal is to become well rounded knowledgeable young adults who will participate in our community in a productive way. *(1/2 credit ELA or Global Studies)*

Current Events

In this class, the focus will be for students to become familiar with different types of news sources and to identify credible ones. Students will read texts to extract information and use it as evidence for debates. We will develop good researching skills and learn to express both facts and opinions in respectful and positive ways. Students will be encouraged to question ideas and concepts to gain a broader perspective. *(1/2 credit Civics or ELA)*

INFORMATION TECHNOLOGY (IT)

2021-22 Information Technology Course Offerings:

Computer Science

Bootstrap applies mathematical concepts and rigorous programming principles to create a simple videogame, and is aligned to National and State Standards for Mathematics, as well as the Computer Science Teachers Association standards and K-12 Computer Science frameworks. Students create a simple, 3-character game involving a player, a target and a danger. They design what each character looks like, and use algebraic concepts to detect collisions, handle keystrokes, and determine how they move and interact. *(1/2 credit Science or Math)*

Information Technology Courses Taught in Previous and Future Years:

Photography

In this course, students will learn about the elements and principles of art through digital and film photography. Students will learn how to edit digital photos using computer software and will learn how to develop photos in a dark room. Students in this class will also create the school yearbook, learning graphic design techniques and formatting. *(1/2 credit IT or Art)*

Graphic Design

In this class, students will learn and practice the skill of combining text and pictures in advertisements, magazines, and other print media. They will learn how to solve visual arts problems using their own text and photos as well as participating in collaborative projects to help other classes such as making recipe books, flyers, and posters. Students will demonstrate an understanding of the role information technology plays and its impact on the modern world. *(1/2 credit IT or Art)*

Website Design and Writer's Craft

In this class, students will learn to use tools for creating websites. The focus will be on how to produce a dynamic and engaging website that will attract and maintain an audience. Students will learn to write for different audiences and will try styles including movie/food/art reviews,

journaling, creative writing, critical responses to texts. There will be an art component to this class, where students will be able to integrate their knowledge in art projects and photography. *(1/2 credit IT or Art)*

ART

2021-22 Art Course Offerings:

Miniatures

Miniature painting is an elective art class about painting three-dimensional miniatures. Students will design, build, and paint their own models and dioramas while exploring color theory, shading, how light reflects off objects, and other art topics. Students will also practice practical forward-focused skills as they learn 3D modelling and computer science. Although the class revolves around art and painting, students will enjoy playing several different games, ranging from board games to strategy games to roleplaying, involving their creations. *(1/2 credit Art)*

Maker Space

This Course will consist of two main components: learning to use tools and materials, and engaging in the design process on several student-led projects. First, students will learn to use hand and power tools, a small CnC machine and 3D printer. They will practice using both time-honored tools (eg. scale rulers, compasses, and calipers) as well as modern design methods (eg. SketchUp and Design Space). *(1/2 credit Art)*

Ceramics

An introductory class on hand building with clay. Students will create both functional pottery and decorative sculptures. There will be a small component on the potter's wheel as well. All pieces will be fired and glazed and students will take home all of their creations. *(1/2 credit Art)*

Art History Art

Students will learn about art in History and get inspired to create their own work. We will explore different types of paint including watercolor, acrylic and oil. We will observe and analyze paintings from famous artists such as Michelangelo, Van Gogh, Matisse, etc. Students will take inspiration from these works and create their own art. *(1/2 credit Art)*

Math Design

Students may take this semester-long class as an elective math credit or as an art credit and will experience the unique relationship between the two subjects. The class will be completely driven by hands-on artistic projects in which students will be actively learning and practicing practical math techniques. The course will help students improve their number sense and geometric comprehension. Students will explore properties of number sense, operations, and repetition. They will develop an understanding of the area, perimeter, surface area, or volume of objects. They will use similarity or congruence, along with creating translations and transformations, in creating designs. Students will manipulate information using the

Pythagorean Theorem to create similar triangles. The students will hone their spatial thinking through discovery of fractals in nature. *(1/2 credit Art or Math)*

Art Courses Taught in Previous and Future Years:

Photography

In this course, students will learn about the elements and principles of art through digital and film photography. Students will learn how to edit digital photos using computer software and will learn how to develop photos in a dark room. Students in this class will also create the school yearbook, learning graphic design techniques and formatting. *(1/2 credit Art or IT)*

Graphic Design

In this class, students will learn and practice the skill of combining text and pictures in advertisements, magazines, and other print media. They will learn how to solve visual arts problems using their own text and photos as well as participating in collaborative projects to help other classes such as making recipe books, flyers, and posters. Students will demonstrate an understanding of the role information technology plays and its impact on the modern world. *(1/2 credit Art or IT)*

Visual Literacy

Students will integrate their own knowledge of some works of literature into works of art using different media and techniques including acrylic paint, photography, clay, and more. They will determine what the central ideas and themes of the story are, and analyze in detail the development of the plot, and the characters. They will analyze how the characters are represented in key scenes and use those findings to create a visual representation. Students will have to decide what details to emphasize, and which to leave out completely, and explain their choices. The class will also analyze the visual representations of other artists who depict the works of other authors. *(1/2 credit Art or ELA)*

Website Design and Writer's Craft

In this class, students will learn to use tools for creating websites. The focus will be on how to produce a dynamic and engaging website that will attract and maintain an audience. Students will learn to write for different audiences and will try styles including movie/food/art reviews, journaling, creative writing, critical responses to texts. There will be an art component to this class, where students will be able to integrate their knowledge in art projects and photography. *(1/2 credit Art or IT)*

HEALTH & PHYSICAL EDUCATION

2021-22 Health & Physical Education Course Offerings:

Health

Students will learn about all the relevant topics including alcohol and other drugs, community and environmental health, personal and consumer health, mental health, tobacco use, family and sexuality, physical activity, nutrition and injury prevention, through discussions, documentaries, debates and readings. There is a focus on personal goal setting as well as community health. We will utilize project-based learning as a primary instructional method. *(1/2 credit Health)*

Intro to Psychology

This course will introduce you to the fundamental principles of psychology and to the major subjects of psychological inquiry. It has been designed to not only provide you with the tools necessary for the study of psychology but to present you with a sampling of the major areas of psychology research. Students will learn about these topics through reading and presentations and write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. *(1/2 credit Science or Health)*

Personal Fitness

This course incorporates many aspects of personal health, including exercise, healthy food choices, emotional well-being, and mindfulness. We will approach these topics through journal writing and class discussions, walks on the Rail Trail, yoga and meditation. *(1/2 credit PhysEd)*

Team Sports

This course is designed to develop skills and activities that will help students maintain fitness throughout their life. Students will explore practices intended to improve all areas of their fitness. This course is intended to encourage students to appreciate the benefits of healthy living and physical fitness. By the end of the year, students should understand the mental, physical, and social benefits of wellness and develop habits that can help continue a life of healthy, well living. The class will emphasize the development of social skills as they have to work together both in team sports and to complete team-based challenges. *(1/2 credit PhysEd)*

Health & Physical Education Courses Taught in Previous and Future Years:

Outdoor Education

The students enrolled in Outdoor education will progress through an experience-/project-based program that emphasizes interpersonal relationships and individual growth. This course encourages students to develop greater self-confidence and, at the same time, acquire an understanding of nature, a sense of collaboration and trust in classmates, and an appreciation of the natural world. Outdoor education is designed to expose students to a variety of outdoor skills. *(1/2 credit PhysEd & 1/2 credit embedded Science)*

ELECTIVE COURSES

2021-22 Elective Course Offerings:

Many courses listed in previous categories are taken as electives, 2021-22 course offerings that lend themselves well to this include; Miniatures, Slice of Life, Ceramics, Zoology, Personal Fitness, Carpentry, Maker Space, and Art History Art

Life Skills

The aim of this course is to provide students with knowledge and practical experience to tackle life's challenges, from learning to bake a cake or fix a button, to changing a tire and writing a resume. We will focus on real-world problems that can arise in the home, garage, workplace, and world through theory and practice of everyday skills to help students be self-sufficient problem-solvers and DIY fixers. *(1/2 credit Elective)*

Online Learning Opportunities

Students interested in pursuing courses not offered by Ledyard Charter School or who encounter scheduling conflicts may take classes through the online, Virtual Learning Academy Charter School (VLACS). Students taking online courses will be scheduled with a teacher for 50 minutes, 5 days a week for guidance and instruction related to their VLACS classes. *(Credits awarded based on courses completed)*

Extended Learning Opportunities (ELOs)

LCS takes great pride in providing its students with opportunities for additional learning in a variety of settings. Extended Learning Opportunities (ELO) are educational activities outside of the regular curriculum and coursework at LCS that provide credit, supplement regular academic courses, and/or promote the individual educational goals/objectives of the student. Some of these ELOs may also exist during the school day. In such cases, it is the responsibility of the student to address course expectations in conjunction with cooperating teachers and programs. All ELOs are subject to administrative approval. *(1/2 to 1 credit Elective)*

Dual Enrollment

Eligible Juniors and Seniors may earn high school credits and college credits simultaneously through dual enrollment programs, at greatly reduced tuition rates. Ledyard has dual enrollment agreements with River Valley Community College ("Bridge2College") and Community College of Vermont ("Vermont Dual Enrollment" and/or "Early College Program"). VLACS also offers an "Early College Program" via online courses in partnership with Southern New Hampshire University. Tuition, textbook costs, travel time and costs for these dual enrollment classes are the responsibility of the student/student's family. *(1/2 to 1 Credit per Semester)*

Internships

Internships provide students with an opportunity to explore potential career or vocational fields of interest through unpaid work. Unlike Work Study, the goal of this program is to secure an internship placement that is directly related to the student's post-secondary career goals. Students are required to arrange for their own internship placement and secure an appropriate LCS staff supervisor. Some internships may occur during the school day. In such cases, it is the responsibility of the student to address course expectations in conjunction with cooperating teachers and programs. Elective credit will be awarded based on time spent engaged in activities related to the internship and the completion of a culminating project or

presentation. All internships are subject to administrative approval. *(1/2 to 1 credit Elective per Semester)*

Work Study

Work Study is a program of paid employment on school time and/or after school, with minimal school supervision. Although desirable, this program is not required to be directly related to the student's post-secondary career goals. Participation in this program provides opportunities for high school students to develop into responsible adults in the working world. Credit will be awarded based on time spent on the job, good work habits (as indicated through positive employer evaluations), meeting deadlines, Morning Meeting presentations, and a final cumulative project. 300 hours worked earns 1/2 elective credit. Students may earn a maximum of 1 credit per semester to be used for elective pass/fail credit. Up to 2 elective credits may be gained in work study while at Ledyard Charter School. *(1 credit Elective per Semester)*

EXTRACURRICULAR PROGRAMS

LCS Robotics Team

Combining the excitement of sport with the rigors of science and technology. We call *FIRST* Robotics Competition the ultimate Sport for the Mind. High-school student participants call it "the hardest fun you'll ever have."

Under strict rules, limited resources, and an intense six-week time limit, teams of students are challenged to raise funds, design a team "brand," hone teamwork skills, and build and program industrial-size robots to play a difficult field game against like-minded competitors. It's as close to real-world engineering as a student can get.

Team members will be responsible for the creation and implementation of the robot as well as operating the robot during competitions. We are supported by Hypertherm, Dartmouth College and the Academy for Science. These local partners are volunteering time and resources to support our team.

Athletics / Cocurricular

Pursuant to NH RSA 193:1-c, all LCS students are eligible to participate in high school sports from the district that they reside in. Students and parents will need to request a letter of eligibility/participation from the LCS Executive Director. The letter will be sent to the Districts Athletic Director for approval. Students will be held to the NHIA rules and regulations.

LCS students are also eligible to participate in Cocurricular activities from the district that they reside in. Students and parents will need to make a formal request to the LCS Executive Director. The ED will work with sending districts administration to gain access to Cocurricular activities

Section 193:1-c

193:1-c Access to Public School Programs by Nonpublic, Public Chartered Schools or Home Educated Pupils.

I. Nonpublic, public chartered school, or home educated pupils shall have access to curricular courses and cocurricular programs offered by the school district in which the pupil resides. The local school board may adopt a policy regulating participation in curricular courses and cocurricular programs, provided that such policy shall not be more restrictive for non-public, public chartered school, or home educated pupils than the policy governing the school district's resident pupils. In this section, "cocurricular" shall include those activities which are designed to supplement and enrich regular academic programs of study, provide opportunities for social development, and encourage participation in clubs, athletics, performing groups, and service to school and community. For purposes of allowing access as described in this section, a "home educated pupil" shall not include any pupil who has graduated from a high school level program of home education, or its equivalent, or has attained the age of 21.

II. Nothing in this section shall be construed to require a parent to establish a home education program which exceeds the requirements of RSA 193:1.

Source. 2002, 202:1, eff. July 14, 2002. 2016, 4:1, eff. March 26, 2016.

LCS COURSE GRADING PROCEDURE

LCS uses TeacherEase to record and share student progress tracking. Parents and students will be issued login information to access real-time standings of academic progress. Report cards will be distributed/mailed home approximately one week after each semester ends. First and Third Quarter progress reports will be distributed during mandatory parent-teacher conferences.

The classroom grading scale used at Ledyard Charter School is shown below:

97-100 A+	77-79 C+	59 or Lower = F (no credit)
93-96 A	73-76 C	
90-92 A-	70-72 C-	
87-89 B+	67-69 D+	
83-86 B	63-66 D	
80-82 B-	60-62 D-	

FORMATIVE AND SUMMATIVE ASSESSMENTS

LCS will use both Formative and Summative assessments in determining a student’s progress and knowledge.

The goal of a Formative assessment is to *monitor student learning* to provide ongoing feedback that can be used by instructors to improve their teaching and by students to improve their learning. Some examples of Formative assessments are worksheets and small daily quizzes (verbal or written), daily skill-building exercises, and class work. The goal of a Summative

assessment is to *evaluate student learning* at the end of an instructional unit by comparing it against some standard or benchmark. Some examples of Summative assessments include a research paper, test, or final project.

LCS HONOR ROLL

Principal List – High Honors Grades of 90% or greater for all scheduled classes.

Honor Roll – Students must have a B average (85%) for all scheduled classes with only one grade in the C range (70-79%).



HARTFORD AREA CAREER AND TECHNICAL CENTER “HACTC”

LCS students have the opportunity to access HACTC programs beginning in their junior year. There are many options for hands-on learning associated with the HACTC and programs are typically 2 years in duration. During that time, students will experience practical learning, internships and more in their specific area of interest. HACTC has an exploratory program for sophomores and they may apply during the winter of freshman year. Applications begin in the winter of sophomore year for those interested in two-year certification programs. **(3 Credits Annually, unless otherwise stated)**

Following are the courses offered through HACTC:

Automotive Technology

Automotive Technology trains and prepares the students to become automotive technicians or for jobs in related fields. Students are trained on HACTC shop vehicles. Our emphasis is on safe, honest, ethical and professional work habits and skills. We follow a best practices approach to automotive repair. Students will utilize individual skills as well as team based learning to become proficient at problem solving and time management in addition to their automotive training. Qualified students will have the opportunity for a Cooperative Education placement with local automotive employers. Students have the opportunity to participate in the Automotive and Collision Enthusiasts Club (ACE) as their Career Technical Student Organization (CTSO).

Embedded High School Credit: Science

Concurrent Enrollment for College Credit: Automotive Systems I, 3 credits, Lakes Region Community College

Articulation Agreements: Universal Technical Institute; University of Northwestern Ohio; Lakes Region Community College; Lincoln Technical Institute

Industry Certifications: ASE Student Certification; Lift it Right Certification; S/P2 Environmental Safety Training Certification; WorkKeys National Career Readiness Certification (NCRC).

Building Trades

In Building Trades, students participate in the construction of a new home over a two-year period. Students are exposed to all phases of construction of a new home, and learn everything from beginning tool safety, skill techniques, and blueprint reading through residential plumbing and electrical. Safety is our 100% goal at all times. Students are also exposed to real world experiences on field trips, job shadowing and Cooperative Education learning experiences. Upon program completion, students are qualified to walk into most entry-level positions within the Building Trades arena, pursue apprenticeships, or further their education.

Embedded High School Credit: Math

Concurrent Enrollment for College Credit: Construction Management I, 2 credits, Vermont Technical College (pending);

Construction Management II, 3 credits, Vermont Technical College (pending)

Articulation Agreements: Vermont Technical College; Keene State College; Lincoln Technical Institute.

Industry Certification: National Center for Construction Education and Research (NCCER) Modules; CPR/AED and First Aid; Careersafe OSHA-10; and WorkKeys National Career Readiness Certification (NCRC).

Business Administration

Business Administration students are people who want to develop the business professionals hidden within them. This program leads students through all aspects of the business world, from accounting and personal finance to marketing and professional communications. Students develop their own business skills through individual and group projects, Cooperative Education placements, and guest lectures from industry professionals. Business Administration students stay active by participating in Future Business Leaders of America (FBLA), earning up to nine different college credits, building a professional business and communications portfolio, and earning five different industry recognized credentials.

Embedded High School Credit: English

Concurrent Enrollment for College Credit: Introduction to Business, 3 credits, River Valley Community College (RVCC); Introduction to Computer Applications, 3 credits, RVCC; Accounting I, 3 credits, RVCC

Articulation Agreements: Northern Vermont University - Johnson; Keene State College

Industry Certifications: AED/CPR and First Aid; CareerSafe OSHA Certification; Personal Finance Certification; and WorkKeys National Career Readiness Certification (NCRC).

Career and Technology Exploration

Career and Technology Exploration (CTE) is a unique program at the HACTC, open only to high school sophomores. Students are referred for admission to the CTE program by their school counselor. The CTE model offers a unique and holistic learning experience in a non-traditional classroom. Small group and one-on-one instruction are at the heart of helping CTE students reconnect to their own educational experience. The more individualized, hands-on, and supported instruction is vital in helping students find success in school and their overall educational experience. The CTE program helps students earn high school credits while providing exposure to Career and Technical Education. Students cycle back and forth between more traditional classroom time and placement in each of the HACTC technical programs, giving students a hands-on introduction to HACTC opportunities. Upon successful completion of the CTE program, students may select a HACTC program to apply to for their Junior year.

Embedded High School Credits: English, Math, Art

Collision Repair and Refinishing

Students will be introduced to the field of Collision Repair and Refinishing (CRR). This field requires a thorough understanding of how an automobile is constructed. Students in CRR will use top-of-the-line equipment and technology such as the DeVilbiss semi downdraft paint booth, PPG Aquabase paint mixing system, and a commercial quality vinyl cutting machine. The curriculum focuses on mechanics, body repair and replacement, sanding, masking, painting, and use of high tech spray equipment. With permission from the instructor, students may work on “live jobs” brought in by the local community. After completing this program, students have had success entering directly into the workforce or going on to post-secondary education. This program is NATEF (National Automotive Technicians Education Foundation) certified.

Embedded High School Credit: Math or Science

Concurrent Enrollment for College Credit: Basic Collision Repair, 3 credits, Nashua Community College

Articulation Agreements: Nashua Community College

Industrial Certifications: NATEF certification program; S/P2 online safety training; CPR/AED and First Aid; and WorkKeys National Career Readiness Certification (NCRC).

Cosmetology

This course will give students foundational experience in the Cosmetology industry. The Cosmetology field offers opportunities for a variety of employment avenues as well as experiences in travel, personal satisfaction, and financial independence. Students will be introduced to skills such as hair design, nail and skin care, personal appearance, communication, and business skills. These skills will be learned through demonstrations on mannequins and by working with fellow students and clients, as well as through Cooperative Education and community job placements. Students may earn hours towards licensure through this program. Students will be expected to meet general course units of

study and be able to demonstrate their understanding of the curriculum. The instruction will be a series of phases that include combinations of salon clinic interaction, practical skill sets, academic assignments, as well as lecture and demonstration. The course is comprised of self-paced, basic instruction in related studies and practical skills training. Student assessment will be based on teacher observation, formal and informal assessment, project-based self-reflection, and both academic and skill development assessments.

Embedded High School Credit: Science

Concurrent Enrollment for College Credit: Introduction to Business, 3 credits, Community College of Vermont; Introduction to College and Career, 3 credits, Community College of Vermont

Articulation Agreements: New England School of Hair Design, Keene Beauty Academy, Michael's Paul Mitchell Academy.

Industry Certifications: S/P2 Cosmetology Safety and Sanitation Certification; Barbicide Certification; CPR/AED and First Aid; Conover® Workplace Readiness; and WorkKeys National Career Readiness Certification (NCRC).

Culinary Arts

Culinary Arts is a fast-paced learning environment grounded in food science, safety, sanitation, customer service and the basic principles of cooking. With our cafe-style restaurant named 'The Get-Away', Chef Patrick Gobeille exposes students to a practical application of skills in a dynamic, rigorous curriculum. Students will demonstrate a basic knowledge of the food service industry, including: organizational flow, Hazard Analysis Critical Control Point (HACCP), sanitation practices, personal hygiene, equipment and utensil identification and use, basic first aid, nutrition, customer service, basic food and bakeshop techniques, as well as storage, handling of food and math applications.

Embedded High School Credit: Science

Concurrent Enrollment for College Credit: Culinary Fundamentals, 3 credits, Lakes Region Community College

Articulation Agreements: Culinary Institute of America; New Hampshire Culinary Institute (WMCC); Lakes Region Community College

Industry Certifications: American Culinary Federation Secondary Graduate Certification; S/P2 Culinary Arts; ServSafe Food Handler; CPR/AED and First Aid; Conover® Workplace Readiness; and WorkKeys National Career Readiness Certification (NCRC).

Design, Illustration & Media Arts

The Design, Illustration & Media Arts (DIMA) program at the HACTC is full of creative thinkers. Through this program students explore the technology skills for a growing creative industry. Students use industry standard Mac platform hardware with the most up-to-date Adobe software. Students work through projects that introduce them to many different aspects of digital illustration, digital video production, digital photography, 2-D animation, and motion graphics. Students also accept "live jobs" from the public sector and

must learn how to create professional quality work products, follow real-world timelines and work with clients. Students will prepare themselves for their endeavors after high school by creating a professional online portfolio, resume, and cover letter that they can use for post secondary education or the workforce.

Embedded High School Credit: Art

Concurrent Enrollment for College Credit: Design Software Essentials, 3 credits, Lakes Region Community College (pending); and Digital Illustration, 3 credits, Lakes Region Community College

Articulation Agreements: Northern Vermont University - Lyndon; Northern Vermont University - Johnson

Industry Certifications: Adobe Photoshop CC; Adobe Dreamweaver CC; Adobe Illustrator CC; Adobe InDesign CC; CareerSafe OSHA Certification; CPR/AED and First Aid; Conover® Workplace Readiness; and WorkKeys National Career Readiness Certification (NCRC).

Health Sciences

Students in Health Sciences build a strong foundation of academic and practical knowledge in general health care. Health Sciences offers students a springboard into nursing programs, EMT training, sports medicine, physical therapy, imaging sciences, and dentistry. Those wishing to distinguish themselves often do so through the National Technical Honor Society and HOSA, a student leadership program for future health professionals. Health Sciences students are actively engaged in the field through volunteer work and Cooperative Education work placements. Students wishing to receive their Licensed Nursing Assistant (LNA) certification will have the opportunity to enroll in the evening or weekend LNA program.

Embedded High School Credit: Science

Concurrent Enrollment for College Credit: Introduction to Psychology, 3 credits, River Valley Community College

Articulation Agreements: Northern Vermont University - Johnson; Keene State College.

Industry Certifications: Basic Life Support (BLS) for Healthcare Providers: CPR and AED; First Aid; Bloodborne Pathogens, FEMA and Emergency Management Institute courses; Conover® Workplace Readiness; and WorkKeys National Career Readiness Certification (NCRC).

Industrial Mechanics and Welding

The Industrial Mechanics and Welding (IMW) program exposes students to a wide range of topics designed to instill general fabrication skills combined with technical subjects. The course prepares students for a variety of occupations ranging from welding, electrical, and machining to mechanical trades. Students routinely use math and science skills, and interact with STEM, Automotive Technology, Natural Resources, and Collision Repair and

Refinishing programs while working on projects. Students are prepared for a career or post-secondary education with technical skills as well as a positive attitude and work ethic.

Embedded High School Credit: Science

Concurrent Enrollment for College Credit: None at this time

Articulation Agreements: University of Northwestern Ohio; Lincoln Technical Institute; Keene State College

Industry Certifications: S/P2 Environmental Safety Training Certification; AED/CPR and First Aid; Conover® Workplace Readiness; and WorkKeys National Career Readiness Certification (NCRC).

Natural Resources

Our mission in the Natural Resources program is to expose and get students excited about outdoor-related careers. The main areas of our curriculum are forestry, natural history, diversified agriculture, horticulture, water and soils. Safety, equipment usage, and teamwork are very large parts of the program as well. Students participate in leadership training and regional competitions through FFA. Hopefully after two years in the program, students find an area of high interest, and take steps to secure a job or further their education in a related field. Examples of careers that Natural Resources students have pursued include: arborist, forester, farmer, water management, heavy equipment operator, land management, landscaping, conservation law enforcement, and outdoor recreation, among many others. Many of our alumni go on to employment in state positions and local municipalities. Come visit us and see all the things we do.

Embedded High School Credit: Science

Concurrent Enrollment for College Credit: Burls to Boards, 3 credits, Vermont Technical College

Articulation Agreements: Paul Smith's College; SUNY Cobleskill; Keene State College; University of Maine - Fort Kent.

Industry Certifications: CPR/AED and First Aid; Game of Logging I and II, Conover® Workplace Readiness; and WorkKeys National Career Readiness Certification (NCRC).

STEM - Introduction to Engineering Design (one-year course in the P.M.)

Introduction to Engineering Design (IED) students are introduced to the engineering design process, and apply math, science and engineering standards to identify and design solutions to a variety of real problems. They work both individually and in collaborative teams to develop and document design solutions using engineering notebooks and 3-D modeling software in this year-long course.

High School Credit Options: 1.5 credit Engineering and 1.5 credit Technology OR for students who want to earn a credit in Algebra II - 1 credit Algebra II, 1 credit Engineering, and 1 credit Technology

Concurrent Enrollment for College Credit: Introduction to Engineering Design, 3 credits, St. Cloud State University

Articulation Agreement: Keene State College

Industry Certifications: Conover® Workplace Readiness; Careersafe OSHA-10; WorkKeys National Career Readiness Certification (NCRC).

STEM - Principles of Engineering (one-year course in the A.M.)

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration and presentation in this year-long course.

High School Credit Options: 2 credits Engineering and 1 credit Technology OR for students who want to earn a credit in Physics - 2 credits Engineering and 1 credit Physics

Concurrent Enrollment for College Credit: Principles of Engineering, 3 credits, St. Cloud State University; Precalculus 1, 3 credits, Vermont Technical College; Precalculus II, 3 credits, Vermont Technical College

Articulation Agreement: Keene State College

Industry Certifications: Conover® Workplace Readiness; WorkKeys National Career Readiness Certification (NCRC).