

# Program of Study

# Oxbow High School

2022-2023



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## Table of Contents

<b>Table of Contents</b>	<b>2</b>
<b>Graduation Requirements</b>	<b>3</b>
<b>Academic Information</b>	<b>3</b>
<b>Middle School</b>	<b>7</b>
English	7
Social Studies	8
Science	9
Math	10
Fine Arts	11
Library/Media/Technology	11
Physical Education	12
<b>High School</b>	<b>12</b>
English	12
Social Studies	14
Science	17
Math	19
Fine Arts	21
World Language Program	23
Physical Education and Health	24
<b>River Bend Career &amp; Technical Center</b>	<b>25</b>
Half and Full-Day Programs	25
High School Elective Descriptions	28

## **Graduation Requirements**

Students must earn at least the stated number of credits in the following areas:

English	4 credits
Mathematics	3 credits
Science	3 credits (1 life science, 1 physical, 1 additional science)
Social Studies	4 credits
Electives	5 credits
The Arts	1 credit
Physical Education	1 ½ credits
Health	½ credit

Total credits needed for graduation: 23

All students must be enrolled in a minimum of five (5) daily classes per semester that award credit.

One year of successful study in an approved River Bend Career and Technical Center program may be substituted for one half credit requirement in a content area depending on the specific program and the student's Personal Learning Plan.

### **Academic Information**

#### **Middle School**

Students are required to enroll in both core classes and enrichment courses. Core classes are math, science, English, and social studies. All students rotate through enrichment courses which may include art, music, careers, wellness, library/media, or technology. Middle School students will also take physical education and eighth graders may take Spanish. There are also possibilities for middle school students to enroll in band or chorus.

#### **Criteria for Middle School Challenge Classes**

Challenge classes are designed for self-motivated students who achieve academic excellence. The classes emphasize depth of discussion and intensified reading and writing. Placement in challenge classes is initially based on 6th grade SBAC scores. Parents, students, or teachers may recommend a student to move to challenge class during the course of the year should academic performance so warrant it. In math, a student should take Math 8 Challenge in order to be prepared for Honors Geometry in the ninth grade. Students with grades below an average of C- in a challenge class may be asked to transfer from the course in consultation with the student and family.

## **High School**

The Oxbow philosophy is committed to the total development of each student. To that end, we offer a great variety of experiences that include technical, social, physical, and academic options. It is the policy of Oxbow High School that students are encouraged to use every opportunity available during their years at Oxbow.

## **Early Graduation**

Students who wish to graduate before the class with which they started in the ninth grade must have their request approved by the principal. Such requests are ideally made in the tenth grade year. When a request is submitted, a committee consisting of three teachers who have personal knowledge of the student, a counselor, the principal, the parents and any others with pertinent information about the child will be convened. This committee will make a recommendation to the principal.

## **Transferring**

Any student transferring from another school, or entering from a home school program, must successfully complete a minimum of one semester as a full time Oxbow High School student taking Oxbow classes in order to earn an Oxbow High School diploma. This is to be defined as having passed at least five half credit classes in one semester. Once completed, provided the student has the necessary credit distribution with their transfer credits to satisfy School Board Policy IHF-R, the student is eligible to receive an Oxbow High School diploma.

## **Independent Study**

Contracts need to be made and approved, these contracts are available from the student services office or from a school counselor. The contract requires student, parent, school counselor, administrator, and department coordinator approval. Students must have at least a 2.5 GPA and must be registered for at least 5 other daily classes. The teacher supervising the independent study must be qualified to teach the independent study course discipline. Credit will be awarded using this formula: 55 hours of study =  $\frac{1}{2}$  credit. Independent study classes will carry the designation "IS" on the transcript.

## **Courses Taken Outside of Oxbow**

Students enrolled at Oxbow High School may complete courses, with prior approval, through another accredited institution (other than River Bend Career and Technical Center) in order to repeat or replace a class or explore elective content that is not available at the school. These credits will be included on the student's transcript. Please note that all costs associated with the completion of outside credits will be the responsibility of the student and his/her parents or guardians. Students should get the pre-approval form when they have a meeting with their school

counselor. All paperwork should be completed at least 15 days prior to the start of the class. It is the responsibility of the student to deliver the grade report or other necessary documentation to his/her school counselor after completion of the class. No information will be added to the transcript until all required documentation is received.

### **Dual Enrollment**

This program is for seniors and rising juniors. Students apply for a voucher from the state of Vermont to enroll in a college course at one of several Vermont colleges. Students must meet with their school counselor prior to applying for the voucher. Upon successful completion of the course and a college transcript is received, the appropriate credit will be applied to the student's transcript.

### **Running Start**

This is an affiliation Oxbow has with the New Hampshire State College system. For these courses, students who complete all required assignments with a passing grade will receive Oxbow credit. The student will also earn credits at the college and can obtain their transcript directly through the institution. Students interested in this option should contact their school counselor.

### **Incomplete Grades**

Incomplete grades will be recorded only in instances of significant emergency, such as extended illness, not for work simply undone. The student with an incomplete grade on the report card has two weeks from the close of the quarter to make up the work, unless there are extreme circumstances. If a student earns an incomplete and the work is not completed by the two week deadline, the teacher will submit the grade of record.

### **Course Withdrawal**

A student may elect to drop an Oxbow course during the first or third quarters. Courses dropped after that time will result in a "WF" (withdrawal fail) on the transcript. Students may not drop a class if it will result in a course load of fewer than 5 classes that award credit per semester.

### **High School Grade Classification**

This is determined by the number of credits a student has earned. To be classified as a 10th grader, a student must have earned 5.5 credits and have successfully completed one credit in English and one credit in Mathematics in their 9th grade year. To be classified as an 11th grader, a student must have earned 11 credits and have successfully completed one credit in English and one credit in Mathematics in their 10th grade year. To be classified as a 12th grader, a student must have 17 credits at the end of the 11th grade year. If a student is retained in grade 11 and earns the requisite number of credits to be promoted to grade 12 after the first semester, the

student will only be promoted if he/she has the possibility of completing all credits required to graduate at the end of that school year.

### **Class Rank/Grade Point Average**

Class rank and GPA are given to students who satisfy all of their graduation requirements at Oxbow. Students will be ranked within their class on a weighted scale. Students not satisfying at least 4 full-time semesters as an enrolled student at Oxbow before graduating, such as transfer students, home-schooled students, etc, will not be ranked. The school counseling department shall estimate informal ranks and grade point averages of unranked students at their request for the purpose of college admission, scholarships, or as needed.

### **Honor Roll**

Oxbow recognizes students who have achieved excellent grades each quarter. Principal's Honor Roll is for students who achieve an "A" in all courses issuing grades. Honor Roll is for students who achieve at least a "B" in all courses issuing grades.

### **Valedictorian and Salutatorian**

These awards are given to the two seniors with the highest rankings, as determined by the GPA at the end of the first semester of senior year. This determination will be for graduation ceremony purposes only, and may not reflect the final outcome of the class ranking at the end of the school year.

### **University of Vermont's Green and Gold Scholarship**

Eligibility criteria and the nomination process are set by UVM. Oxbow will nominate one student at the end of the junior year (August deadline) based on academic excellence. The sole criteria for determining academic excellence will be a student's GPA at the end of the junior year and the student with the highest GPA will be the nominee.

### **Course Selections**

Courses are chosen in consultation with the school counselor. Students are urged to think about the courses they are selecting and to make choices that will help meet their future goals. It is important for students to take advantage of the academic opportunities available and prepare themselves for as many different options after high school as possible.

### **Criteria for entrance to Honors and Advanced Placement Classes**

This is determined by grades obtained in the previous year's classes and recommendations by teachers and school counselors. A grade of "B" or higher is considered appropriate for any student who wants to be challenged at a high level. There is an appeal process for students who feel an Honors or AP class is appropriate but does not meet the criteria above. The appeal may

be made either by a parent, the student, or both, and must be made in a timely manner to the school counselor.

Honors and Advanced Placement courses are the most challenging courses offered at Oxbow High School. Students who are typically the most successful in these courses maintain a grade of C- or better, exhibit positive behaviors and appropriate participation, are highly organized, are self-motivated and independent learners. Honors courses will receive an “honors” designation on a student’s transcript and carry an additional .5 weight to be calculated into the GPA. Advanced Placement classes will receive an “AP” designation on a student’s transcript and carry an additional 1.0 weight to be calculated into the GPA.

### **Driver Education**

Oxbow operates on a voucher system for driver education. This means that students who are turning 15 and have (or will have) their permit should request a voucher from the bookkeeper. The voucher can be used at any state approved driver training program in Vermont and will pay up to \$750 for the class. Each student is entitled to one voucher during their high school career and a voucher is valid for one fiscal year (July 1 to June 30). If a student receives a voucher and does not use the voucher within the fiscal year, another voucher will NOT be issued. If a student does not pass the driver training program, another voucher will NOT be issued.

## Middle School English

### **English 7 Challenge Option**

This year-long course accelerates reading volume and pace when compared to the regular seventh grade English curriculum, and demands additional writing depth and frequency from its students, as well as expanded prescriptive vocabulary breadth. For instance, students read fifteen self-selected books while students in Challenge English read twenty. Students may be asked to write a paragraph in response to a text, while students in challenge English write an entire five-paragraph (or six, in the case of a persuasive essay) composition. **Prerequisites:** SBAC combined score of 6, 6th grade teacher recommendation

### **English 7**

This year-long course uses the Common Core framework as a foundation, moving content that includes Shakespeare’s “Macbeth”, Grimm’s Fairy Tales; writing informational and persuasive essays; a prescriptive vocabulary program based on Wordly Wise 3000, Book 7; a grammar immersion unit that moves through parts of speech, and a self-selected reading program assessed by Accelerated Reader. **Prerequisites:** None

### **English 8 Challenge Option**

This year-long course follows the same, general curriculum as English 8 with additions and changes designed to better prepare students for Advanced Placement English courses in their Junior and Senior years. Additional self-selected reading assignments are required, and students are held to a higher standard of achievement in all writing assignments. **Prerequisites:** C or better in Challenge 7 English or teacher recommendation

### **English 8**

In this year-long class, students will focus on deepening their understanding of literacy and critical thinking skills. Students will explore a variety of text types and genres, including novels, poetry, graphic novels, TedTalks, and journalism. By the end of the year, students will be able to: Read age appropriate materials fluently with understanding. Write effectively for a variety of purposes and audiences. Speak purposefully and effectively as well as listen attentively and critically. Engage in research and inquiry, and analyze, evaluate, integrate and present information. Evaluate and use technology, nonprint text, and audiovisual media. Our coursework and practice with these skills will be guided by our essential question for this course: how can we use stories to understand ourselves, others, and the world? **Prerequisites:** None.

## Social Studies

### **SS 7 - World Geography**

In this year-long course students will explore landforms, continents, and cultures. Students will learn how to read and interpret maps, identify landforms and continents, and explore different cultures. Students will plan virtual tours, report out on personal explorations, and spend time managing their online resources - including logins and passwords for all 7th grade courses. This course requires in-depth analysis from students and an opportunity for independent work. **Prerequisites:** None

### **SS 7 Challenge - World Geography**

This year-long course covers the same themes as SS7. This course requires more in-depth analysis from students and greater opportunity for independent work. **Prerequisites:** Combined SBAC score or 6 or better, teacher recommendation

### **SS 8 - US History**

This year-long course is designed to introduce students to some of the basic issues and themes of American History. The course covers material from the late establishment of the European colonies in North America through the Civil War. Emphasis is placed on founding concepts of American government and society. Units will include an emphasis on social studies skills that can be applied in dealing with information beyond that being studied. These skills include

reading a range of text, using graphic organizers and writing constructed and extended response pieces. **Prerequisites:** Successful completion of Grade 7 social studies

### **SS 8 Challenge - US History**

This year-long course is designed for the self-motivated student who is willing to be challenged. The class introduces students to the issues and themes in US History from the late establishment of the European colonies in North America through the Civil War. Focus themes involve intolerance, bias, the development of democracy and citizenship. Skill development involves the use of primary sources, written detailed response pieces, reading historic literature, and researching independently are also stressed. **Prerequisites:** Successful completion of Challenge 7 social studies or teacher recommendation.

## Science

### **Science 7**

This year-long course is an introduction to the world of living things. A variety of science equipment will be used and lab experiences are provided regularly. Students will be expected to conduct research throughout the year, and present their findings to the class either orally, as a research paper, or by focusing on the use of visual aids to explain their information.

**Prerequisites:** None

### **Science 7 Challenge**

This year-long course supplements the seventh grade curriculum with additional information, in-depth projects and more detailed lab work. Basic concepts will be covered at a quicker pace, more written work will be done at home, and students will engage in classroom discussions.

**Prerequisites:** Combined SBAC score of 6, teacher recommendation.

### **Science 8**

This year-long physical science curriculum will cover chemistry, motion and energy, properties of sound and light, and engineering design. Students will be prepared to enter high school science with skills including the scientific method, measurement, scientific research and analysis, reporting, experimentation and scientific literature. **Prerequisites:** None

### **Science 8 Challenge**

This year-long course will extend the Science 8 curriculum to include more in-depth lab exercises, more independent research, and greater autonomy in designing experiments.

**Prerequisites:** Successful completion of 7th grade challenge or teacher recommendation

## Math

### **Math 7**

This year-long course follows the Common Core Standards for 7th grade mathematics and focuses on three critical areas. First, students learn to recognize when two pictures or figures are or are not scaled copies of each other. They use scale factors to enlarge and reduce shapes. Secondly, students extend concepts of rates and ratios to work with equivalent ratios and proportional relationships. Students will learn to understand operations with rational numbers and begin to work with expressions and linear equations. Thirdly, they will solidify their understanding of fractions, decimals, and percents as different ways to represent rational numbers. Students will become proficient in the addition, subtraction, multiplication, and division of negative numbers. Throughout it all, students interact with and solve compelling mathematical and real world problems. **Prerequisites:** None

### **Math 7 Challenge**

This year-long course compacts and accelerates the content of 7th and some of 8th grade mathematics curriculum with added rigor, depth, global connections, multiple representations (verbal, algebraic, numerical, graphical, physical), and expectations of sophistication in student work. This course emphasizes algebraic thinking and reasoning. **Prerequisites:** SBAC combined score of 6, and 6th grade teacher recommendation

### **Math 8**

This year-long course follows the Common Core Standards for 8th grade mathematics and focuses on the foundations of algebra and basic geometry concepts. First students learn about rigid transformations and dilations in order to move objects around a coordinate plane. Students will then review proportionality and learn about linear relationships and how to graph and analyze a line with real life examples. Students will then explore the Pythagorean Theorem and explore finding side lengths and analyzing triangles. Students will then take the knowledge of squaring a number from the Pythagorean Theorem unit and learn about exponents and their rules as well as look at scientific notation in order to represent very big or small numbers. Lastly, students will learn about volume and surface area of three dimensional objects such as cylinders, cones, and spheres. Throughout it all, students interact with and solve compelling mathematical and real world problems. **Prerequisites:** None

### **Math 8 Challenge**

This year-long course compacts and accelerates the content of 8th and some of 9th grade mathematics curriculum with added rigor, depth, global connections, multiple representations (verbal, algebraic, numerical, graphical, physical), and expectations of sophistication in student work. This course emphasizes algebraic thinking and reasoning. **Prerequisite:** SBAC combined score of 6, and 7th grade teacher recommendation

## Fine Arts

### **Music 7**

This is a nine week course designed to strengthen students' existing skills in music and introduce new ones. The curriculum includes a blues unit, a composition unit, and shorter mini-units involving keyboard, guitar and other topics. **Prerequisites:** None

### **Middle School Band**

Band is an ensemble course that focuses on performance skills. Students will work to develop individual instrumental technique, ensemble/listening skills, musicianship skills, and general knowledge of instrumental music. Band is open to all students who play a band instrument or would like to learn. Piano players, guitar players, or other non-traditional concert band instrumentalists may sign up, but will be expected to play with the ensemble and complete the same assignments. (and encouraged to try a concert band instrument.) Students are expected to perform in the Winter and Spring concerts. The class will be differentiated in a way that allows for both beginners and experienced players to play at their appropriate skill level. **Prerequisites:** None

### **Middle School Chorus**

Chorus is open to all students. Basic choral techniques and musicianship are studied and practiced through a variety of choral literature in various styles, languages and cultures. Students are expected to perform in the Winter and Spring concerts. **Prerequisites:** None

### **Art 8**

This is a 9 week rotation for all 8th graders. The focus of arts study in the 8th grade year is to introduce several culturally diverse art projects., while building on the knowledge of the elements and principles of art. Artistic concepts and skills include hand building with clay, working with patterns, creating a graphic block print, drawing represent figures in motion and using those figures to illustrate stories. Students will be asked to make art and to talk about their work. **Prerequisites:** None

## Library/Media/Technology

### **Library Media Technology 8**

This is a 9 week rotation class for all 8th graders. Students will learn about the many resources made available through the Oxbow High School library, including but not limited to physical books, digital audio and eBooks, interlibrary loan, various electronic devices and online subscription services. Students will also learn to efficiently leverage software to create a variety

of products and practice academic skills that will be of value throughout their middle/high school careers. Programs explored include various Google apps as well as digital media production packages. Finally, students will complete a unit focused on digital citizenship, learning to navigate and utilize the internet in a safe and responsible manner. **Prerequisites:** None

## Physical Education

### **Physical Education 7**

In this coed course, emphasis is placed on skills, knowledge, and the development of coordination through team sports and recreational activities. Students will participate in a quarter-long Wellness Program focusing on physical, social and emotional wellness. Students will be required to participate in the VTPEA (FitnessGram testing) once a year. **Prerequisites:** None

### **Physical Education 8**

In this coed course, emphasis is placed on skills, knowledge, and the development of coordination through team sports and recreational activities. All students are expected to participate unless a physician excuses them. Students will participate in a quarter-long Wellness Program focusing on physical, social and emotional wellness. The group will focus on personal and social growth through group activities and discussion. **Prerequisites:** None

## High School

### English

#### **English 9 Honors**

This year-long course follows the same, general curriculum as English 9 CP with additions and changes designed to better prepare students for Advanced Placement English courses in their Junior and Senior years. Additional self-selected reading assignments are required, and students are held to a higher standard of achievement in all writing assignments. **Prerequisites:** C or better in 8th grade challenge or teacher recommendation

#### **English 9 CP**

This year-long course covers the areas of reading, writing, speaking, and language. Literature will range from contemporary, young adult novels to classic American novels, poetry, plays, and short stories. The informational text we examine will include current news articles as well as historic documents and speeches. The fundamentals of writing will be addressed, with a concentration on sentence and paragraph structure, proper use of grammar, and editing. Students

will have an opportunity to express themselves verbally on a variety of topics during informal class discussions and more formal class presentations. **Prerequisites:** None

### **English 10 CP**

This year-long course is designed to study modern and classic works as examples of style as well as thought-provoking works of art. Frequent written assignments-both short and long provide practice in writing and critical thinking. Constructed responses and five paragraph essays provide rigorous exercise in building a coherent and logical argument. This course contains units on poetry, Shakespeare, American literature, young adult literature, and others. Creative writing units help develop student's appreciation for the written medium through the lens of their own experience. Group discussions and projects develop skills in public speaking and group problem solving. **Prerequisites:** If taken as an honors course, you will need a C or better in 9th grade honors or teacher recommendation.

### **AP Literature and Composition - Grades 11-12**

This is a year-long course that prepares students for the annual national exam in May. The first semester focuses on prose and writing expository on-demand essays. The second semester is poetry-centered. Weekly sample multiple choice segments from the College Board's on-line My Ap course framework, as well as weekly essay writing responding to prompts about literary excerpts continue throughout the year. There are weekly vocabulary assignments, and students read from a selected list of classic and contemporary novels outside of class. **Prerequisites:** Honors English in previous years.

### **Lit out Loud - Grades 11-12**

Lit Out Loud is a semester-long English course which engages a series of young adult novels and short stories aloud. Class members play the parts in the texts, bringing the plots alive. Reaction papers are a weekly component as well. Titles include Kate Morgenroth's "Jude," Gail Giles' "Playing in Traffic," Colleen Hoover's "November 9," and Natasha Preston "The Cabin." **Prerequisites:** None

### **Sweet and Sour Literature - Grades 11-12**

This semester-long course for seniors focuses on the emerging genre of end-of-the-world fiction. While dystopian literature, such as *The Giver* and *The Handmaid's Tale*, has appeared periodically in the latter part of the twentieth century, its prominence in young adult literature is a recent phenomenon. Similarly, end-of-the-world fiction, in which adult society has corrupted the world through environmental degradation or war, with adolescents left to salvage what is left, is a dominant trend. From Cormac McCarthy's *The Road* to Kate Thomson Walker's *The Age of Miracles* and Gabrielle Zevin's *All These Things I've Done*, "Sweet and Sour" explores the idea of teenagers as the future of the world. **Prerequisites:** None

### **Horror Literature and Film - Grades 11-12**

No matter where you go these days—the movies, the bookstore, your own living room to watch TV—there seems to be no escaping tales of blood-sucking vampires, fur-covered werewolves, and brain-chomping zombies. Though these monsters have origins in myths that are older than history itself, people just can't seem to get enough of them. In this class, we will discover why these ghouls have always been popular and why they always will be. **Prerequisites:** None

### **Young Adult Literature - Grades 11-12**

In this semester-long class students will explore the problems and possibilities facing teenagers today. We'll laugh, we may cry, but we'll definitely read, think, and write. Young Adult fiction is a category of literature tailored especially to teenage readers and is the fastest growing sub-genre of modern fiction. They're great books for and about young adults. We will also study some of the vocabulary presented in these novels. **Prerequisites:** None

### **Creative Writing - Grades 11-12**

In this semester-long English elective, students will explore the art of storytelling. This class offers a supportive environment for students to discover their own voice as they write (and re-write!) creative fiction in a variety of genres. Students will approach storytelling from many different angles as they learn about narrative and poetic structures and forms, and storytelling techniques. Students will read and analyze texts from established authors in order to better understand the choices they make in their writing, and then apply these understandings to improve their own writing. Finally, they will share, receive feedback on, and revise their writing through a collaborative workshop model. Throughout this process, students will reflect on how stories can shape who we are and how we relate to others. **Prerequisites:** None

## Social Studies

### **World History I CP - Grade 9**

This year-long course will introduce students to the field of world history by focusing on the key social, political, cultural, and economic developments that occurred between the rise of the world's ancient civilizations to the European Renaissance. Students will investigate both primary and secondary sources to arrive at a deeper understanding of significant moments of change, continuity, and connection around the world during this particular period of history. **Prerequisites:** None

### **World History I Honors - Grade 9**

This year-long course will introduce students to the field of world history by focusing on the key social, political, cultural, and economic developments that occurred between the rise of the

world's ancient civilizations to the European Renaissance. Students will investigate both primary and secondary sources to arrive at a deeper understanding of significant moments of change, continuity, and connection around the world during this particular period of history. Extensive reading and writing will take place daily outside of the classroom. **Prerequisites:** Teacher recommendation

### **World Studies II CP - Grade 10**

This year-long course focuses on modern world issues. Units are both geographic and thematic with a strong emphasis on sociological concepts. Topics will include population the environment globalization, immigration, human rights, climate change, rising global terrorism, population and religion (among others), as well as issues that are specific to particular regions including Africa, Europe, Former Soviet States, China, Latin America and North America. There is a major emphasis on current events. The course curriculum is designed to be responsive to evolving issues in the world today. **Prerequisites:** None

### **World Studies II Honors - Grade 10**

This year-long course focuses on modern world issues. Units are both geographic and thematic with a strong emphasis on sociological concepts. Topics will include population the environment globalization, immigration, human rights, climate change, rising global terrorism, population and religion (among others), as well as issues that are specific to particular regions including Africa, Europe, Former Soviet States, China, Latin America and North America. There is a major emphasis on current events. The course curriculum is designed to be responsive to evolving issues in the world today. Extensive reading and writing will take place daily outside of the classroom. **Prerequisites:** Teacher recommendation

### **Criminal Justice - Grade 11**

This semester-long course is designed to introduce students to all the major areas of the criminal justice system. This includes law enforcement, corrections, and the court system. In addition to this, the students will learn the basics of criminology, and criminal procedure and law. The class will consist of in-depth group discussion, guest speakers, and field trips, thought provoking individual & group assignments, mock trials and detailed lectures. **Prerequisites:** None, this course is dual enrollment through CCV as "Introduction to Criminal Justice."

### **Holocaust Studies- Grade 11**

This semester-long course examines the impact and continuing consequences of anti-Semitism through a review of selected literature and films. Students will learn about anti-Semitism in Vermont, consider Jewish perspective pre and post World War 2, and investigate how stories of the Holocaust have been told. Students will work largely on projects based upon literature and engage in online discussions with their peers. At the end of the course students will be creating a

community action project based upon their course findings. Success in this course will require students to be self-motivated and consistently engaged. **Prerequisites:** none

### **20th Century US History - Grade 11**

This semester-long course examines the history of the United States from the 1900s to the 1960s with an emphasis on how political, economic, and social developments shaped the conditions, attitudes, and values of present-day America. Subjects to be discussed in readings and in class include the Roaring Twenties, WWI, the Great Depression, Roosevelt's New Deal, World War II, the Cold War, the Civil Rights movement, the Vietnam War, the student protest and counterculture movements of the 1960s. This course will develop basic skills in the discipline of history. Primary among these is the skill of substantiating, and communicating historical arguments and interpreting primary source materials. **Prerequisites: None**

### **19th Century US History - Grade 11**

This semester-long course will introduce students to the “Gilded Age” in the United States, which took place in the late nineteenth century. We will consider how inequality became a rising issue during this time, how economic systems affect society, and how the United States became a world power. Students will investigate both primary and secondary sources to arrive at a deeper understanding of significant moments of change, continuity, and connection in the United States during this particular period of history. **Prerequisites:** None

### **US Monuments & Memories - Grade 11**

This semester-long course will introduce students to the ways in which monuments both capture and shape historical memory. Students will explore examples of monuments from the US and around the world in order to better understand the events and people they memorialize and why these memories are important to each of these societies.

### **Comparative Mythology - Grade 11**

This semester-long course will survey stories from around the world, focusing upon myths other than the traditionally taught Greek and Roman myths. Students will read and analyze stories from the past to make connections to historical events, cultural beliefs, and current events. Specific focus is given to Ancient Egypt, Norse mythology, Abenaki culture, Far Eastern stories, and also the legends of King Arthur and Robin Hood. Students will be reading out loud every week, and will be keeping journals of reading notes. Several projects are involved as well. **Prerequisites:** None

## Science

### **New England Landscape (NEL) Honors - Grade 9**

This year-long course will cover all Earth Science topics with an emphasis on the natural geologic history of our area in an attempt to discover how our present landscape was formed and why it appears the way it does today. Several field trips include hiking the major peaks of Vermont and New Hampshire and visiting other local points of interest. These field trips will be a critical part of the course and will be mandatory. Required projects, which relate to the field trip activities, will be completed and presented. **Prerequisites:** Enrollment in NEL is based on three criteria: teacher recommendations, student application responses, and classroom behavior. Students must be self-reliant and able to finish assignments consistently on their own, able to work well in groups with peers, and have a sincere interest in the outdoors, hiking and science.

### **Earth Science CP - Grade 9**

This is a year-long, hands-on, standard introductory course covering the subjects of Geology, Meteorology, Oceanography, and Astronomy. Methods of instruction include lecture demonstration, hands-on laboratory activities, self-guided projects, and audiovisual presentation. Basic science skills are reinforced through laboratory experiences. Topics of study include earth materials and structure, the rock cycle, weathering and erosion, earthquakes and volcanoes, plate tectonics, geologic history, oceanography, atmospheric composition and processes, weather, stars and galaxies, and the solar system. **Prerequisites:** None

### **Biology CP and General Level - Grade 10**

This year-long course is designed to serve as an introduction to the science of Biology. Emphasis is placed on basic structure (anatomy) and function (physiology) on both the cellular and organism level. From this basis, other aspects of biology such as embryology, genetics, microbiology, and ecological relationships may be explored. Lab experiences and technique(s) are stressed throughout the course. Students who are recommended for the General level Biology will have specific accommodations. **Prerequisites:** None

### **Biology Honors - Grade 10**

This year-long course is an introduction to the science of Biology. Study will include learning about the scientific process and living organisms-including cell structure and function; a survey of the major kingdoms of organisms; selected topics in human anatomy, physiology, genetics and reproduction; and an introduction to major ecological concepts. The honors class will move at a fast pace and students will be expected to cover more material **Prerequisites:** Successful completion of NEL or teacher recommendation, entrance to this class is governed by the protocol for Honors and AP classes.

### **Chemistry With Lab Honors - Grades 11-12**

This year-long course is designed to prepare students who wish to continue their studies related to science in high school and after high school and for students who plan on enrolling in AP or Advanced Biology. This course is designed to study such topics as; scientific methodology, matter and energy, atomic structure, stoichiometry, phases of matter, the periodic table, chemical bonding, acids and bases and an introduction to organic chemistry. Formal selected laboratory experiments permit the student to observe chemical reactions and measure the behaviors illustrated. The laboratory studies enable the student to develop good techniques in the use of instruments and equipment and in the formal reporting process. Extensive independent reading and note-taking experience is required in order to be prepared for lectures and lessons. Students who are most successful in this course have received a B or better in College Preparatory Biology course. **Prerequisites:** Entrance to this class is governed by the protocol for Honors and AP classes. This course is offered as Dual Enrollment through CCV.

### **Chemistry with Lab CP - Grades 11-12**

This year-long course is designed for students who have demonstrated proficiency in studying science and who have exhibited an interest in and enthusiasm for science. This course is intended to help students realize the important role that chemistry will play in their personal and professional lives. Topics include chemistry laboratory skills, the classification and structure of matter, ratio and proportion of chemical reactions, physical chemistry, acid-base chemistry, kinetics, thermodynamics, electrochemistry, and organic chemistry. The ability to carry out systematic thought processes in making decisions and solving problems (critical thinking) and inquiry (solving problems through scientific investigation) are stressed in this class. **Prerequisites:** Algebra I or the equivalent and enrollment in math while in this course.

### **Physics with Lab CP and Honors - Grades 11-12**

This is a year-long introductory course designed for students who are planning to attend college or pursue post-secondary technical training. Algebra based complex problem solving skills, and analytical laboratory experience are the three components of this program. Instructional methodologies include lecture/demonstration, audiovisual presentations, use of text resources, quantitative and qualitative problem assignments, and a blend of both traditional and inquiry based laboratory investigations. Major topics of study include motion and forces; mechanical energy and waves; and electromagnetism. **Prerequisites:** Algebra I and Geometry, Algebra II and Chemistry strongly recommended.

### **Science & Society - Grades 11-12**

In this semester-long course students will explore topics in science and the world around us. Each quarter will focus on a different aspect of human interaction with the world and how science is integral to that interaction. Semester 1 will explore medicine and disease, and our

changing planet. Possible topics include antibiotic resistance, vaccines, and disease and human impacts stemming from CO<sub>2</sub> production, mining, and forestry. Semester 2 will explore water topics, and digital technology. Possible topics include water rights and policy, and the scientific principles behind wifi, cellular devices, and internet transmission technologies. Student interest will drive the focus of selected topics. **Prerequisites:** None

### **Environmental Science - Grades 11-12**

In this semester-long course students will focus on Biology and Earth Science topics to help us understand environmental issues as well as human impacts on the environment. This course explores current events, ecological studies, sustainability and conservation practices, and climate trends. **Prerequisites:** None

### **NEL2 (New England Landscapes 2) - Grades 11-12**

This semester-long course focuses on topics around ecology and the environment while exploring the natural and cultural histories of New England, especially in Vermont and New Hampshire. Important environmental issues will also be discussed and studied. Along with learning about these topics, we also do some self-exploration about what draws and/or connects us to the world around us. Experiential learning through hiking is a major component of this course. **Prerequisites:** None

## Math

### **Pre-Algebra - Grade 9**

This year-long course focuses on developing fluency with rational numbers and proportional relationships. Students will extend their elementary skills and begin to learn algebraic concepts that serve as a transition into formal Algebra and Geometry. They will learn to think flexibly about relationships among fractions, decimals, and percents. Students will learn to recognize and generate equivalent expressions and solve single-variable equations and inequalities. Students will investigate and explore mathematical ideas and develop multiple strategies for analyzing complex situations. They will analyze situations verbally, numerically, graphically, and symbolically. Students will apply mathematical skills and make meaningful connections to their life experiences. **Prerequisites:** None

### **Algebra I CP - Grade 9**

This year-long course is recommended for all students and is the typical entry point for high school mathematics for ninth graders. Topics in the course include linear equations and inequalities, graphing models and tables, exponential equations and growth rate, direct and inverse proportions, introductory probability, ratios, percentages, sequences and series. **Prerequisites:** None

### **Geometry CP- Grade 10**

This year-long course deals with the relationships that exist between geometric content and geometric applications in the physical world. A study of geometric reasoning and the writing of proofs will be developed. Techniques for constructing geometric figures will be developed both manually as well as using technological tools. Major areas to be covered include triangles, other polygons, circles, area, volume, transformations and coordinate geometry. **Prerequisites:** Successful completion of Algebra I

### **Algebra II CP - Grade 11**

In this year-long course there will be an intensive study of linear and quadratic functions as well as exposure to polynomial functions. The exponential and logarithmic functions will be introduced. Graph behaviors will be explored with respect to all these functions. Trigonometric concepts will be expanded beyond right triangles. **Prerequisites:** Successful completion of Algebra I and Geometry or teacher recommendation.

### **Geometry Honors- Grade 9**

This year-long course will provide students with an accelerated study of Geometry in preparation for the study of advanced algebra concepts and ultimately Calculus. This course deals with the relationships that exist between geometric content and geometric applications in the physical world. The writing of proofs and a study of geometric reasoning will be developed. Techniques for constructing geometric figures will be developed both manually as well as using technological tools. Major areas to be covered include triangles, other polygons, circles, area, volume, transformations and coordinate geometry. **Prerequisites:** 8th grade Algebra I, entrance to this class is governed by the protocol for Honors and AP classes.

### **Algebra II Honors- Grade 10**

This course is designed to meet the needs of the student who is looking for a challenging preparation for the study of Pre-Calculus and AP Calculus. There will be an intensive study of linear and quadratic functions as well as exposure to polynomial functions. The exponential and logarithmic functions will be introduced. Graph behaviors will be explored with respect to all these functions. Trigonometric concepts will be expanded beyond right triangles. It is recommended that you purchase a T1-83+ or T1-84 calculator. **Prerequisites:** Entrance to this class is governed by the protocol for Honors and AP classes. Honors Geometry or teacher recommendation.

### **Statistics CP - Grade 12**

This year-long course covers statistical concepts used in many fields of study and areas of employment. This course will introduce students to methods of data analysis and interpretation. Both descriptive and inferential statistical methods and concepts will be studied. **Prerequisites:**

Successful completion of Algebra II (or higher) or teacher recommendation. This course is offered for college credit through WMCC Running Start.

### **Calculus AP - Grade 12**

This course is designed to prepare students for the AP Calculus AB exam, which is given each year in May. It consists of the following parts: a) Differential Calculus – Topics included in this course are rates of change, limits and continuity, derivatives and applications of derivatives. b) Integral Calculus – This course is a continuation of Differential Calculus. Topics included in this course are definite integrals, differential equations, mathematical modeling, and applications of definite integrals. **Prerequisites:** Entrance to this class is governed by the protocol for Honors and AP classes. Pre-Calculus recommended.

## Fine Arts

### **High School Chorus - Grades 9-12**

Chorus is open to all students. Basic choral techniques and musicianship are studied and practiced through a variety of choral literature in various styles, languages and cultures. Students are expected to perform in the Winter and Spring concerts. **Prerequisites:** None

### **High School Band - Grades 9-12**

Band is an ensemble course that focuses on performance skills. Students will work to develop individual instrumental technique, ensemble/listening skills, musicianship skills, and general knowledge of instrumental music. Band is open to all students who play a band instrument or would like to learn. Piano players, guitar players, or other non-traditional concert band instrumentalists may sign up, but will be expected to play with the ensemble and complete the same assignments. (and encouraged to try a concert band instrument.) Students are expected to perform in the Winter and Spring concerts. The class will be differentiated in a way that allows for both beginners and experienced players to play at their appropriate skill level. **Prerequisites:** One year of study on a band instrument or permission of instructor

### **Guitar Study I - Grades 9-12**

This course is designed for students who have little to no experience with guitar. Students will work to develop guitar technique, chord vocabulary, listening skills, musicianship skills, and be able to play songs of their choosing at an intermediate level. **Prerequisites:** None

### **Guitar Study II - Grades 9-12**

This course builds on skills and knowledge developed in Guitar Study I. Students will continue work with guitar technique, chord vocabulary, listening skills, musicianship skills, and general knowledge of guitar-related topics. Course assignments will focus mostly on individual and

small group assignments, to meet the specific needs of each student. **Prerequisites:** Guitar I or instructor permission

### **Modern Band - Grades 9-12**

This is a hands-on course that utilizes popular music as its central genre. Modern Band teaches students to perform the music they know and love and to compose and improvise. Styles that are studied include rock, pop reggae, hip-hop, rhythm & blues, electronic dance music, and other contemporary styles as they emerge. Modern Band also utilizes (but is not limited to) the musical instruments that are common to these genres; guitar, bass, drums, piano, voice, and technology. No prior instrumental experience needed. **Prerequisites:** None

### **American Popular Music - Grades 9-12**

This course explores topics in American popular music, including rock, country, hip-hop, folk, pop and other related styles. The scope of the course ranges from early roots to modern performing artists. It will focus on the history and development of different styles, key artists and compositions, and will strengthen students' listening skills. **Prerequisites:** None

### **Introduction to Art - Grades 9-12**

Where does art begin and where will the art trends be in the future? Learn to control line, color and shape to create realistic and abstract 2-dimensional art. We will use charcoal, pencil, pastel, pen and ink and of course paint. Students will be asked to research and use that to inform their own work. Students will reflect on their work and the work of others. **Prerequisites:** None

### **Ceramics - Grades 9-12**

Ceramics is a project-based course that will focus on the techniques and science of clay. Students begin by developing and becoming familiar with the foundational components to creating with clay. Students will explore artists' styles, universal themes and historic/cultural perspectives. They will work with the Elements and Principles of Design to develop ways of translating work from concept into functional and nonfunctional pieces of art. Students will review familiar and explore new ceramic media and applications. They will choose ceramic processes to create pieces that will effectively convey their ideas. Students will get their hands and possibly their clothes dirty, as clay can be messy. We will work with hand building and wheel techniques and try our hands at pit firing if time and weather permit. **Prerequisites:** None

### **Advanced Ceramics (Mud Studio) - Grades 9-12**

Students will learn more advanced skills such as making a series or graduated sizes of pottery, They will explore more advanced decoration and glazing techniques, such as raku, making a glaze, inlay and mold making. Students will have more time on the wheel to explore shape and

form in clay. We will experiment with glazes and wax resist and slips. Students will develop ideas for their own projects. This course is highly individualized and requires a student who can be self motivated, to keep on schedule and finish their work. **Prerequisites:** Ceramics

### **Digital Photography - Grades 9-12**

We will learn how to see through the lens of a camera. Why did we invent cameras in the first place? How did those early cameras work? Science and art overlap in these early days and we will take a look at the who and how of early photography. We will also have many different photo assignments that will mimic real world photo assignments and careers - magazine covers, fashion shoots, action photography and photoshop editing. **Prerequisites:** None

### **Art History - Grades 9-12**

Through many videos, images and hands-on projects, this course will follow art from its very first roots in known civilizations and continue through history to the Baroque period and into the American Hudson Valley School of art. Students will have research, lecture and hands on projects to work on, while exploring and learning about western european art. We will look at the ancient Egyptians, the Greeks and Romans and Italy in the Renaissance. Ultimately we will try to figure out how American art fits into this world view and why. Students will use clay, paint and other art materials to make their own versions of famous works of art. They will need to be able to reflect and talk about their work and the work of others. **Prerequisites:** None

### **Drawing and Painting - Grades 9-12**

Similar in many ways to Intro to Art, except we will only focus on drawing and painting skills. We will take a theme, like gardens, and use that theme to help us explore how to draw with pencil and charcoal, the history of our american drawing aesthetic and how to use acrylic paints in a very realistic manner. The Culminating project will be a large acrylic painting and this will be almost an entire marking period grade. Students will need to be able to pace the way they work to fit into our marking period system. **Prerequisites:** None

## World Language Program

### **Spanish I - Grades 9-12**

This is an introduction to the basic skills that you will need to communicate. Each day you can expect to not only hear but also practice speaking your Spanish! Emphasis in this classroom is placed on building a sense of community where we can all feel comfortable playing with the language out loud. We'll move slowly and we'll focus on getting a deep understanding of the most basic pieces of speech rather than memorizing lots of lists and grammar rules.

**Prerequisites:** None

### **Spanish II - Grades 9-12**

This course is a deeper investigation of the Spanish language and culture. In-person classes will focus on 25 minute chunks of comprehensible input followed by extension activities. By the end of the year students will be able to sustain longer conversations on specific topics, comprehend simple dialogues of native speakers, and read novelas. Emphasis in this classroom is placed on building a sense of community where we can all feel comfortable playing with the language out loud. Instruction continues to focus on comprehensible input and hearing the language in context. **Prerequisites:** Successful completion of Spanish I

### **Spanish Conversation and Culture - Grades 10-12**

In this course students are encouraged to find and access an increasingly wide variety of authentic resources. Expanding vocabulary and increasing proficiency occurs through the lens of Latin American and Spanish cultural studies. Instruction focuses on helping students navigate the authentic language they encounter via the digital and real world. Students will also spend a significant amount of time investigating how to be a cultural ambassador that invites diversity into our community. **Prerequisites:** Successful completion of Spanish II

## Physical Education and Health

### **PE 9 - Grade 9**

This course provides students with opportunities to develop and improve their skills in the areas of team building, sportsmanship, group interactions, and problem solving. Activities may include team sports, individual and small group activities, indoor and outdoor activities, and activities that may be weather dependent. **Prerequisites:** None

### **Health 9 - Grade 9**

Health is designed to provide students with the awareness, knowledge, and skills needed to make proper decisions about the numerous health-related issues that confront every individual and family during one's lifetime. Emphasis is placed on a practical and realistic approach to health issues such as AIDS education, preventive medicine, alcohol and drug abuse, family and social health, and environmental health. Fun group discussions, hands-on projects and presentations are a big part of this course. **Pre-Requisite Courses:** none

### **Lifelong Activities - Grades 10-12**

This course will focus on activities that can be carried through adulthood. These may include racket sports, corn hole, horseshoes, archery, golf, bowling, hiking, survival skills and more. Students in 9th grade will be required to participate in the VTPEA (FitnessGram testing) once a year. **Prerequisites:** None

### **Team Sports - Grades 10-12**

This course focuses on team activities, team building, sportsmanship, and the group process. Activities may include floor hockey, basketball, soccer, kickball, matball, punchball, capture the flag, softball, etc. **Prerequisites:** None

### **Fitness - Grades 10-12**

This course focuses on personal fitness and growth. Physical fitness involves the performance of the heart and lungs, and the muscles of the body. And, since what we do with our bodies also affects what we can do with our minds, fitness influences to some degree qualities such as mental alertness and emotional stability. Students will be using their body weight along with equipment in our weight room to work on their personal fitness. Students will design a full month calendar of workouts and set weekly goals for themselves. **Prerequisites:** None

### **Health - Grades 10-12**

Health is designed to provide students with the awareness, knowledge, and skills needed to make proper decisions about the numerous health-related issues that confront every individual and family during one's lifetime. Emphasis is placed on a practical and realistic approach to health issues such as AIDS education, preventive medicine, alcohol and drug abuse, family and social health, and environmental health. **Prerequisites:** For students who did not fulfill the freshman health requirement.

## **River Bend Career & Technical Center**

Juniors and seniors, as part of their Personal Learning Plan, can choose to apply to a variety of courses that will prepare them for a career or to seek additional training in a career field at a trade school, technical school, or college. Interested juniors and seniors must complete the required application online and attend an Open House or onsite visit. Any student with an interest in career and technical education must have a meeting with their school counselor and parents to determine how this is aligned with their career path, which is then incorporated into their Personal Learning Plan.

### **Half and Full-Day Programs**

For successful completion of each year in a River Bend program, Oxbow awards 2.5 elective credits and .5 credit of a specified embedded subject area as aligned with the program curriculum and each student's Personal Learning Plan.

## **21st Century Media and Design**

Weaving together the artistry of story-telling and the illusions of student-created digital universes, River Bend's 21st Century Media and Design students create art that leads others into new worlds of experience. 21st Century students explore how visual imagery works in multiple digital platforms such as game making, programming, character creation, creative writing, graphic design, and various forms of animation. Students incorporate elements and principles of art to produce rich content which will then be marketed and promoted on the World Wide Web. Get your Game FAQs in line: Bethesda Studios and Ubisoft await you.

## **Automotive Technology**

The careers related to River Bend's Automotive Technology program require attention to the latest technology and delivery of excellent service and repairs. With the backing of our N.A.T.E.F. certified auto program, students diagnose and repair engines, brakes, steering, electrical systems, and suspensions. River Bend's college articulation agreements with Northwestern Ohio University guarantee a higher standard of instruction and opportunity for advanced study beyond high school. Our fully-equipped auto shop hosts nine service vehicles at a time, delivering daily hands-on training with industry-recognized instruction.

## **Construction Technology and Residential Energy**

The Construction Technology/Residential Energy (CTRE) curriculum provides technical training in all aspects of residential construction, with an emphasis on energy efficiency and alternative energy. Building design, blueprint reading, estimating, safety on the work site, building codes, site work, foundations, stairs, timber framing, insulation envelopes, stress skin panels, roof systems, framing, and finish work are all part of the process. There is an emphasis on alternative, renewable energy sources (solar, wind, biomass) and the latest energy efficiency technologies and designs. Students will also be introduced to the operation of heating, ventilation, and air conditioning (HVAC) systems. Students will use acquired knowledge to design and build projects of various sizes and complexity.

## **Cosmetology**

Careers in the growing specialties of the beauty industry lead to a transformation of customers' confidence and happiness in a busy world. The study of hair, skin, and nails in River Bend's Cosmetology program allows students to earn up to 700 hours towards the 1500-hours required for state licensure. Instruction covers everything from the chemistry of changing hair color, to essential skin care, make-up for daily and theatrical applications, and nail techniques. Students design and create their own salons, practicing entrepreneurial skills while studying the economics of business. Year two of this program is a full-day.

### **Criminal Justice and Public Safety**

The Criminal Justice/Public Safety program introduces students to different career opportunities in the Criminal Justice/Public Safety/Emergency Management fields. This program will help influence students in making informed life decisions regarding his or her behavior, which might impact a future career decision. Students participating in the Criminal Justice & Public Safety program will encounter a challenging and dynamic class schedule. The experiences and certifications earned will assure easy employment after completion. Preparation for post-secondary education will be a focus.

### **Culinary Arts**

Preparing for a creative and rewarding career in culinary arts begins at The Inn at River Bend. Students learn food science theory and develop real world skills in our commercial kitchen, preparing for careers as chefs, restaurant owners, personal chefs, nutritionists, and bakers. Internships and River Bend Inn experiences focus on restaurant management, cooking methods, food safety, nutrition and teamwork. Our program will prepare students with a complete restaurant experience. Students discover their own creative talents as they learn to combine ingredients and develop their own palate.

### **Diversified Agriculture and Natural Resources**

Combining a love for outdoor careers with science-based learning, Diversified Agriculture and Natural Resources students explore connections between ecological stewardship and resource production. Topics range from forestry and chain saw safety to greenhouse operation and sustainable farming. Students have hands-on training that leads to Game of Logging certifications, orchard planting and pruning, and analysis of the economics of farm and forest production. Career interests of graduates range from conservation law enforcement, agricultural sciences, beef and dairy management, and horticultural production.

### **Emergency Services**

The adrenaline rush for students training to save lives in the Emergency Services field has few equals in the world of work. Firefighters and EMT professionals provide essential critical responses to people in crisis. Sick and injured people depend on a highly skilled, highly trained workforce to provide emergency care to survive natural disasters, traumatic crashes and accidents, and life-saving care and transportation in medical emergencies. Certifications in EMT, Firefighter 1, and college credits support a dynamic academic and practical curriculum.

### **Health Science Technology**

Medical career training at River Bend's college preparatory Health Science Technology program offers students a fast track to a science related field. The labs, internships, and 12-credits of college coursework in the study of the human body, medical terminology, nutrition, and

psychology are supplemented by clinical skills. Training opportunities at area hospitals, nursing homes, veterinary hospitals, and doctors' offices provide real-world experiences that lead students down the path toward the medical careers that continue to offer rewarding work in high-demand industries.

### **Heavy Equipment Operations**

Students considering careers in welding, CDL transportation, and operation of heavy equipment will find hundreds of hours of hands-on training in River Bend's Heavy Equipment program. Learning to operate excavators, 18-wheelers, loaders, Skidsteers, backhoes—over 18 pieces of heavy equipment—will lead students towards employment in careers that relate to construction and transportation. Units include road building; construction strategies; Mig, TIG, and stick welding, and plasma cutter operation; and heavy equipment operation, maintenance, and repair.

### **Teacher Education**

Teacher Education program prepares students with a desire to work with children of any age in a variety of educational roles - from preschool to high school classroom teachers. Topics covered include foundations of education, theories of development and learning, classroom management, lesson planning, methods of instruction, special education, and assessment. Education is a field which has a wide range of environments, learning, and work opportunities. Students who complete the Teacher Education program are beginning the preparations to work in P-K through grade 12 schools. In addition, they will be exploring careers which support children who are outside of the classroom environment.

### **Cyber Security**

The Cyber Security program prepares students to assess the security needs of computer and network systems, recommend safeguard solutions, and manage the implementation and maintenance of security devices, systems, and procedures. Students in this program should like working with computers, have strong math skills, and want access to cutting edge technology. Topics include computer networks, operating systems, computer architecture, programming such as C++, and more. Dual enrollment courses will be available to earn college credit. This program is taught at satellite campuses: Woodsville High School and Thetford Academy.

## High School Elective Descriptions

(1-period classes, for grades 9-12)

### **Woodworking I**

This is a course designed to introduce students to general woodworking projects and skills. Students will gain knowledge and skills through the completion of various projects during the

semester. They will be expected to learn about and safely use hand tools, power tools, and woodworking machinery in the shop. Students will be given the opportunity to design and build individual projects based on their student interest. They will learn how to finish projects with stains, paints, and/or clear coat finishes.

### **Woodworking II**

This is a course designed to build upon skills learned in Woodworking 1. Students will expand their knowledge and experience through various projects, lessons, and vocabulary. They will be expected to continue to learn about and safely use hand tools, power tools, and woodworking machinery in the shop. Students are expected to design and build more complex projects, including the use of doors and drawers in cabinets. They will learn to do cost estimates. Students will study different hardwoods and softwoods to determine their best use in individual projects.

### **Blacksmithing/Metalsmithing 101**

Students will learn the basics of metalworking including oxy-fuel torch, MIG, Stick and TIG welding processes, plasma cutting, and blacksmithing. Emphasis will be placed on shop safety, proper use of equipment, hand and power tools. Beginners practice techniques and complete small projects to learn about the tools, equipment, and develop skills. Intermediate students work on independent and larger group based projects. This course also covers project design, measuring systems, metallurgy, and fastening systems. Students are encouraged to explore their artistic side with metal, wood, and other materials, and can apply their learning towards an art elective credit.

### **Working Landscape**

Students develop connections to our region's agricultural and natural ecosystems through hands-on and experiential learning. Students work as a group on seasonally driven projects such as cider pressing and maple production; as well as identify, develop, and complete projects emerging from connected personal interests. Some areas of potential research are: Forest and wildlife management, value added wood products, diversified farming and food production, wildcrafting, understanding our natural and agricultural heritage, nature based art, water quality, land stewardship and areas of environmental concern.

### **Multimedia Applications**

The Multimedia Applications class prepares students for applying modern technology to their lives, and to prepare for future classes and careers in technology. Students will learn the concepts behind the Windows environment to create simple games, visual and audio media, and interactive animations. Students will also learn and write about current trends in technology, collaborate using Google's free online suite, and create a unique final project, which is a culmination of the students' work.

### **3D Design**

The 3D Design class prepares students for applying modern technology to their lives, and to prepare for future classes and careers in interactive technology. Students will learn the concepts behind Autodesk Maya, 3DS Max, Unity Engine, Sculptris, and Mudox. 3D Objects and prints, simple environments, visual and audio media, and interactive animations will all be constructed and explored. Students will also research current trends in 3D environments and their applications in commercial, medical, and educational fields.

### **Culinary Exploration**

This class will provide a culinary introduction, with students following along with level I Culinary program students. Try Culinary Arts on for size in an elective format to see if the full program is a good fit for you!