

Black River High School

Program of Studies 2009-2010

Student and Parent Guide

CONTENTS

Principal's Message	1
Mission Statement and Educational Philosophy	2
School-wide Expectations	3
Planning Your Academic Program	4
Graduation Requirements	4
Suggested Sequence of Courses	4
Schedule Changes	5
Related Information	5
Course Descriptions	7
English	7
Mathematics	9
Science	11
Social Studies	14
Computer Studies	16
Foreign Language	17
Art and Music	19
Physical Education	20
Driver Education	21
Virtual High School/CCV	21
Technical Education	23
Four Year Planner	29

Black River High School and Middle School



Jim Frail
Principal
802-228-4721

43 Main Street ♦ Ludlow, Vermont 05149
FAX 802-228-7233

Elizabeth McBain
Guidance Director
802-228-3132

Spring 2009

Principal's Message

Dear Students:

This Program of Studies is prepared to assist you in planning your overall high school program and in selecting courses for your remaining years at Black River High School. The course descriptions provide you with an overview of the courses offered here at BRHS. Graduation requirements and other information are also included for you to review and consider as you plan your individual program.

You should carefully consider your educational and career goals before deciding on specific courses to include in your program for next year. Your choices should be made based on a plan for your future and your abilities, interests, and needs. After considering this information and making some tentative choices, you should consult with your parents, your current teachers, and your guidance counselor to discuss your plans and course selections. We encourage you to select courses that will be challenging and will meet your needs and plans.

Your guidance counselor and teachers are very willing to help you in making course selections and can provide you with insights about the program. Students and parents who have questions concerning information in this booklet or about the course selection process are encouraged to call the school. Please take advantage of the help available at the school to insure you plan a meaningful, satisfying high school experience that will help you prepare for and succeed in your life after high school.

Final responsibility for planning your high school program rests with you and your parents. You have many educational opportunities available to you at Black River High School. Let us help you take advantage of those opportunities as you plan a program that will provide for your continued growth and development and will meet your individual needs and goals.

Sincerely,

A handwritten signature in cursive script that reads "James Frail".

James Frail
Principal

BLACK RIVER HIGH SCHOOL AND MIDDLE SCHOOL

MISSION STATEMENT

The Mission of Black River High School and Middle School is to provide a quality education, appropriate for all students, that develops skills for life-long learning.

- We believe the purpose of schooling is to provide quality education that is appropriate for each student and helps each student develop life skills.
- We believe that students need to learn communication skills, respect for themselves and their surroundings, and the value of education.
- We believe students learn best when they are treated with consistency and fairness in an environment of mutual respect where they are challenged with programs appropriate to their abilities and learning styles.
- We believe teachers should provide an environment conducive to learning, be responsive to students needs, and facilitate the learning process.
- We believe administrators should provide and facilitate educational leadership and maintain open communication and high educational standards.
- We believe parents and community should be supportive, become actively involved in their school, and feel welcome at the school.

EDUCATIONAL PHILOSOPHY

We believe that well-educated citizens are our nation's most valuable resource: Therefore, we are committed to providing public education of the highest quality. In meeting this challenge, the educational programs at Black River High School must be both comprehensive and purposeful in their efforts to provide students with meaningful exposure to a wide variety of academic and career alternatives, enabling them to compete in the local, national, and international job markets.

Black River High School is committed to producing graduates who possess the basic skills needed to continue learning, recognize their strengths and potential for success and set attainable goals based on their abilities and interests.

The administration and staff recognize that discipline is an essential part of the learning process. Accordingly, a safe and orderly atmosphere of trust and mutual respect between faculty and students is a vital ingredient in making this education process successful, as is the cooperation and support of parents and the community.

SCHOOL-WIDE EXPECTATIONS FOR STUDENT LEARNING

The following School-wide Expectations for Student Learning were developed by the faculty at Black River High School/Middle School in accordance with the New England Association of Secondary Schools standards for accreditation. In addition to the traditional classroom assessments, beginning the 2005/06 school year teachers shall base classroom assessment of student learning on school-wide and course specific rubrics.

Academic Expectations

All Black River High School students will:

1. Communicate effectively and demonstrate understanding through expression
2. Write effectively for a wide variety of purposes
3. Read critically to understand, interpret, and respond to a variety of materials
4. Use effective reasoning and questioning strategies
5. Solve problems and conduct research in various fields of knowledge
6. Use technology appropriately to gather and communicate information, ideas, and concepts

Social and Civic Expectations

All Black River High School students will:

7. Demonstrate respect for others and for themselves
8. Develop satisfying, productive, and collaborative relationships with others
9. Develop skills needed to make healthy lifestyle choices and informed decisions
10. Take an active role in service to the school and community

PLANNING YOUR ACADEMIC PROGRAM

The Guidance Department of Black River High School makes available this handbook as a guide to your high school academic program. You must remember that the recommendations are general. The only true program is one that you have chosen with:

1. Careful and resourceful consideration
2. Your future in mind
3. Counseling and advisement with an eye to employment trends
4. Postsecondary school prerequisites

Parents are encouraged to contact the Guidance Director with any questions or concerns about the course selection process at 228-3132.

Graduation Requirements and Recommended Program for College

<u>Minimum Requirements for Graduation</u>	<u>Recommended Program for Competitive Colleges</u>
English 4 Credits	English 4 Credits
Mathematics 3 Credits	Mathematics 4 Credits
Science 3 Credits	Science 4 Credits
Social Studies 3 Credits	Social Studies 4 Credits
Health .5 Credit	Foreign Language 3-4 Credits (consecutive years)
Art/Music 1 Credit	Health .5 Credit
Physical Education 1.5 Credits	Physical Education 1.5 Credits
Electives <u>12 Credits</u>	Art/Music 1 Credit
Total 28 Credits	Electives 9-12 Credits

Total of 28 Credits is required for graduation.

Specific course requirements include selected English courses, U.S. History/AP U.S. History, and World History as noted under the Course Descriptions. Each student also must carry a minimum course load of seven (7) credits each year while carrying no fewer than three and a half (3 1/2) credits each semester.

Suggested Sequence of Courses

Freshman

English
 Integrated Math I
 World History I
 Physical Science
 Foreign Language
 Physical Education
 Electives:
 Art/Music/Computer Courses

Sophomores

Mythology and Writing
 Integrated Math II/III
 World History II
 Laboratory Biology
 Foreign Language
 Health
 Driver's Education
 Physical Education
 Electives

Juniors

American Literature or Honors English
 Integrated Math III/Pre-Calculus
 US History or AP US History
 Lab Chemistry or Practical Chemistry
 Foreign Language
 Electives
 Technical Program

Seniors

British Literature or AP English
 Trigonometry or Calculus
 AP US History, Psychology, or Contemporary Problems
 AP Biology, Laboratory Physics, or Advanced Chemistry
 Foreign Language
 Electives
 Technical Program

As a school, we are committed to providing a quality education for all students through a range of courses that allow all students to meet the graduation requirements. When planning a program for your remaining years at BRHS, you should remember that the courses listed in the Program of Studies are proposed course offerings and that selected courses are offered only in alternate years. Furthermore, actual enrollment, staffing changes, and budgetary constraints may result in changes or deletions to the program.

New Opportunity

Juniors and Seniors who have exhausted some of the curriculum options at Black River High School may be eligible to participate in a Virtual High School course. This course is offered online at Black River High School. Virtual High School offers over 150 full semester courses in the Arts, Foreign Language, Language Arts, Life Skills, Math, Science, Social Studies, Technology and AP Study to students. This collaboration of high schools share teaching and learning opportunities. More than 200 high schools are currently part of the VHS community. This opportunity will be able to expand on the present course offerings at Black River High School.

Schedule Changes

Change of Schedule Requests

Courses for the school year are chosen by the student and approved by teachers, parents, and the Guidance Director. Some course levels are determined by teacher recommendations. Classes and teacher assignments are arranged to accommodate the choices you make. Schedules are NOT constructed to accommodate later changes of mind. Therefore, any request for a change will be considered only for the most compelling of reasons. Such reasons are:

1. The schedule does not include a graduation requirement that must be met.
2. The schedule does not account for work taken during summer school.
3. The schedule has an error or omission.

If a student's schedule contains an error, an omission, or a similarly acute problem as outlined above, the student must initiate the change with his or her counselor. Schedule change requests are to be made during the two weeks prior to the opening of the school.

Adding Courses

Students may add courses for credit if there is room in the class. The request to add a course should be made to the guidance office during the two weeks prior to the opening of school or within the first week of the semester.

Dropping or Withdrawing from a Course

A request to withdraw from a course must be made during the first week of the new semester. If permission to withdraw from a course is granted, you must obtain a form from the guidance secretary. The request must be approved and the form signed by your parents, teachers, and guidance counselor. Completed forms must be returned to the guidance office.

Related Information

College Admissions and Testing

In evaluating applications, many colleges rely in part on objective tests, especially the ACT and the SAT. Each of these tests measures verbal and mathematical abilities. The ACT includes a section on science and reading. All college-bound sophomores and juniors are encouraged to take the PSAT given in October. Black River students expecting to apply for early decision/early action should take the SAT in May or June. Seniors who have not taken or who wish to retake the SAT may do so in the first semester of the senior year.

The SAT contains three sections: critical reading, mathematics, and writing. The critical reading section of the test focuses on sentence completions, and reading comprehension, both long and short reading passages. The mathematics section will reflect the mathematics that college-bound students typically learn during their first three years of high school. (ie. Integrated I, II and III). The SAT writing section will measure a student's mastery of developing and expressing ideas effectively. It will include both a multiple-choice section and a direct writing measure in the form of an essay. Specific colleges indicate their expectations for applicants concerning these exams and recommend high school courses in their catalogues or on their website. The Guidance Department with its catalogues and software programs has this information readily available.

Promotion Requirements

The promotion requirements for students are as follows:

Freshmen (Grade 9) will move to the Sophomore year (Grade 10) upon the attainment of seven (7) academic credits.

Sophomores (Grade 10) will move to the Junior year (Grade 11) upon the attainment of fourteen (14) credits.

Juniors (Grade 11) will move to the Senior year (Grade 12) upon the attainment of twenty-one (21) academic credits.

Students not attaining the above-mentioned academic credits will remain a member of the lower class (i.e., a Sophomore who attains less than 14 credits will be retained in the Sophomore class). Students who earn enough credits by the end of semester 1 will be considered a member of the Junior class. If such Junior is scheduled for enough credits to graduate and has passed all subjects at the end of the first semester, he or she will be considered a Senior and enjoy all the privileges of that class.

Student Records Review and Release

In compliance with the Family Educational Rights and Privacy Act of 1974, as amended, Black River High School provides students the right to inspect and review their educational records and to challenge the contents of these records to ensure that such records are not inaccurate, misleading, or in violation of the student's privacy or other rights. Until a student reaches the age of eighteen (18) or enters a postsecondary school, his or her parents have the right to access, but once the student turns eighteen (18) or enters a postsecondary school, the right moves from the parent to the student.

In addition, Black River High School will not release personally identifiable records to any individual agency or organization without prior written consent, except as provided by law. However, under federal law, the school is required to release students' names, addresses, and telephone numbers to military recruiters and institutions of higher education upon request unless a parent specifically requests in writing that no student contact information be released without the parent's consent.

Nondiscrimination Policy

In accordance with Title VI, Title IX, NCLBA, IDEA, Section 504 ADA, and federal and state law, it is the policy of Black River High School that no person shall be excluded from the participation in, denied the privileges of, or subjected to discrimination in any educational program or activity at the school upon the basis of race, color, national origin, creed or faith, gender, age, handicapping condition and/or disability, or sexual orientation. Inquiries concerning the application of these policies should be referred to the Superintendent of Schools, 8 High Street, Ludlow, VT 05149.

Courses are open to all students in Grades 9-12, unless prerequisites or restrictions apply. BRHS reserves the right to cancel or combine courses with low enrollment or other instructional service conflicts.

COURSE DESCRIPTIONS

ENGLISH

English courses at BRHS are designed to enable students to read, write, speak, and listen competently; to appreciate literature; and to understand how literature and writing relate to their lives and society.

To fulfill the four-credit English requirement for graduation, the following guidelines should be followed:

- 1 full credit from the English 9 course selections (Fiction/Writing Workshop or Fiction/Poetry/Drama)
- 1 full credit from the English 10 course selection (Mythology and Writing)
- 1 full credit of English 11 course selections (American Literature or Honors English)
- 1 full credit of English 12 course selections (British Literature, Contemporary Literature*, or Advanced Placement)

Students are also encouraged to take classes from the English Electives section. These courses do not count towards the four English credits needed for graduation.

English 9: Fiction/Writing Workshop

Grade 9

1 Credit

1 Semester or All Year

Students in this course will read a sampling of poetry, short stories, novels, and a drama. Students will maintain journals, develop an understanding of literary terms, expand their vocabulary, and practice basic grammar skills. Writing will include practicing literary devices through poetry, a narrative with dialogue, and developing response to literature with MLA documentation that meet or nearly meet a score 3 or the Vermont writing standards.

English 9: Fiction/Poetry/Drama

Grade 9

1 Credit

1 Semester

This course includes the analysis of poetry, discussion and acting of a drama, and an in-depth study of a novel. Students maintain journals, develop an understanding of literary terms, create storyboards to illustrate in-depth reading, publish a book of poetry, practice public speaking skills, and expand their vocabulary. Writing instruction includes using literary devices in original poetry and emphasizes developing responses to literature with MLA documentation that meet or exceed a score 4 of the Vermont writing standards.

English 10: Mythology and Writing

Grade 10

1 Credit

1 Semester

The primary focus of this course involves the study of Greek mythology, relating these to today's society. Students develop a vocabulary list, maintain a journal based on the literature they read, and create several projects. Outside reading is required nearly every day. While writing about the issues arising from these myths, students will be introduced to and practice a variety of essay types as prescribed by the Vermont Standards. Students will also learn about documenting sources using the MLA system. Other literary genres are read as well, including two plays and poetry.

English 11: American Literature

Grade 11

1 Credit

1 Semester

This course follows the chronology of American literature, relating each piece to the events and values of its time. Genres include poetry, essays, short stories, autobiography, biography, historical documents, historical narratives, drama, and the novel. Outside reading is required nearly every day. Vocabulary study continues and writing skills are extended through a variety of composition assignments, including MLA documented responses to literature and persuasive essays that include Works Cited, and personal essays. All writing is expected to meet or exceed a score 3 of the Vermont writing standards and some pieces need to meet or exceed a score 4.

English 11: Honors American Literature

Grade 11

1 Credit

1 Semester

Honors English is designed for juniors who have compiled an exemplary record in the study of English. The focus of the course is on close reading of literary works and the writing of analytical essays. American Literature will be covered in this class. Admission to the course is based on past performance in English classes and previous teacher recommendations. Students who do not maintain satisfactory progress may be asked to drop the class.

English12: Advanced Placement Literature & Comp.

Grade 12

1 Credit

1 Semester

AP English is designed for seniors who have compiled an exemplary record in the study of English. The focus of the course is on close reading of literary works and the writing of analytical essays. This class will be covering British and World Literature. This class along with Honors English will prepare seniors to take the Advanced Placement examination in May which may lead to advanced standing in college. Admission to the course is based on past performance in English classes and previous teacher recommendations. Students who do not maintain satisfactory progress may be asked to drop the class.

This class will require the student to take the AP Exam at the completion of the course. Exemptions for this exam are at the teacher's discretion.

English 12: British Literature

Grade 12

1 Credit

1 Semester

This course is designed to help students understand the origins of our language and develop an appreciation of the heritage of British Literature from *Beowulf*, *Chaucer's Canterbury Tales*, and *Shakespeare* to more modern works by 19th and 20th century authors. This course will also provide for a review of study skills such as note taking and outlining, opportunities to practice public speaking, further vocabulary development, a broader practice of MLA documentation, and a final sharpening of writing skills. All writing is expected to meet or exceed a score 3 of the Vermont writing standards and some pieces need to meet or exceed a score 4. This course is designed for a broad spectrum of student ability while being strongly recommended for students planning to attend college.

Contemporary Literature

Grades 11 or 12

1 Credit

1 Semester

Although comparable to British Literature in rigor, this English course focuses on contemporary issues and themes in literature. Fiction and nonfiction of the 20th and 21st centuries will form the basis for discussion, study and analysis. Students will be expected to demonstrate mastery of standards-based writing. In addition, workplace texts and writing will be explored. *Teacher permission needed to enroll in this course.

English Electives

Creative Writing

Grades 11-12

1 Credit

1 Semester

This course seeks to introduce students to the world of literature beyond the scope of American and British authors. In addition, students will write creatively in different genres, and these writing experiences will constitute the majority of their semester portfolio. There will be a minimum of expository writing, mostly limited to short in-class essays that check for reading comprehension and provide a basis for Socratic discussions.

Journalism

Grades 9-12

Half Credit Per Semester

All Year

This year long course will allow students to learn the fundamentals of journalism while also producing a school newspaper. Students will be asked to participate in all phases of newspaper production and be required to accomplish a wide variety of writing typically found in periodicals. This class is student centered and works well for self-motivated individuals who can take initiative and meet deadlines. Students may take this course as many times as desired.

Yearbook Production

Grades 11-12

1 Credit

First Semester and Outside of School for Second Semester

This course will utilize desktop publishing software to apply publishing design, layout and text writing skills. Students will be designing Black River High School's Banner Yearbook. Yearbook staff members should register for this course.

MATHEMATICS

The Integrated Mathematics program integrates topics traditionally examined in Algebra, Geometry, and Advanced Algebra. Major program goals are to improve student's conceptual understanding, reasoning, and problem-solving abilities in mathematics while improving student's mathematical skills.

Pre-Integrated Math

Grade 9

1 Credit

1 Semester

This course further prepares students for Integrated Math 1. Further explorations into Algebra and Algebraic applications are a part of this course.

Integrated Math I

Grade 9

1 Credit

1 Semester

This course is recommended for all students. Topics in this course include reflections, surface area, volumes, linear equations and models, exponential equations and growth rate, direct and inverse proportions, introductory probability, similarity, the Fundamental Counting Principle, and inequalities.

Integrated Math II

Grades 9-10

1 Credit

1 Semester

Topics in this course include matrix operations, right triangle trigonometry, measures of central tendency, geometric probability, volume and surface area, linear programming, transformational geometry, exponential laws and models, sampling, function transformations, and algorithms.

PREREQUISITE: Integrated Math I

Integrated Math III

Grades 10-11

1 Credit
1 Semester

Topics in this course include circular, polynomial, and rational functions and their transformations, logarithms, vectors, introduction to proof, sequences and series, transformational geometry, non-Euclidean geometry, combinatorics, parametric, normal distribution, and graph theory.

PREREQUISITE: Integrated Math II**Geometry**

Grades 9-12

1 Credit
All Year

Geometry provides students with experiences that deepen the understanding of two and three-dimensional objects and their properties. Deductive and inductive reasoning as well as investigative strategies in drawing conclusions are stressed. Properties and relationships of geometric objects include the study of: (1) points, lines, angles and planes; (2) polygons, with a special focus on quadrilaterals, triangles, right triangles; (3) circles; and (4) polyhedra and other solids. An understanding of proof and logic is developed. Use of graphing calculators and computer drawing programs is encouraged. Applications to real life situations are prevalent throughout the course.

PREREQUISITE: Pre-Integrated Math or Integrated Math 1**Consumer Math**

Grades 10-12

1 Credit
1 Semester

As each of us is a consumer, we must be aware of the mathematics involved in our daily lives. All of us need to be more aware of pricing, credit, taxes, etc. This course addresses these goals while fortifying a student's mathematics background. Banking and the services banks offer, consumer awareness and marketing, insurance, and other protections are a few of the many paths that this course can open for each student.

Pre-Calculus

Grades 11-12

1 Credit
1 Semester

This is a course in mathematical analysis. The function concept is the unifying concept for a large portion of this course: polynomial, logarithmic, and exponential. A rather extensive introduction to calculus is included since this follows logically from the foundation laid by the sections on limit and continuity. This course will prepare the student for a strong college freshman course in mathematics. Attention is paid to the use of the many rules and concepts learned throughout past mathematics courses. The applications should provide some answers to the question, "When are we ever going to use this?"

PREREQUISITE: Integrated Math III and teacher recommendation.**A TI-83 graphing calculator is needed for this course.** See teacher for details.**Trigonometry**

Grades 11-12

.5 Credit
1/2 Semester

This class takes the students' familiarity with trigonometric ratios and expands into trigonometric functions. A wide variety of applications will be explored, especially using the periodic functions. As time permits, we will introduce an entirely new way of locating points in a plane-polar coordinates. The use of technology, especially the TI-83 graphing calculator, will be stressed and encouraged. The purchase of one of these graphing calculators although not required is certainly strongly encouraged.

PREREQUISITE: Pre-Calculus and teacher recommendation.

Probability and Statistics

Grades 11-12

.5 Credit
1/2 Semester

This class is designed to give students the ability to calculate combinations and permutations as a foundation for their introductory study of probability and statistics. Probability is a field of mathematics of steadily growing importance, and statistics help students organize, summarize, and analyze data. Every opportunity to involve real-life applications and the use of technology, especially the TI-83 graphing calculator, will be encouraged. Although not required, the purchase of one of these calculators is strongly recommended.

PREREQUISITE: Pre-Calculus and teacher recommendation.

Calculus

Grade 11-12

1 Credit
1 Semester

This course is designed to prepare the student for calculus in college. Studies include derivatives, integrals, exponential functions, limits, and applications of each. This course is graphing calculator intensive and students will be expected to use the graphing calculator as a tool for in-depth analysis of functions. However, much non-calculator work will also be required. **PREREQUISITES:** Pre-Calculus and teacher recommendations required for enrollment.

AP Calculus

Grades 11-12

2 Credits
2 Semesters

This course is designed to be a college-level calculus course. Students who have completed this course and who pass the AP Calculus test in May are often allowed to skip or test out of college freshman calculus. Studies include derivatives, integrals, exponential functions, limits, and applications of each. This course is graphing calculator intensive and students will be expected to use the graphing calculator as a tool for in-depth analysis of functions. However, much non-calculator work will also be required. **PREREQUISITES:** 85 average in Pre-Calculus and Trigonometry, and teacher recommendations required for enrollment. It is also recommended, but not required, that the student score 600 or better on the math SAT.

SCIENCE**Physical Science**Grade 9
*Required*1 Credit
1 Semester

This course introduces and explores the very basic principles of general science, chemistry, and physics. Mathematics is stressed as the basic tool of science. Topics include classification of matter, forces and motion, energy, and the use of scientific models.

Laboratory Biology

Grades 9-12

1 Credit
1 Semester

This course is designed for the college-bound student. The course places major emphasis on the cellular level of organization of living organisms, and classification of organisms. Units to be studied include cell structure and physiology, cell reproduction, the structure and function of DNA and RNA, and inheritance of traits, followed by natural selection. Laboratory investigations will be used to reinforce the topics studied.

PREREQUISITE: Physical Science

Astronomy Grades 9-12 .5 Credit
1 Semester
This course will deal with studying various aspects of the universe. Topics may include: our solar system, types of stars, birth of stars, black holes, and existence of life elsewhere in the universe.

Ecology of Vermont Grades 9-12 .5 Credit
1 Semester
Ecology of Vermont will study the natural resources of Vermont and how they contribute to the human experience both past, present and future. Topics will include geography, geology, climate, water, plants, and wildlife. The material will be covered through readings, discussions, and in classroom labs.

Nutrition Grades 9 – 12 .5 Credit
1 Semester
This course will deal with how the human body gets energy from the foods we eat. In addition to analyzing various foods and food groups, a computer analysis of each student's diet will be performed and gone over in depth to determine the quality of that diet.

Practical Chemistry Grades 10-12 1 Credit
1 Semester
This course introduces and explores the practical principles of Chemistry. Atomic structure, phases of matter, and how atoms and molecules bond will be among the topics explored. Emphasis will be towards a hands-on approach to learning how the chemicals in our lives react with one another.
PREREQUISITE: Integrated Math I and Physical Science.

Laboratory Chemistry Grades 10-12 1 Credit
1 Semester
This course is structured for the college-bound student. The study of chemistry deals with the composition of matter and changes that it undergoes in various types of reactions. Topics of study may include energy and matter, atomic structure, bonding, periodic table, mathematics of chemistry, formulas and equations, gases, solutions, acids and bases, oxidation-reduction, application of principles of reaction, and representative elements. Extensive laboratory study of topics is conducted. Students must be competent in algebra and measurement techniques.
PREREQUISITE: Integrated Math II and Physical Science or teacher permission

Advanced Chemistry Grades 11-12 1 Credit
1 Semester
Advanced Chemistry will continue where Laboratory Chemistry leaves off. Topics to be covered include electrochemistry, acid/base reactions, organic chemistry, and nuclear chemistry. We will make batteries, test for radiation, and make organic chemicals such as nylon, vanilla, and soap.
PREREQUISITE: Biology and Lab Chemistry, Integrated Math II.

Laboratory Physics Grades 11-12 1 Credit
1 Semester
Physics, an upper level course with a challenging curriculum, is broken into two areas of concentration. During the first half of the semester, the mechanics of physics coordinates theory and practical application of the basic laws governing the behavior of matter. Strong emphasis is placed upon the use of mathematics as a tool to further explore and understand natural phenomena. The second half of the semester utilizes the skills acquired the first half of the semester to explore such areas as optics, wave motion, heat, electrostatics, electromagnetic and high energy physics.
PREREQUISITE: Laboratory Chemistry; Integrated Math III or equivalent; Trigonometry preferred.

Human Anatomy & Physiology

Grades 11-12

1 Credit
1 Semester

This upper level course with its challenging curriculum is designed for the college-bound student and/or any student interested in a health or science-related career. The structure and function of the various systems of the human body will be studied in depth.

PREREQUISITE: Biology and Lab Chemistry.

Advanced Placement Biology (AP)

Grades 11-12

2 Credits
2 Semesters

This laboratory-based course is designed to be the equivalent of a college introductory biology course taken by Biology major. It may be taken for college credit upon obtaining a 3 or 4 on the AP Exam. Approximately 25% of the class will be devoted to molecules and cells, 25% to heredity and evolution and 50% to organisms and populations. Requires summer reading.

PREREQUISITE/COREQUISITE: Chemistry, Biology, and Integrated Math III or teacher permission

This class will require the student to take the AP Exam at the completion of the course. Exemptions for this exam are at the teacher's discretion.

Forensics

Grades 11-12

.5 Credit
1 Semester

Examine the world of criminal science. In this course students will collect evidence, make observations and conduct biological and chemical laboratory tests to solve criminal cases involving document forgery, tools, teeth, tire marks, unknown substances, fingerprints, blood stain analysis, clothing fibers, hair identification, blood detection, blood typing, DNA electrophoresis, soil analysis and skeletal reconstruction.

PREREQUISITE: Lab Biology and Lab Chemistry

Genetics

Grades 10-12

.5 Credit
1 Semester

Genetics is a course in the study of genes and how they determine characteristics of offspring. The course will include studies of DNA and RNA as well as probability, pedigrees, and the Human Genome Project. It will also investigate how genetic knowledge is being used today in law, medicine, and society. Students will investigate ethical concerns about the use and regulation of genetic material.

PREREQUISITE: Lab Biology

Geology

Grades 9-12

.5 Credit
1 Semester

Geology is a journey into the process that affects the planet and its inhabitants. The study of geology reveals the many physical changes planet earth has undergone in the 4.6 billion years of existence. The geological time line is a record of the evolution of everything on earth including its inhabitants. By studying the process and the geological time line, students will begin to appreciate the complexities and puzzles that geologists deal with in understanding the past.

HealthGrade 10
Required.5 Credit
1 Semester

In this course students learn about health and wellness and its relationship to longevity in individuals. Topics studied include units on family studies and relationships, mental health, drugs, alcohol, AIDS and communicable disease, and food and cancer prevention. In addition to learning the elements of how to live longer, students receive training in communication, conflict resolution, anger control,

assertiveness, and stress reduction so that they can use these skills in peer support and crisis intervention.

Biology of Body Systems

Grades 10-12

1 Credit
1 Semester

How do chemicals enter the body, what do they do once they're there, what are the repercussions of having these chemicals in our bodies? Chemicals included but not limited to: alcohol, marijuana, aerosols, tobacco; natural "chemicals" included but not limited to: hormones, fat, stress.

SOCIAL STUDIES

World History I: Prehistory to 1800

Grade 9
Required

1 Credit
1 Semester

This course provides an overview of major eras, trends, and events in world history up until the French Revolution. The course focuses on the main development of western civilization and history and examines the major thrusts of non-western civilizations. The major objective of this course is to understand how the ancient past has set the stage for the modern world. Students are expected to be active members of a community of learning. Students will conduct research, make presentations, and further develop their writing and reasoning skills. Major topics will include: Early Civilizations, World Religions, Ancient Greece, The Roman Empire, The Crusades, The Renaissance, The Black Death, The Age of Discovery, and The French Revolution.

World History II: The Modern World

Grade 10
Required

1 Credit
1 Semester

The course provides an overview of major trends and events in world history from the French Revolution and the Enlightenment up to the present. Students are expected to be active members of a community of learning. Students will conduct research, make presentations, and further develop their writing and reasoning skills. The course will examine different aspects of important cultures, politics, and mass movements worldwide. Specific topics will include: Imperialism, Colonialism, Marxism, The Russian Revolution, The Two World Wars, The Cold War, The Vietnam War, Post-Colonial Africa, China since the Communist Revolution, and the fall of the Soviet Union. The outcomes and effects of these events on current events will be emphasized.

PREREQUISITE: World History I

United States History

Grades 11-12
*Required**

1 Credit
1 Semester

This is a study of the birth, growth, and maturation of the United States, from a fledgling group of colonies to the world's only super power. Students will gain an understanding of our nation and acquire a vision of our future by reviewing our past. Special emphasis is placed on major events, historical figures, and unique conditions that helped contribute to our modern state. This class is taught as a narrative using the reflections of individuals who experienced history firsthand. Thus, our exploration of U.S. history becomes more relevant and rich. Course requirements include critical thinking, student analysis and research of events using primary documents, written and oral reports, projects, and research papers.

Sociology

Grades 10-12

1 Credit
1 Semester

This course is designed to provide the student with an overview of some major topics in the field of sociology. Students will learn basic principles of societal functions, cultural relations, gender issues, family structure, social structure, popularization, urbanization, and racial ethnicities. Assessment emphasis is placed on critical and evaluative thinking skills, essay writing, written and oral interpretations of documents and research.

Advanced Placement U.S. History (AP)

Grades 11-12

2 Credits
2 Semesters

The AP program in United States History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials—the relevance to a given interpretive problem, their reliability, and their importance—and to weigh the evidence and interpretations presented in historical scholarship. This AP United States History course will develop the skills necessary for the student to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format. (Offered only in alternate years)

This class will require the student to take the AP Exam at the completion of the course. Exemptions for this exam are at the teacher's discretion.

*Students may take Advanced Placement U.S. History in place of United States History.

Media Study

Grades 10-12

1 Credit
1 Semester

Media literacy is the ability to access, analyze, evaluate, and create media in a variety of forms. From print to video to the Internet, media literacy builds an understanding of the role of media in society as well as essential skills of inquiry and self-expression necessary for citizens of a democracy. This course will help students develop an informed and critical understanding of the nature of mass media, the techniques used by the media, and the impact of these techniques. More specifically, it is education that aims to increase students' understanding and enjoyment of how the media work. Media literacy also aims to provide students with the ability to create media products. In this course students will design and create various media products that inform, entertain, and communicate. Hands-on application of classroom concepts will be emphasized. (Course is open both to students who have and have not completed Media Literacy.)

Psychology

Grades 11-12

1 Credit
1 Semester

This course is designed to provide the student with an overview of some major topics in the field of psychology. Students will learn basic principles of behavior, thought, intelligence, and emotion and will study issues ranging from biology to philosophy. A major emphasis of the course is placed on personality development and the study of psychological disorders. Assessment emphasis is placed on critical and evaluative thinking skills, essay writing, written and oral interpretations of documents, and research.

Current Events in Modern Media

Grades 10-12

.5 Credit
1 Semester

This course is an exploration of current events using such contemporary media as international newspapers, international websites, magazines, film and shortwave radio broadcasts and pod casts.

The intention is to explore what is going on in our world today using English language contemporary media to inform us.

Reel American History Twentieth Century Grades 10-12

.5 Credit
1 Semester

History as viewed from the lens of the camera. This course will examine how feature films influence our understanding of historical events and personalities. We will discuss the impact of films on our interpretation of history.

Contemporary Problems and Ethical Issues Grades 10-12

.5 Credit
1 Semester

This course is a survey of the political, social, and economic issues and implications in our contemporary world. The theme of the course will emphasize the evaluation of current events, their effect on society, and the moral implications of these events. Topics of study may include foreign relations and war, human rights, environmental issues, genetic engineering, racism, criminal justice, media ethics, and any pressing and crucial daily issues. Students are introduced and required to research the numerous philosophical debates about these moral issues. A strong emphasis is placed on logical evaluation of events. Students are asked to participate in discussion, think critically, read various handouts and newspapers on a regular basis, write papers, make presentations, and defend their positions.

COMPUTER STUDIES

Computer Applications

Grades 9-12

1 Credit
1 Semester

This course familiarizes students with the many tools of MS Office applications providing essential educational and job related skills. Students will learn in detail the many features of Word, Excel, Access, Publisher and PowerPoint. Coursework adds advanced features and a high level final capstone project, combining the use of all applications into one project. This course is a must for all students as it will enhance current skills and improve schoolwork at the high school and college levels, as well as improve marketability in the job market.

Computer Graphics

Grades 9-12

1 Credit
1 Semester

This course encompasses many aspects of computer graphic communication. This course emphasizes the use of an assortment of software. Exploring and creating is the motto for this class. Core coursework will include digital basics, graphics terminology, creating marketing material, color and how this is defined and used by Monitor and Printers, working with Images, and creating animation from the simple to complex (digital, stop-motion and video). Embedded coursework includes, troubleshooting, grammar, communication and more. This is an excellent primer course for Web Design and Media Graphics. Graphics is a fun, creative, challenging course that involves a variety of projects and which provides essential computing life skills.

Media GraphicsGrades 10-12
*9th Grade w/Permission1 Credit
1 Semester

This course is part business related and part computer graphics which will involve creating presentational designs that convey messages, stories, or other desired communications. In the introductory portion of this course, students will be introduced to basic media literacy, mass media, and how it affects them as teens. This unit will include understanding mass media, target audiences, ad effectiveness, etc. The purpose of Media Graphics is to take various media (such as sound, text, image, motion, music, story-line) into the digital realm where they can be combined to create effective digital communication for media. The methods for doing this, and the design factors for effective use, are the central focus of the Media Graphics. The Media Graphics option emphasizes graphic arts skills, computer-based designs, technical prep for digital distribution methods, plus the design and implementation of user-interactivity in Media Graphics products. Media Graphics projects may be put into a digital portfolio and publicized on LPCTV.

Prerequisite: Art 1, Computer Graphics**FOREIGN LANGUAGES****French I**

Grades 9-12

1 Credit
All Year

This course introduces students to basic French and is the foundation for the learning of the language. The emphasis is on speaking and listening to enable the students to communicate in the language. Students will write and present short dialogues, watch several films, and work on short projects to further the acquisition of the language. Text: Bon Voyage! Volume 1.

French II

Grades 9-12

1 Credit
1 Semester

This course expands on the material learned the first year. The emphasis will continue to be on communication and students will be encouraged to use French during class. There will be a gradual increase in reading and writing in French to develop a proficiency in the language. Students will continue to present dialogues, study French films, and work on short projects to better understand French and French culture. Text: Bon Voyage! Volume 1

PREREQUISITE: French I and Teacher Recommendation**French III**

Grades 10-12

1 Credit
1 Semester

French III will build on the skills acquired in the first two years of language study, emphasizing reading comprehension, writing exercises, and expanded literature and cultural study. Students will be expected to communicate in French during class and discussions in French will be encouraged. Several short stories will be read and a short novel. Text: Bon Voyage! Volume 2

PREREQUISITE: French II and Teacher Recommendation**Spanish I**

Grades 9-12

1 Credit
All Year

This course gives the student a very sound foundation for progressing to the higher levels of language study. The primary goal is to help the students communicate in Spanish with an emphasis on speaking and listening skills. Basic grammar is also taught and reinforced, orally and by writing, and some

reading is done to begin learning reading comprehension. The students are given a brief look at Hispanic culture.

Spanish II

Grades 9-12

1 Credit
1 Semester

This course is a further refinement and mastery of those skills attained in the first year. Some new grammatical concepts will be taught, but the emphasis will be oral communication and dialogue between the teacher and students and among the students themselves. These concepts will be reinforced with some writing. Some reading and translation will again be required in order to give the students a necessary well-rounded knowledge of Spanish. We will continue to explore Hispanic cultural topics and increasingly expose the students to the Hispanic culture.

PREREQUISITE: Spanish I and Teacher Recommendation

Spanish III

Grades 10-12

1 Credit
1 Semester

This level builds on the skills obtained during the previous two levels, reinforcing grammar already learned, and exploring some of the deeper concepts. There will be increased study of Hispanic culture with closer looks at Spain, Mexico, Latin, Central, and South America, and Hispanic peoples living in the United States. Several Spanish short stories will be read and, perhaps, a full-length novel. Spanish conversation will be emphasized with the goal of increased speed and more creative and spontaneous discussions.

PREREQUISITE: Spanish II and Teacher Recommendation

Spanish IV

Grades 11-12

1 Credit
1 Semester

Spanish IV is for those students who are proficient in Spanish and motivated to study more intensively. Much work will be done in Spanish literature, compositions, conversation, and oral presentations, continued studies of Hispanic culture, and observation and discussion of Spanish videos. This level aims to put a polish on each student's skills and to get the students to enjoy speaking in another language.

PREREQUISITE: Spanish III and Teacher Recommendation

Russian I

Grades 11-12

1 Credit
All Year

Russian I will be a very basic introduction to this unique language, both in speaking and in writing. Basic vocabulary and grammar will be taught to assist students in both areas. This course will be offered primarily to students in the 11th or 12th grade who have already taken two levels of either Spanish or French.

PREREQUISITE: Spanish II or French II

ART AND MUSIC PROGRAMS

ART

Art I

Grades 9-12

1 Credit
1 Semester

This course provides students with experience in basic art concepts. It stresses the process and conceptual, sequential development of ideas in two dimensions. The course builds a strong vocabulary of techniques, terms and materials upon which students can expand and extend their future art studies. Basic drawing and observation will be explored through the use of a variety of art concepts and techniques in completing assigned art projects. Skill building techniques will be taught.

Art II

Grades 10-12

1 Credit
1 Semester

This course is offered to students wishing to further their knowledge and experiences in Art. A multitude of materials and techniques are designed to expand students' aesthetic awareness through exposure by assignments utilizing their required skills. Individual and group projects will be implemented in this course.

The skills and concepts developed in Art I are explained in Art II. Since the knowledge acquired is cumulative, students are expected to demonstrate expanded growth and knowledge in their skills. Drawing techniques are repeated and amplified, with repetition serving as a valuable commodity for improvement.

PREREQUISITE: Art I and Teacher Recommendation

Basic Photography

Grade 12

.5 or 1 Credit
1 Quarter or 1 Semester

This course will cover the operation of adjustable cameras, composition of pictures, and development of black and white film. Class size is limited.

REQUIREMENTS: STUDENTS **MUST** SUPPLY THEIR OWN 35 MM CAMERA.

Studio Art

Grades 10-12

1 Credit
1 Semester

This course is designed for the highly motivated student. Art concepts will be reviewed and further developed in this course. Students will use a variety of art mediums, or may choose one to concentrate on. The students will focus on self-expression through participation in a variety of media. The students will work on developing their imagination and creative potential. The student will be responsible for self-discipline and setting realistic goals for achievement in the arts. Each student will work individually on special talents and interests and their level of abilities.

PREREQUISITE: Art I and Teacher Recommendation

MUSIC

Band

Grades 9-12

1 Credit
Full Year

An inspiring symbol of our school which establishes rapport with the local public and helps develop a sense of discipline and self-control. The major goals of the band are performance in: (a) Fall concert, (b) Mid-winter concert, (c) Spring concert, and (d) marching on Alumni Day, Memorial Day, and other parades and events that can be scheduled into the Director's and members' schedules. Some

sections of the band may have limited openings, in which case admittance will be determined by audition and/or permission of the instructor. High school students will receive one credit for this year-long class.

Chorus Grades 9-12 1 Credit
**Four days only* Full Year

This ensemble will offer students a variety of choral music from different eras. Students will study the basic elements of music including rhythm, ear-training, sight-reading, and singing in a logical sequence. Students will prepare music for four concerts as follows: Fall Concert, December Concert, Spring Concert, and Pops Concert. Students are encouraged to audition and participate in the District IV Music Festivals and the All-State Music Festival. Plans for the off day will be established on a case by case basis. High school students will receive one credit for this year-long class.

Keyboard (limit 8) Grades 9-12 .25 Credit
1 Quarter

Learn to play the keyboard. We will work on reading music, technique and playing chords. We will cover the basics of music theory. Students will also work on independent projects that reflect their own skill level.

Guitar (limit 10) Grades 9-12 .25 Credit
1 Quarter

Learn to play the guitar. We will work on the basics of reading music and tabs. We will cover unites on classical guitar, chords, and jazz. Students will work on projects that improve their playing in a genre of their own choice. Students must provide their own acoustic guitar to participate in this class.

Stage Band Grades 9-12 .50 Credit
1 Semester

Stage Band is a performing ensemble. The Stage Band will perform at the Spring Concert and the Pops Concert. We will play music from a variety of jazz styles such as Swing, Latin and Rock. We will cover the basics of jazz theory and improvisation. Teacher permission required for this class.

PHYSICAL EDUCATION PROGRAM

Physical Education Grades 9-12 1 Credit
*Required** 1 Semester

This is an introductory class required for all freshmen. Through a Fitness for Life curriculum students will explore fitness and team building activities. Knowledge of fitness basics and how to apply them are a critical component in achieving a healthy fitness level and lifestyle. The goal of this class is to give students the knowledge and tools necessary to achieve a healthy fitness level and to be able to maintain that fitness level as adults. Each student will have an opportunity to measure their fitness levels and then explore activities that will support a healthy lifestyle. It is assumed that all students will participate in proper attire during each unit, unless dismissed for medical reasons. In addition to class participation, the students are required to complete written and skills exams.

***REQUIREMENT FOR GRADUATION:** 1.5 credits

Fun and Fitness

Grades 11-12

.25 Credit
1/2 Semester

This is an elective course offered to upper level students. Students will have the opportunity to develop their own fitness training program through the use of weight and cardiovascular training while also exploring a variety of physical activities. The main focus is on providing students with an opportunity to develop a fitness training program which they will maintain on alternating days. On alternate training days students will also participate in organized sports which may include indoor soccer, basketball, volleyball and other activities. It is assumed that all students will participate in proper attire during each unit, unless dismissed for medical reasons. In addition to class participation, the students are required to complete written and skills exams.

Introduction to Athletic Training

Grades 11-12

.25 Credit
1/2 Semester

**Grade 10 with permission*

This course is offered to upper level students and serves as an introduction to the field of athletic training. Students will review the history of athletic training and how it has evolved through today's practice of medicine. Emphasis will be on the care and prevention of athletic injuries. Students will be required to complete reading, writing and class assignments and will be responsible for a final project and presentation.

Contemporary Issues in Sports

Grades 11-12

.25 Credit
1/2 Semester

**Grade 10 with permission*

This is an elective course for upper level students. It is designed to help students understand the role of sports in society. Students will explore the following issues related to contemporary sports: Philosophy and ethics in sports, Deviant behavior associated with sports, Sport as a reflection of society in race, gender, and religion, Economic impact of sports, Politics and the media in sports. This course will allow students to think critically and reflect on sports as part of the social life. Students will be required to complete reading, writing and class assignments and will be responsible for a final project and presentation.

DRIVER EDUCATION

Driver Education

Grades 10-12

.5 Credit

The minimum requirements for this course include 30 hours of classroom instruction and 6 hours of road instruction. All students also must have 6 hours of observation time in a vehicle. Class participation, projects, and writing assignments are required. This course is scheduled primarily for sophomores.

REQUIREMENT: EACH STUDENT MUST BE 15 YEARS OLD AND HAVE A VERMONT DRIVING PERMIT BEFORE STARTING THIS COURSE.

***There will be two Driver's Education classes offered; Quarter 1 and Quarter 3. Driver's Education will be held during the school day from 8:30 – 9:15 am**

VIRTUAL HIGH SCHOOL

Virtual High School offers a catalog of full semester courses in the Arts, Foreign Language, Language Arts, Life Skills, Math, Science, Social Studies, Technology and AP1 Study to students in VHS member schools. Core courses are NCAA accredited. The courses listed are current at the time of publication (March 2006); Visit our website at www.goVHS.org for the most recent offerings.

About VHS: VHS is a non-profit collaborative of nearly 200 participating high schools offering the gold standard of full-semester online courses to high school students in 22 states and 8 countries.

Benefits of Taking a VHS NetCourse

We've found that VHS classes offer more time to be reflective about discussions. Students are not bound to just the class period of 45 or 89 minutes to discuss a topic -- that's one of the benefits Virtual High School scheduled asynchronous courses bring to education. Students have the opportunity to work with other students in a virtual classroom space -- students (and teachers) from other states, other countries, other cultures. It's a tremendous enhancement to a student's educational experience and lots of fun! VHS classes also help students better prepare for college and work-force learning. VHS students tell us that they feel better prepared for college because in VHS they learned to work independently, and were responsible for managing their time and learning. In fact, many colleges are now using online courses to enhance face-to-face college courses, and VHS students have a head start because they are already accustomed to learning in an online environment! Virtual High School offers a terrific way for students to broaden their educational horizons and take classes that would otherwise be unavailable to them, in an environment that is safe, challenging, and fun.

Student Attendance

A Virtual High School class, because it is conducted entirely over the Internet, in many ways offers more flexibility than traditional face-to-face classes. However, just as in a face-to-face class, attendance in a VHS class is very important. Students can access their class in the evening and on weekends, as well as during the normal school day. With that flexibility, comes responsibility. Your child's VHS teacher and classmates will be posting assignments, commenting to discussions, and providing feedback in class throughout any given week. To actively participate in class your student needs to login to their VHS class *at least* three times per week. Many students access their class daily as their school and home schedules allow so they are sure to get the latest assignments and instructions from their teacher.

Self Discipline

Because of the flexibility in VHS classes, it can be easy to fall behind with work. It's up to each student to check assignment due dates, set his or her own pace, and submit work on time. Assignments in Virtual High School classes vary from class to class and may include quizzes and tests, reading and writing assignments, term papers, special projects, lab exercises, class discussion, and group activities. One of the biggest mistakes new VHS students make is not giving themselves enough time to complete their work. Help your student avoid problems by encouraging him or her to complete work early! Please note that the VHS calendar may differ from your local school calendar. Students are expected to follow the VHS calendar while participating in their VHS course. This means if a student will have vacation periods or school breaks during their VHS course - they must be sure to notify their VHS teacher IN ADVANCE, so alternate arrangements can be made for the submission of work. There are no official school breaks in Virtual High School, but most teachers will be flexible if given advance notice of a student's absence.

Communicating with the VHS Teacher and Site Coordinator

In a VHS class, your student is responsible for much of his or her own success. Because the teacher isn't located in the local school and all communication is done online, students must remember to post messages for their VHS teacher as soon as they have a question or are having trouble understanding a concept. We ask that teachers respond to student inquiries within 24 hours, Monday-Friday. Students

can expect to receive regular communication from their teacher, which will include feedback on the work they post, as well as general comments, but it is up to each student to take responsibility for asking questions. If students have trouble logging into their VHS class, their school site coordinator is the person who can help. The site coordinator acts as a liaison between the student and the VHS teacher, and is responsible for reporting VHS grades to the student's local school.

COLLEGE CLASSES/SAT COURSE

Intro to College Studies

Grades 11-12

.5 Credit
1 Semester

Introduction to College Studies, a 13-week course designed to help students develop skills necessary to succeed at the college level, is taught by the Community College of Vermont. The course will focus on note taking, studying, test taking, time and stress management, and a number of other skills. Although CCV does not grant college credit for Introduction to College Studies, Black River High School will grant a half credit for the course.

SAT Prep Course

Grades 11-12

.5 Credit
1 Semester

The SAT Prep course is split into math and English sections, one marking period each. In addition to a full review of the mathematics topics that commonly appear on the new SAT test, the math portion of the course will include test-taking strategies and practice. The English half of the course will address both the reading and writing portions of the test. Students will learn to assess their own writing using the rubrics published by ETS. Several practice tests will be administered and studied to correct common errors and identify common pitfalls. While score improvements cannot be guaranteed, past students have reported improved scores and confidence.

TECHNICAL EDUCATION

Juniors and seniors will have the option to apply to any of the following ½ day technical programs. Freshman and sophomores have the option of the Pre-tech program only, unless special permission is granted. For those students interested in the level 2 programs, please see guidance for more details.

RIVER VALLEY TECHNICAL CENTER AT SPRINGFIELD

Students enrolled at the Technical Center spend one-half of their school day in Springfield. Most programs run for the entire school year and involve two hours of instruction each day. Four (4) credits toward graduation can be earned for each year enrolled. A variety of work experiences, apprenticeships and advanced college credit for work completed awaits students of the Technical Center. Listed below is a brief description of each program. Each program involves technical, academic and employability skill development. For further information, contact the Guidance Office or call the Technical Center directly at (802)-885-8484. State approved embedded credit will be granted after completion of the two year program.

Pre-Technical Studies Program

Pre-Tech

(Math, English Credits)

Grades 9 & 10

The Pre Technical Studies program is an exploratory opportunity for freshman and sophomores. Over the course of the school year, students participate in all technical programs at the Center. Students study in a 10-day cycle: 2 days in technical programs and 8 days in the classroom focusing on the

related English and Mathematics skills. Students will begin to identify personal strengths and interests related to career choices and related studies. Students successfully completing the Pre Tech program will be eligible for one credit of Applied Math, one credit of Applied Communications, and one or more technical

Agriculture, Food & Natural Resources Career Cluster

Horticulture and Natural Resources

(Science credit)

Grades 11&12

Students spend the entire school year learning the skills needed to gain entry level positions in numerous horticulture and natural resource businesses, ranging from nursery and greenhouse production to urban forestry to landscaping operations. Students are first introduced to skills on the thirty-acre land lab at the Center. Students are taught technical skills and are introduced to the employability skills most desired by business and industry. Students are involved in the FFA chapter and are encouraged to develop a Supervised Agricultural Experience project that applies or enhances classroom learning.

Architecture and Construction Career Cluster

Carpentry

(Math credit)

Grades 11 & 12

This program provides students the opportunity to gain skills and explore potential careers in Carpentry. Carpentry and other construction skills will be developed through the building of sheds and the start of the second year house project. Students will be involved in the theory and practice of construction as a profession. Construction projects will be the focus of applied learning through hands on experiential learning. Each student will develop leadership skills through the local Skills USA Chapter and will be encouraged to participate in local, State, regional and national activities.

Industrial Trades

(Math Credit)

Grades 11 & 12

This program prepares students for a variety of trade areas. Students will have the opportunity to acquire industry-based skills in: Electrical, Plumbing, and Welding. Modules of instruction include Electrical Safety, Electrical Theory 1 and 2, Intro to the Plumbing Trades, Plumbing Tools, Copper Pipe and Fittings, Oxy-Fuel Cutting, and basic Welding techniques. Industry derived interactive CD ROM software enhances learning with the use of technology. These units are supported in the lab with on-site projects, student-derived projects, and industry supported projects. Instruction also includes a set of industry-based core skills common to all trade areas (Basic Safety, Construction Math, Hand and Power Tools, Reading Blueprints, and Basic Rigging Techniques). The curriculum used is recommended by the National Center for Construction Education and Research (NCCER National Industry Standard) guidelines for industry.

Arts, A/V Technology & Communications Career Cluster

Graphic Technologies

(Math Credit)

Grades 11 & 12

Share your vision with the world. Experience project-based, hands-on learning using Adobe CS2.3 and Macromedia Studio 8. Learn how designers are breaking the boundaries of design. Work with an entirely new Digital Design: Foundations of Web Design curriculum using Dreamwaver 8, Flash 8, and Fireworks 8. Each project has phases that follow design and development process, from project planning goals and audience, to delivery requirements and deadlines. Bring concepts to life using

image-editing control you crave. Design, develop, manage, and maintain rich interactive experiences for easy delivery to millions of viewers on the web, on mobile devices, and in print using industry standards. This class has articulation agreements with Lyndon State College, Community College of Vermont and The New England Institute of Art. Topics include Layout and Typography, Concept Development Competencies, Graphic Design I, Digital Photography, Illustration, Page layout, Photo Manipulation for Design. Join the untouchables of image, text, and voice, and learn skills that inspire for a lifetime.

Business, Management & Administration Career Cluster

Business Management

(English yr 1, Math yr 2 Credit)

Grades 11 & 12

Students in the Business Management I program study entrepreneurship and small business management. Students will focus their studies in the areas of business law, marketing, customer service, human resources, business ethics, and financial management. Each student in the program will create and present a comprehensive business plan at the end of the school year. All students enrolled in the Business Management program will participate in DECA (An Association of Marketing Students) and in the operation of the Campus Connection school store. Students may obtain national certifications in Business Fundamentals, Customer Assistance, and/or Retail Industry Knowledge.

Financial Accounting for Seniors

Grade 12

Financial Accounting for Seniors will prepare students for entry level bookkeeping positions or for college level business programs. Transactions dealing with service and retail businesses will be covered. Students will learn about special journals, payroll, and other related business records and financial statements. Students will apply this knowledge in the Campus Connection school store where they will maintain all financial records for the business. Students enrolled in this class will also participate in DECA (An Association of Marketing Students).

Health Science Career Cluster

Health Careers

(Science credit)

Grade 11 & 12

The Health Careers Program is open to junior and senior high school students. This program is designed to prepare students for success in further education in health care related programs and/or to provide the skills for entry-level positions in health care. The Health Careers Program allows students, while still in high school, to determine if health care is the career they desire. Instruction includes ethics of health care, communications skills and hands-on training in patient care, advanced first aid and CPR. Year One includes the VT State Board of Registration approved Licensed Nurse Assistant (LNA) program. Successful completers will be prepared to sit for the LNA exam. Students will participate in various job shadowing and clinical rotation experiences in a variety of health care settings. See your counselor for credit information.

Hospitality and Tourism Career Cluster

Culinary Arts

(Math Credit)

Grade 11 & 12

This program offers studies in Culinary Arts for students interested in preparing for careers in the food service industry. Students will develop practical skills in the commercial kitchen, bakeshop, and student-operated dining room, the River Valley Cafe. Instruction typically involves lectures,

demonstrations, skill development and practical application, as students will rotate through these areas. Culinary arts students will be required to purchase their own chef coat and hat through the culinary program. Scholarships will be available for those students for whom this may be a financial concern.

Tourism and Lodging Management

(Math Credit)

Grade 11&12

Have you ever thought about a career that pays you to travel? Do you like to learn about new destinations? Are you a party planner? If so the Tourism and Lodging Management Program provides you with an overview of exciting careers in the hospitality industry. You can pursue your interests through academic instruction, leadership projects, field trips and practical industry related experiences. This program introduces you to some of the technology present in today's ever growing travel industry. Principles and techniques of personnel management, customer service, marketing and business operations are some of the areas we will focus on. This program offers strong business skills in addition to the travel and tourism component. You will learn the necessary analytical and technical communication skills that are needed to succeed in the hospitality industry. Business confidentiality, etiquette, interviewing strategies, conflict resolution / mediation and conversational / speaking skills will be included.

Human Services Career Cluster

Human Services

(History Credit)

Grade 11 & 12

The Human Services curriculum will provide the student with basic skills and knowledge needed to enter the human services system as a provider of services and/or care in the areas of early childhood, elementary education, gerontology, and special population's services. Classroom work will acquaint the student with professional and paraprofessional careers and occupations, interpersonal communication skills, ethics and legal issues, CPR and first aid skills, and human development. In addition to academic work, students spend extensive time in supervised clinical settings in schools, nursing homes, and other community service agencies. Students will participate in group activities designed to promote individual growth, professional development, and the development of leadership skills.

Information Technology Career Cluster

Technology Essentials

Grade 11 & 12

Students in Technology Essentials will develop fundamental skills in four hardware/software areas of study which include PC upgrade and maintenance, Website development, Networking and Programming. Students will work to develop fundamental competence in four hardware/software areas of study. Hardware sections will include the upgrade or installation of system components, best practice in dealing with spyware and viruses, and troubleshooting techniques to solve hardware or operating system problems. In the networking section, students will identify and install networking components, build a local area network and learn to secure a wireless network. The Website component provides the opportunity for students to create attractive and user friendly websites using HTML employing current standards and best practice. Students will spend time in PhotoShop to edit images for use in their websites. They will make their web pages interact with the user by incorporating PHP programming. This class will help students explore and prepare for any career in the Information Technology field.

Hands on Computer Systems

(Math Credit)

Grade 11 & 12

This full year program offers an in depth study of computer components and operating systems. Through a combination of classroom lecture and hands on activities and labs, students learn how to assemble and configure a computer, install operating systems and software, and troubleshoot hardware and software problems. Students learn suggested best practices in maintenance and safety issues. Students will be responsible for maintaining computer equipment in the classroom. Students will work primarily on Windows machines with some exposure to Macintosh and Linux systems. Student will have an opportunity to participate in Skills USA at local, State and national levels. Students will be prepared for the latest CompTIA's A+ certification and can earn up to 8 college credits at the Community College of Vermont. Successful completion of Technology Essentials is recommended, not required.

Digital Design

(Science Credit)

Grade 11 & 12

Share your vision with the world. Experience project-based hands on learning utilizing Adobe CS2.3 and Macromedia Studio 8. Learn how designers are breaking the boundaries of design. Work with an entirely new Digital Design: Foundations of Web Design curriculum using Dreamweaver 8, Flash 8, and Fireworks 8. Each project has phases that follow design and development process, from project planning goals and audience, to delivery requirements and deadlines. Bring concepts to life using image-editing control you crave. Design, develop, manage, and maintain rich interactive experiences for easy delivery to millions of viewers on the web, on mobile devices, and in print using industry standards. This class has articulation agreements with Lyndon State College, Community College of Vermont and The New England Institute of Art. Topics include Layout and Typography, Concept Development Competencies, Graphic Design I, Digital Photography, Illustration, Page layout, Photo Manipulation for Design. Join the untouchables of image, text, and voice, and learn skills that inspire for a lifetime.

Law, Public Safety & Security Career Cluster**Emergency & Fire Mgt.**

(Science Credit)

Grade 11 & 12

Over the course of two years, this program will cover many phases of fire science through lecture, demonstration and practical activities as prescribed by the Fire Fighter I curriculum. The program is physically demanding, as well as mentally challenging while students complete many of the requirements experienced by professional firefighters. This curriculum will concentrate on advanced first aid assessment, techniques and skills. Class is held three days a week at the Springfield Fire Station and in the RVTC classroom the remainder of the week. The program prepares students to take the Fire Fighter I Exam. Students will received National & State certifications as a First Responders as prescribed by United States Department of Transportation. Other National recognized certifications will be obtained from the National Fire Academy, Federal Emergency Management Agency, and American Red Cross.

Law Enforcement

Grade 11 & 12

Students in this level will get an introduction and overview of law enforcement. Through practical applications, classroom learning and technology, students learn what it takes to become a law enforcement officer. Topics covered include police work, court procedure and corrections with a priority in the overview of the criminal justice process.

Science, Technology, Engineering & Mathematics Career Cluster

Engineering Technology

(Math Credit)

Grade 11 & 12

Have you ever thought of becoming an Engineer and Engineering Technician? High paying jobs require high skills and knowledge. Whether you are a college bound student or looking to take the fast track to the work force, this course will give you the tools you need to succeed. Engineering Technology offers the hands-on experiences needed to succeed in the fast paced world of engineering technology. Spend the first year of this two year program learning to draw a complete steam engine in 3D using state of the art computer software. Learn to operate industrial machinery including lathes and mills, and actually make the steam engine from scratch to take home with you. Later, design, build, and program a robot that sorts marbles by color! Program our industrial robot to play chess! Students completing this program go on to college for engineering or to technical school to become CNC technicians and CADD operators. Get a head start on your career in engineering, sign up today! College credit is available from both Rochester Institute of Technology and Vermont Technical College.

Electronics: Audio Engineering

(Science Credit)

Grade 11 & 12

This class covers all aspects of the theory and production of audio in both home and recording studio settings. A wide variety of subjects are covered including basic electronic theory, studio maintenance, soldering, microphones, speakers, amplifiers, mixers, effect devices, acoustics, audio file formats and various conversions, MIDI, and copyright issues. Students will be producing many recordings with the final project being a Multitrack CD. Students participate in commontime activities for their first block of the school day, either in person or through the Distance Education Network. In addition, students also participate in one hour per day of independent activities in an on-line format. It is strongly recommended that students have a home computer with Internet access. This program is open to all students that meet the prerequisites, regardless of their music background.

FOUR YEAR PLANNER

STUDENT NAME: _____

This page is intended for students and parents use to develop a four year program of studies.

Year One (Grade 9)

- 1. _____
- 2. _____
- 3. _____
- 4. _____

- 5. _____
- 6. _____
- 7. _____
- 8. _____

Year Two (Grade 10)

- 1. _____
- 2. _____
- 3. _____
- 4. _____

- 5. _____
- 6. _____
- 7. _____
- 8. _____

Year Three (Grade 11)

- 1. _____
- 2. _____
- 3. _____
- 4. _____

- 5. _____
- 6. _____
- 7. _____
- 8. _____

Year Four (Grade 12)

- 1. _____
- 2. _____
- 3. _____
- 4. _____

- 5. _____
- 6. _____
- 7. _____
- 8. _____

Graduation Requirements – 28 Credits

English	4
Math	3
Science	3
Social Studies	3
Art/Music	1
Physical Ed	1.5
Health	.5
Electives	12