

## COURSE DESCRIPTIONS

### ART

#### **VISUAL ART 110**

Introduces students to basic drawing, painting and computer graphics and includes a study of three-dimensional design, art history and art criticism. This course provides both enrichment for students whom, regardless of ability, have a personal interest in studying art, as well as basic training for students who are considering careers in art or in an art related field.

#### **VISUAL ART 120**

Continuation of Visual Arts 110. Prerequisite: V. Art 110.

### BUSINESS

#### **ACCOUNTING 120**

Accounting 120, a one-semester course, examines the electronic application of accounting for merchandising or service businesses. Students will learn to establish/convert a company from a manual to an electronic system, the routine accounting procedures and the preparation of financial documents. **Prerequisite:** Introduction to Accounting 120

#### **INTRODUCTION TO ACCOUNTING 120**

The focus is to provide the essential understandings, economic framework, consumer skills and attitudes to participate in a society influenced by financial and business decisions. The intention of this course is to encourage students to further their education in post-secondary studies.

#### **COMPUTER SCIENCE 110**

An introductory course, it covers computer development, and programming in "Visual Basic 6.0". It teaches the use of algorithms and flowcharts, as an aid to problem solving. Recommended for students considering post-secondary studies in computer science or engineering.

#### **CO-OPERATIVE EDUCATION 120**

Consists of two components: related in-school instruction and on-the-job work experience. The course is coordinated and supervised by the school, in conjunction with participating employers. To be eligible, students must have either completed or be registered in the final courses necessary for graduation. 2 credits.

#### **ENTREPRENEURSHIP 110**

Designed to nurture future entrepreneurs, this course teaches students how to seek out opportunities for business, how to develop creative and innovative ideas and how to plan and launch business ventures that are geared to the needs/wants of target consumers. Students also have opportunities to assess their own business capabilities and set personal goals.

#### **MULTIMEDIA 120**

Multimedia stresses the theory and process involved in designing interactive products, as well as using a very hands-on approach to learning applications needed to create multimedia products. Students will learn how to manipulate text, graphics, sound, and video to create interactive web pages and programs. **Local Option Course.**

#### **INFORMATION PROCESSING 110**

Introduces students to computer software and provides practical experience in word processing (MS-Word), spreadsheets (MS-Excel), and database s(MS-Access).

#### **INFORMATION PROCESSING 120**

Focuses on two modules: Windows and Microsoft Office 2003. Each module is broken into sections, which will provide the student with a good understanding and introduction to the overall operations of a computer system and to some of the available software applications and functions of the computing environment. Each module includes various activities, assignments, and quizzes for assessment purposes. Students who are considering a career in the Information Technology (IT) field or in any profession involving high-end computer applications would benefit from the user skills IT120 is designed to develop. Although there are no prerequisites, basic keyboarding skills would be an asset for students taking this course. Offered Online within a classroom setting.

## **ENGLISH**

### **BROADCAST JOURNALISM 120**

Is designed for students with excellent communication skills who may be interested in a career in journalism. Students will gain experience in writing, editing and producing news stories for a course web-site and for radio and television broadcasts. **Local option course.**

### **CANADIAN LITERATURE 120**

Will focus on Canadian identity, artists, musicians and writers of poetry, short stories, novels and plays. Students will be required to do independent reading and project work.

### **LANGUAGE ARTS I**

Is the introduction course to Language Arts at the High School Level. This first semester course in Grade 9 lays the foundations of basic writing traits and effective reading strategies. Students will use these strategies as well as speaking and listening skills as they complete units on Poetry, Short Stories, Short Non-fiction, and Test Reading.

### **LANGUAGE ARTS 2**

Builds on the strategies learned in the Language Arts I through the second semester of Grade 9. Students will continue to strengthen their reading, writing, speaking and listening skills through the Independent Novel Study, The Research and Presentation Unit, an Introduction to Shakespeare Unit, Media Studies and a Modern or Classical Drama Unit.

### **LANGUAGE ARTS 3**

Students begin this first semester of Grade 10 with a short review of effective writing, reading, speaking and listening strategies. They then move on to use these strategies within the Poetry, Short Story, and Short Non-fiction Units.

### **LANGUAGE ARTS 4**

During this second semester of the Grade 10 year, students are refining their writing, reading, speaking and listening skills to prepare for Senior courses next year. The units covered will include Research, Presentation/Oratory, Shakespeare Drama, Novel Study, and an option of Media studies, Modern Drama or Classical Drama

### **ENGLISH 112**

Is designed to provide the academic student with exposure to various literary genres and to enhance reading, writing, speaking and literary skills. Students will study the short story, essay, novel, poetry and drama (Shakespeare or contemporary). Eng. 112 is a full year, two-credit course. **Prerequisite:** Language Arts 3 & 4

### **ENGLISH 113**

Covers the same units as English 112. The main goal of this course is to strengthen reading comprehension and improve writing skills needed in day-to-day living. Subject matter is appropriate to the interests and abilities of students with weaker verbal skills. Eng. 113 is a full year, two credit course. **Prerequisite:** Language Arts 3 & 4

### **ENGLISH 111**

Covers the same units as English 112 but deals with the subject matter in greater depth. An enriched course designed for top students, English 111 requires independent reading and writing. English 111 is a full year, two-credit course. **Prerequisite:** Language Arts 3A & 4 A

### **ENGLISH 122**

As with English 112, this course further examines the various genres introduced in English 10 and 11, but uses a more advanced level of subject matter. **Prerequisite:** English 112 or 111.

### **ENGLISH 123**

As with English 113, this is a practical course that focuses on improving writing skills and increasing reading comprehension. **Prerequisite:** English 113 or 112.

### **ENGLISH 121**

This is an enriched course, which requires students to work independently and take responsibility for their learning. The units examined are similar in nature to those in English 122, but are done in greater depth and a faster pace. **Prerequisite:** English 111 or 112 and teacher recommendation.

### **JOURNALISM 120**

The Journalism 120 curriculum emphasizes communicative skills, principles of journalistic expression and the practice of both. It is a workshop course and has the potential to make links outside the classroom. It is primarily a writing course with a large percentage of the grade determined by hands-on work.

### **WRITING 110**

Creative writing skill enhancing – this course offers students opportunities to reinforce their writing skills and help develop their ability to write more effectively. It reviews the fundamentals of writing and uses the various written formats: essays, research paper, business and personal letter, etc. Students will read and discuss their work in class. Available to grade 11 and 12 students.

### **THEATRE ARTS 120**

Presents the exciting world of theatre and provides students with an opportunity to develop speaking and delivery skills, critical and creative thinking skills, and to build self-confidence. Group activities (charades, pantomime, and skits) and presentations are major course components and are 75% of the student's mark. Students learn terminology related to the theatre, theatre history (Greek, Roman and Elizabethan periods) and the roles of the various individuals involved in the theatre.

### **MEDIA STUDIES 120**

Introduces students to the evolution and impact of mass media on the individual and on society. Students study the main media forms (newspaper, radio, television and film) as well as the techniques and influence of advertising.

## **FRENCH**

### **FRENCH 112 & 122**

Is designed for students who want to continue to communicate in French, therefore all instruction is in French. It is a follow-up to the grade 10 French course. Course content draws from entertainment, the world of work and happenings in the community. It builds on the skills acquired in the French 10 program.

It is expected that students will score at the Intermediate or Intermediate Plus on the Second Language testing done at the end of this course. Prerequisites: French 112- French 10, French 122- French 112

The goal of the Core French Program is the Intermediate level on the New Brunswick Oral Proficiency Scale; the expectation is that most students in this program will reach at least a Basic Plus level, which denotes "survival skills" in the target language. There is provincial testing for grade twelve students enrolled in French.

### **FRENCH IMMERSION LANGUAGE ARTS 110**

Is a requirement for FI students working toward immersion certifications. It continues development of language skills learned in FI Language Arts 10.

Prerequisite: FI Language Arts 10.

### **FRENCH IMMERSION LANGUAGE ARTS 120**

Is a requirement for FI students working toward immersion certification. It continues development of language skills learned in FI Language Arts 110.

Prerequisite: FI Language Arts 110.

### **FRENCH IMMERSION MODERN HISTORY 110**

Is a requirement for FI students working toward immersion certification. Topics covered include absolutism, the French Revolution, 19th Century nationalism, World Wars I and II, and the Cold War. Prerequisite: FI Ancient Medieval History 100.

### **FRENCH IMMERSION CANADIAN HISTORY 120**

Focuses on the period from Confederation (1867) to the end of World War II. Students participate in individual and group presentations.

## **HISTORY**

### **CANADIAN IDENTITY 9**

This course is designed to be an examination of our sense of what it means to be Canadian and the events that have helped shape our identity. The beginning of the course examines Canadian art, music and literature and how these help shape Canadian Identity. Student will learn about life in Canada during the "Roaring 20's", the "Great Depression" of the 30's, our role in World War Two and the Cold War, and how these events helped solidify Canada into the nation that it is today. Other topics covered in this course are Canadian Government and Citizenship.

### **MODERN HISTORY 112**

A compulsory course for academic students, History 112 is a survey course that begins with the revolutionary ideas and actions of the 18<sup>th</sup> and 19<sup>th</sup> centuries (French Revolution/Industrial Revolution), and takes students through the conflicts, ideologies and events of the 20<sup>th</sup> century, ending with the Cold War period (The Great War, Totalitarianism, WWII, The Holocaust). Critical analysis and historical thinking skills are the foundation for an examination of significant events of modern history.

### **MODERN HISTORY 111**

This is a more intense/compact faster paced version of Modern History.

### **MODERN HISTORY 113**

Delivered using traditional and non-traditional methods, this course covers the period of the 20<sup>th</sup> century. It includes a mix of lectures, question and answer, group and individual assignments and projects. Topics include World Wars 1 and 2, Totalitarianism, the Holocaust, the Roaring Twenties, and the Great Depression and the world since 1945.

### **CANADIAN HISTORY 122**

This course begins in the years before Confederation and the formation of the country, and leads students in a journey through almost 150 years of the nation's history. Provides students with a basic understanding of: the historic nature of Canada as reflected in the political structures and the federal system, the cultural and economic forces that have shaped the nation, the development of Canada as a multicultural society, the question of national identity and the progression of Canada as an independent nation.

### **WORLD ISSUES 120**

World Issues 120 deals with the issues and events that have and continue to shape the modern world. The course covers current political, economic, social and environmental concerns such as the Global Village, Peace and Security, Environmental problems, demographic changes, and global economics. World Issues 120 is research based and requires the completion of a series of assignments.

### **LAW 120**

Law 120 is an introduction to the Canadian legal system, from its roots in the British and French traditions, to the current day Criminal Code, Charter of Rights and Freedoms and Civil Law. The course will explain the need for and purposes of law and examine how rights and responsibilities are balanced in the Canadian system. Using case studies, students will examine how diverse personal, cultural, racial and ethnic perspectives have shaped our legal system.

### **ECONOMICS 120**

Economics 120 provides the student with an introduction to the institutions and concepts of the Canadian economy. The course is delivered via technology and is designed for students to complete in a self-paced manner. Open to students in grade 11 and 12, economics 120 should be selected by any student that plans to follow business courses following graduation.

### **POLITICAL SCIENCE 120**

Combining political theory with an examination of current events and political issues, this course is an introduction to how Canadians govern themselves and also provides a comparison to other political systems. Designed to enable and encourage students to examine issues, respond critically and creatively, and make informed decisions as individuals and citizens of the Canada and of an increasingly interdependent world.

### **PHYSICAL GEOGRAPHY 110**

This course deals with the story of Planet Earth and how it operates within the solar system. Climate and weather, the Hydrosphere, and Natural Vegetation and Soil Systems are the major focus. In addition to use of geographic tools such as topographic maps and mapping are considered. Open to students in Grade 11 or 12, this course is an online course.

### **CANADIAN GEOGRAPHY 120**

Open to any student in Grade 11 or 12, Canadian Geography 120 focuses on the focuses that have shaped Canada today: physical regions, weather and climate, economic and environmental regions, and how the population has been shaped by the above. This course is primarily research based and requires the completion of a series of assignments. This course is an online course.

### **HOME ECONOMICS**

#### **CULINARY TECHNOLOGY 110**

Teaches students about careers in food service as well as all aspects of food preparation. It also includes the following topics: kitchen organization, table services, nutrition, meal planning, hygiene and safety.

#### **CULINARY TECHNOLOGY 120**

Continues the curriculum introduced in Culinary Technology 110. Whereas students are taught basic skills in the 110 course, they acquire more advanced culinary skills in this course. **Prerequisite:** Culinary Technology 110.

#### **EARLY CHILDHOOD 110/120**

Designed to teach childcare strategies. More than half the student's time is spent working with the children in the school day care. Students must have imagination, energy, and patience and enjoy working with children. The course prepares students for future parenting and is also valuable for those planning future study and/or careers related to working with children.

#### **CHILD STUDIES 120**

Covers the development of the child from conception to 6 years, presenting everything students should know about children – and some things they don't want to know! This course is of special interest to students considering careers in social work, teaching, day care and nursing, as well as to future parents.

#### **HOSPITALITY AND TOURISM 110**

Designed to help students acquire career information, develop skills to work in the hospitality and tourism industry and gain practical experience in that industry.

#### **HUMAN SERVICES 110**

Looks at all aspects of working in and for the community. Topics include working with the handicapped and with the elderly.

#### **FAMILY LIVING 120**

Takes a look at life and living within the family. Topics of the course include: personality development, understanding of self, adult roles and relationships, marriage preparation and planning, pregnancy and infant development, social issues and family crises. Students have an opportunity to examine their own family roles and to look ahead to roles they may hold in the future.

#### **FOOD AND NUTRITION 120**

Food and Nutrition teaches students the basics of proper nutrition and provides valuable information for students planning careers where knowledge of nutrition is an asset; nursing, dietetics, medicine, physiotherapy, etc. Students will learn how to evaluate their lifestyle and eating habits and apply this knowledge towards healthy life choices.

#### **FASHION TECHNOLOGY 110**

Fashion Technology is to prepare students for possible careers in the fashion industry through development of time management skills, task process and analysis, problem solving, and decision making. The program starts with an emphasis on basic construction and progresses to product assembly with the use of technology.

## **FASHION TECHNOLOGY 120**

This course is a continuation of skills acquired in the Fashion Tech. 110 course, which is a pre-requirement for Fashion Technology 120.

## **INDUSTRIAL**

### **COMPUTER AIDED DESIGN 110**

This course is designed to give students a solid base of knowledge and skills in the drafting area. Through various activities, including sketching and the use of Auto CAD LT, students gain the skills necessary to both visualize and present ideas graphically. This course is of interest to students pursuing a career in drafting or engineering.

### **DRAFTING- COMPUTER AIDED GRAPHICS 120**

Primarily this is an architectural drafting course with emphasis placed on the skills and techniques involved with Computer Aided Drafting. As well as spending considerable time on task at CAD stations, students will be involved in developing their planning, sketching, instrument drawing and work organizational skills. Course content includes plot plans, floor plans, elevations and wall sections. Prerequisite: Computer Aided Design 110.

### **FRAMING AND SHEATHING 110**

Develops knowledge and skills required in the construction of frame buildings. Students study the methods and materials used in framework, from the foundation to the roof, including basic rafters and trusses.

### **RESIDENTIAL FINISH AND INSULATION 120**

Framing and Sheathing is a pre-requisite to this course. Teaches the knowledge and skills needed to complete the interior and exterior of a building. Through hands-on experience, students learn about insulation, wall and ceiling cladding, and the installation of doors and windows. Through hands-on experience, students learn about exterior wall cladding and frames, as well as cornice trims and roof coverings.

**Prerequisite:** Framing and Sheathing

### **MILL AND CABINET WORK 120**

Teaches the construction of custom mill items and cabinets found in the typical home. As well students learn how to plan and estimate projects, and they learn how to care for hand and machine tools.

### **ELECTRIC WIRING 110**

Introduces the student to residential wiring methods. Theory and skills are developed in a lab setting. Students do circuit arrangements and connections following the Canadian Electrical Code.

### **METALS PROCESSING 110**

Teaches standard machine shop processes used in the manufacture of metal products. Students study machine shop theory and learn how to operate a variety of machine tools. Time is equally divided between the classroom and the lab.

### **METALS FABRICATION (WELDING) 110**

Introduces the fabrication of metal products. Students are taught the principles of welding – both fusion and non-fusion – using the oxyacetylene flame and the cutting torch. Projects are done on the electric arc machines, on the mig. semi-automatic machine, and projects using AC and AC/DC are undertaken. A number of metal cutting tools – nibbler, hand grinder, shears, and power saws – are used.

### **INTERNAL COMBUSTION ENGINES 110**

Teaches the repair, overhaul, service and testing of the internal combustion engine. Theory of operation of the engine is emphasized.

### **AUTOMOTIVE ELECTRICAL SYSTEMS 120**

This course introduces the student to the theory and operation of automotive electrical systems. Students will begin with a study of the basic elements and principles of electricity, which includes the electron theory, magnetism and electrical symbols and will then progress to individual components throughout the vehicle. This course is of benefit to students interested in maintenance of vehicles or crafts including the automotive, aircraft and marine industries. **Prerequisite:** Internal Combustion Engines 110

## **POWER TRAINING AND CHASSIS 110**

Teaches service and maintenance of the automobile chassis and power train. Emphasis is placed on the function, repair and replacement of components. Topics include spring and shock assemblies, brakes, steering, wheel bearings, tires, transmissions, differentials and drivelines.

## **TUNE-UP AND EMISSIONS 120**

Teaches the diagnosis, servicing and repair of automotive electrical systems and engine tune-ups. Students learn the components of the systems and how to diagnose and correct malfunctions. The course also teaches respect for the customer's vehicle and effective employee-employer relationships. **Prerequisite:** Internal Combustion Engines 110.

## **MATHEMATICS**

### **INTRODUCTION to HIGH SCHOOL MATH (Math 9 – Semester 1)**

Topics include Number Systems, Matrices, Powers, Algebra, Probability, and Data Management.

### **POLYNOMIALS and APPLICATIONS (Math 9 – Semester 2)**

Topics include Polynomials, Graphing, Congruent and Similar Triangles, and Measurement.

### **MATHEMATICAL MODELING (Semester 1)**

This course is designed to prepare students for Math 11. Students who choose Mathematical Modeling (10) are expected to select Applied Algebra and Geometry (10) as well. Topics include Patterns-Relations-Equations-Predictions, Data Management, and Networks & Matrices.

### **APPLIED ALGEBRA and GEOMETRY (Math 10 Semester 2)**

This course is designed to prepare students for Math 11. Topics include Trigonometry, Geometry & Packaging, Modeling Functional Relationships, and Linear Programming.

## **GEOMETRY AND APPLICATIONS 112**

Is a college prep math course. Topics include: co-ordinate geometry, circle geometry, probability, statistics and algebra. This is a one-semester course and is a requirement for graduation at the second level. **Prerequisite:** Math 10.

## **FUNCTIONS AND RELATIONS 112**

Is a college prep math course and is necessary for entrance to university and most post secondary institutions. Topics include: applications of trigonometry, quadratics, rates of change, and exponential functions. This is a more rigorous course than Geometry and Applications 112. **Prerequisite:** - Geometry and Applications 112.

## **GEOMETRY AND APPLICATIONS 111**

Is an enriched, accelerated Math 112. Students registering for this math course should have very good math ability and study habits. **Prerequisite:** Math 10A and teacher recommendation.

## **FUNCTIONS AND RELATIONS 111**

Is an enriched, accelerated Math 112. This course is a requirement for university and students registering for this course should have very good math ability and study habits. **Prerequisite:** Geometry and Applications 111.

## **APPLICATIONS IN MATHEMATICS 113**

Is designed for students not intending to pursue higher levels of education requiring level 2 math. Topics include basic algebra, statistics, probability and consumer decisions. This is a one-semester course and is required for graduation. This is a full year course. **Prerequisite:** Math 10.

## **PATTERNS AND RELATIONS 113**

Is a one-semester course and continues where Math 113 leaves off. Topics include: applications of trigonometry, patterns, quadratics and exponential functions. Prerequisite: Applications in Mathematics 113

### **TRIGONOMETRY AND 3-SPACE 122**

Is designed primarily for top grade 12 students planning to pursue post-high school studies in science, engineering or any other area requiring a strong background in math. It includes a study of the algebra of 3-space and trigonometry. Prerequisite: Functions and Relations 112 or 111

### **TRIGONOMETRY AND 3-SPACE 121**

Is an enriched, accelerated Trigonometry and 3 - Space. Students registering for this course should have excellent math ability and study habits. Prerequisite: Functions and Relations 111

### **ADVANCED MATH WITH INTRODUCTION TO CALCULUS 120**

Includes a study of sequences and series, functions, complex numbers, limits and introduction to calculus Prerequisite: Trigonometry and 3-Space 121-122.

### **DIFFERENTIAL AND INTEGRAL CALCULUS 120**

This course is for top grade 12 students going to university primarily for math, science, engineering and business. Topics include: limits, derivatives, related rates, curve sketching, max/min problems and trig. functions. **Local option course.**

## **MUSIC**

### **MUSIC 111/2**

Music 111/2 is an instrumental course, which focuses on three areas: *performance, theory/ear training, and history and analysis*. Students will have an opportunity to listen and critique several styles of music, play instruments in a band setting, as well as, expand their theory and analytical skills. Students must have successfully completed grade 10 Music to be enrolled in this course.

### **MUSIC 122**

Music 122 is designed for the advanced and serious music student. Students entering this course must have successfully completed Music 111/2, or have private music study equivalent to grade 6 instrumental (including keyboard) or voice offered by the Royal Conservatory of Music or equivalent. The course will be a continued study of concepts covered in Music 111/2 (i.e. Historical styles and forms, theoretical concepts, technical/performance skills, as well as, critical listening skills.)

### **DIGITAL SOUND 120**

Digital Sound 120 will prepare students for the world of sound design and studio engineering. Students will receive hands-on training in Pro Tools and other industry standard audio software. Students will develop the skills needed in sound recording to create professional quality audio projects. This is a **local option course**.

## **PHYSICAL EDUCATION**

### **PHYSICAL EDUCATION 120**

Is designed for grade 12 students interested in physical activities and healthful living, combined with a desire to develop leadership skills. Time outside of regular school hours is required for some class projects. Projects undertaken involve both the school and the community. This is not an activity-based course.

### **PHYSICAL EDUCATION 110**

Is designed for grade 11 or 12 students interested in physical activities. This is an activity based course.

## **SCIENCE**

### **NATURAL SCIENCE 9**

Students are introduced to Biology, Space and Weather. Topics investigated include: Cell division; Reproductive processes; Ecology; Space and Weather dynamics.

### **PHYSICAL SCIENCE 10**

Students are introduced to Chemistry and Physics. Topics investigated include: Atoms; Elements; Chemical reactions; Motion; Velocity; Acceleration and Electricity.



## **ASTRONOMY 120**

Provides a detailed examination of the nature of the universe. Topics include: Earth and planetary motions; Solar systems; Stars; Galaxies; Structure of the universe and Cosmology. Students will be required to do numerous readings, conduct independent research on various topics, prepare and make presentations, contribute to class discussions and demonstrate expertise using astronomical equipment and software. A **local option course**

## **BIOLOGY 112**

A life science course which encourages scientific thinking skills and conceptual ability through classroom discussions, biological theory and lab investigations. Topics include: Characteristics of living thing; Cell structure and interactive functions; Organizational systems; Bio-diversity; Specialized systems; Adaptations and interactions. This foundation course is a prerequisite for Biology 122

## **BIOLOGY 113**

Is similar to Biology 112, but subject matter is covered in less depth. Students are required to do a number of individual and team projects including classroom presentations. Regular home study and successful completion of all assignments is essential if students are to master the biological terms and concepts in this program. Core topics include: scientific method; cells and cell division; tissues and organs of the body; body systems and interactions; and health and disease.

## **BIOLOGY 122**

An advanced life science course that approaches biology from a cellular and biochemical level. Topics include: Neurons and neural systems; Hormonal regulation systems; Reproduction and development; Nucleic acids; Genetic continuity; Populations and Evolutionary processes; Mammalian physiology. **Prerequisite:** Biology 112.

## **CHEMISTRY 112**

Topics include: Atoms; Molecules; Atomic theory; Periodic table of Elements; Compounds; Mixtures; Chemical Quantities; Chemical formulas and equations; Solutions; Stoichiometry of solids, liquids, gases and chemical bonding. This course is a prerequisite for Chemistry 122

## **CHEMISTRY 122**

Topics include: Energy changes; Reaction enthalpies; Equilibrium in chemical systems; Acid-base chemistry and Organic Chemistry. Quantitative and graphical analysis skills are an integral component of this program. **Prerequisite:** Chemistry 112.

## **ENVIRONMENTAL SCIENCE 122**

This course investigates the many factors that influence the sensitive environment of this planet. Topics include: Nutrient cycles; energy flow patterns; Soil ecosystems; Salt-water ecosystems; Animal habitats; Plant habitats and local field studies. In addition to regular class work, readings are assigned, students are expected to actively participate in class discussions and at least one major project is required. No prerequisite course is required.

## **ENVIRONMENTAL SCIENCE 123**

Is similar to Environmental Science 122, but subject matter is covered in less depth.

## **PHYSICS 112**

Topics include: Kinematics (vectors, a graphical description of motion); Dynamics (Newton's laws, forces, momentum and energy); Waves (Properties of sound and light, reflection and refraction). Numerous labs are involved. This foundation course is a prerequisite for Physics 122.

## **PHYSICS 122**

Topics include: Two dimensional dynamics (forces, torque, momentum); Projectile and circular motion; Gravitational and electromagnetic forces; Fields and electric circuits. **Prerequisite:** Physics 112.