

SCIENCE

Science Content Standards

A.....Classifying Life Forms	B.....Ecology
C.....Cells	D.....Continuity and Change
E.....Structure of Matter	F.....The Earth
G.....The Universe	H.....Energy
I..... Motion	J.....Inquiry and Problem Solving
K..... Scientific Reasoning	L.....Communication
M.....Implications of Science and Technology	

Grade 9	Physical Science			
Grade 10	Biology			
Grade 11	Tech Science	Chemistry		Advanced Chemistry
Grade 12	Tech Science	Conceptual Physics	Physics	AP Physics

PHYSICAL SCIENCE

Grade 9

1 Credit

All freshmen are required to take this course. The course introduces the Sci-Math model of problem solving and covers the science content areas of Physics and Earth & Space. There is a certain amount of lab work to reinforce the concepts learned in class. The class will meet for 5 periods per week.

BIOLOGY

Grade 10

1 ½ Credits

All sophomores are required to take this course. The course gives the students a good introduction to the world of life science. Such topics as cells, genetics and microorganisms will be covered. Students will do lab work, projects and use critical thinking skills to solve problems. The class will meet for 7 periods / week.

CHEMISTRY

Grade 11

1 ½ Credits

The course is intended to prepare all students for college chemistry regardless of whether they will major in a science field or not. The class will include problem solving and a considerable amount of lab work to challenge the student to understand the science concepts. The class will meet for 7 periods / week. *RECOMMENDED BACKGROUND: ALGEBRA I*

ADVANCED CHEMISTRY

Grade 11

2 Credits

This course is intended for the ambitious science student who plans to pursue a science field of study such as engineering or medicine. Emphasis will be placed on problem solving with much time learning chemistry concepts through rigorous experimentation. The computer and other technology will be an integral part of the course work. The class will meet for 10 periods / week. *RECOMMENDED BACKGROUND: ALGEBRA I*

PHYSICS

Grade 12

1 ½ Credits

This course is designed to prepare the student for college physics. The class offers a traditional laboratory based approach to the study of physics with emphasis on problem solving. The class will meet 7 periods / week. *RECOMMENDED BACKGROUND: ALGEBRA II*

CONCEPTUAL PHYSICS

GRADE 12

1 Credit

This course is intended for the college bound student who will not be a science or math major. The approach to physics is unique in that it applies the physics concepts to explain phenomena that students have observed in the every day world without the usual math associated with traditional physics. There is a certain amount of lab work to reinforce the concepts learned in class. The class will meet 5 periods / week.

AP PHYSICS

Grade 12

2 Credits

AP Physics is equivalent to the first semester physics taught in college to engineering and science students. The course is a traditional calculus based course and the student must be taking or have completed Calculus I. At the conclusion of the course, the student may elect to take the AP Physics C exam. Many colleges accept successful completion of this exam in place of a first semester physics course requirement. This course is recommended for students planning a career in engineering or other science fields that require a calculus based background. This course will meet for 10 periods / week.

ADVANCED PLACEMENT (AP) BIOLOGY

2 Credits

(Offered depending upon enrollment requests)

This course is designed to explore biology topics in as much depth as possible by applying many problem-solving activities, independent work, projects, and other special activities. Topics covered will include biochemistry, life characteristics, cell structure and function, genetics, cell division, origin of life, variety of life, ecology, and anatomy. The class meets 10 periods per week. At the end of the year, students may elect to take the AP Biology test to earn college Credit. Students must apply for this course prior to the normal registration process.

ANATOMY & PHYSIOLOGY

1 Credit

(Offered depending upon enrollment requests)

This is an intense course for those students wishing to enter the medical field as a doctor, nurse, physical therapist, sports medicine, etc. Most of the systems of the body will be covered. Some labs and projects will be assigned as part of the course. Job shadowing will be encouraged in areas of interest. *Prerequisite: Biology*

HORTICULTURE

1 Credit

The class will include landscaping, sports fields' management, and growing plants in the new greenhouse. Hands on projects, which utilize the school grounds as well as fieldtrips and industry speakers, will be an integral part of this course. Sports fields and turf grass management national certification segments will be offered.

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