

### Science Options Semester 2, 2016

Class Name that you choose on EDVAL	Year	Unit	Description
Biology 2.A	12,11	Heredity and Continuity of Life	Students investigate mechanisms of heredity and the ways in which inheritance patterns can be explained, modelled and predicted; they connect these patterns to population dynamics and apply the theory of evolution by natural selection in order to examine changes in populations.
Biology 2.T	12,11		
Biology 4.A	12	Introductory Genetics	Students investigate mechanisms of heredity and the ways in which inheritance patterns can be explained, modelled and predicted; they connect these patterns to population dynamics and apply the theory of evolution by natural selection in order to examine changes in populations.
Biology 4.T	12		
Chemistry 2.T	12,11	Molecular interactions and reactions	Students will study bonding models and the relationship between <u>structure, properties and reactions and the factors that affect the rate of</u>
Chemistry 4.T	12	Biochemistry	Students will study the structure, function and synthesis of macromolecules, cellular respiration, photosynthesis and genetic engineering
General Science.A	12,11	The World in Motion	Students will study wave properties, optical instruments, sound as well as forces and motion.
General Science.T	12,11		
Oceanography.A	12,11	Marine Ecosystems and the Sea as a Resource	Students will study nature and importance and components of marine ecosystems, marine food chain and communities and examine factors that affect these resources.
Oceanography.T	12,11		
Physics 2.T	12,11	Thermal, Nuclear and Electrical Physics	Students will study energy production by considering heating processes, radioactivity and nuclear reactions and investigate electrical circuits.
Physics 4a.T : Atomic and Nuclear Physics	12	Atomic and Nuclear Physics	Students will study atomic models, theory and structure, making reference to historical developments. They will also investigate the nature and types of nuclear radiation making reference to applications such as medicine and power production.
Physics 4b.T : Engineering and Fluids	12	Engineering and Fluids	Students will study the Physics of Simple Machines, Structures and Materials in the Engineering unit and in the Fluids unit they will study the Physics of Fluid Statics and Dynamics by examining how things experience pressure, flow and how objects move through fluids.