Sciences Science 9 — MSC--09 — Grade 9, Credits 0

Science 9 spans many areas of science including: Chemistry - Atomic Theory, elements, compounds, formulae, reactions and the Periodic Table. Biology - cell biology including cell division, asexual and sexual reproduction and assisted reproductive technologies Physics - static and current electricity, Ohm's Law, series and parallel circuits Space Exploration - solar systems, stars and galaxies, space technology. Specific lab activities will accompany this course wherever possible.

Sciences Science 9- Distance Learning (CEAP) — MSC--09DL — Grade 9, Credits 0

Distance Learning Course—Science 9 spans many areas of science including: Chemistry - Atomic Theory, elements, compounds, formulae, reactions and the Periodic Table. Biology - cell biology including cell division, asexual and sexual reproduction and assisted reproductive technologies Physics - static and current electricity, Ohm's Law, series and parallel circuits Space Exploration - solar systems, stars and galaxies, space technology.

Sciences Science 10 — MSC--10 — Grade 10, Credits 4

Science 10 explores big ideas from the four main sciences: Chemistry - Chemical processes require energy change as atoms are rearranged, bonding, compounds, law of conservation of mass, reactions and equations. Biology: Genes are the foundation for the diversity of living things -inheritance patterns in genetics, natural and artificial selection. Physics - Energy is conserved and its transformation can affect living things and the environment, law of conservation of energy, kinetic and potential energy, nuclear energy and radiation. Earth Sciences The formation of the universe can be explained by the big bang theory, components of the universe over time, astronomical data and collection methods. Lab activities will accompany this course wherever appropriate.

Sciences SCIENCE 10- Distance Learning (CEAP) — MSC--10DL — Grade 10, Credits 4

Distance Learning Course—See Science 10 course description.

Sciences Chemistry 11 — MCH--11 — Grade 11, Credits 4

Chemistry 11 is a prerequisite for many university and college courses. Chemistry is the science which deals with the properties and reactions of materials; it is concerned with the identification, characterization, and transformation of matter, and with the energy changes accompanying these transformations. Chemistry 11 is a lab-oriented course that focuses on the structure and interaction of matter at the atomic and molecular levels.

Sciences Chemistry 11- Distance Learning (CEAP) — MCH--11DL — Grade 11, Credits 4

Distance Learning Course—See Chemistry 11 course description above.

Sciences Earth Science 11 — MESC-11 — Grade 11, Credits 4

Earth Science 11 teaches students about the physical world we live in. General areas of study include: geology, oceanography, plate tectonics, volcanism and climatology. Specific topics include: the Earth's formation and history, rocks and minerals, volcanoes and earthquakes, ocean currents and weather. This is a fast-paced academic course with lab opportunities. Earth Science 11 is highly recommended for students who plan to take Geography 12.

Sciences Earth Sciences 11- Distance Learning (CEAP) — MESC-11DL — Grade 11, Credits 4

Distance Learning Course—Earth Science 11 teaches students about the physical world we live in. General areas of study include: geology, oceanography, plate tectonics, volcanism and climatology. Specific topics include: the Earth's formation and history, rocks and minerals, volcanoes and earthquakes, ocean currents and weather. This is a fast-paced academic course with lab opportunities. Earth Science 11 is highly recommended for students who plan to take Geography 12.

Sciences Life Science 11 Summer Field Study Course CEAP — MLFSC11SDL — Grade 11, Credits 4

The CEAP Life Sciences 11 Field Study is a 14 day intensive course designed to provide students with real experiences in the field of Wildlife Biology. Through a combination of teacher led lessons, labs and experiential field activities students will gain insight into the diverse world of academic and professional biology. This course is intended for students who have a deep interest in the life sciences and/or are considering career and academic paths related to biology, environmental sciences and natural resource management. Students will also gain experience working outside at a variety of different study locations. Safety, preparedness, teamwork, and responsibility will be a daily focus.

Sciences Life Science 11 Summer Field Study Course CEAP — MLFSC11SDL — Grade 11, Credits 4

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Sciences Life Sciences 11 — MLFSC11 — Grade 11, Credits 4

In Life Sciences 11 students will gain an understanding that life is a result of interactions at the molecular and cellular levels. They will learn that evolution occurs at the population level and organisms are grouped based on common characteristics. Upon completion of the course students will know the following: levels of organization, cell structure and function, sexual and asexual reproduction, energy transformations in cells, viruses, First Peoples understandings of interrelationships between organisms, microevolution, adaptation to changing environments, changes in DNA, natural selection, macroevolution, speciation, processes of macroevolution, evidence for macroevolution, artificial selection and genetic modifications, single-celled and multi-celled organisms, trends in complexity among various life forms, evidence for phylogenetic relationships, taxonomic principles for classifying organisms, binomial nomenclature, First Peoples knowledge on classification, similarities and differences between domains and kingdoms.

Sciences Life Sciences 11- Distance Learning (CEAP) — MLFSC11DL — Grade 11, Credits 4

Distributed Learning Course—See Life Sciences 11 description above.

Sciences Physics 11 — MPH--11 — Grade 11, Credits 4

Physics 11 is an introductory course that focuses on the principles and theories of physics, encourages investigation of physical relationships, and illustrates the relationship between theory and application. The application of physics to everyday situations is highlighted throughout the curriculum. Learning outcomes for Physics 11 are grouped under these following curriculum organizers: physics - concepts and measurements, motion graphs, wave motion (water, sound and light), optics, kinematics, dynamics in one dimension, energy and momentum, and special relativity.

Sciences Physics 11- Distance Learning (CEAP) — MPH--11DL — Grade 11, Credits 4

Distributed Learning Course—See Physics 11 course description.

Sciences Science for Citizens 11- Distance Learning (CEAP) — MSCCT11DL — Grade 11, Credits 4

Distance Learning Course—In Science for Citizens 11 students will understand how scientific processes and knowledge inform our decisions and impact our daily lives. They will learn how scientific knowledge can be used to develop procedures, techniques, and technologies that have implications for places of employment. Finally, they will grasp that scientific understanding enables humans to respond and adapt to changes locally and globally.

Sciences Anatomy and Physiology 12 — MATPH12 — Grade 12, Credits 4

In Anatomy and Physiology 12 students will learn the following Big Ideas: Homeostasis is maintained through physiological processes. How does the body maintain internal balance during exercise? What are the impacts of external stimulants (e.g. caffeine, alcohol) on the physiological balance of your body? Gene expression, through protein synthesis, is an interaction between genes and the environment. How does gene expression effect variability in human populations? How do humans adapt to changing internal and external conditions? Organ systems have complex interrelationships to maintain homeostasis. What is the advantage of having specialized tissues? How does the body respond to infection by a pathogen such as Zika virus or avian flu? What lifestyle decisions would improve your health? Upon completion of this course, student will know the following: biological molecules, metabolism and enzymes, feedback loops and regulation of the body, internal environment, transport across a cell membrane. DNA: genetic information, replication, gene expression, proteins and their relationship to the structure and function of all cells, genomics and biotechnology, micro to macro organization, organ systems: (structure and function, structural and functional interdependence, maintenance of homeostasis), lifestyle differences and their effects onÂ human health, holistic approach to health, disease as an imbalance in homeostasis.

Sciences Anatomy & Physiology 12- Distance Learning (CEAP) MATPH12DL Grade 12
Credits 4

Distance Learning Course—See Anatomy and Physiology 12 course description

Sciences Chemistry 12 MCH--12 Grade 12
Credits 4

Chemistry 12 is a lab based course that explores aspects of physical chemistry through the investigation of reaction kinetics and the dynamic equilibrium involved in solution chemistry, acid-base systems and oxidation-reduction reactions.

Sciences Chemistry 12- Distance Learning (CEAP) MCH--12DL Grade 12
Credits 4

Distance Learning Course—See Chemistry 12 course description.

Sciences Physics 12 MPH--12 Grade 12
Credits 4

Physics 12 is the study of classical mechanics and electromagnetism, and is designed to help students develop analytical and problem solving skills. It provides opportunities for students to understand and apply the principles and concepts of physics to practical situations. The learning outcomes for Physics 12 are grouped under the following curriculum organizers: vector kinematics, vector dynamics, energy and momentum, equilibrium, circular motion and gravitation.

Sciences Physics 12- Distance Learning (CEAP) MPH--12DL Grade 12
Credits 4

Distance Learning Course—Physics 12 is the study of classical mechanics and electromagnetism, and is designed to help students develop analytical and problem solving skills. It provides opportunities for students to understand and apply the principles and concepts of physics to practical situations. The learning outcomes for Physics 12 are grouped under the following curriculum organizers: vector kinematics, vector dynamics, energy and momentum, equilibrium, circular motion and gravitation.