

Ontario Ministry of Education Credit Courses

The UCC Summer Academy offers 7 credit courses at Grades Eleven and Twelve. These courses conform to the Ontario Ministry of Education guidelines and are offered for students wishing to upgrade their marks, or to obtain new credits as prerequisites of 4U or IB courses, or for university programs.

Session Dates:

Monday, July 3 – Friday, July 28

8:00 am to 1:30 pm

20 days of instruction/110 hours of instruction

Fee: \$1650*

* Save \$100! Credit Course Registrations accompanied by full payment before May 19, 2017 will receive a discount of \$100.

Course Descriptions: Full course descriptions can be found at the Ontario Government, Ministry of Education website.

www.edu.gov.on.ca

Ministry of Education Full Disclosure Policy for Ontario Credit Courses

Commencing in September 1999, all credit courses coded with a 3 or 4 designation will be subject to the Full Disclosure Policy. All UCC Summer Academy courses in which students are enrolled as of July 14th, 2017 will be recorded on a student's transcript whether or not the course has been successfully completed. This information is to be made available to Community Colleges and Universities for them to consider when making admission or scholarship decisions.

Course Coding on Transcripts

Effective this summer the Ministry has mandated that all evening and summer courses appear separately on a students' transcript from those courses taken at the students' day school.

Mathematics Courses

Calculus and Vectors: Grade 12 (MCV4U) Prerequisite: Grade 12 Advanced Functions (MHF4U)

This course builds on a students' previous experience with functions and their developing understanding of rates of change. Students will solve problems involving geometric and algebraic representations of vectors and representations of line and planes in three-dimensional space; broaden their understanding of rates of change to include derivatives of polynomial, sinusoidal, exponential, rational, and radical functions; and apply these concepts and skills to the modeling of real-world relationships. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended for students who choose to pursue careers in fields such as science, engineering, economics, and some areas of business, including those students who will be required to take a university-level calculus, linear algebra or physics course.



Science Courses

Biology: Grade 11 (SBI3U) Prerequisite: Grade 10 Science (SNC2D)

This course furthers students' understanding of the processes involved in biological systems. Students will study cellular functions, genetic continuity, internal systems and regulation, the diversity of living things, and the anatomy, growth, and functions of plants. The course focuses on the theoretical aspects of the topics under study, and helps students refine skills related to scientific investigation.

Biology: Grade 12 (SBI4U) Prerequisite: Grade 11 Biology (SBI3U)

This course provides students with the opportunity for in-depth study of the concepts and processes associated with biological systems. Students will study theory and conduct investigations in the areas of metabolic processes, molecular genetics, homeostasis, evolution, and population dynamics. Emphasis will be placed on achievement of the detailed knowledge and refined skills needed for further study in various branches of the life sciences and related fields.

Chemistry: Grade 11 (SCH3U) Prerequisite: Grade 10 Science (SNC2D)

This course focuses on the concepts and theories that form the basis of modern chemistry. Students will study the behaviors of solids, liquids, gases, and solutions; investigate changes and relationships in chemical systems; and explore how chemistry is used in developing new products and processes that affect our lives and our environment. Emphasis will also be placed on the importance of chemistry in other branches of science.

Chemistry: Grade 12 (SCH4U) Prerequisite: Grade 11 Chemistry (SCH3U)

This course enables students to deepen their understanding of chemistry through the study of organic chemistry, energy changes and rates of reaction, chemical systems and equilibrium, electrochemistry, and atomic and molecular structure. Students will further develop problem-solving and laboratory skills as they investigate chemical processes, at the same time refining their ability to communicate scientific information. Emphasis will be placed on the importance of chemistry in daily life, and on evaluating the impact of chemical technology on the environment.

Physics: Grade 11 (SPH3U) Prerequisite: Grade 10 Science (SNC2D)

This course develops students' understanding of the basic concepts of physics. Students will study the laws of dynamics and explore different kinds of forces, the quantification and forms of energy (mechanical, sound, light, thermal, and electrical), and the way energy is transformed and transmitted. They will develop scientific-inquiry skills as they verify accepted laws and solve both assigned problems and those emerging from their investigations. Students will also analyze the interrelationship between physics and technology, and consider the impact of technological applications of physics on society and the environment.

Physics: Grade 12 (SPH4U) Prerequisite: Grade 11 Physics (SPH3U)

This course enables students to deepen their understanding of the concepts and theories of physics. Students will explore further the laws of dynamics and energy transformations, and will investigate electrical, gravitational, and magnetic fields; electromagnetic radiation; and the interface between energy and matter. They will further develop inquiry skills, learning, for example, how the interpretation of experimental data can provide indirect evidence to support the development of a scientific model. Students will also consider the impact on society and the environment of technological applications of physics.