HONOURS BSC IN CHEMISTRY

Chemistry is a modern, dynamic and diverse field that involves investigating the substances that make up our physical world and how they change. Chemistry touches everything we come into contact with. It is connected to almost all areas of science and engineering. For example, chemists play a vital role in developing new drugs, understanding and modifying biological processes and making materials for advanced electronic devices. Chemists are also important players in such diverse areas as genetic engineering, forensic science and the oil and gas industry. More recently, chemists have been at the forefront of nanotechnology and emerging green technologies, particularly in the development of sustainable energy sources.

The Department of Chemistry and Biomolecular Sciences at the Faculty of Science offers chemistry, biochemistry and biopharmaceutical science programs with unique options in medicinal chemistry, genomics, advanced materials chemistry, ecochemistry and chemical biology. In addition to classroom teaching, programs offer practical laboratory training with a focus on individual instruction.

This program is offered in English and in French.

Program Requirements

Co-operative education is available with this program.

The extended French stream is available with this program.

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Option 1: Honours Project

CHM 4010 Research Project

Option 2: Honours Project Co-op Option

CHM 4016 Research Project

and 3 optional course units in chemistry (CHM) at the 3000 or 4000 level

3 course units from Physical-Theoretical: 3 Units

CHM 4141 Computational Chemistry I

CHM 4143 Computational Chemistry II

CHM 4182 Molecular Dynamics in Chemistry

CHM 4340 Application of Theoretical Chemistry

CHM 4380 Advanced Characterization Methods in Material Science and Catalysis

CHM 4381 Photochemistry and Photobiology

CHM 4390 Special Topics in Physical Chemistry

CHM 4391 Selected Topics in Physical Chemistry

3 course units from Organic - Bio-organic: 3 Units

BIM 4316 Modern Bioanalytical Chemistry

CHM 4123 Medicinal Chemistry

CHM 4139 Enzyme Chemistry and Biocatalysis

CHM 4155 Polymer and Applied Chemistry

CHM 4325 Advanced Organic Synthesis and Reaction Mechanisms

CHM 4328 Special Topics in Organic Chemistry

BPS 4129 Advanced Chemical Biology

3 course units from Inorganic - Materials: 3 Units

CHM 4129 Chemistry of Sustainable Energy

CHM 4311 Selected Topics in Inorganic Chemistry

CHM 4313 Solid State Chemistry

CHM 4317 Organometallic Chemistry

CHM 4318 Nanostructured Materials

CHM 4319 Bio-Inorganic Chemistry

12 elective course units offered by the Faculty of Arts, the Faculty of Education, the Faculty of Law, the Faculty of Social Sciences or the Telfer School of Management

18 elective course units

Total: 120 Units

This message is intended for students registered in the Faculty of Science. If the components of your program of study require common compulsory courses, you will have to replace the units as follows:

1. 1000-level courses must be replaced with elective course units;

2. 2000-level courses and above must be replaced with optional course units from either discipline at the same level or above.

Please note that all programs in the Faculty of Science require a minimum of 12 elective course units from the Faculty of Arts, the Faculty of Education, the Faculty of Law, the Faculty of Social Sciences or the Telfer School of Management. Once you have decided on the replacement courses, please inform the Office of Undergraduate Programs of the

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Faculty of Science by email at infosci@uOttawa.ca so that we may amend your Academic Advisement accordingly.