Carleton University | Faculty of Science

B.Sc. Honours Chemistry
Concentration in Nanotechnology

Carleton University

YEAR 1

CHEM 1011 & 1012
Enriched General Chemistry I & II

1.0–1.5 CREDITS IN:

MATH 1004
Calculus for Engineering or Physics

MATH 1107
Linear Algebra I

MATH 1005 OR 2007
Differential Equations and Infinite Series for Engineering or Physics

1.0 CREDIT FROM:

PHYS 1003
Introductory Mechanics and Thermodynamics

&

PHYS 1004
Introductory Mechanics and Thermodynamics I & II

PHYS 1007 & 1008
Elementary Physics I & II

YEAR 2

CHEM 2103 & 2104
Physical Chemistry I & II

CHEM 2203 & 2204
Organic Chemistry I & II

CHEM 2302 & 2303
Analytical Chemistry I & II

CHEM 2501
Introduction to Inorganic and Bioinorganic Chemistry

0.5–1.0 CREDIT IN:

MATH 1005 OR 2007
Differential Equations and Infinite Series for Engineering or Physics (if not taken in Year 1)

MATH 2008
Intermediate Calculus

YEAR 3

CHEM 3101
Quantum Chemistry

CHEM 3107
Experimental Methods in Nanoscience

CHEM 3201
Advanced Organic Chemistry I

CHEM 3503
Inorganic Chemistry I

CHEM 3600
Introduction to Nanotechnology

1.0 CREDIT FROM:

CHEM 3205
Experimental Organic Chemistry

CHEM 3305
Advanced Analytical Chemistry Laboratory

CHEM 3504
Inorganic Chemistry II

YEAR 4

CHEM 4103
Surface Chemistry and Nanostructures

CHEM 4104
Physical Methods of Nanotechnology

CHEM 4401
Physical Aspects of Biochemistry

HONOURS PROJECT (1.0 CREDIT)

CHEM 4908
Research Project and Seminar

0.5 credit in Science Continuation (not CHEM)

1.0 credit in Science Faculty Electives at the 1000-level

2.0 credits in Science Faculty Electives or Science Continuation Courses

0.5 credit in NSCI 1000 or approved courses outside the faculties of Science and Engineering and Design

1.5 credits in approved courses outsice the faculties of Science and Engineering and Design (may include NSCI 1000, if not used above)

1.0 credit in free electives

Note: This is a snapshot of the Undergrad Calendar. Information can change. Always consult your audit and seek advising. Some courses are available in the summer. Please check Carleton Central for availability.

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