Honours in Chemistry with Computational Chemistry Option (133 credits)	**Honours in Chemistry with Computational Chemistry Option (122 credits) Program abolished**

Requirements 2003-2005		**New course codes 2006**	
Compulsory first-year credits:	~~34~~	Compulsory first-year credits:	**27**
Suggested course stream for full-time students		Suggested course stream for full-time students	
Fall:		**Fall:**	
~~CSI1100~~ Introduction to Computer Science I	~~4~~	**ITI1220** Introduction to Computer Science I	**3**
~~CHM1310~~ Principles of Chemistry	~~4~~	**CHM1311** Principles of Chemistry	**3**
MAT1320 Calculus I	3	MAT1320 Calculus I	3
~~PHY1101~~ Fundamentals of Physics I	3	**PHY1121** Fundamentals of Physics I	**3**
~~PHY1201 Physics Laboratory~~	~~3~~		
Winter:		**Winter:**	
~~CSI1101~~ Introduction to Computer Science II	~~4~~	**ITI1221** Introduction to Computer Science II	**3**
~~CHM1320~~ Organic Chemistry I	~~4~~	**CHM1321** Organic Chemistry I	**3**
~~PHY1102~~ Fundamentals of Physics II	3	**PHY1122** Fundamentals of Physics II	**3**
MAT1322 Calculus II	3	MAT1322 Calculus II	3
MAT1341 Introduction to Linear Algebra	3	MAT1341 Introduction to Linear Algebra	3
Other compulsory credits	64	Other compulsory credits	**60**
Fall:		**Fall:**	
CHM2120 Organic Chemistry II	3	CHM2120 Organic Chemistry II	3
~~CHM2126~~ Laboratory of Organic Chemistry II	~~2~~	**CHM2123** Laboratory of Organic Chemistry II	**3**
CHM2131 Chemical Thermodynamics of Gases and Solutions	3	CHM2131 Chemical Thermodynamics of Gases and Solutions	3
~~CHM2154~~ Analytical Chemistry	3	**CHM2354** Analytical Chemistry	3
~~CHM2352~~ Descriptive Inorganic Chemistry	3	**CHM2353** Descriptive Inorganic Chemistry	3
CHM3120 Intermediate Organic Chemistry	3	CHM3120 Intermediate Organic Chemistry	3
CHM3122 Applications of Spectroscopy in Chemistry	3	CHM3122 Applications of Spectroscopy in Chemistry	3
CHM3126 Laboratory of Organic Chemistry	3	CHM3126 Laboratory of Organic Chemistry	3
CHM3140 Quantum Chemistry	3	CHM3140 Quantum Chemistry	3
~~CHM3150 Transition Metal Chemistry~~	~~3~~	**CHM3350** Transition Metal Chemistry	**3**
CHM4146 Computational Chemistry Laboratory	3	CHM4146 Computational Chemistry Laboratory	3
~~CSI2114~~ Data Structure	3	**CSI2210 Data Structures and Algorithms**	**3**
CSI2115 Concepts in Programming Languages	3	CSI2115 Concepts in Programming Languages	3
MAT2331 Ordinary Differential Equations and Numerical Methods	3	MAT2331 Ordinary Differential Equations and Numerical Methods	**3(4)**
Winter:		**Winter:**	
BCH2140 Introduction to Biochemistry	3	**BCH2333** Introduction to Biochemistry	3
~~CHM2118 Laboratory of Analytical Chemistry~~	~~2~~		
~~CHM2130~~ Physical Chemistry: Introduction to the molecular properties of matter	3	**CHM2330** Physical Chemistry: Introduction to the molecular properties of matter	3
~~CHM2136 Laboratory of Physical Chemistry~~	~~2~~		
CHM2311 Introduction to Structure and Bonding	3		
~~CHM3371 Molecular Spectroscopy and Statistical Mechanics~~	~~3~~	CHM2311 Introduction to Structure and Bonding	3
CHM4141 Computational Chemistry I	3	CHM4141 Computational Chemistry I	3
CHM4143 Computational Chemistry II	3	CHM4143 Computational Chemistry II	3
SEG3300 Introduction to Software Engineering	3	SEG3300 Introduction to Software Engineering	3

A minimum of 15 credits (maximum of 12 credits in CSI) from:	15		A minimum of 15 credits (maximum of 12 credits in CSI) from:	15
Fall:			**Fall:**	
BCH4122 Macromolecules	3		BCH4122 Macromolecules	3
CSI3105 Design and Analysis of Algorithms I	3		CSI3105 Design and Analysis of Algorithms I	3
CSI4105 Design and Analysis of Algorithms II	3		CSI4105 Design and Analysis of Algorithms II	3
CSI4124 Foundations of Modelling and Simulation	3		CSI4124 Foundations of Modelling and Simulation	3
~~MAT2122 Calculus III~~	~~3~~			
~~MAT2341 Linear Algebra~~	~~3~~			
MAT2371 Introduction to Probability	3		MAT2371 Introduction to Probability	3
~~PHY2330~~ Mechanics	3		**PHY2333** Mechanics	3
Winter:			**Winter:**	
~~BCH2336 Biochemistry Laboratory I~~	~~2~~			
BCH3120 General Intermediary Metabolism	3		BCH3120 General Intermediary Metabolism	3
BCH3125 Protein Structure and Function	3		BCH3125 Protein Structure and Function	3
BCH4123 Pathological Chemistry	3		BCH4123 Pathological Chemistry	3
BCH4125 Cellular Regulation and Control	3		BCH4125 Cellular Regulation and Control	3
CSI4130 Computer Graphics	3		CSI4130 Computer Graphics	3
CSI4140 Introduction to Parallel Computing	3		CSI4140 Introduction to Parallel Computing	3
CSI4150 Introduction to Numerical Optimization Methods	3		CSI4150 Introduction to Numerical Optimization Methods	3
MAT2143 Group Theory and Applications	3		MAT2143 **Algebraic Structures**	**3**
MAT2375 Introduction to Statistics	3		MAT2375 Introduction to Statistics	3
MAT3380 Introduction to Numerical Methods	3		MAT3380 Introduction to Numerical Methods	3
PHY2100 Fundamentals of Applied Physics III	3		PHY2100 Fundamentals of Applied Physics III	3
PHY2323 Electricity and Magnetism	3		PHY2323 Electricity and Magnetism	3
~~PHY4340~~ Computational Physics I	~~4~~		**PHY4140** Computational Physics I	**3**
~~PHY4341~~ Computational Physics II	~~4~~		**PHY4141** Computational Physics II	**3**
Any 2000-3000-or 4000 level CHM course or laboratory not yet chosen for the program			Any 2000-3000-or 4000 level CHM course or laboratory not yet chosen for the program	
Honours Research Project	8		Honours Research Project	8
CHM4900 Directed Studies in Chemistry	3		CHM4900 Directed Studies in Chemistry	3
CHM3000 or 4000 level	5		CHM3000 or 4000 level	5
or			or	
CHM4046 Reseacrh Project in Computational Chemistry	7		CHM4046 Reseacrh Project in Computational Chemistry	7
CHM4910 Seminar	1		CHM4910 Seminar	1
Twelve credits of non science electives	12		Twelve credits of non science electives	12