AC-05-138
Program/Major or Minor/Concentration Revision Form

(07/2004)

1.0 Degree Title
Specify the two degrees for concurrent degree programs

B.Sc.

1.1 Major (Legacy= Subject) (30-char. max.)

Chemistry

1.2 Concentration (Legacy = Concentration/Option)
If applicable (30 char. max.)

Materials Option

1.3 Minor (with Concentration, if applicable)
(30 char. max.)

1.4 Category

- ☐ Faculty Program (FP)
- ☐ Major
- ☐ Joint Major
- ☐ Major Concentration (CON)
- ☐ Minor
- ☐ Minor Concentration (CON)
- ☒ Honours (HON)
- ☐ Joint Honours Component (HC)
- ☐ Internship/Co-op
- ☐ Thesis (T)
- ☐ Non-Thesis (N)
- ☐ Other

Please specify

1.5 Complete Program Title

Honours In Chemistry with Materials Option

2.0 Administering Faculty/Unit

Science

Offering Faculty/Department

Chemistry

3.0 Effective Term of revision or retirement
Please give reasons in 5.0 "Rationale" in the case of retirement
(Ex. Sept. 2004 = 200409) ☐ Retirement

Term: 200709

4.0 Existing Credit Weight: 77

Proposed Credit Weight: 74

5.0 Rationale for revised program

Changes reflect: 1) retirement of CHEM213, CHEM273, CHEM363 and introduction of CHEM223, CHEM243, CHEM253, and CHEM263. 2) Dropping MATH133, a U0 course to bring our program in line with others in the faculty.

6.0 Revised Program Description (Maximum 150 words)

7.0 List of existing program and proposed program

Existing program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)

Chemistry Majors and Honours Programs
Required Courses
(56credits)

CHEM 212*	(4)	Introductory Organic Chemistry 1
~~CHEM 213~~	~~(3)~~	~~Introductory Physical Chemistry~~
CHEM 222*	(4)	Introductory Organic Chemistry 2
~~CHEM 273~~	~~(1)~~	~~Chemical Kinetics~~
CHEM 277D1	(1.5)	Analytical Chemistry
CHEM 277D2	(1.5)	Analytical Chemistry
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 302	(3)	Introductory Organic Chemistry 3
CHEM 345	(3)	Molecular Properties and Structure 1
CHEM 355	(3)	Molecular Properties and Structure 2
~~CHEM 363~~	~~(2)~~	~~Physical Chemistry Laboratory 1~~
CHEM 365	(2)	Statistical Thermodynamics
CHEM 367	(3)	Instrumental Analysis 1
CHEM 377	(3)	Instrumental Analysis 2
CHEM 381	(3)	Inorganic Chemistry 2
CHEM 392	(3)	Integrated Inorganic/Organic Laboratory
CHEM 393	(2)	Physical Chemistry Laboratory 2
~~MATH 133*~~	~~(3)~~	~~Vectors, Matrices and Geometry~~
MATH 222**	(3)	Calculus 3
MATH 315	(3)	Ordinary Differential Equations
PHYS 242	(2)	Electricity and Magnetism

* denotes courses with CEGEP equivalents
** Students who have successfully completed MATH 150 and MATH 151 are not required to take MATH 222.

HONOURS IN CHEMISTRY WITH MATERIALS OPTION
(77 credits)

Required Courses
(62credits)
56 credits as listed above plus

CHEM 334	(3)	Advanced Materials
CHEM 455	(3)	Introductory Polymer Chemistry

Complementary Courses
(15 credits)
6 credits of research*:
CHEM 470 (6) Research Project
or CHEM 480 (3) Research Project
and CHEM 490 (3) Research Project

6 credits, two of:

CHEM 531	(3)	Chemistry of Inorganic Materials
CHEM 534	(3)	Nanosecond and Nanotechnology
CHEM 543	(3)	Chemistry of Pulp and Paper
CHEM 571	(3)	Polymer Synthesis
CHEM 585	(3)	Colloid Chemistry

3 credits, one of:

CHEE 481	(3)	Polymer Engineering
MIME 260	(3)	Materials Science and Engineering
MRKT 360	(3)	Marketing of Technology

* Students may take up to 12 Research Project credits but only 6 of these may be used to fulfill the program requirement. Attainment of the Honours degree requires a CGPA of at least 3.00.

Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)

Chemistry Majors and Honours Programs
Required Courses
(53 credits)

CHEM 212*	(4)	Introductory Organic Chemistry 1
CHEM 222*	(4)	Introductory Organic Chemistry 2
CHEM 223	(2)	Introductory Physical Chemistry 1
CHEM 243	(2)	Introductory Physical Chemistry 2
CHEM 277D1	(1.5)	Analytical Chemistry
CHEM 277D2	(1.5)	Analytical Chemistry
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 302	(3)	Introductory Organic Chemistry 3
CHEM 345	(3)	Molecular Properties and Structure 1
CHEM 355	(3)	Molecular Properties and Structure 2
CHEM 365	(2)	Statistical Thermodynamics
CHEM 367	(3)	Instrumental Analysis 1
CHEM 377	(3)	Instrumental Analysis 2
CHEM 381	(3)	Inorganic Chemistry 2
CHEM 392	(3)	Integrated Inorganic/Organic Laboratory
CHEM 253	(1)	Introductory Physical Chemistry 1 Lab
CHEM 263	(1)	Introductory Physical Chemistry 2 Lab
CHEM 393	(2)	Physical Chemistry Laboratory 2
MATH 222**	(3)	Calculus 3
MATH 315	(3)	Ordinary Differential Equations
PHYS 242	(2)	Electricity and Magnetism

*
*denotes courses with CEGEP equivalents
** Students who have successfully completed MATH 150 and MATH 151 are not required to take MATH 222.

HONOURS IN CHEMISTRY WITH MATERIALS OPTION
(74 credits)

Required Courses
(59 credits)
53 credits as listed above plus

CHEM 334	(3)	Advanced Materials
CHEM 455	(3)	Introductory Polymer Chemistry

Complementary Courses
(15 credits)
6 credits of research*:
CHEM 470 (6) Research Project
or CHEM 480 (3) Research Project
and CHEM 490 (3) Research Project

6 credits, two of:

CHEM 531	(3)	Chemistry of Inorganic Materials
CHEM 534	(3)	Nanosecond and Nanotechnology
CHEM 543	(3)	Chemistry of Pulp and Paper
CHEM 571	(3)	Polymer Synthesis
CHEM 585	(3)	Colloid Chemistry

3 credits, one of:

CHEE 481	(3)	Polymer Engineering
MIME 260	(3)	Materials Science and Engineering
MRKT 360	(3)	Marketing of Technology

* Students may take up to 12 Research Project credits but only 6 of these may be used to fulfill the program requirement. Attainment of the Honours degree requires a CGPA of at least 3.00.

Attach extra page(s) as needed

8.0 Consultation with Related Units ☐ Yes ☐ No

Financial Consult ☐ Yes ☐ No

Attach list of consultations

9. Approvals

Routing Sequence	Name	Signature	Date
Department			
Curric/Acad Committee			
Faculty 1			
Faculty 2			
Faculty 3			
SCTP			
GS			
APPC			
Senate			

Submitted by

Name	David Ronis
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Submission Date	

To be completed by ARR:

CIP Code