McGill

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.)

Physics & Chemistry

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

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

Joint Honours in Physics and Chemistry

2.0 Administering Faculty/Unit

Science

Offering Faculty/Department

Physics

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: 80

Proposed Credit Weight: 80

5.0 Rationale for revised program

Necessitated by retirement of CHEM 213, CHEM 273, CHEM 363 and their replacement by CHEM 223, CHEM 243, CHEM 253 and CHEM 263.

6.0 Revised Program Description (Maximum 150 words)

No change.

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)

Required courses:

~~CHEM 213~~	~~(3)~~	~~Introductory Physical Chemistry~~
~~CHEM 273~~	~~(1)~~	~~Chemical Kinetics~~
MATH 247	(3)	Honours Applied Linear Algebra
MATH 248	(3)	Honours Advanced Calculus
MATH 249	(3)	Honours Complex Variables
MATH 325	(3)	Honours Ordinary Differential Equations
PHYS 241	(3)	Signal Processing
PHYS 251	(3)	Classical Mechanics 1
PHYS 257	(3)	Experimental Methods 1
PHYS 258	(3)	Experimental Methods 2
CHEM 212	(4)	Introductory Organic Chemistry 1
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 355	(3)	Molecular Properties and Structure 2
~~CHEM 363~~	~~(2)~~	~~Physical Chemistry Laboratory 1~~
CHEM 365	(2)	Statistical Thermodynamics
COMP 208	(3)	Computers in Engineering
PHYS 350	(3)	Electromagnetism
PHYS 357	(3)	Quantum Physics 1
PHYS 457	(3)	Quantum Physics 2
CHEM 393	(2)	Physical Chemistry Laboratory 2
CHEM 455	(3)	Introductory Polymer Chemistry
CHEM 556	(3)	Advanced Quantum Mechanics
PHYS 352	(3)	Electromagnetic Waves
PHYS 558	(3)	Solid State Physics

Complementary courses:

(12 credits of the following,
with at least 3 credits in Chemistry and 3 credits in Physics)

3 credits selected from:

CHEM 593	(3)	Statistical Mechanics
PHYS 559	(3)	Advanced Statistical Mechanics

9 credits selected from:

CHEM 480D1 /D2	(3)	Research Project
and CHEM 490D1/D2	(3)	Research Project
CHEM 531	(3)	Chemistry of Inorganic Materials
CHEM 575	(3)	Chemical Kinetics
CHEM 585	(3)	Colloid Chemistry
MATH 375	(3)	Honours Partial Differential Equations
PHYS 434	(3)	Optics
PHYS 451	(3)	Classical Mechanics
PHYS 469	(3)	Laboratory in Modern Physics 2
PHYS 479	(3)	Honours Research Project
PHYS 562	(3)	Electromagnetic Theory

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

Required courses:

CHEM 223	(2)	Introductory Physical Chemistry 1
CHEM 243	(2)	Introductory Physical Chemistry 2
CHEM 253	(1)	Introductory Physical Chemistry Lab 1
CHEM 263	(1)	Introductory Physical Chemistry Lab 2
MATH 247	(3)	Honours Applied Linear Algebra
MATH 248	(3)	Honours Advanced Calculus
MATH 249	(3)	Honours Complex Variables
MATH 325	(3)	Honours Ordinary Differential Equations
PHYS 241	(3)	Signal Processing
PHYS 251	(3)	Classical Mechanics 1
PHYS 257	(3)	Experimental Methods 1
PHYS 258	(3)	Experimental Methods 2
CHEM 212	(4)	Introductory Organic Chemistry 1
CHEM 281	(3)	Inorganic Chemistry 1
CHEM 355	(3)	Molecular Properties and Structure 2
CHEM 365	(2)	Statistical Thermodynamics
COMP 208	(3)	Computers in Engineering
PHYS 350	(3)	Electromagnetism
PHYS 357	(3)	Quantum Physics 1
PHYS 457	(3)	Quantum Physics 2
CHEM 393	(2)	Physical Chemistry Laboratory 2
CHEM 455	(3)	Introductory Polymer Chemistry
CHEM 556	(3)	Advanced Quantum Mechanics
PHYS 352	(3)	Electromagnetic Waves
PHYS 558	(3)	Solid State Physics

Complementary courses:

(12 credits of the following,
with at least 3 credits in Chemistry and 3 credits in Physics)

3 credits selected from:

CHEM 593	(3)	Statistical Mechanics
PHYS 559	(3)	Advanced Statistical Mechanics

9 credits selected from:

CHEM 480D1 /D2	(3)	Research Project
and CHEM 490D1/D2	(3)	Research Project
CHEM 531	(3)	Chemistry of Inorganic Materials
CHEM 575	(3)	Chemical Kinetics
CHEM 585	(3)	Colloid Chemistry
MATH 375	(3)	Honours Partial Differential Equations
PHYS 434	(3)	Optics
PHYS 451	(3)	Classical Mechanics
PHYS 469	(3)	Laboratory in Modern Physics 2
PHYS 479	(3)	Honours Research Project
PHYS 562	(3)	Electromagnetic Theory

Attach extra page(s) as needed

8.0 Consultation with Related Units ☒ Yes ☐ No Financial Consult ☐ Yes ☐ No

Consultations: Department of Chemistry (03-May-2006)

9. Approvals

Routing Sequence	Name	Signature	Date
Department	Charles Gale		May 05, 2006
Curric/Acad Committee			
Faculty 1			
Faculty 2			
Faculty 3			
SCTP			
GS			
APPC			
Senate			

Submitted by

Name	
Phone	
Email	
Submission Date	

To be completed by ARR:

CIP Code