



(09/2003)

<p>1.0 Degree Title Specify the two degrees for concurrent degree programs</p> <div style="border: 1px solid black; padding: 2px; text-align: center;">B.Sc.</div> <p>1.1 Major (Legacy= Subject) (30-char. max.)</p> <div style="border: 1px solid black; padding: 2px;">Physics and Chemistry</div> <p>1.2 Concentration (Legacy = Concentration/Option) If applicable (30 char. max.)</p> <div style="border: 1px solid black; height: 20px;"></div> <p>1.3 Minor (with Concentration, if applicable) (30 char. max.)</p> <div style="border: 1px solid black; height: 20px;"></div> <p>1.4 Category</p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Faculty Program (FP)</td> <td><input type="checkbox"/> Honours (HON)</td> </tr> <tr> <td><input type="checkbox"/> Major</td> <td><input checked="" type="checkbox"/> Joint Honours Component (HC)</td> </tr> <tr> <td><input type="checkbox"/> Joint Major</td> <td><input type="checkbox"/> Internship/Co-op</td> </tr> <tr> <td><input type="checkbox"/> Major Concentration (CON)</td> <td><input type="checkbox"/> Thesis (T)</td> </tr> <tr> <td><input type="checkbox"/> Minor</td> <td><input type="checkbox"/> Non-Thesis (N)</td> </tr> <tr> <td><input type="checkbox"/> Minor Concentration (CON)</td> <td><input type="checkbox"/> Other</td> </tr> </table> <p style="margin-left: 150px;">Please specify</p> <div style="border: 1px solid black; width: 150px; height: 20px; margin-left: 150px;"></div> <p>1.5 Complete Program Title</p> <div style="border: 1px solid black; padding: 2px;">Joint Honours in Physics and Chemistry</div>	<input type="checkbox"/> Faculty Program (FP)	<input type="checkbox"/> Honours (HON)	<input type="checkbox"/> Major	<input checked="" type="checkbox"/> Joint Honours Component (HC)	<input type="checkbox"/> Joint Major	<input type="checkbox"/> Internship/Co-op	<input type="checkbox"/> Major Concentration (CON)	<input type="checkbox"/> Thesis (T)	<input type="checkbox"/> Minor	<input type="checkbox"/> Non-Thesis (N)	<input type="checkbox"/> Minor Concentration (CON)	<input type="checkbox"/> Other	<p>2.0 Administering Faculty/Unit</p> <div style="border: 1px solid black; padding: 2px; text-align: center;">Science</div> <p>Offering Faculty/Department</p> <div style="border: 1px solid black; padding: 2px; text-align: center;">Physics</div> <p>3.0 Effective Term of revision or retirement Please give reasons in 8.0 "Rationale" in the case of retirement (Ex. Sept. 2004 = 200409)</p> <p>Term</p> <div style="border: 1px solid black; padding: 2px; text-align: center;">200509</div> <p>4.0 Existing Credit Weight Proposed Credit Weight</p> <table style="width: 100%; border: none;"> <tr> <td style="border: 1px solid black; padding: 2px; text-align: center;">80</td> <td style="border: 1px solid black; padding: 2px; text-align: center;">77</td> </tr> </table> <p>5.0 Description (Maximum 150 words)</p> <div style="border: 1px solid black; height: 150px; width: 100%;"></div>	80	77
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80	77														

<p>6.0 List of existing program and proposed program</p> <p>Existing program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)</p> <div style="border: 1px solid black; padding: 5px;"> <p>U1 Required Courses (28 credits)</p> <p>CHEM 213 (3) Introductory Physical Chemistry CHEM 273 (1) Chemical Kinetics MATH 247 (3) Linear Algebra MATH 248 (3) Advanced Calculus 1 MATH 249 (3) Advanced Calculus 2 MATH 325 (3) 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</p> </div>	<p>Proposed program (list courses as follows: Subj Code/Crse Num, Title, Credit weight, under the headings of: Required Courses, Complementary Courses, Elective Courses)</p> <div style="border: 1px solid black; padding: 5px;"> <p>U1 Required Courses (28 credits)</p> <p>CHEM 213 (3) Introductory Physical Chemistry CHEM 273 (10) Chemical Kinetics MATH 247 (3) Linear Algebra MATH 248 (3) Advanced Calculus 1 MATH 249 (3) Advanced Calculus 2 MATH 325 (3) 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</p> </div>
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6.0 (Continued) 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)

U2 Required Courses (29 credits)

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 253 (3) Thermal Physics
PHYS 350 (3) Electromagnetism
PHYS 357 (3) Quantum Physics
PHYS 457 (3) Quantum Physics

U3 Required Courses (14 credits)

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

U3 Complementary Courses (12 credits)

(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 480 (3) Research Project
And CHEM 490 (3) Research Project
CHEM 531 (3) Chemistry of Inorganic Materials
CHEM 575 (3) Chemical Kinetics
CHEM 585 (3) Colloid Chemistry
MATH 375 (3) 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)

U2 Required Courses (26 credits)

CHEM 212 (4) Introductory Organic Chemistry
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
PHYS 457 (3) Quantum Physics

U3 Required Courses (14 credits)

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

U3 Complementary Courses (12 credits)

(with at least 3 credits in Chemistry and 3 credits in Physics)

3 credits selected from:

CHEM 593 (3) Statistical Mechanics
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CHEM 575 (3) Chemical Kinetics
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MATH 375 (3) 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

7.0 Consultation with
Related Units

Yes No

Financial Consult Yes No

Attach list of consultations.

8.0 Rationale

PHYS 253 and CHEM 213 cover similar material and so PHYS 253 has been deleted from the program. This has the added benefit of reducing the credit load from 80 to 77.

9.0 Approvals

Routing Sequence	Name	Signature	Date
Department	M. Sutton		Nov 5 2004
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