



1. Will this new course affect a current program?
If "yes", has a Program Revision Form been submitted concurrently?

Yes No
Yes No

2. Teaching Department:

Chemistry

3. Administering
Faculty/Unit:

Science

6. Responsible
Instructor

Prof. Ronis

7. Course Title (Limit 30 Characters) - required for all courses:

Intro Phys Chem 1

9. Course Title to Appear in the Calendar (optional)

(Limit 59 characters):

Note: This can ONLY be an expansion of word(s) abbreviated in the 30 character course title above.

Introductory Physical Chemistry 1

10. Credit Weight

(or CEU's for non-credit CE courses):

2

4. Campus
(Downtown, Macdonald,
Off Campus, Distance
Ed, Other – specify)

Downtown

5. Effective Term of Implementation
(Ex. Sept. 2004 = 200409)

Term:

200709

8. Course Number(s)

Indicate course number & the number of terms spanned:
(tick all that apply)

Subject/course number: CHEM 223

Course(s) Span:

- 1 term
 2 consecutive terms (D1, D2)
 2 non-consecutive terms (N1, N2)
 3 consecutive terms (J1, J2, J3)

11. Rationale for new course

- a) Need to update, consolidate lectures and laboratories in key courses in Physical Chemistry in the Chemistry Core Program
b) CHEM laboratory 363F is the first of 2 lab courses in physical chemistry. It is offered in both terms and is taken by Chemistry U2 and U3 students. The lab course component of CHEM 363 has become disconnected from lecture component dealing with thermodynamics and kinetics.
c) CHEM 363 tended in the past to be taken simultaneously (U2 and U3 years) with physical chemistry 255, a course which is no longer given.
d) CHEM 363F/W laboratory workload exceeds credit weighting: credit weighting exceeded because (i) change of lab credit vs. workload conversion Oct 2000; (ii) learning to write and writing of lab reports; (iii) data analysis involving error analysis, sample calculations, etc. (iv) expectations for the course have risen in view of the fact that this course is now undertaken by our most senior students
f) CHEM 213 is an introductory physical chemistry course that deals primarily with gas behaviour and chemical thermodynamics; conceptual difficulty of 213 not supported through exposure to relevant laboratory experiments.
g) CHEM 273 is a 1 credit course in chemical kinetics that is also offered in the winter term
h) courses 213 and 273 share some theoretical concepts that no longer need to be repeated

12. Course Description

(as it will appear in the Calendar [maximum 50 words]):

(N.B. Faculty of Medicine must append complete course outline)

Kinetics 1: Gas laws, kinetic theory of collisions. Thermodynamics: Zeroth law of thermodynamics. First law of thermodynamics, heat capacity, enthalpy, thermochemistry, bond energies. Second law of thermodynamics; the entropy and free energy functions. Third law of thermodynamics, absolute entropies, free energies, Maxwell relations and chemical and thermodynamic equilibrium states.

13. Supplementary information to appear in the Calendar in addition to the course description.

Such as: equivalent course(s), contact hours, enrolment limitations, language of instruction etc.

Please enter the information as it should appear in the calendar notes.

Chemistry Honours and Majors must take CHEM 223 and CHEM 253 simultaneously.

14. Schedule Types(s):
 (Enter all that apply – see course guidelines for a complete list.)
 (i.e. Lecture, Labs, Tutorial)

	Hours per Week	Hours per Week	Hours per Week
Lecture	<input type="text" value="2"/>	<input type="text"/>	<input type="text"/>
<hr/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<hr/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total Hours per Week:			<input type="text" value="2"/>
Total Number of Weeks:			<input type="text" value="13"/>

15. Projected Enrolment:

16. Required text and/or preliminary reading list sent to library?

Yes No

17. Prerequisite(s) (Courses or Tests)
 Specify course number(s) or name(s) of test(s):

If the student does not have a prerequisite should web registration be blocked?
 Yes No

If "Yes" complete A and B:

A. Indicate minimum grade or test score(s) the student must attain in prerequisite course(s) or test(s):

B. Can the prerequisite course(s) or test(s) be taken in the same term as this course?
 Yes No

18. Corequisite(s) Course Number(s):
 Specify course number(s) and title(s):

If the student does not register for the corequisite in the same term should web registration be blocked?
 Yes No

19. Restriction(s):

20. Consultation Reports Attached
 Yes N/A

21. Additional Course Charges (must be approved by the Fee Policy Committee)

Description of Fee (e.g. screening fee)	Amount
<input type="text"/>	<input type="text"/>

22. Requires Teaching, Physical, or Financial Resources Not Currently Available (attach explanation)
 Yes No

INFORMATION FOR ADMISSIONS, RECRUITMENT & REGISTRAR'S OFFICE

To be completed by the Faculty

Slot Course: Yes No

Thesis Component: Yes No

To be completed by ARR

CIP Code

For Continuing Education Use

CE Admin. Unit :

CE Non-Grant Courses:

Flat Rate: CdnFlat Rate: Yes N/A

23. Approvals:

Routing Sequence	Departmental Meeting	Departmental Chair	Other Faculty	Curric/Academic Committee	Faculty	SCTP
Name	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Signature	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Date	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Departmental Contact Person (name/phone/email)	<input type="text"/>					