LSC Use Only Proposal No.
LSC Action-Date: AP-3|13|14

UWUCC Use Only Proposal No 13-150
UWUCC Action-Date AP - 4/1/14 Senate Action Date. App-4/24/14
eff. 9/8/15 + 9/13/16

**Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee**

| Contact Person(s) Anne Kondo | Email Address akondo@iup.edu |
|---|---|
| Proposing Department/Unit Chemistry | Phone 4595 |

Check all appropriate lines and complete all information. Use a separate cover sheet for each course proposal and/or program proposal.

**1. Course Proposals (check all that apply)**

☐ New Course ☐ Course Prefix Change ☐ Course Deletion
☐ Course Revision ☐ Course Number and/or Title Change ☑ Catalog Description Change

*Current course prefix, number and full title:* CHEM 343 Physical Chemistry I Laboratory

*Proposed course prefix, number and full title, if changing:*

**2. Liberal Studies Course Designations, as appropriate**

This course is also proposed as a Liberal Studies Course (please mark the appropriate categories below)

☐ Learning Skills ☐ Knowledge Area ☐ Global and Multicultural Awareness ☑ Writing Across the Curriculum (W Course)

☐ Liberal Studies Elective (please mark the designation(s) that applies – must meet at least one)

☐ Global Citizenship ☐ Information Literacy ☐ Oral Communication
☐ Quantitative Reasoning ☐ Scientific Literacy ☐ Technological Literacy

**3. Other Designations, as appropriate**

☐ Honors College Course ☐ Other: (e.g. Women's Studies, Pan African)

**4. Program Proposals**

☐ Catalog Description Change ☐ Program Revision ☐ Program Title Change ☐ New Track
☐ New Degree Program ☐ New Minor Program ☐ Liberal Studies Requirement Changes ☐ Other

*Current program name:*

*Proposed program name, if changing:*

| 5. Approvals | Signature | Date |
|---|---|---|
| Department Curriculum Committee Chair(s) | | 2/4/14 |
| Department Chairperson(s) | | 1/31/14 |
| College Curriculum Committee Chair | | 2/14/14 |
| College Dean | | 2/14/14 |
| Director of Liberal Studies (as needed) | | |
| Director of Honors College (as needed) | | |
| Provost (as needed) | | |
| Additional signature (with title) as appropriate | | |
| UWUCC Co-Chairs | | 4/2/14 |

APR 2 [illegible]

## REVISION APPROVAL COVER SHEET FOR CONTINUATION OF W-DESIGNATION

## TYPE II DEPARTMENT COMMITMENT

Professor Anne Kondo

Department Chemistry

Email akondo@iup.edu

Course: CHEM 343 Physical Chemistry I Laboratory

Please provide answers to these questions on the next page:

1. Include the most recent syllabus for the Type II course.
2. Include a new "Statement Concerning Departmental Responsibility". The statement of departmental responsibility" explains how the department will ensure that the writing component is present regardless of who is teaching the course. It needs to identify the specific department group or individual who is responsible for ensuring this.

| Approvals: | Signature | Date |
|---|---|---|
| Professor (s) | | |
| Department Chair | | 1/31/14 |
| College Dean | | 3/14/14 |
| Director of Liberal Studies | | |
| UWUCC Co-chair(s) | Gail S. Sechrist | 4/1/14 |

**Prerequisite Change to CHEM 343**

**Part II. Description of Change**

1. **Proposed Catalog Description**

**CHEM 343 Physical Chemistry Laboratory 1** **0c-3l-1cr**
**Prerequisite or corequisite:** CHEM 341
**Catalog Description:** Experiments illustrating application of fundamental laws to actual systems. Carries writing intensive credit.

2. **Old Catalog Description**

**CHEM 343 343 Physical Chemistry Laboratory 1** **0c-3l-1cr**
**Prerequisites:** CHEM 321; must be taken after or concurrent with CHEM 341
**Catalog Description:** Experiments illustrating application of fundamental laws to actual systems. Carries writing intensive credit.

3. **Rationale:** Updating the pre-requisite to make it consistent with recent approved program changes. CHEM 321 is now CHEM 325, which is offered in the same semester as CHEM 341.

**Part III Letters of Support**
N/A CHEM 343 is taken by Chemistry majors.

## TYPE II DEPARTMENT COMMITMENT

Professor Anne Kondo Department Chemistry

1. Include the most recent syllabus for the Type II course: Attached

2. Include a new "Statement Concerning Departmental Responsibility". The statement of departmental responsibility" explains how the department will ensure that the writing component is present regardless of who is teaching the course. It needs to identify the specific department group or individual who is responsible for ensuring this.

**Chemistry Department/Biochemistry Program Statement of Responsibility for All Writing-Intensive Courses:**

The chair/coordinator shall provide a copy of this agreement to each faculty member assigned to teach a Writing-Intensive course.
Each faculty member assigned to teaching a Departmental/Program Writing Intensive Course agrees to the following criteria:

- Writing assignments are an integral part of the course, which promise to enhance student learning (not 'exercises in writing for writing's sake').
- Writing assignments will include various forms of writing such as case studies, laboratory reports, journals, letters, memos, formal essays, research articles, project or grant proposals, etc.
- The improvement of student writing is a clear objective of the course.
- Students will be provided with written instructions that cover major criteria for the evaluation of the assignment(s).
- Students will receive guidance in conceiving, organizing, and presenting written material in ways appropriate to the field of Chemistry/Biochemistry.
- Students will produce at least 5000 words (15-20 typed pages) of writing that will be critically evaluated.
- Each writing assignment will have specified length in terms of minimum number of pages required.
- Writing assignments include at least one major assignment and several shorter different assignments.
- Students will be required to submit drafts of at least one major writing assignment that will be returned with instructor comments/suggestions for improvement before the final copy of the assignment is due, so that students have an opportunity to revise their written work.
- Students will submit final copies of writing assignments for critical evaluation.
- Instructor evaluation of written work will comprise at least 50% of the course grade.
- At the end of the semester, faculty teaching W courses will submit copies of their syllabi to the curriculum committee for review and discussion, if needed.
- At the end of the semester, faculty teaching CHEM ~~498~~ 343 W courses will submit copies of completed final writing assignments to the department chair, which is a standard part of the review for re-certification of the American Chemical Society certified degree.

**Physical Chemistry I**
**LABORATORY SYLLABUS – FALL, 2013**

Instructor: Dr. Anne Kondo
200 Weyandt Hall
Campus Phone: (724)-357-4595
Email: akondo@iup.edu

Office Hours: Tuesday: 12:30– 2:00 p.m.
Wednesday: 10:15 a.m.– 12:15 p.m.
Thursday: 12:45 – 2:15 p.m.
or by appointment

**CHEM 343** **0c-3l-1cr**
**Prerequisites:** must be taken after or concurrent with CHEM 341
**Catalog Description:** Experiments illustrating application of fundamental laws to actual systems. Carries writing intensive credit.

**Course Objectives:**
The course is designed to teach students several important concepts in Physical Chemistry. Beyond gaining understanding in the subject area of Physical Chemistry, the lab will teach experimental technique and design, data analysis and written **communication** of experimental results. To accomplish this students will be given a series of four (4) projects, each dealing with an important chemical concept. The projects are purposely lacking in detail to allow the student to use his/her own judgment in designing experiments. Furthermore, each of the projects has a specific goal based on a practical application of the data from the experiments.

The laboratory experiments for this course have been chosen to highlight different concepts of Physical Chemistry. A number of the experiments will be deliberately lacking in specific procedural details to mimic the real world circumstances you will encounter in a research laboratory. Each experiment poses a problem for you to investigate, and provides you with either some background information directly, or with references for you to search out the background information for yourself. With your lab partners, you will design the experimental procedures to answer the problem. Mistakes will be made: your procedure may be useless – this happens in real life! In such cases, you will need to rethink your procedure, and you will have some opportunities to repeat experiments. Sometimes, your procedure will be a good one, but you encounter technical difficulties while conducting the experiment – this also happens in real life! Again, you will have the opportunity to repeat some experiments to improve the quality of the data obtained. You will be expected to learn to use certain pieces of equipment by reading the instruction manuals, and then to demonstrate the use of the equipment to your instructor. You will learn to maintain a professional quality lab notebook.

In keeping with the writing intensive designation of this course, you will have regular writing assignments that will allow you to write, revise and polish sections of lab reports leading up to the submission of a formal lab report. In addition, you will critique the work of fellow students to develop skills in reviewing scientific writing, and to help your colleagues refine their writing.

**Required Supplies:** Lab Safety Glasses, Carbonless Paper Laboratory Notebook, Hayden-McNeil Specialty Publishing

**Evaluation:**
1. There will be regular weekly assignments, worth a total of 50 % of your overall grade. Your lowest assignment grade will be dropped. These weekly assignments usually cover pre-lab preparation, questions about one or more components of an experiment, and will include writing assignments, which can be revised upon feedback, for submission as formal lab reports. Assignments given in one

lab are typically due the following week, in lab. One assignment will include a critique of someone else's writing. Late assignments will not be accepted. (Consideration for illness etc., can be made at the discretion of the instructor.)

2. Two experiment groups (Thermodynamics and Kinetics) will be submitted as full, formal written reports – one is due in lab Oct. 22), and the other is due Dec. 12 (during final exam period). Each report counts 20% of your overall grade.
3. Your lab notebooks will be examined twice during the semester (unannounced), and graded for completeness (10% of your overall grade).

**Summary:**

| | |
|---|---|
| Assignments: | (500 points) = 50% |
| Formal Reports: | (2x200 points) = 2x20% = 40% |
| Notebook check: | 100 points = 10% |
| Total: | 1000 points = 100% |

Grading: **Final letter grades are assigned to percentages as follows: A = 90-100%; B = 80-89.9%; C = 70 – 79.9%; D = 60 – 69.9%; F ≤ 59.9%.**

**Attendance:** Lab reports or assignments will not be accepted for experiments not performed by the student. Late pre-labs are not accepted. Because the lab are run on only one day a week, it can be difficult to accommodate requests to make-up missed labs. Thus, make-up labs are at the discretion of the instructor.

**Final Exam (Culminating Experience)** is scheduled for Thursday, December 12 from 8:00 a.m. to 10:00 a.m.. There will be no final exam, but you must turn in your second formal report before or during this time.