University of Wisconsin-Whitewater

Curriculum Proposal Form #4A

# **Change in an Existing Course**

Type of Action (check all that apply)

[ ]  Course Revision (*include course description & former and new syllabus)* [ ]  Grade Basis

[x]  Contact Hour Change and or Credit Change [ ]  Repeatability Change

[ ]  Diversity Option [ ]  Other:

[ ]  General Education Option

 area:  **\***

\* Note: For the Gen Ed option, the proposal should address how this course relates to specific core courses, meets the goals of General Education in providing breadth, and incorporates scholarship in the appropriate field relating to women and gender.

**Effective Term**:

**Current Course Number** (*subject area and 3-digit course number*): CHEM 471

**Current Course Title**: Experimental Physical Chemistry

**Sponsor(s)**: Paul House

**Department(s):** Chemistry

**College(s):**

**List all programs that are affected by this change:**

**Chemistry Major (BA/BS) – Honors Emphasis, Chemistry Major (BA/BS) – Liberal Arts Emphasis, Chemistry Major (BA/BS) – Professional ACS Approved Emphasis**

If programs are listed above, will this change affect the Catalog and Advising Reports for those programs? If so, have Form 2's been submitted for each of those programs?

(Form 2 is necessary to provide updates to the Catalog and Advising Reports)

[ ]  NA [x]  Yes [ ]  They will be submitted in the future

Proposal Information: ([***Procedures for form #4A***](http://www.uww.edu/acadaff/ucc/Procedures_form4A.docx))

1. **Detailed explanation of changes** (use FROM/TO format)

***FROM:***

CHEM 471 EXPERIMENTAL PHYSICAL CHEMISTRY 2 u

Hands on experience with some experimental techniques of physical chemistry.

Four hours of laboratory per week. (Spring only)

Coreq: CHEM 371

***TO:***

CHEM 471 EXPERIMENTAL PHYSICAL CHEMISTRY 1 u

Hands on experience with some experimental techniques of physical chemistry.

Three hours of laboratory per week. (Spring only)

Coreq: CHEM 371

## Justification for action

The proposed changes will reduce the number of hours the class meets a week from three to four. Currently CHEM 471 offers a relatively high number of credits for the hours spent in lab, in part due to the number of lab reports that had to be completed. Along with the reduced course hours, the number of experiments and written assignments will be reduced.

The change from three to four hours of class a week will still offer sufficient time for students to learn the experimental techniques and data analysis this course teaches.

This change will help the chemistry department deal with an increase in the number of majors that is dictating two sections of this course be taught in the spring semester where one has been sufficient.

1. **Syllabus/outline** (if course revision, include former syllabus and new syllabus)

**Former syllabus**

Chemistry 471: Experimental Physical Chemistry II Spring 2012

University of Wisconsin-Whitewater

Department of Chemistry

**COURSE SYLLABUS**

Instructor: Dr. Paul House

Tel: (262) 472-1551

E-mail: housep@uww.edu

Office: 0251 Upham Hall

**Class Times:** Monday: 2:00-6:00 PM, 0240 Upham Hall

**Office hours**

Monday & Wednesday: 11:00-1:00 PM

Tuesday: 4:00-5:00 PM

Thursday: 10:00-11:00 AM

Other times by appointment

**Required Text**: A lab manual describing the experiments, how to keep a lab notebook and how to prepare lab reports will be provided by the instructor.

**Lab Supplies**

Students must supply their own safety goggles, paper or cloth towels, and a bound laboratory notebook.

**Course requisites** Corequisite: CHEM 371

**Organization and Course Objectives**

One of the main course objectives is to provide individualized training and practice in use of chemical equipment and instrumentation. Each experiment is performed over two lab periods so that students will gain a great deal of hands on experience. The other main course objective is to help students improve their writing skills. In order to accomplish this, students will turn in written lab reports for all experiments and receive extensive comments from the instructor on this

**Lab Safety Rules**

1. SAFETY GLASSES MUST BE WORN AT ALL TIMES

2. Eating, drinking, and smoking are prohibited in the lab.

3. No open flames in the lab unless authorized.

4. Students are not allowed in the lab without an instructor.

5. Students are not allowed in the lab before class time.

6. Labs must be cleaned at the end of the lab period.

7. Shoes must be worn in the lab; NO SANDALS are permitted.

8. Chemical wastes must be disposed of properly.

9. Do not wear contact lenses if possible.

10. All injuries must be reported to the instructor.

While the laboratory is generally a safe place to explore chemical principles and phenomena, there are things (equipment, reagents, etc.) that can cause injury when misused. For this reason, it is important to be fully alert and focused when in the laboratory. If you attend lab and you fail to follow general laboratory safety practices and procedures, disregard the written and/or verbal instructions associated with the lab, or are otherwise perceived to be a risk to yourself or others, you will be asked to leave the lab and may receive a zero for the day

**Information/administration**

Chemistry Office, Upham Hall Room 220, 472-1070. Please go to this office for administrative questions. Complaint procedures and policies on plagiarism and cheating are available. The chemistry office has alternative text books for loan and additional copies of this sheet and other materials handed out in class.

**University Policies**

The University of Wisconsin-Whitewater is dedicated to a safe, supportive and non-discriminatory learning environment.  It is the responsibility of all undergraduate and graduate students to familiarize themselves with University policies regarding [Special Accommodations](http://www.uww.edu/StdRsces/csd/academic_index.php), [Academic Misconduct](http://www.uww.edu/Catalog/02-04/Legal/legal1.html#Misconduct), [Religious Beliefs Accommodation](http://www.uww.edu/Catalog/02-04/Legal/legal5.html), [Discrimination](http://www.uww.edu/Catalog/02-04/Legal/legal6.html) and [Absence for University Sponsored Events](http://www.uww.edu/Catalog/02-04/Legal/legal1.html#Misconduct) (for details please refer to the Schedule of Classes; the [“](file:///T%3A%5CProvost%20Suite%5Cwww.uww.edu%5CCatalog%5C02-04%5CLegal%5CLegal1.html)[Rights and Responsibilities](http://www.uww.edu/Catalog/02-04/Legal/Legal1.html)[”](file:///T%3A%5CProvost%20Suite%5Cwww.uww.edu%5CCatalog%5C02-04%5CLegal%5CLegal1.html) section of the [Undergraduate Catalog](http://www.uww.edu/Catalog); [the Academic Requirements](http://www.uww.edu/gradstudies/catalog0608/Gradpolicies.php#academicinformation) and Policies and the [Facilities and Services](http://www.uww.edu/gradstudies/catalog0608/Gradpolicies.php#facilitiesandservices) sections of the [Graduate Catalog](http://www.uww.edu/gradstudies/catalog0608/gradcat0608.php); and the “[Student Academic Disciplinary Procedures](http://www.uww.edu/stdhdbk/uwsystem.html) (UWS Chapter 14); and the “[Student Nonacademic Disciplinary Procedures](http://www.uww.edu/stdhdbk/uwsystem.html)" (UWS Chapter 17).

**Religious Beliefs Accommodation**

In accordance with the Board of Regents policy, students’ sincerely held religious beliefs shall be reasonably accommodated with respect to scheduling all examinations and other academic requirements. Students must notify the instructor, within the first three weeks of the beginning of classes of the specific days or dates on which they will request accommodation from an examination or academic requirement. Additional information may be found in the University Bulletin or the Timetable.

**Absence for University Sponsored Events**

University policy adopted by the Faculty Senate and WSG states that students will not be academically penalized for missing class in order to participate in university sanctioned events. They will be provided an opportunity to make up any work that is missed; and if class attendance is a requirement, missing a class in order to participate in a university sanctioned event will not be counted as an absence. A university sanctioned event is defined to be any intercollegiate athletic contest or other such event as determined by the Provost. Activity sponsors are responsible for obtaining the Provost’s prior approval of an event as being university sanctioned and for providing an official list of participants. Students are responsible for notifying their instructors as far in advance as possible of their participation in such events.

**Other absences/late drop requests**

Other absences or late drop requests will be considered by the instructor only for illness with documented medical verification, death in the family, divorce or other extraordinary reasons as approved by the instructor. Valid requests will be entirely at the instructor’s discretion. Family matters such as vacations, weddings, reunions, hunting trips, etc. are unacceptable as requests and will not be considered. Additional reasons which will not be accepted for late course drop included, but are not limited to forgetting to drop by the deadline, hoping to improve a grade, having trouble understanding the material, bad test/lab scores, too many absences, receipt of D/F notice after the cancellation deadline, GPA will be too low, change of major, etc.

**GRADING**: 2 Credit Course

Grades will primarily be determined by the laboratory reports you will prepare over the course of the semester. Two types of lab reports will be prepared. For five of the experiments students will write a slightly abbreviated lab report consisting of an abstract, results and discussion section. For the other two experiments, students will write up a more detailed lab report with an abstract, introduction, experimental, results and discussion section. For the formal lab reports students will prepare both a rough draft and a final draft. An important part of the grading will be whether the student significantly improved the final draft compared to the rough draft.

The lab notebook will be graded before you leave lab each day. The lab manual includes instructions on how to keep your notebook.

The oral exam will be conducted at the end of the semester and cover consists of a ½ one-on-one meeting with the instructor. Questions will cover the experiments performed during the semester.

Abbreviated Lab Reports (4 @ 75 pts) 300 pts

Rough draft formal reports (2 @ 50 pts) 100 pts

Final draft formal reports (2 @ 100 pts) 200 pts

Lab notebook grading 50 pts

Oral exam 50 pts

 700 pts

The highest possible letter grades will be assigned based on the following scale.

A >93% A- >90%

B+> 87% B >83% B- >80%

C+> 77% C >73% C- > 70%

D+> 67% D > 63% D- >60%

F < 60%

**Cheating**

Cheating will not be tolerated. Students must write their lab reports independently; it is expected that students collaborate and discuss calculations and the results of an experiment carriedout together. But that does not extend to composition of the report. Turning in another person’s writing for your lab report is plagiarism and will result in a grade of zero for that assignment. For further information regarding Student Academic Misconduct, see the secretary in the chemistry center office (227 Upham, 472-1070).

**Students with Special Needs**

Students requiring modification to the laboratory setup, special testing arrangements, or additional assistance should contact the instructor or chemistry office at the earliest possible time so that any necessary arrangements can be made.

**Course Calendar**

You must turn in work for all the assignments listed in this Course Calendar in order to pass the course.

|  |  |  |
| --- | --- | --- |
| Date |  | Assignment due: |
| Jan. 23 | Course Introduction |  |
| Jan. 30 | Experiment 1 |  |
| Feb. 6 | Experiment 1 |  |
| Feb. 13 | Experiment 2 | Rough Draft Experiment 1 |
| Feb. 20 | Experiment 2 |  |
| Feb. 27 | Experiment 3 | Final Draft Experiment 1 |
| Mar. 5 | Experiment 3 | Condensed Report Experiment 2 |
| Mar. 12 | Experiment 4 |  |
| Mar. 19 | Experiment 4 | Rought Draft Experiment 3 |
| Mar. 28 | NO lab – spring break |  |
| Apr. 4 | Experiment 5 | Final Draft Experiment 3 |
| Apr. 11 | Experiment 5 | Condensed Report Experiment 4 |
| Apr. 18 | Experiment 6 |  |
| Apr. 25 | Experiment 6 | Condensed Report Experiment 5 |
| May 2 | Tie up loose ends |  |
| May 9(Wed) | Final Exam | Condensed Report Experiment 6Oral Exam |

**New Syllabus**

Chemistry 471: Experimental Physical Chemistry II

University of Wisconsin-Whitewater

Department of Chemistry

**COURSE SYLLABUS**

Instructor: Dr. Paul House

Tel: (262) 472-1551

E-mail: housep@uww.edu

Office: 0251 Upham Hall

**Class Times:** Monday: 2:00-5:00 PM, 0240 Upham Hall

**Office hours**

Monday & Wednesday: 11:00-1:00 PM

Tuesday: 4:00-5:00 PM

Thursday: 10:00-11:00 AM

Other times by appointment

**Required Text**: A lab manual describing the experiments, how to keep a lab notebook and how to prepare lab reports will be provided by the instructor.

**Lab Supplies**

Students must supply their own safety goggles, paper or cloth towels, and a bound laboratory notebook.

**Course requisites** Corequisite: CHEM 371

**Organization and Course Objectives**

One of the main course objectives is to provide individualized training and practice in use of chemical equipment and instrumentation. Each experiment is performed over two lab periods so that students will gain a great deal of hands on experience. The other main course objective is to help students improve their writing skills. In order to accomplish this, students will turn in written lab reports for all experiments and receive extensive comments from the instructor on this

**Lab Safety Rules**

1. SAFETY GLASSES MUST BE WORN AT ALL TIMES

2. Eating, drinking, and smoking are prohibited in the lab.

3. No open flames in the lab unless authorized.

4. Students are not allowed in the lab without an instructor.

5. Students are not allowed in the lab before class time.

6. Labs must be cleaned at the end of the lab period.

7. Shoes must be worn in the lab; NO SANDALS are permitted.

8. Chemical wastes must be disposed of properly.

9. Do not wear contact lenses if possible.

10. All injuries must be reported to the instructor.

While the laboratory is generally a safe place to explore chemical principles and phenomena, there are things (equipment, reagents, etc.) that can cause injury when misused. For this reason, it is important to be fully alert and focused when in the laboratory. If you attend lab and you fail to follow general laboratory safety practices and procedures, disregard the written and/or verbal instructions associated with the lab, or are otherwise perceived to be a risk to yourself or others, you will be asked to leave the lab and may receive a zero for the day

**Information/administration**

Chemistry Office, Upham Hall Room 220, 472-1070. Please go to this office for administrative questions. Complaint procedures and policies on plagiarism and cheating are available. The chemistry office has alternative text books for loan and additional copies of this sheet and other materials handed out in class.

**University Policies**

The University of Wisconsin-Whitewater is dedicated to a safe, supportive and non-discriminatory learning environment.  It is the responsibility of all undergraduate and graduate students to familiarize themselves with University policies regarding [Special Accommodations](http://www.uww.edu/StdRsces/csd/academic_index.php), [Academic Misconduct](http://www.uww.edu/Catalog/02-04/Legal/legal1.html#Misconduct), [Religious Beliefs Accommodation](http://www.uww.edu/Catalog/02-04/Legal/legal5.html), [Discrimination](http://www.uww.edu/Catalog/02-04/Legal/legal6.html) and [Absence for University Sponsored Events](http://www.uww.edu/Catalog/02-04/Legal/legal1.html#Misconduct) (for details please refer to the Schedule of Classes; the [“](file:///T%3A%5CProvost%20Suite%5Cwww.uww.edu%5CCatalog%5C02-04%5CLegal%5CLegal1.html)[Rights and Responsibilities](http://www.uww.edu/Catalog/02-04/Legal/Legal1.html)[”](file:///T%3A%5CProvost%20Suite%5Cwww.uww.edu%5CCatalog%5C02-04%5CLegal%5CLegal1.html) section of the [Undergraduate Catalog](http://www.uww.edu/Catalog); [the Academic Requirements](http://www.uww.edu/gradstudies/catalog0608/Gradpolicies.php#academicinformation) and Policies and the [Facilities and Services](http://www.uww.edu/gradstudies/catalog0608/Gradpolicies.php#facilitiesandservices) sections of the [Graduate Catalog](http://www.uww.edu/gradstudies/catalog0608/gradcat0608.php); and the “[Student Academic Disciplinary Procedures](http://www.uww.edu/stdhdbk/uwsystem.html) (UWS Chapter 14); and the “[Student Nonacademic Disciplinary Procedures](http://www.uww.edu/stdhdbk/uwsystem.html)" (UWS Chapter 17).

**Religious Beliefs Accommodation**

In accordance with the Board of Regents policy, students’ sincerely held religious beliefs shall be reasonably accommodated with respect to scheduling all examinations and other academic requirements. Students must notify the instructor, within the first three weeks of the beginning of classes of the specific days or dates on which they will request accommodation from an examination or academic requirement. Additional information may be found in the University Bulletin or the Timetable.

**Absence for University Sponsored Events**

University policy adopted by the Faculty Senate and WSG states that students will not be academically penalized for missing class in order to participate in university sanctioned events. They will be provided an opportunity to make up any work that is missed; and if class attendance is a requirement, missing a class in order to participate in a university sanctioned event will not be counted as an absence. A university sanctioned event is defined to be any intercollegiate athletic contest or other such event as determined by the Provost. Activity sponsors are responsible for obtaining the Provost’s prior approval of an event as being university sanctioned and for providing an official list of participants. Students are responsible for notifying their instructors as far in advance as possible of their participation in such events.

**Other absences/late drop requests**

Other absences or late drop requests will be considered by the instructor only for illness with documented medical verification, death in the family, divorce or other extraordinary reasons as approved by the instructor. Valid requests will be entirely at the instructor’s discretion. Family matters such as vacations, weddings, reunions, hunting trips, etc. are unacceptable as requests and will not be considered. Additional reasons which will not be accepted for late course drop included, but are not limited to forgetting to drop by the deadline, hoping to improve a grade, having trouble understanding the material, bad test/lab scores, too many absences, receipt of D/F notice after the cancellation deadline, GPA will be too low, change of major, etc.

**GRADING**: 1 Credit Course

Grades will primarily be determined by the laboratory reports you prepare over the course of the semester. For all three experiments, students will write up a detailed lab report based on a primary literature research paper with an abstract, introduction, experimental, results and discussion section. For these lab reports students will prepare both a rough draft and a final draft. An important part of the grading will be whether the student significantly improved the final draft compared to the rough draft.

The lab notebook will be graded before you leave lab each day. The lab manual includes instructions on how to keep your notebook.

The oral exam will be conducted at the end of the semester and cover consists of a ½ hour one-on-one meeting with the instructor. Questions will cover the experiments performed during the semester.

Rough draft formal reports (3 @ 50 pts) 150 pts

Final draft formal reports (3 @ 100 pts) 300 pts

Lab notebook grading 50 pts

Oral exam 50 pts

 550 pts

The highest possible letter grades will be assigned based on the following scale.

A >93% A- >90%

B+> 87% B >83% B- >80%

C+> 77% C >73% C- > 70%

D+> 67% D > 63% D- >60%

F < 60%

**Cheating**

Cheating will not be tolerated. Students must write their lab reports independently; it is expected that students collaborate and discuss calculations and the results of an experiment carriedout together. But that does not extend to composition of the report. Turning in another person’s writing for your lab report is plagiarism and will result in a grade of zero for that assignment. For further information regarding Student Academic Misconduct, see the secretary in the chemistry center office (227 Upham, 472-1070).

**Students with Special Needs**

Students requiring modification to the laboratory setup, special testing arrangements, or additional assistance should contact the instructor or chemistry office at the earliest possible time so that any necessary arrangements can be made.

**Course Calendar**

You must turn in work for all the assignments listed in this Course Calendar in order to pass the course.

|  |  |  |
| --- | --- | --- |
| Date |  | Assignment due: |
| Jan. 23 | Course Introduction |  |
| Jan. 30 | Experiment 1 |  |
| Feb. 6 | Experiment 1 |  |
| Feb. 13 | Experiment 1 |  |
| Feb. 20 | Experiment 1 | Rough Draft Experiment 1 |
| Feb. 27 | Experiment 2 |  |
| Mar. 5 | Experiment 2 | Final Draft Experiment 1 |
| Mar. 12 | Experiment 2 |  |
| Mar. 19 | Experiment 2 | Rough Draft Experiment 2 |
| Mar. 28 | NO lab – spring break |  |
| Apr. 4 | Experiment 3 |  |
| Apr. 11 | Experiment 3 | Final Draft Experiment 2 |
| Apr. 18 | Experiment 3 |  |
| Apr. 25 | Experiment 3 | Rough Draft Experiment 3 |
| May 2 | Tie up loose ends |  |
| May 9(Wed) | Final Exam | Final Draft Experiment 3Oral Exam |