



CAMPBELLSVILLE UNIVERSITY

COURSE SYLLABUS

PLEASE TYPE.

DATE Fall, 2010

ACADEMIC UNIT Natural Science

FACULTY P. Adcock

Discipline	Course# Section	Title of Course	Credit Hours	Cross Reference (if applicable)
<u>CHE</u>	<u>412</u>	<u>Phys. Chem. for the Life Sci. I</u>		

TEXTBOOK [] Required [] Not Required

Author see attached

Title _____

Publisher _____

Date of Publication _____

WORKBOOK

Author _____

Title _____

Publisher _____

Date of Publication _____

PLEASE ANSWER THE FOLLOWING QUESTIONS ON A SEPARATE SHEET OF PAPER AND ATTACH TO THIS FORM.

- DESCRIPTION OF COURSE: Develop a brief description of the course as it will appear in the Catalog.
- COURSE OBJECTIVES: List the objectives of the course, both general and specific. Please relate these objectives to the mission and goals of the University and the Academic Unit.
- COURSE OUTLINE: Outline the topics/units that are to be taught.
- EVALUATION: How do you plan to determine the grade in the course. Please include grading scale.
- REQUIREMENTS
 - Examinations: State when tests are to be administered, including unit, mid-term, and final examinations.
 - Reports: How many, length required, and what type (Oral, term and/or research, book critiques).
 - Supplemental reading assignments or outside work required.
 - Supplemental instruction aids: Audio visual aids, field trips, guest speakers, etc.

6. BOOKLIST

DEAN

Mary Wilson

Date Copy Received

9.10.10

VICE PRESIDENT FOR ACADEMIC AFFAIRS

Date Copy Received _____

Course Syllabus**CHE 412 Physical Chemistry for the Life Sciences Laboratory** (1 credit hour)

Campbellsville University

Fall, 2010 R 9:30am-12:15 pm SSC215/219

Campus Security:

270-789-5555 (office); 270-403-3611 (cell)

Dr. P.A. Adcock

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<http://www.campbellsville.edu/paadcock>**1: Description of Course**

A laboratory course illustrating the practical application of the principles discussed in CHE 411. One 3-hour laboratory period per week is required. Concurrent enrolment with CHE 411.

2: Course Objectives and Outline

- This course will illustrate principles studied in CHE 411 in laboratory experiments, computer simulations, and other exercises.
- The student will learn practical laboratory techniques involved in measuring properties of physicochemical systems.
- The student will learn to evaluate the results of experiments and to present them in a proper scientific format. This will include demonstrating an appreciation of experimental uncertainty, its appropriate treatment, and good technical writing skills.

Anticipated topics for experiments or other activities are:

Macromolecular properties

Colligative properties

Equilibrium thermodynamics

Electrochemistry applicable to bioenergetics

Kinetics

UV/Visible Lasers / Spectroscopy

3: Evaluation

The student's final grade will be based on (a) the performance of several laboratory experiments, (b) the written reports on the experiments, (c) computer simulations, and (d) other types of calculations. To compute the final grade, attentive participation in each session will count equally towards 40%, each assignment sheet will count equally towards 20%, and each required report will count equally towards the remaining 40%.

The guaranteed grade scale will be:

A	88.0%+;
B	76.0-87.9%;
C	64.0-75.9%;
D	52.0-63.9%;
F	<52.0%.

The instructor reserves the right to **lower** the cutoff for any particular grade.
If, for any reason, you cannot continue to attend this class, be certain you DROP IT OFFICIALLY. Otherwise you will automatically receive a failing grade for the course.

4: Requirements

Exams: There are no exams in this course. The final grade will be based on the performance and write-up of lab experiments and other exercises illustrating the principles discussed in CHE 411.

Lab Experiments: The formal write-up for each experiment is due at the beginning of the lab period on the Thursday two weeks after the experiment is completed. For each business day the write-up is turned in late past the due date, 10% of the possible points will be lost. After a write-up is two weeks late, a grade of zero will be given for that report. A description of the format for lab reports will be given on a separate handout and should be followed for each report. All lab reports are to be written and submitted by each student individually.

Attendance: The attendance policy of the University will be strictly enforced in this class. If a student is more than 20 minutes late (by my watch), then that student will be counted as a late arrival, and two late arrivals will count as a full absence.

Academic Misconduct: Cheating in any form will not be tolerated and will result in a failing grade for the course as well as the maximum penalty allowed by the University, which may include expulsion. Academic misconduct includes, but is not limited to, any attempt to present the work of another as one's own, and/or collaborating on writing lab reports.

Safety: A separate sheet will be provided, that must be read, understood, and signed by each student before participation in the laboratory will be allowed. **There are no exceptions to the safety rules. These rules include the wearing of protective eyewear, leather shoes completely covering the feet, clothing from the neck to below the knee with close-fitting sleeves (appropriate to the season), and a protective apron.** Jeans, trousers, slacks, or long denim skirts are recommended. Students will not be allowed to enter the laboratory without appropriate attire. Violation of any of the rules or any additional precautions for particular experiments relayed by the instructor will result in the student being removed from that day's lab, and repeated violations will result in a failing grade for the course.

5: Book List

"Experimental Physical Chemistry" 3rd edition (2006) by Halpern and McBane, ISBN 978-0-7167-1735-5.

Books for CHE 411 should also be brought to this class each week.

6: Miscellaneous

Guests are only allowed in lab at the discretion of and with prior approval from the instructor. Electronic playing/recording devices of any kind are not permitted except in special circumstances and with the specific permission of the instructor. Except in exceptional circumstances, and with specific permission of the instructor, pagers, cell phones, and similar items must be turned off during lab.

NOTICE:

Campbellsville University is committed to reasonable accommodations for students who have documented physical and learning disabilities, as well as medical and emotional conditions. If you have a documented disability or condition of this nature, you may be eligible for disability services. Documentation must be from a licensed professional and current in terms of assessment. Please contact the Coordinator of Disability Services at 270-789-5192 to inquire about services.

