

Chemistry 529

(Spring 2017, 3 Credits)

Instructor: Professor Frank V. Bright
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Lecture Location, Days, and Time: Norton 213, MWeF, 9:00-9:50 AM

Course Outline. CHE 529 is devoted to photoluminescence-based spectrochemical analysis across multiple scientific disciplines. Specifically, this course will explore the fundamental principles and uses of photoluminescence spectroscopy in biology, biophysics, chemistry, engineering, and material science. The course will cover the characteristics of molecular and nanocrystalline luminescent systems and it is tailored to explore specific aspects of photoluminescence that are of interest to the student's in the course. Special emphasis will be placed on maximizing information from one's experiments.

Learning Outcomes. At the end of this course successful students will have mastered photoluminescence for spectrochemical analysis.

Assessment. Individual student grades will be determined as follows:

10% - in class quizzes 20% - class paper 20% - in class presentation 50% - take home examination

A. Take Home Examination

There will be one (1) take home examination in this course. It will be passed out to the entire class at about the mid-point in the course. It is due as a single pdf file to the instructor by 8:00 AM on the last day of class. Late examinations will not be accepted for credit.

B. Quizzes

To ensure that students are keeping up with lecture materials, short (15-20 min) quizzes will be given randomly at the beginning of many classes.

C. Paper

Each student will write an independent five-page typed paper (single spaced, single sided, 12 point, 1" margins) that reviews a body of work related to photoluminescence spectroscopy as such applies to their individual research. [Note: References, Figures, and Tables are *not* part of the five page count.] The paper is due as a single pdf file to the instructor by 8:00 AM on the last day of class. Late papers will not be accepted for credit.

D. In Class Presentation

Each student will use PowerPoint to prepare and deliver a 15 min talk (10 min presentation + 5 min for questions) on their "paper". The presentations, if all agree, will occur outside of class time (likely in the evenings), during the last few weeks of the Spring term. At about the mid-point in the term, a listing of available time slots will be brought before the entire class and sign-ups will be made on a first-come-first-served basis.

Course Format. CHE 529 relies entirely on lectures, note taking, in-class handouts, and articles from the scientific literature.

Academic Integrity Policy. CHE 529 operates with a zero-tolerance policy regarding cheating and other forms of academic dishonesty. Any act of academic dishonesty will result in a grade of "F" being assigned for this course.

The University at Buffalo's regulations in this area is available at the following web locations:

<http://undergrad-catalog.buffalo.edu/policies/course/integrity.shtml>

<http://www.grad.buffalo.edu/policies/index.php>

Cheating may be defined as the use of unauthorized materials or the giving or receiving of unauthorized assistance during a quiz, class test, examination, laboratory experiment, or other academic exercise. Cheating includes copying the work of another individual or the unauthorized collaboration between two or more students during an academic exercise such as a homework assignment, quiz, class test, laboratory exercise, or examination. Cheating also includes unauthorized modification of returned homework assignments, class tests, laboratory reports, or examinations for reconsideration or re-grading by the instructor or teaching assistant. Plagiarism may be defined as the use of another individual's work without authorization, consent, or appropriate acknowledgement.

In this particular course, you are *not* authorized to collaborate with classmates on any assignments or exams.

Homework will be examined for evidence of copying and plagiarism. Exams and quizzes will be monitored for acts of cheating. If an act of academic dishonesty is detected, a grade of "F" will be assigned for this course.

A single page document is attached which every student must sign and turn in as part of the first assignment in this course.

CHE 529 Policies on Academic Honesty and Integrity

CHE 529 will operate with a zero-tolerance policy regarding cheating and other forms of academic dishonesty. Any act of academic dishonesty will result in a grade of “F” being assigned for this course. The University at Buffalo’s regulations in this area is available at the following web locations:

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I have read and agree to the CHE 529 Academic Honesty and Integrity Policy described above.

Printed name

Signature

Date