

Chemistry 507

(Fall 2017, 3 Credits)

Instructor: Professor Frank V. Bright
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Office Hours: By appointment only

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Lecture Location, Days, and Time: Cooke 127B, Tu & Th, 9:30-10:50 AM

Course Outline. CHE 507 is devoted to modern analytical spectroscopy and imaging in the broadest sense. Specific topics to be discussed include: (i) the electromagnetic spectrum; (ii) general measurement classifications; (iii) instrumentation sub-components; (iv) signal-to-noise (S/N) theory and S/N optimization methods; and (v) representative spectroscopic and spectrochemical imaging techniques.

Learning Outcomes. At the end of this course successful students will have mastered: (1) signal-to-noise theory and methods of optimizing such and (2) spectrochemical analysis and the associated instrumentation.

Assessment. Exam I will assess 80% of topic “(1)”. The remainder of topic “(1)” will be assessed by in class quizzes and homework assignments. Exam II will assess 80% of topic “(2)”. The remainder of topic “(2)” will be assessed by in class quizzes and homework assignments.

Course Format. CHE 507 relies entirely on lectures, in-class note taking, in-class handouts, and articles from the scientific literature.

Quizzes & Examinations. Unannounced quizzes and homework assignments will be given out in class. These will be worth 20% of your final course grade.

Two (2) take home examinations will also be given; each exam is worth 40% of your final course grade (80% in total). These exams will be sent out electronically as a single MS Word file to each student *only* at their buffalo.edu e-mail address.

Exam I	Distribution Date: 10/03/17	Due Date: 10/10/17
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Exam II	Distribution Date: 11/30/17	Due Date: 12/07/17
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Each exam is due to Prof. Bright on or before 5:00 PM on the listed due date. *Your examination will only be accepted as a single pdf file.* **Late examinations will not be accepted and you will receive a zero (0).** Each exam will cover lectures, discussions, problem sets, quizzes, reading assignments, articles, and handouts.

During exam periods you may send Prof. Bright one (1) draft of each exam and have your answers critiqued without *any* penalty. You are *not* to discuss the examinations with anyone other than Prof. Bright.

Academic Integrity Policy. CHE 507 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.