

Course Syllabus

Physics 489: Senior Seminar

Fall Semester, 2009

Instructor:	Juliana Contantinescu
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Course WWW:	See University D2L site
Office Hours:	MW 9-10:30am, W 5-6pm
Class Meetings:	MW 12:05 pm – 12:55 pm (Some Monday meetings will be replaced with Friday sessions)
Exams:	Final: Monday, Dec 14 3:15-5:15pm
Text:	<i>A Review of Undergraduate Physics</i> , Bayman & Hammermesh You should also have your introductory physics text available, and review the relevant sections before each quiz.
Pre-requisite:	Senior standing as a physics major.

Course Objectives: This course has the following objectives:

- Be able to retrieve, read from, and critique articles from physics professional journals.
- Hone public presentation and scientific communications skills.
- Review topics learned during entire course of study in physics.

These objectives will be reached by assigning research work, making and evaluating presentations and proposals, and working selected homework problems as a review of your overall physics understanding.

Exams: The final exam is a multiple choice, standardized exam from Educational Testing Service called the Major Field Test. It is scheduled during our final exam period on Monday, Dec 14 at 3:15-5:15 in Upham 250.

Scientific Professionalism: Each Monday lecture will focus on an area of scientific or technical professionalization, including scientific literature, job hunting, scientific presentations, grant proposals, and colloquia (see attached schedule). To obtain full credit for this part of the course, you will need to submit answers to a set of “preflight” or “postflight” questions before/after each lecture as well as be present in class.

Review of Undergraduate Physics: Wednesday lecture time will be problem solving sessions. Before class, you need to take a one hour on-line quiz. Each quiz contains questions on different areas of physics each week (see schedule). Any questions that you miss on the quiz must be submitted as homework by the following week. Each problem should be written up with a thorough and clear solution. Your solution can be handwritten and must be correct and extremely clear (using actual words of explanation) to receive full score. The goal of these quizzes/homework is to help you review all the physics you’ve learned, identify your weak spots, and to prepare you for the final exam. In order to get full credit for this homework section of the course, you must answer all quiz question correctly. I may also add an extra credit quiz or two to give you more problems to try.

Activities: You will prepare four (oral and written) presentations during the course of the class. **Please note that I will not accept any late assignments.** The tentative schedule is given on the next page.

1. You will prepare a job/graduate school portfolio.
2. You will present 15 minute “journal club” style presentation using PPT (or similar program).
3. You will submit a grant proposal to the Society of Physics Students. Your grade will be based on peer review.
4. You will present a topic of your choosing at the Physics Department Colloquium.

Grading: Course grades will be determined by the percentage of total points assigned for the course. 90% = A, 80% = B, 70% = C, 60% = D. The **approximate** distribution of points will be as follows.

Preflight <u>and</u> Attendance	10%
Portfolio	10%
Journal Club	10%
Grant Proposal	10%
Final Presentation	10%
Quizzes/Homework	30%
Final	20%

Workload: The University sets a minimum level of effort that each student must devote per credit earned for all courses at the university, a minimum found in Section V-C, page 1 (revised 1992 August 1), of the University Handbook. Effectively, you should be spending twice as much time on this course outside of class as you do in class, approximately ten hours of work for this five credit class. If you find that you are spending significantly more than that, please discuss it with me to see if I can help you study more effectively.

Special needs statement: Students with special needs should contact the instructor to make appropriate arrangements.

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](#), [Misconduct](#), [Religious Beliefs Accommodation](#), [Discrimination](#) and [Absence for University Sponsored Events](#). (For details please refer to the Undergraduate and Graduate Timetables; the [Rights and Responsibilities](#) section of the [Undergraduate Catalog](#); the [Academic Requirements and Policies](#) and the [Facilities and Services](#) sections of the [Graduate Catalog](#); and the [Student Academic Disciplinary Procedures](#) [UWS Chapter 14]; and the [Student Nonacademic Disciplinary Procedures](#) [UWS Chapter 17].)