

Special Relativity and Waves (171.201/171.207) Fall 2011

1. Overview:

Special Relativity and Waves is the third course in the four-semester introductory sequence for physics majors. The course is divided into two parts. In the first three-four weeks we study the theory of special relativity (this is where 171.207 course ends after the first midterm and relevant homework). Then the rest of the semester is devoted to the physics of waves (for those who take the full course 171.201). The course builds upon the background in classical mechanics and electromagnetism, and precedes the full development of quantum physics.

2. Lecture Schedule:

Instructor: Prof. Andrei Gritsan

Lectures: Mon/Wed/Fri, 11–11:50am (some exceptions expected), Bloomberg 278

Office hours: Wed 3-4pm (possible exceptions), Bloomberg 433, email [gritsan\(at\)jhu.edu](mailto:gritsan(at)jhu.edu)

3. Section Schedule:

Section 1 (by last name **A-Mb**): Ian Anderson (TA), Bloomberg 274, Th, 1:30-2:20pm

Office hours: Fri. 1-3pm, Bloomberg 465, email [ianderso\(at\)pha.jhu.edu](mailto:ianderso(at)pha.jhu.edu)

Section 2 (name **Mc-Z**): Chi Ho (Edwin) Chan (TA), Bloomberg 176, Th, 1:30-2:20pm

Office hours: Fri. 3-5pm, Bloomberg 473, email [chchan\(at\)pha.jhu.edu](mailto:chchan(at)pha.jhu.edu)

Late homework: up to 48 hours late penalty 50% if your TA accepts

4. Grade Policy:

20% homework assignments (weekly, due in class)

20% 1st midterm (October 7, tentative)

20% 2nd midterm (November 11, tentative)

40% final exam (December 14, 9-noon)

5. Website:

<http://www.pha.jhu.edu/~gritsan/2011.171.201/>

<http://www.pha.jhu.edu/~gritsan/2011.171.207/>

6. Required Texts:

Main textbook (first part): "Introduction to Special Relativity"

Author: Robert Resnick

Published: John Wiley and Sons

Main textbook (second part): "The Physics of Vibrations and Waves," 6th edition

Author: H. J. Pain

Published: John Wiley and Sons

7. Optional Texts:

Optional textbook (second part of the course): "Vibrations and Waves,"

(The MIT Introductory Physics Series)

Author: A. P. French

Published: W. W. Norton & Company

8. Academic Integrity:

The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition.

In addition, the specific ethics guidelines for this course are:

- Homework is your individual assignment and direct use of work by others either from your class or outside is not allowed.
- Old midterm and final exams from prior years (2002–2010) are posted on the class web page and can be used for your preparation.
- Collaboration is encouraged in the section problem solving and outside of class for discussion of ideas, but not allowed in solving specific home assignments and during the exam.
- Students who have problems with the schedule or require extra time for completing the assignments should provide written documentation and discuss arrangements with the instructor as soon as the situation is known. These situations will be resolved on a case-by-case basis.

Report any violations you witness to the instructor. You may consult the associate dean of student affairs and/or the chairman of the Ethics Board beforehand. For more information, visit <http://ethics.jhu.edu>