

## Physics 101 in Spring 2007

Required Text: “College Physics,” Vol. 1 by Young & Geller, 8<sup>th</sup> Ed., Mastering Physics (for online homework due on Sundays by 5pm starting 1/21/06) (Course ID **PHY101ARCS07**), ISBN:0-8053-9214-9

Instructor: Prof. Surajit Sen

Office Hrs: 11:00-12:00pm Tue &  
11:00-1:00pm Thu/by appointment

Office: 325 Fronczak Hall

Email/Phone: [sen@nsm.buffalo.edu](mailto:sen@nsm.buffalo.edu)/645-2017x193

Webpg: <http://www.physics.buffalo.edu/~sen/PHY101S07.htm>

Lectures and

Home works Posted on Blackboard (<https://ublearns.buffalo.edu>)

Classes: 9:30-10:50, Tu, Thu at Rm 215 Natural Science Building.

Recitations: See next page

TA Office Hrs: TBA

| WEEK #                                    | Sun                   | Mon | Tue        | Wed | Thurs   | Fri   | Sat |
|---|-----------------------|-----|------------|-----|---|---|-----|
| (1)<br>1/15-1/19                          |                       |     | 9:30-10:50 |     | 9:30-10:50  | Last day to drop w/out penalty                          |     |
| (2)<br>1/22-2/26                          | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  | Last day to drop/add<br>Last day to drop without an "R" |     |
| (3)<br>1/29-2/2                           | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| (4)<br>2/5-2/9                            | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| (5)<br>2/12-2/16                          | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50<br>Midterm Exam 1<br>Ch 1-5 (20% credit) |   |     |
| (6)<br>2/19-2/23                          | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| (7)<br>2/26-3/2                           | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| (8)<br>3/5-3/9                            | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| (9)<br>3/12-3/16                          | Spring break          |     |            |     |   |   |     |
| (10)<br>3/19-3/23                         | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| (11)<br>3/26-3/30                         | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| (12)<br>4/2-4/6                           | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  | Midterm Exam 2<br>Ch 6-12 (30% credit)                  |     |
| (13)<br>4/9-4/13                          | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| (14)<br>4/16-4/20                         | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| (15)<br>4/23-4/27                         | Mastering Physics due |     | 9:30-10:50 |     | 9:30-10:50  |   |     |
| FINAL EXAM (35% credit) – To Be Announced |                       |     |            |     |   |   |     |

| <i>Course</i>  | <i>Instructor</i> | <i>Days/time</i>               | <i>Location</i> |
|--|-------------------|--------------------------------|-----------------|
| <b>PHY 101 SEN<br/>lecture</b>                         | <b>Dr. S. Sen</b> | <b>TuTh @ 9:30<br/>- 10:50</b> | <b>NSC 215</b>  |
| PHY 101<br>recitation                                  | Brian Powell      | M @ 5:00-<br>5:50pm            | NSC 205         |
| PHY 101<br>recitation                                  | Brian Powell      | Tu @ 8:00-<br>8:50pm           | NSC 216         |
| PHY 101<br>recitation                                  | Brian Powell      | Th @ 8:00-<br>8:50pm           | NSC 222         |
| Proctors/Graders: Brian Powell, Yongyan Rao & Gen Long |                   |                                |                 |

# Grading

- First midterm score = 20%\*\*
- Second midterm score = 30%\*\*
- Final Exam score = 35%
- Mastering Physics = 15%
- Recitation Quizzes = 5% (of Total)

\*\*If your score is  $\geq 65\%$  you get 3pts bonus in the test

$\geq 70\%$  you get 5pts bonus

$\geq 80\%$  you get 6pts bonus

$\geq 90\%$  you get 7pts bonus

## **Physics 101 is a course on Mechanics and Thermal Physics.**

There are students who could have easily taken Calculus based PHY 107 who are here and there are students who have not seen much physics at all. How you will want to work will depend on your background.

Algebra and Trigonometry – Should be in your fingertips

Vectors – We will cover vectors in depth in Ch 1.

### **Commitment –**

This will not be a course for memorizing formulas. I will try to teach you about the concepts, ideas and the laws of mechanics. You will be required to apply these to solve problems. These problems will be done online in the Mastering Physics utility and you will be regularly taking quizzes in the recitation sections.

If you spend

3 hours on lectures

1 hours on recitations

6 hours on problem solving/week

10 hrs/ week in all

You will learn what is to be learnt and have no trouble passing this class.

## How to make a good Grade

Letter grades will be assigned to your cumulative percentage numerical grade. To pass this course with a C grade or better, you should aim for a cumulative grade of better than 60%. Final grade distributions will depend upon the performance of the class.

Note that Mastering Physics assignments, count for 15% of your grade. Scoring well in this 15% will make a significant difference to your letter grade. Recitation quizzes will be administered in the recitation sections and will count for a bonus 5%. Because this is a bonus grade, this is a very significant way to improve your score.

## Quizzes

Feel free to form study groups with your classmates and seek help from the instructor or the TA during his or her office hours as you attempt to solve the problems. You can contact me by email at [sen@nsm.buffalo.edu](mailto:sen@nsm.buffalo.edu) (preferred) any time.

## Exam Schedule and Content

|         |                       |            |         |               |
|---------|-----------------------|------------|---------|---------------|
| Exam 1: | Thursday, February 15 | 6pm-8:00pm | Ch 1-5  | NSC 210 & 215 |
| Exam 2: | Friday, April 6       | 6pm-8:00pm | Ch 6-12 | NSC 225       |
| Final:  | TBA                   | TBA        | Ch 1-16 | TBA           |

\*Seating arrangements will be announced a week before the exams.

## **Exam Policy**

Exams will consist of problems similar to the worked example problems in the text and the assigned homework problems. Exams will be closed book. You should bring with you a pocket calculator to work out the answers to numerical problems. Sharing of formula sheets or calculators will not be allowed.

Full credit on exams will be awarded for complete solutions including drawing an appropriately labeled figure and deriving necessary formulas, as appropriate, and for numerically accurate answers with appropriate significant figures. Partial credit may be given for correct derivations if the answer is numerically wrong due to arithmetic errors. No credit will be given for equations written down or for numerical answers that are not supported by appropriate derivations. You are urged to prepare for each exam by reading the textual material, studying the example problems and by insuring that you can independently work out the homework assignments. You should attempt to solve additional problems from the text.

## **Re-Grading**

Exams will be graded and returned to you and solutions will be posted. You may request regrading of specific parts of your exam by returning it to your instructor (not your TA) in class or during office hours within one week after the exam has been returned to you. This request should be accompanied by a typed note specifying which problem parts you would like regraded and why. The note should be attached to the exam. Only one regrade request will be allowed for each exam. Please do not write on your exam booklet or alter it in any way. Exams will be randomly photocopied. Exams that have been tampered with or altered in any way will not be regraded and further disciplinary action will be taken.

## Missed Exams

You will be assigned a score of zero on any exam you miss. You may request a make-up exam if you have a valid excuse. A valid excuse is defined as a documented major emergency, or a written certification by a registered medical practitioner that you were unable to take the exam due to illness. Conflicts with other academic activities may also be considered as a valid excuse, but only if you inform the instructor before the exam.

If you maintain a passing average on the midterm exams and homeworks but miss the final exam with a valid excuse, you may request an Incomplete (I) grade for the course. Incomplete work must be made up when the course is offered again, and before the default deadline. Students who are not maintaining a passing average will not be considered for incomplete grades.

### Resignation

Last day to drop without \$ liability: **January 19**

Last day to drop without R grade: **January 26**

Last day to drop with R grade: March 30

If you are still registered in the course after **March 30**, you will receive an A-F letter grade. The I grade is available only to those who are performing at a passing level but cannot complete the course for a valid reason.

## Students with Disabilities

If you have a disability and require reasonable accommodation to enable you to participate in this course, such as note takers, readers, or extended time on exams and assignments, please contact the Office of Disability Services, 25 Capen Hall (645-2608), and also see your instructor during the first two weeks of classes.

### Academic Integrity

Students are responsible for abiding by the academic integrity policies of the UB. In fairness to all students, academic dishonesty will be prosecuted to the fullest extent.