

# PHYSICS 241 – Computational Mechanics – Fall 2013

**Location:** Class - Workman 109, Lab - Speare 116

**Class:** M-W 1:00pm-1:50pm **Lab:** W 2:00-4:00 pm **Office Hours:** Monday 3:00-5:00 pm

**Professor:** Richard Sonnenfeld, Workman 347,  
Tel: 575-838-7113, [rsonnenfeld@gmail.com](mailto:rsonnenfeld@gmail.com)

**Goals:** Every course graduate should be comfortable with  
1) Solving classical mechanics problems at a level comparable to standard “college physics” texts.  
2) Writing short programs in MATLAB to solve physics problems.

**Programming Lab:** The programming lab is an opportunity for you to work on your computational homework and get assistance. Attendance is required.

**Schedule/Topics:** A syllabus and exam schedule will be posted on the web.

**Announcements:** Announcements are made in class and (sometimes) posted on the web.

**Required Texts:** Computational Mechanics by R. Sonnenfeld (this book may be purchased for \$25 and will be posted in electronic form)

**Optional Texts:** Getting Started with MATLAB: an Introduction for Scientists and Engineers by Rudra Pratap  
Oxford University Press  
ALSO  
You should own a “freshman physics” book. (Halliday and Resnick, Young and Freedman are both good choices) Buy one used cheap!

**WebPage:** My web-page on <http://www.physics.nmt.edu/~rsonnenf/phys241/phys241.html> is the source of all assignments and other course information.

**Grading:**

Test 1:	20% (Programming)
Test 2:	20% (Mechanics, Dynamics)
Project:	30%
Homework:	30%

“A” is 90-100, “B” is 80-90 ... etc. (I reserve the right to curve the grades later in the course, but only in your favor.)

**Homework:** Written homework is usually assigned Monday and collected at beginning of class the following Monday. Programming homework XX is due before midnight on Wednesdays and is to be uploaded to [yourid@babelfish.nmt.edu](mailto:yourid@babelfish.nmt.edu):~/phys241/hwXX. Late homework is strongly discouraged and may not be accepted.

Programming (MATLAB) homework should be done individually. Working with and talking to classmates is encouraged, but you need still to write your own code. If I receive very similar programs, no credit will be given to anyone for the work. Code needs to work when I run it.