**SYLLABUS**

CRN 3882/102: PHY211, “University Physics I”

Fall 2017

Time: TTR 8:00-9:50 AM

Location: S277

**Instructor**

Dr. Thomas E Wilson

Office: S153

Lab: S154

Phone: 696-2752

E-mail: wilsont@marshall.edu

**Office Hours**

***HERD Hours*** (MF 1-5 pm) and W 3:30-4:30 PM

If you are unable to make these times, I am happy to meet with you at any time. You are free to come by my office or lab, but your chances of finding me are better if you make an appointment.

**Required Materials**

The textbook for the course is **University Physics with Modern Physics” by Young and Freedman, 14th Ed. ISBN-13: 978-0-134-22501-2**

You must also register (at no charge) for the on-line homework and tutorial software system Expert TA. Registration should be done here: [**https://www.theexpertta.com/registration/ClassRegistration.aspx**](https://www.theexpertta.com/registration/ClassRegistration.aspx) using our class code: **USX50WV-C1609F-1IM** (Registration instructions are given at: <https://login.theexpertta.com/docs/SRI2014.pdf> ).

Homework scores will be accessible at Expert TA. Exam scores will be posted on our *BlackBoard* course website at Blackboard at https://marshall-bb.blackboard.com/

**Overview**

The goals of this course are twofold. First, I wish to make you familiar with the broad range of physical concepts of classical mechanics used to understand our world. The level of the course will be aimed at students who have completed courses in algebra and trigonometry and a first semester of the calculus, and also have either completed, or are currently enrolled in, the second semester of the three-semester calculus sequence. In comparison to the algebra-based course, a substantially higher level of mathematical sophistication and abstraction will be used. The second goal of the course is to introduce the student to mathematical methods and problem-solving techniques that will be useful in areas of physics outside of classical mechanics.

**Attendance**

Attendance of all class meetings is expected, but allowance will be made for extenuating circumstances. Students are responsible for material presented in lecture, whether they are in attendance or not.

**Special Needs**

Students with special needs (as documented by the Office of Disability Services) should identify themselves at the beginning of the semester. Every effort will be made to accommodate the special needs of these students.

**Disruptive Behavior**

Students are expected to conduct themselves in a manner that creates a productive learning environment for all members of the class. To this end, disruptive behavior will not be tolerated. Disruptive behavior is any behavior that interferes with the normal conduct of lecture, including sleeping. **In particular, electronic devices (cell phones, pagers, etc.) should be turned off before entering the class.**

**Academic Integrity**

With the exception of contributed discussions with your classmates (see HERD Hours), you not allowed to access and use solutions to the assigned homework problems from any other person or website. Furthermore, all materials used in this class (in any form, electronic, printed, or verbal), including, but not limited to, exams, quizzes, handouts, lectures, homework assignments, and all material on the university’s learning management system (currently Blackboard) and its peripherals, are copyright protected works under US Code Title 17.

1. Unauthorized copying, distribution, recording, selling, or posting of any portion of class materials, in any form, in any way, is a violation of federal law; this specifically includes posting any portion of the class materials to the World Wide Web through the Internet, and/or via any other means of electronic communication.
2. Unauthorized sharing of class materials in any form, specifically including, but not limited to, uploading class materials to websites for the purpose of seeking/providing solutions or sharing those materials with current or future students is a violation of the Academic Dishonesty Policy set forth in Marshall University's Student Code of Conduct.

'Unauthorized' means without explicit permission from the instructor.

Violation of (1) or (2) will result in all necessary disciplinary actions taken against the student."

In addition, the university’s general academic policies are found at: http://www.marshall.edu/academic-affairs/policies/

**Withdrawal**

Students may withdraw from the course by 4 pm August 27th at the Registrar’s office.

**Grades**

Grades (thresholds: A 90%, B 80%, C 70%, D 60%) for the course will be determined as follows:

Expert TA Homework: 10%

In-class Exams: 20%

Final Exam: 30%

**Homework**

Weekly homework will be assigned at Expert TA.

**Exams**

There will be three in-class exams given during the semester, along with the final.

Exam 1: Tuesday, September 12
Exam 2: Tuesday, October 7
Exam 3: Tuesday, November 14

Final Exam: Thursday, December 14, 8-10 AM

The exam format will be paper-based (always bring a calculator) and will be closed book.

**Topics Covered**

 Chapters 1-16



**HERD Hours**

**Dear Dr. Wilson’s Fall 2017 PHY 211 - University Physics I (CRN 3882 - Section 102) Students-**

I will also be participating in the Physics Department’s ***‘Herd Hours’***, (developed by Professor McBride) a place where students can come individually, or especially in groups, to *Science 179 from 1-5pm on Mondays* (by me) and 1-5 pm Fridays (Dr. McBride) and work on homework together in a non-classroom and non-typical-professor-office-hour setting. Simply come by and ask some questions. I will try to adhere to the admirable philosophy of HERD Hours as described by Professor McBride:

“At ***‘HERD Hours’***, I will always be around to help you at any time if you get stuck, but what I really want to see at ***‘HERD Hours’*** is students helping fellow students, leading each other through peer instruction. Struggling, discussing, conquering the problems, and celebrating with your friends and peers is better than being frustrated by yourself and not making progress on the homework. I encourage you all to work together. When working in groups there are more people around the table with different skill sets and different approaches and ideas to attack the problems. Working together in groups often results in getting the homework done faster with a better understanding of the material and is overall a more memorable experience than spending long frustrated isolated hours struggling on your own. Attendance will be taken during ***‘HERD Hours’*** for recording keeping purposes only, not for extra credit.

For your homework (both online and written), always try it yourself first; however, you are encouraged (but not required) to discuss it with your peers for help (‘***HERD Hours’*** provides a great place to accomplish this feat). I encourage students to discuss homework with each other if you arrive at different answers. If you think the answer you got is correct and you are confident in your solution, try and explain it to your fellow students, see what they think. Maybe they solved the problem a different way, arriving at a different answer, encouraging you to review and rethink how you solved the problem. Hopefully this encourages discussion of physics among you and your fellow students and builds your confidence in problem solving and improves your ability to explain your work to others. If you cannot get the required help from your peers, or simply have a question, come see me during office hours, drop by anytime, or make an appointment with me, and/or apply for a tutor. Remember, the number of your peers (N) can vary each semester for your class (N = 20 - 60) and significantly outnumber the number of the professors for your course (N = 1) and they may be more available than your professor to help you outside of normal office hours and ***‘HERD Hours’***.

If office hours, or ‘***HERD Hours’***, is not something you think you will benefit from, there ***are free university tutors available for almost all intro level physics classes***. In fall 2016, there were 3 students supplying a total of 40 hours per week of tutoring services for PHY 211 alone. In Spring 2017, a total of 4 students supplied over 65 hours per week of tutoring services for PHY 211 alone. These same students, in almost all cases, also tutor for 201, 202, 203, 204, and some even tutor for PHY 213. See current tutoring schedule available at: <http://www.marshall.edu/uc/tutoring-services/>. If you seek an individual tutor, stop by the Communications Building, Room 211 and submit a “[Request a Tutor](http://www.marshall.edu/uc/files/2011/04/NeedATutorForm1.pdf)” form (available at: <http://www.marshall.edu/uc/tutoring-services/>). If you have not heard from the tutoring office staff within one week of submitting your form, please call 304-696-6622 or email tutoring@marshall.edu. Currently, I have not met these university tutors, so I cannot vouch for them (I am sure they are great); however, I also provide a list of “Dr. SPM Approved Tutors” on my Teaching Homepage that I will vouch for.

Hope to see you at ***‘HERD Hours’***!!!”

***Dr. Thomas E. Wilson***

[http://science.marshall.edu/wilsont](https://works.bepress.com/sean-mcbride/)

***Physics Department, Office: Science Building 153***