**SYLLABUS FOR *GENERAL PHYSICS - PHYS 201-104***

**Term**: Fall 2015

**CRN/Section:** 3850/104

**Location:** S277

**Time:** MWF 3:00 pm – 3:50 pm

**Text: College Physics,** Etkina, Gentile and Van Heuvelen, ISBN-13: 978-0-321-71535-7

**Instructor**

Thomas Wilson, Ph.D.

Office: S153

Phone: (304) 696-2752

**Office Hours**

MWF from 4-5 PM in S153

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 (S154), but your chances of finding me are better if you make an appointment. I will be happy to provide hints for how to proceed with the assigned homework.

**Overview**

The course covers the ideas of classical mechanics and wave motion as expressed by Newton’s Laws. My lectures will include material not explicitly described in the text.

**Lecture, Homework, Quizzes, and Peer Instruction**

We will cover in sequence Chapters 1-6, skip to Chapters 19-20, and then return to Chapters 7-11, with supplementary material as necessary. This is the subject of Newtonian mechanics. You will be responsible for reading carefully the textbook chapter material at the rate of approximately one chapter per week in order to do well on the exams and on the assigned online homework. I will inform you weekly which chapter you should read for the following week. In our classroom, we will make use of small group discussions and associated student responses (*Peer Instruction* (PI) to PowerPoint projected questions; the latter are designed to elicit a deeper conceptual understanding of your Chapter readings. Responses will be collected electronically via either a ‘clicker’ or through your smart device. Physics educational research during the past two decades has clearly demonstrated the benefits of this approach. I also hope, depending upon equipment availability, to perform a number of related demonstrations.

**Required Materials**

In addition to the text, one will also need for PI either (1) *Turning Technologies* ***ResponseCard (RF* or NXT) ‘clicker’** available at the bookstore or also directly from: <http://store.turningtechnologies.com> (use “mar1” for the school code)

or, (2) if you would like to use your own smart device (i.e., Apple® iPhone, iPad or iPod touch, BlackBerry smartphones, Windows Mobile® devices) instead of a clicker, one would need to purchase a *Turning Technologies* ***ResponseWare*** annual license, A license can be purchased from: <http://store.turningtechnologies.com> (use “mar1” for the school code). In this case, you will also need to download the *ResponseWare* app onto your mobile device. All of our clicker sessions will use the same *ResponseWare* Session ID: **wilson**. You should use your Marshall email address for the above registrations.

(3) One will also need an access code for MasteringPhysics (*MP*) ([www.masteringphysics.com](http://www.masteringphysics.com)). Our course ID is **PHY201104** will be required to register for *MP*. There will be a weekly online homework assigned on our MasteringPhysics course site. The access code is included in the textbook at the Marshall bookstore. Otherwise, it can be purchased online. You should use your Marshall email address for *MP* registration as well. You will only see your scores for the MP homework at the *MP* course website and not at our *Blackboard* course site. *MP* assignments will be posted online only at the MP web site – notification will not be simultaneously posted at the Blackboard course site.

During the first week of class, you must also register either one’s **ResponseCard** Device ID or one’s **ResponseWare** Device ID on the *Turning Technologies Registration Tool* on the *Content Page* of our *Blackboard* course-site linked <http://mymu.marshall.edu>, in order to receive credit for the PI questions. You will be able to view your PI scores, displayed by date, at our **Blackboard** course under *My Grades*.

**Attendance and Policy**

Attendance at all class meetings with prompt arrival is expected, as typically class will begin with PI sessions, which will be graded. Excused absences will be granted provided I receive written notification from the Office of the Dean of Students.

Excused absences and other University policies are described in detail at: <http://www.marshall.edu/academic-affairs/?page_id=802>). For university-approved excused absences on scheduled exam days, accommodations for a make-up exam can be made. A student who misses an examination without an excused absence will receive a 0% for that exam.

**Exams**

There will be three exams and a final examination, each worth 20% each in the determination of one’s course grade. The exams are closed book with multiple-choice questions and only calculators are allowed during the exams (with no stored formula):

Exam I: Monday, September 21

Exam II: Monday, October 19

Exam III: Monday, November 16

Final Exam: Monday, Dec 7, 3:00-5:00 pm

**Grades**

Grades are as follows (thresholds given as %) for the various components:

 PI: 10% (minimum score of 70% for each participating PI session. 0% if the PI session is missed)

 MP: 10%

 Exams: 20% each

Letter grades will correspond to the following threshold percentages:

A 90%, B 80%, C 70%, D 60%, F- below 60%

A request for an incomplete will be approved provided that one has taken two of the first three exams.