PHYS-160-003 (Spring 2017): LOGIC+

Tentative Syllabus - B. R. Djordjevic

1 Information

Course:	**University Physics 160 - 003**
Meeting:	**TR** : 9:30 pm - 11:20 pm
Room:	**Exploratory Hall L102**
Text:	**Young & Freedman, University Physics with Modern Physics, 14e** (13^{th} edition is equally good, but Mastering homework is based on 14^{th} edition, which, should not be a problem because the two editions are practically identical)
Homework Portal:	**MODIFIED MASTERING PHYSICS. (Course ID: djordjevic51587)**
Instructor:	**Branislav R. Djordjevic, PhD**
Office:	Planetary Hall 201B
Phone:	703-993-5380
Email:	bdjordje@gmu.edu
Office Hours:	**M: 11-12 am; W-T-TH: 12 AM - 2 PM**

2 Active Learning

2.1 Philosophy

This is an Active Learning course and will have a very different format from the traditional lecture style. Please read the following sections carefully so that you understand what Active Learning entails.

This is not a lecture course. Students in this class will engage in active learning which will require preparation before class begins, group efforts, class participation, investigative research and hands-on work. A good portion of the course grade will be based on class participation and group interaction. See **Section 4** for more details.

2.2 The Rules of LOGIC+ (Lecture Online, Group work In Class) Physics (from students' experience)

1. Watch and re-watch Videos, PPT lectures, and other material provided in Blackboard, BEFORE you come to class!
2. Help thy neighbor – engage in discussions with your colleagues and help each other!
3. Ask questions!

2.3 Class Room

The ALT (Active Learning Tech) classroom has 8 tables each with 9 seats, and many whiteboards around the classroom. Each table will hold 3 groups of 3 students each. Students will engage in group learning. Exams, in-class quizzes and homework problems are NOT group activities – they are to be completed by individuals.

2.4 Student Responsibilities

Students in this class will need to assume the following responsibilities:

1. Read the appropriate section in the text book and watch videos before class time. Most chapters will have two class days. Watch all videos before the first class day.
2. Do your weekly homework in time – by Sunday midnight.
3. Be investigative and creative – use other resources (e.g. YouTube).
4. Productively work in groups while in class.
5. Participate in class activities.

2.5 Required Supplies:

- A set of white-board markers. EXPO brand
- Composition notebook
- Smart Phone, iPad, or Laptop for in-class quizzes! Quizzes will be done through Mastering Physics Learning Catalytics, so you need to get the access to Learning Catalytics. No iClicker devices are needed! **Learning Catalytics access is included when you buy Mastering with an eText subscription or a new book package.** If you bought a Mastering subscription without an eText, you will need to purchase Learning Catalytics access separately.

2.6 Openness

Students will be asked to provide honest and frequent feedback that will be used to optimize the course in the future. Your inputs are very important in creating an effective learning environment.

Students should expect frequent polls from the instructor, P&A department, or the Provost's office. These polls are often anonymous and are used to create a better course. Honesty is essential and highly encouraged.

3 Class Format:

Class sessions will often contain the following procedures:

- Introduction and Announcements
- Up to 15 minutes Summary of the subject for that session
- Learning Catalytics Conceptual Quiz on the lecture/video and reading material
- Problem solving on whiteboards
- Discussion
- Homework to be completed in MasteringPhysics by Sunday midnight.

3.1 Conceptual In-Class Quizzes

The purpose of the Conceptual Quizzes is to test the broad concepts that students obtained from the reading/video material. We will use **Mastering Physics Learning Catalytics** for these quizzes. **You need to bring either a Smart Phone, or iPad, or a Laptop, and you need to get access to Learning Catalytics. If you purchased access to eText (which comes for free when you purchase the paper textbook), you will have access to Learning Catalytics too, but you can also purchase it separately.**

3.1 Homework

Homework assignments may be found by clicking on **Mastering Physics Homework** link in **Blackboard**. To register for homework, you will need **MODIFIED MasteringPhysics Access Code** (purchased with your **14th edition** textbook, or separately). If you already have the Young and Freedman book, the individual **Mastering Physics Access Code** may be purchased separately from the bookstore, or directly from Pearson, with or without access to eText. **All weekly MasteringPhysics homework assignments should be completed by Sunday midnight. To register for modified mastering physics read instruction in Blackboard. Use Course ID: djordjevic51587.** Or you can also go directly to: **http://www.pearsonmylabandmastering.com/northamerica/masteringphysics/students/get-registered/**

3.2 Pre-Lecture Reading Quizzes (in Mastering Physics). These (once-a-week) quizzes will be generally due by Tuesday 9:30 PM, and will be available on Friday. For specific due dates look at Mastering Physics schedule. This means you have to come to class PREPARED, i.e. - read the chapter once during the weekend before coming to class on Monday..

4 Graded Assignments and Activities:

Mid-Term Exams, 15% each (x 2)	**30%**
Final exam	**30%**
MASTERING PHYSICS Homework (due by Sunday midnight)	**20%**
Class Participation (Problem Solving (5%) + In-Class Quizzes (5%))	**10%**
Pre-lecture Quizzes (in Mastering Physics) – varies: due by Monday, or Wednesday, 4:30	**10%**
TOTAL	**100 %**

4.1 In-class Participation

The ALT room requires students to participate in groups. Deductions will be given for students that fail to participate. This includes students that text or participate in social networking during class. This also applies to students that do work on their own and do not share with their group or participate in their group. Excepting exams and quizzes almost all activities in the ALT room are performed in groups.

4.2 Grading Scale

Percentage	Grade
98	**A+**
93	**A**
90	**A-**
87	**B+**
83	**B**
80	**B-**
77	**C+**
73	**C**
70	**C-**
60	**D**
Less than 60	**F**

4.3 Dropping Scores

- Exams **will not** be dropped.
- There are NO makeups of the exams.
- No assignments will be dropped.
- No in-class quiz session will be dropped.

4.4 Exams

- Students are expected to bring the following items to each exam:
  1. A Calculator (see comments following this list)
  2. 2 sides - 1 page (8:5 X 11) handwritten formula sheet (no photocopying).
  3. Pencil or pen.
- Students are required to have a scientific calculator. For the exams devices such as cell phones, tablets and laptops will not be allowed.
- There will be no bathroom breaks during the exam. Once you leave you are done. Please do NOT drink 3 cups of coffee before the exam.
- The final exam is comprehensive.

4.5 Extra Credit: NONE!

5 Physics Tutor

P&A department has a dedicated tutor: Dr. Fisher - Planetary Hall 2A.

6 Online Portals

This course will use **Blackboard** to post announcements and grades. It will host the videos and other course materials. The homework assignments will be turned in through **MasteringPhysics** platform. See the section **3.1** Homework for more details.

7 Resources

University Catalog	http://catalog.gmu.edu
University Policies	http://universitypolicy.gmu.edu
Office of Academic Integrity	http://oai.gmu.edu
Office of Disability Services	http://ods.gmu.edu

8 Honor Code

http://oai.gmu.edu/honor-code

Violations of the Honor Code include but are not limited to:

- Copying work from other students (even if it is from other schools and other semesters).
- Copying work from other documents without citation.
- Copying exam answers.
- Having someone else do your work.

If there are any questions please ask me so we can clarify the situation. The main reason that people cheat is because they get behind. It would be much better to meet with me about the situation rather than attempting to cheat.

9 Tentative Schedule (see the table on the next page):

This schedule can change due to unforeseen circumstances. If this happens an announcements and a revised schedule will be posted on Blackboard. It is probable that there will be changes in the last few chapters.

Tentative Schedule:

Week of (**MON**)	**Chapters**	**Homework*** Due **Sundays 11:59 pm** **See Mastering for dates**	**Pre-lecture Quiz**** Due **Tuesdays 9:30 am** **See Mastering for dates**
01/22	Ch. 1 Introduction; vectors Ch. 2 Kinematics in 1D	Assignment 1 (Ch1)	(Ch1)
01/29	Ch. 3 Kinematics in 2D	Assignment 2 (Ch2)	(Ch2)
02/05	Ch. 4 Newton's Laws	Assignment 3 (Ch3)	(Ch3)
02/12	Ch. 5 Application of Newton's laws	Assignment 4 (Ch4)	(Ch4)
02/19	Review **Test 1 Chs 1-5 (2/22, Thursday)**	Assignment 5 (Ch5)	(Ch5)
02/26	Ch. 6 Work, Kinetic Energy Ch.7 Potential Energy, Conservation of Energy	Assignment 6 (Ch6)	(Ch6)
03/05	Ch.8 Linear Momentum	Assignment 7 (Ch7)	(Ch7)
03/12	**SPRING BREAK** **No classes**		
03/19	Ch.9 Rotational Kinematics		
03/26	Ch.10 Rotational Dynamics	Assignment 8 (Ch8)	(Ch8)
04/02	REVIEW: Ch6-10 **Test 2 Chapters 6-10 (4/5, Thursday)**	Assignment 9 (Ch9)	(Ch9)
04/09	Ch.11, Ch.12 Equilibrium; Fluids	Assignment 10 (Ch10)	(Ch10)
04/16	Ch.13 Gravitation	Assignment 11 (Ch11)	(Ch11)
04/23	Ch. 14 Oscillations	Assignment 12 (Ch12)	(Ch12)
04/30	REVIEWS (Ch1-14)	Assignment 13 (Ch13)	(Ch13)
12/14	**Tuesday, May 15 2018, 10:30 - 13:15. The same room.**	Assignment 14 (Ch14)	(Ch14)

* **The first homework will be due by Sunday, Feb 4, midnight. Subsequent homework assignments will be due by subsequent Sundays, with a break during the Spring break.**

** **Pre-lecture quizzes are always due BEFORE the lecture on the topic, except the first one (Ch1&2), which will be due by Thursday, Jan 25, 9:30. The following pre-lecture quiz, (Ch3) will be due by Tuesday 1/30, 8:30 am. But – it is student's responsibility to frequently check due dates in Mastering Physics.**

Important Dates:

January 1 Day of Week	*Sunday*
Martin Luther King Day (no classes)	Mon Jan 16
First day of classes; last day to submit Domicile Reclassification Application; Payment Due Date; full semester waitlists removed	Mon Jan 23
Last day to add classes—all individualized section forms due Last day to drop with no tuition penalty	Mon Jan 30
Last day to drop with a 33% tuition penalty	Mon Feb 13
Final Drop Deadline (67% tuition penalty)	Fri Feb 24
Immunization Record Deadline	Wed Mar 1
Midterm progress reporting period (100-200 level classes)—grades available via Patriot Web	Mon Feb 20 – Fri Mar 24
Selective Withdrawal Period (undergraduate students only)	Mon Feb 27 – Fri Mar 31
Spring Break	Mon Mar 13 – Sun Mar 19
Incomplete work from Fall 2016 due to Instructor	**Fri March 31**
Incomplete grade changes from Fall 2016 due to Registrar	**Fri April 7**
Dissertation/Thesis Deadline	Fri May 5
Last day of classes	Sat May 6
Reading Days Reading days provide students with additional study time for final examinations. Faculty may schedule optional study sessions, but regular classes or exams may not be held.	Mon May 8 – Tue May 9
Exam Period (beginning at 7:30 a.m.)	Wed May 10 – Wed May 17
Commencement and Degree Conferral Date	May 20

Get Started

With Pearson's **MyLab & Mastering and Blackboard Learn**

Get Access

Bookstore
An Access Code is included in a package available for purchase at the bookstore. You will redeem the code during the registration process.

OR:

Online Purchase
Use a Credit Card or PayPal account to purchase instant access online during the registration process (temporary access is also available).

What You Need:

1. Access to your Blackboard Course Page
2. Access to your MyLab & Mastering product (see section above)

Returning Students: if you are a returning Blackboard/MyLab & Mastering user, you will NOT need to go through step 3. Your accounts are already linked.

Get Registered

1. From your Blackboard Course Home Page, click on a link to **MyLab & Mastering**.
2. **Accept** the End-User License Agreement and Privacy Policy.
3. **Sign In** with your Pearson username and password. If you've forgotten them, use "forgot username/password" link to retrieve them. If you don't have a Pearson account, create a new Pearson username/password. (NOTE: You CANNOT connect your Blackboard username/password to more than one Pearson username/password. You **MUST** retrieve your old Pearson login credentials.)
4. On the next page, click the **Access Code** button if you purchased a package with an access code from the bookstore, OR purchase instant access now by clicking on the purchase options under the **Use a Credit Card or PayPal** section.
5. **You have now registered!** You can close the "congratulations" tab and return to your Blackboard course. This process only needs to be completed once. From now on when you click on any of the MyLab & Mastering links in your Blackboard course, your MyLab will immediately open in a new tab.
6. **Trouble?** In your Blackboard course go to Tools>Pearson's MyLab/Mastering>Diagnostics. Please copy and paste this information (or use the Export option if available) in your email.

Get Your Computer Ready

Visit the MyLab & Mastering Support page, and select your product to see system requirements: http://bit.ly/13JbMnv

Get Help

Contact Pearson 24/7 Support: http://247pearsoned.custhelp.com/

- Click here to visit our YouTube channel where students and instructors will find Getting Started videos.
- Click here to view the MyLab & Mastering and Blackboard Learn Student User Guide