

**PHYSICS 038 – Physics For Scientists and Engineers II -  
Section 1719 (FA 2015)**

**(M 9:35 am – 1:05 pm, W 9:35 am – 10:15 am and 11:10 am – 2:20 pm)**

**Instructor:** Elizabeth Bell [bellea@wlac.edu](mailto:bellea@wlac.edu)  
**Classroom:** MSA 403  
**Office:** MSB 224  
**Phone:** 310-287-4585 (email is the quickest way to reach me – through ETUDES)  
**Hours:** M – 1:30 pm to 2:45 pm, T/Th – 10:30 am – 11:00 am, and 2:30 pm to 3:00 pm, Th 8:30 pm to 9:15 pm (and by appointment)

**Prerequisite:** Math 262 (Calculus II), Physics 037

**Required:**

- **Textbook: Physics for Scientists and Engineers with Modern Physics and Mastering Physics (4th Edition), by Douglas C. Giancoli (If you purchase a used text or rent, you will have to purchase Mastering Physics Separately ~ \$66 @ [masteringphysics.com](http://masteringphysics.com)) – Course ID:**

EBELLPHYS038FA15
------------------

- **Scientific Calculator, Pencils, Graph Paper, Loose Leaf Paper**

**Course Description**

The second semester of a three semester calculus-level sequence in introductory college Physics designed for Physics, Astronomy, Chemistry, Engineering & Mathematics majors. Topics include thermodynamics (temperature, heat, heat engines, entropy), and electricity and magnetism (electric forces, electric fields, potential, magnetism, magnetic forces and fields, capacitance, resistance, inductance, DC and AC circuits). The laboratory includes both quantitative and qualitative experiments, which permit students to verify, illustrate and deduce the laws of physics related to the topics discussed.

## Student Learning Outcomes

### INSTITUTIONAL OUTCOMES (SLOs):

**CRITICAL THINKING:** Analyze problems by differentiating fact from opinion, using evidence and sound reasoning to specify multiple solutions and their consequences.

**QUANTITATIVE REASONING:** Identify, analyze, and solve problems that are quantitative in nature.

**TECHNICAL COMPETENCY:** Utilize the appropriate technology effectively for informational, academic, personal, and professional needs.

### PHYSICS DIVISION PROGRAM OUTCOMES (SLOs):

1. Develop critical thinking skills and move toward autonomous learning.
2. Comprehend, describe, and apply the procedures of physics and understand their limitations.
3. Demonstrate competence in applying the methods of scientific inquiry.
4. Apply the basic physics principles to a wide/diverse range of problems.

### Grading:

- **Lecture Exams (3) → 40% (lowest test score dropped)**
- **Final Exam (1) → 30% of grade**
- **Homework → 15% of grade**
- **Labs → 15% of class grade**

### Grading Scale:

**A** ≥88%   **B** 76-87%   **C** 64-75%   **D** 51-63%   **F** ≤50%

\*Extra Credit\* (you may earn up to 3% extra credit for the entire course).

**Attendance:** 3% (perfect attendance), 2% (1 absence), 1% (2A), 0% (more than 2 A); **Tardy counts as absence for extra credit count (so does forgetting to sign in even if you came to class on time).**

**Homework:** There will be the occasional extra credit homework problem which will count as extra credit toward your homework grade only.

**Student Responsibilities:** Physics is a challenging subject. Expect to spend an average of 6 hours per week (in addition to in-class time) on homework and review for this class. If you are having difficulty, you may work with a fellow classmate, utilize the tutoring center, or e-mail or see me in my office for additional help.

**Homework:** To be assigned by homework sets in [mastering physics](#). Your instructor will demonstrate how to set up an account and navigate the page on the first day of class. All homework assignments will be done on this site.

**Exams:** There are NO makeup exams in this class. Your lowest lecture exam will be dropped. **You MUST take the final exam in order to receive a grade for the class.**

### **TENTATIVE SCHEDULE**

<b>WEEK</b>	<b>LECTURE (M)</b>	<b>LAB (Wed.)</b>
1-Sept	21.1 – 21.6	Lecture Catch-up <u>Lab 1</u>
8-Sept	<b>No class Monday</b>	<u>Lecture Only</u> 21.7-21.10
15-Sept	22.1-3, 23.1-23.4	<u>Lecture Catch-up</u> <u>Lab 2</u>
22-Sept	3.5-23.8, 24.1-24.2	<u>Lecture Catch-up</u> <u>Lab 3</u>
29-Sept	24.3-24.5 25.1-25.3	<u>Lecture Catch-up</u> <u>No lab</u> <b>*T 1 (Ch. 1-3)*</b> <b>Thursday, Oct. 1</b>
6-Oct	25.4-25.8 26.1-26.2	<u>Lecture Catch-up</u> <u>Lab 4</u>
13-Oct	26.3-26.6 27.1-27.3	<u>Lecture Catch-up</u> <u>Lab 5</u>
20-Oct	27.4-27.5 28.1-28.3	Lecture Catch-up No lab <b>*T 2 (Ch. 4-6)*</b>

		<b>Thursday, Oct. 22</b>
27-Oct	28.4-28.7	Lecture Catch-up <u>Lab 6</u>
3-Nov	29.1-29.4, 29.6-29.7	Lecture Catch-up <u>Lab 7</u>
10-Nov	No class wednesday 30.1-30.7	No Lab (Holiday)
17-Nov	30.8-30.9 31.1-31.3	Lecture catch-up No Lab <b>*T 3 (Ch. 7-10)*</b> <b>Thursday, Nov. 19</b>
24-Nov	31.4-31.8	<b><u>NO LAB / CLASS ON THURSDAY - HOLIDAY</u></b>
1-Dec	17.1-17.9, 17.6-17.9	<u>Lab 8</u> Lecture Catch-up
8-Dec	18.1-18.5	Lecture catch up Final Exam Review <u>Lab 9</u>
<b>15-Dec</b>	<b>*No class Monday or Tuesday*</b> 19.3-19.10 <b>**Last Class on Monday, June 2**</b>	<b>Thursday, 12/17,</b> <b>11:30 AM – 1:30 PM</b> <b>FINAL EXAM (Ch. 11-15)</b>

\*\*I will try to include chapters 19 and 20 in laboratory format if time permits\*\*

#### **Additional Notes:**

- All exams will be given on Wednesdays
- Your lowest general lab score will be dropped (Note: exam questions may come from in-class laboratory material). Formal labs may not be dropped (you must get the data from a classmate and write up the report).
- General labs are worth 5 points. Formal labs will be worth 12 points.
- Homework will incur a 10% reduction for each day late.
- For exams, you are allowed one sheet of notes (front and back).

## TO SUCCEED AND OBTAIN A GOOD GRADE IN THIS CLASS:

1. Attend class regularly, attending all class sessions. Get to class on time, every time, and stay the whole time. You are responsible for information, test announcements, date changes, etc. – whether or not you are present.
2. Complete assignments on time. You may have one to one and a half weeks to complete one unit. I will not extend a due date if you wait until the last day to begin the assignments or (if because of emergency) you have not at least completed half of the assignment.
3. Take at least 2 of the in-class tests and the Final Exam (I highly recommend planning to take all tests in case of unforeseen emergencies, or just to try to pull your grade up) on the days listed above -- No make ups!
4. You are responsible for credit and enrollment status. You are responsible to drop the class – if you choose not to continue. (Note: you may be excluded if you are consistently absent or tardy). Students failing to follow the correct procedure for withdrawal will receive a grade "F" for the course which will affect your GPA.

Drop a Class w/o a Fee	SEPT 11
Drop a Class w/o a W	SEPT 11
Drop w/ a W	NOV 20

5. Each student is expected to do his/her own work on all tests. Academic dishonesty, or cheating, will result in a zero grade on that test (which will not be dropped), plus (in cases of continued academic dishonesty) a filing of a report with the Science Chairperson or Dean of Students giving your name and describing the incident.
6. Expect to work hard. You will need to spend at least 6-8 hours per week to complete the required reading and review of material taught in class. Do not wait until the last minute to start assignments. This will result in incomplete assignments and you will not have sufficient time to absorb the material.
7. Please turn off your cell phone before entering the class, and do not eat inside the NEW classroom. You may bring water bottles. You may use your cell phones during breaks.
8. In taking this class, you are agreeing to abide by all the rules and regulations stated above – including dates of tests and final. This means that you do not schedule anything else on test days.
9. Welcome to Physics 038!!

\*\* If you are a DSPS student requiring special accommodation for this class, please contact me after class during office hours during the first week.