# Phys 201 Applied Principles of Physics Spring 2024

Lecture: Tue, Thru, 8:00-8:50 A208 SCI Lab: Mon/Wed 14:00 – 16:50 B112 SCI Discussion: Mon/Wed 12:00 – 12:50 A112 SCI

Instructor: Dr. Chris Verzani E-mail: cverzani@uwsp.edu Office: SCI B103 Office Hours: Mon. 10:00 – 10:50, Tue. 9:00-9:50, Wed. 13:00 – 13:50, Th. 11:00-11:50 a.m. Or by appointment Text: *Physics* Walker, 5<sup>th</sup> edition,

# **Course goals**

This semester you will be presented with a variety of physics topics including; motion in one and two dimensions, vector formalism, laws of motion, work and energy, momentum and collisions, rotational motion and equilibrium, fluid statics and dynamics, heat transfer, thermodynamics and waves and sound. Ideas will be presented both mathematically and conceptually in lecture and the laboratory. During the semester there will be three main goals:

- 1. Make a connection between the conceptual, mathematical, and laboratory (or "hands-on") aspects of physics.
- 2. Be able to accurately explain physics to others.
- 3. Understand how physics applies to the world around us, i.e. applications.

### **Attendance**

Although attendance is not recorded for the lectures or discussion sessions, it is highly recommended that you attend. Regular attendance will help you learn the material and, thus, lead to better performance on homework, discussion handouts, laboratory exercises and exams. **Laboratory attendance is** required to receive a laboratory grade.

# Grading:

Your grade will be composed from your work in the following three areas.

- 1. Examinations
- 2. Discussion/Homework
- 3. Laboratory

#### **Exams**

Four examinations (including the final) will be given during the semester. The first 3 exams will be taken during a lab period. The fourth exam will be given during the final examination period. Although the exams are not comprehensive, they may necessarily require you to call on knowledge gained from an earlier exam.

### **Homework and Discussions**

A homework set of problems from the textbook will be assigned each week. The homework sets from the textbook will not be graded. A separate "Turn-In" problem will be assigned for grading. Assigned problems will frequently be covered in detail in the discussion session. To get maximum value out of the discussion class, you should attempt to work all assigned problems. Each homework assignment will be worth a certain point value (usually 10 points), and your overall homework grade will be your total earned points divided by the total possible number of points for the semester.

## **Laboratory**

Normally, labs are conducted once a week. You will work in groups of 2 to 4 depending on the complexity of the lab and availability of equipment. At the end of each lab period your group should be able to turn in a lab report to the instructor. Labs will be posted on Canvas, and it is recommended that you read over the lab prior to coming to the laboratory. Laboratory handouts can be printed at the beginning of each laboratory session. Each lab report will be worth a certain point value (usually 20 points), and your overall lab grade will be your total earned points divided by the total possible number of points for the semester.

#### **Grades**

Distribution of Maximum Possible Points				
Exams	4*15% =60%			
Homework	15%			
Laboratory	25%			
TOTAL	100%			

Final grades will be determined from the total points as follows:

А	A-	B+	В	B-	C+	С	C-	D+	D	F
93.%-	90.%-	87%-	83.%-	80%-	77%-	73%-	70%-	70.0%-	60.%-	Below
100%	92.9%	89.9%	86.9%	82.9%	79.9%	76.9%	72.9%	65.9%	65.9%	60%

Canvas: A great deal of information about this class will be posted on Canvas.

Note: If you have any condition such as a physical or learning disability, which will make it difficult for you to carry out the work as I have outlined it or which will require academic accommodations, please notify me and contact the <u>Office of Disability Services</u> during the first two weeks of the semester in order to request accommodation. A <u>Reasonable</u> <u>Accommodation Request-Report Form</u> is available online.

# **Tentative Course Schedule:**

Exam	Date	<u>Chapters</u>
Exam I	Feb $19^{\text{m}}/21^{\text{s}}$ in lab	Selected topics from Chapters 1-4
Exam 2:	Mar 25 <sup>th</sup> /27 <sup>th</sup> in lab	Selected topics from Chapters 5-8
Exam 3:	Apr 22 <sup>nd</sup> /24 <sup>th</sup> in lab	Selected topics from Chapters 9, 10
Final (E4):	Tue. May 14 <sup>th</sup> 2:45 – 4:45 pm A208	Selected topics from Chapters 11 -??