

---

# University of Wisconsin Oshkosh

## *Workshop Physical Science (Fall 2009)*

---

*Instructor:* Dr. Mark Lattery  
Halsey Science Center 351  
Office: 920-424-7105  
Home: 920-232-9145

FAX: 920-424-1328  
[lattery@uwosh.edu](mailto:lattery@uwosh.edu)  
<http://www.phys.uwosh.edu/lattery>

	<i>Section 1</i>
<i>Class meetings:</i>	Tuesday: 8:00-10:10 a.m. Thursday: 8:00-10:10 a.m. Friday: 9:10-10:10 a.m.
<i>Office hours:</i>	Tuesday: 10:10-10:40 a.m. Thursday: 10:10-10:40 a.m.

*Books:* Hewitt, P. (2005). *Conceptual Physics 10<sup>th</sup> Edition*, Addison-Wesley (with the blue and green cover)  
*Edison* grid-ruled notebook (purchase at the *Reeve Student Union Bookstore* in textbook section)

*Supplies:* Clear plastic ruler (please write your name on it)  
(*Bring to class*) Clear plastic protractor (please write your name on it)  
Calculator (please write your name on it)  
Box of colored pencils (sharpened)  
Three-hole binder with pockets, 1.5" binding  
Regular folder with pockets  
Pencils (sharpened)

### **Course Description**

*Workshop Physical Science (WPS)* is a general-education course for prospective elementary school and other non-science majors. *WPS* emphasizes the nature of science, activity-based learning, and communication skills. In-class activities focus on two topics: (1) light and human vision; and (2) motion and dynamics. The course culminates in a small-group project.

### **Course Website Address**

<http://planck.phys.uwosh.edu/lattery/wps/wps.htm>

This course does not use *Desire-to-Learn (D2L)*

## Grading

<i>Item</i>	<i>Description</i>	<i>Points</i>	<i>Due Dates</i>
			<i>Section 1</i>
Participation	(See rubric below)	30	
Homework	Worksheets, Hewitt <i>Review Qs</i>	10	(see Hewitt <i>Reading List</i> )
Exam 1	Includes multiple choice and word problems	10	10/2 (Fri)
Exam 2	Four-part exam (cumulative exam) <ul style="list-style-type: none"><li>▪ group lab practical (25%)</li><li>▪ reading (Hewitt) <i>Qs</i> (25%)</li><li>▪ mult-c/word problems (25%)</li><li>▪ take-home assignment (25%)</li></ul>	20	10/29 (Thurs)
Small-group project	Articulate and defend a scientific model in pairs (a series of three written assignments)	20	TBA (weeks of 11/30, 12/7)
Exam 3	Four-part exam (cumulative exam) (See Exam 2)	10	12/17 (Thurs)
Total Points		100	
<i>Optional Extra Credit</i>	Six-page report on a current science topic. See instructor for details. <i>Must</i> receive a grade of B or higher.	5	11/20 (Fri)

## Grading Scale

Grading will be determined on the following scale:

A+	=	96-100%	C+	=	65-69%
A	=	90-95%	C	=	60-64%
A-	=	85-89%	C-	=	55-59%
B+	=	80-84%	D+	=	50-54%
B	=	75-79%	D	=	45-49%
B-	=	70-74%	D-	=	40-44%

## General Expectations

Students and faculty will be respectful and supportive of each other. Students will take responsibility for their own learning. Students will be on time and keep workspaces clean. All assignments will be on time. If you have special needs, please contact us during the first week of class.

## *Class Participation Grading*

The following table is an attempt to sketch a general pattern of conduct. Exhibiting one characteristic, in a particular category, does not necessary attach you to that category.

1. Exemplary (90-100%)	Student attends all classes, maintains a positive attitude, team player, persistent in asking questions during small- and large-group discussions, helps others to learn, encourages others who are having difficulty, respects others, completes <u>all</u> assigned work, patient in difficulty, always alert
2. Good (80-90%)	One or two excused absences, maintains a positive attitude, team player, often asks questions during small- and large-group discussions, helps others to learn, respects others, completes <u>almost all</u> assigned work to prepare for class discussions, patient in difficulty, usually alert
3. Average (60-80%)	One or two excused absences and one unexcused absence, usually has a positive attitude, sometimes asks questions during small- and large-group discussions, respects others, completes <u>almost all</u> assigned work, sluggish but generally okay
4. Below Average (50-60%)	Two or more unexcused absences, complains, does not typically participate in small- and large-group discussions, respects others, does not complete assigned work, sometimes a sleeper
5. Poor (below 50%)	Three or more unexcused absences, complains and complains, prevents others from learning, almost never asks questions during small- and large-group discussions, disrespects others, does not complete assigned work, snores loudly

### **Attendance Policy**

In accordance with University policy, students are expected to attend all class sessions. Due to block scheduling, and emphasis on group work, each absence is significant. As you enter class each day, please sign in. Tardiness will not be tolerated. Excuses are given for University-sponsored events, medical problems, family emergencies, and funerals. Excuses are not generally given for other reasons such as vehicle breakdowns/accidents and weather conditions (unless the University cancelled classes.) *Each unexcused absence beyond one results in the loss of one letter grade for the course.* Attendance at the first day of class is required to pass the course. Written verification in the form of a doctor's note, funeral program, etc. is required. Please hand me a *hard copy* of this documentation during class. Email notes are welcome, but will not excuse you from class.

## **In-Class Activities**

The purpose of inside-class activities is *depth* of understanding. For this reason, we cover only a few topics in depth during class. The course frequently uses “whiteboard discussions.” During a whiteboard discussion, small (3-4 person) groups take turns presenting and defending results written on a whiteboard with dry-erase marker. Whiteboard discussions are used with laboratory activities and homework exercises.

## **Homework Activities**

### *Homework Worksheets*

Worksheets are assigned regularly to support in-class activities. Answers to the worksheets are posted online after the due date (see the *Homework* menu on the main page). At the beginning of class, worksheets will be checked for completeness and stamped. You will receive a full stamp if you attempted *all* problems; you will receive half stamp if you attempt *most* problems. Keep all stamped worksheet in your “Regular folder with pockets” (see *Materials* on first page of the syllabus.) This folder will be collected at the end of the semester, and will count toward your *Homework* and *Class Participation* score.

### *Hewitt Reading Assignment*

The purpose of Hewitt reading assignments is to survey a large range of topics in physical science. Unlike the in-class activities, Hewitt reading assignments are aimed at *breadth* of understanding.

Each Friday, students will be asked to (1) read one chapter, (2) complete even-numbered *Review Questions* (at the end of each chapter), and (3) submit answers online. Reading assignments are due the following class session (see the *Reading Schedule*.) To submit answers, see the *Hewitt Reading* menu on the main page. If you receive an error message, contact the instructor. A computer program will check your work for completeness. Answers to *Review Questions* are posted online every 2-3 chapters (However, you will find the answers quite obvious from the reading.) Selected *Review Questions* are given on the exam verbatim. You will be required to recall these answers from memory. You do not need to bring your Hewitt textbook to class.

## **Note to the Petrified or the Lazy**

If you are taking this course for an easy ride, better get off now! My aim is to help hard working students learn. If you're petrified of science and math, I am here to help you. You do not need to be a 'science whiz' to do well in the course.