

CONCEPTUAL PHYSICS

PHYSICS 110

FALL 2009 SYLLABUS

Instructor

- Frank Skorina
- Office 040, frank.skorina@wwcc.edu
- 527-4578 (w), 301-3839 (c), 527-4480 (fax)

Room

- Walla Walla—Room 121, ITV room
- Clarkston—Room 107, ITV room

Course Description

This is a single-quarter course that serves as an introduction to physics. The course will emphasize physics concepts and is light on computation. Light on computation still means that knowledge of algebra is required. Motion, force, energy, and gravity will be covered. We will also cover fluids, i.e., liquids and gases.

Class Schedule

- Mondays, Wednesdays, Thursdays, and Fridays, 10:30 am – 11:20 am
- Tuesdays, 10:30 am – **12:20 pm** (LABS)
- No class on Wednesday, November 11 (Veterans' Day)
- No class on November 23-27 (Thanksgiving Week)
- Last Class is on Monday, December 7
- Final exam is on Thursday, December 10, 10:30 am – 12:20 pm

Materials

- Conceptual Physics, Tenth Edition by Paul G. Hewitt
- Calculator

Grading

- Homework, 0%
- Daily Reports, 5%
- Labs, 15%
- Quizzes, 15%
- Exams, 15% each
- Final Exam, 20%
- Grade Table where x is the percent of points earned:

A	$93 \leq x \leq \infty$	B+	$87 \leq x < 90$	C+	$77 \leq x < 80$	D+	$67 \leq x < 70$
		B	$83 \leq x < 87$	C	$73 \leq x < 77$	D	$60 \leq x < 67$
A-	$90 \leq x < 93$	B-	$80 \leq x < 83$	C-	$70 \leq x < 73$	F	$-\infty \leq x \leq 60$

Homework

No homework will be assigned, but it is your responsibility to learn the material presented. At the end of each chapter are Review Questions, One-Step Calculations, Projects, Exercises, and Problems. Reviewing this material and asking me in class, out of class, or in your daily reports if you have any questions will enhance your learning experience. Doing homework on your own will also help with your quiz grades and ultimately your test grades and your class grade.

Labs

- Most Tuesdays
- Required participation
- Each lab grade will be based on attendance, a worksheet, and/or a lab report

Quizzes

There will be approximately 25 quizzes. Quizzes will be on the material just covered, usually on the previous night's material. Quiz questions often are Check Yourself questions or questions from the end of each chapter. The top 20 quizzes will count towards the final quiz grade. Quizzes will be graded out of 5. There will not be any opportunity to make up quizzes.

Exams

- Four exams during the quarter.
- Lowest exam score dropped.
- There will not be any opportunity to make up exams.
- One comprehensive final exam.

Accommodations

If you have a disability and need accommodations, please see the instructor after class or contact Claudia Angus, the Disabilities Coordinator at claudia.angus@wwcc.edu or 509-527-4543.

Expectations

- Attendance, everyday and on-time
- No use of cell phones or computers during class
- Pre-reading the material
- Honest attempt to do the homework before class
- If you do not understand the material, take steps to understand it by
 1. Rereading the text and your notes
 2. Working with classmates
 3. Visiting the Science Learning Center
 4. Asking the instructor

Weekly Schedule

Week #1, Sept. 21 – Sept. 25

Chapter 2 – Newton's First Law of Motion—Inertia

Chapter 3 – Linear Motion

Week #2, Sept. 28 – Oct. 2

Chapter 4 – Newton's Second Law of Motion

Week #3, Oct. 5 – Oct. 9

Exam #1 on Wednesday, October 7 (Chapters 2-4)

Lab on Thursday this week

Chapter 5 – Newton's Third Law of Motion

Week #4, Oct. 12 – Oct. 16

Chapter 6 – Momentum

Chapter 7 – Energy

Week #5, Oct. 19 – Oct. 23

Chapter 7 – Energy (continued)

Exam #2 on Thursday, October 22 (Chapters 5-7)

Chapter 8 – Rotational Motion

Week #6, Oct. 26 – Oct. 30

Chapter 8 – Rotational Motion (continued)

Week #7, Nov. 2 – Nov. 6

Chapter 9 – Gravity

Chapter 10 – Projectile Motion

Week #8, Nov. 9 – Nov. 13

Chapter 10 – Projectile Motion (continued)

No Class Wednesday

Week #9, Nov. 16 – Nov. 20

Exam #3 on Tuesday, November 17 (Chapters 8-10)

Chapter 35 – Special Theory of Relativity

Week #10, Nov. 30 – Dec. 4

Chapter 35 – Special Theory of Relativity (cont)

Chapter 36 – General Theory of Relativity (part)

Exam #4 on Friday, Dec. 4 (Chapters 35-36)

Week #11, Dec. 7 – Dec. 11

Review

Final Exam on Thursday, December 10 (Chapters 2-10, 35-36)

Disclaimer

Instructor reserves the right to make changes to this syllabus at any time.