

INSTRUCTOR: Dr. William Passwaters

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OFFICE: Merion Science Center 120

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OFFICE HOURS

| | |
|----------|--------------------------|
| W | 9:00 – 10:00 |
| M | 9:00 - 12:00 |
| | or by appointment |

Text: Physics: A World View, Kirkpatrick, 7th edition, but any earlier edition will suffice. While the text is highly recommended, it is intended as a supplement to the material covered.

COURSE DESCRIPTION: This course provides an introduction to renewable energy within the context of the underlying basic physical science concepts including selected topics from mechanics, optics, electricity, thermodynamics, and the properties of matter. The promise and challenges of passive solar, wind, geothermal, bio fuels, photovoltaic cells(PV), and hydrogen will be explored. Critical thinking will be emphasized throughout the course using class discussion and analysis of examples. There are no college level prerequisites for the course, but an understanding of high school algebra would be helpful.

ATTENDANCE: Three unexcused absences are allowed. Beginning with the fourth unexcused absence your course average will be lowered by 2%. Excused absences are limited to those due to participation in University sanctioned events (See policy in the WCU undergraduate catalog) or those accompanied by written confirmation from a doctor, military or religious organization official, etc. An unexcused absence for a day of a quiz or exam will result in a grade of zero being recorded for that quiz or exam. If a written excuse is produced for a missed exam, your final exam score will be substituted for the missed hourly exam score. No makeup exams will be given

EVALUATION PROCEDURE: Your course grade will be determined by your performance on four hourly exams (**R 2/4, T 3/2, R 4/1, and T 4/27**), a cumulative final, and a series of problem sets. Your lowest hourly exam grade of the four will be dropped. Failure to take an hourly exam will be the one that is dropped. The final exam grade will not be dropped. No individual extracurricular or extra credit work will be assigned.

Grading Scheme

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|------------------------|-------------|
| 3 Exams | 60 % |
| 10 Problem Sets | 10 % |
| Final Exam | 30 % |

HOMEWORK: The Reading and Homework assignments are listed on the reverse side of this sheet. Readings should be done before the corresponding lectures for maximum effectiveness. The homework is not collected and graded, but similar problems often show up on problem sets and exams. The chapter summaries at the end of each chapter can be particularly helpful. Appropriate practice quizzes and exams for the material covered in this course can be found with web searches. Prior year PHY 100 exams will be posted on Blackboard. Familiarize yourself with these resources for best results.

STUDENTS WITH DISABILITIES: West Chester University is committed to make accommodations for persons with disabilities. Please make your needs known by contacting your instructor and the Office of Students with Disabilities at ext. 3217. Sufficient notice is needed in order to make the accommodations possible. The University desires to comply with the ADA of 1990.

ACADEMIC HONESTY POLICY: Cheating on the part of any student may result in a failing grade for the course and a letter sent to the Associate Provost's office documenting the incident.

STUDY HABITS: Think physics inside **and** outside of the classroom. The concepts covered and the accompanying homework assignments are manageable if completed on a regular basis. Mastering the material the night before the exam is usually overwhelming. Work together and see me during office hours if you need help.

PUBLIC SAFETY: Place your cell phones on *silence* when in the classroom.

CLASS COURTESY: No text messaging permitted during class.

