## PHYS 161: PHYSICS OF ENERGY & ENVIRONMENT

| Instructor       | Steve Kevan  
|                 | 177 Willamette  
|                 | 346-4742  
|                 | kevan@uoregon.edu  
|                 | Office Hours: Mon 4:00 – 5:00 pm; Tu 3:00– 4:30 pm  
| Teaching Assistant | None. GTF’s regularly staff room 141 Willamette (directly across the atrium from the Physics office) to help students in lower division physics classes. You should make use of this—it’s free. A schedule is posted on the door to that room and elsewhere around Willamette Hall.  
| Time and Place   | Monday and Wednesday, 2:00-3:50pm, 100 Willamette Hall. Lectures will end at about 3:20; we will do problems and have help sessions after that.  
| Format           | Lectures, lots of demonstrations, worked problems, the occasional quiz . . .  
| Text             | *Energy: Its Use and the Environment*, Hinrichs and Kleinbach. This text is nominally required, but it is admittedly rather expensive for a 1-term, 100-level course (over $90 new). It is a very good text—much better than what has been used in past years. You might be able to save some money by purchasing a used copy at the book store or on Amazon.com. Also, I will place a copy or two on reserve in the Science Library on 2-hour/overnight reserve. The problem sets will be placed on Webassign, so you will not strictly need the text to do those. Also, you are welcome to work together on the homework, the ‘further activities’, and even the reading if you feel so inclined, so you could possibly share books. This text has been used as well for Ph162 in recent years, and you might be able to use it again if you plan to take both.  

| Web stuff        | Course site:  
|                 | [http://physics.uoregon.edu/~kevan/2006/ph161/ph161.html](http://physics.uoregon.edu/~kevan/2006/ph161/ph161.html). You can find lecture notes and all course materials there. The lecture notes are converted MS Powerpoint files and are best viewed on Internet Explorer.  
|                 | Blackboard, for grading only: [http://blackboard.uoregon.edu/](http://blackboard.uoregon.edu/)  
|                 | Webassign, for problem sets: [https://www.webassign.net/login.html](https://www.webassign.net/login.html)  
|                 | The best way to reach me outside class and office hours is by e-mail at kevan@uoregon.edu. I do not regularly check messages on blackboard or webassign, so, on the outside chance you want an extension on a homework, request it via e-mail, not on webassign.  

| Objectives | Have fun  
Became well informed on the topic of energy, its use in our society, and the impact of this use on our environment, so that you may participate in the national debate and make smart decisions  
Understand the physical concept of energy and learn to identify it in the world around us  
Learn to calculate energy content/conversion  
Learn about the energy usage in our lives  
Discuss the (bleak?) future of energy production  
Discuss the side-effects of energy production and use |
|-------------|----------------------------------|
| Student requirements | Attend lectures  
Participate! Ask questions. Answer questions.  
Do the homework—on time or at least not too late.  
Explore, think, read, ask, speculate, admire (not me!), enjoy. |
| Homework | Homework is on Webassign, which can be reached here. Problems from the text will be assigned approximately biweekly, mostly in a multiple choice format. You will have up to 5 tries to get each problem right, so you should be able to get 100% on every problem set if you work at it. You will find that I am generally happy to grant extensions on homework assignments—just send an e-mail. The exception to this is when a quiz is approaching. You need to catch up before each quiz.  
To access the homework, go to http://www.webassign.net/login.html. If your primary U of O email address is aduck2@uoregon.edu or aduck2@gladstone.uoregon.edu, then your user name on Webassign will be aduck2. If your primary U of O e-mail address is outside the uoregon domains, e.g., huskyhaters@aol.com, then Weassign usually assigns something like your first initial and last name, but it makes weird changes.  
Your institution is uoregon.  
Your password has been set to ph151, but it is advisable to change that within Webassign when you first log in else there is a distinct possibility of mischief by your supposed friends.  
If you manage to login correctly, you should be able to follow your nose to find the homework sets. If not, contact me and we'll get it straightened out. The Physics Department is paying for your access to Webassign; if you find yourself being asked to pay for access, something is wrong. |
| Math requirement | Simple graphs  
Basic algebra  
Averages and very simple statistics |
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| Homework: 20% of your grade. 
3 quizzes: 20% of your grade each, 60% total. These will be a mixture of ~5 multiple choice, ~10 short answer, and 1 or 2 simple numerical problems. 
Doing and writing up any three ‘Further Activities’ described at the ends of the chapters in the text: 20% of your grade. These will be due at approximately monthly intervals. 
Extra credit for stumpng the prof, that is, asking a question that is relevant to the course material that I cannot answer: 1% increase (extra credit) in final grade per stump. I will be the judge of what is relevant, but you’ll still find it pretty easy to stump me. 
You may replace your lowest quiz score (or just not take one quiz, if you like) by doing and writing up 3 more ‘Further Activities’, again at monthly intervals. 
The third quiz will be held in the final exam slot; it will not be comprehensive. |