

# WebAssign and your e-book

## PHYS 213: Engineering Physics 1

### Spring 2010

#### What is it?

WebAssign is a computerized tool operating over the world-wide web to deliver, collect, grade, and record assignments. We will use WebAssign to manage all aspects of homework. You will turn in your homework through WebAssign. This will be the only way to turn in your homework. In addition, you will be able to access the electronic version of your textbook through WebAssign. This is the only version of the textbook you are required to purchase. You are welcome, though, to purchase a hardcopy of the text if you wish, but you still need to purchase a WebAssign account. Some deals on the hardcopy version are available through WebAssign, and you can, of course, obtain a hardcopy through any of the usual sources for textbooks (just make sure you get the correct edition).

#### Why use it?

By using this computerized system, we are able to grade every problem on every homework assignment. We simply do not have the resources to do so otherwise. You will also be able to immediately receive feedback on how well you are doing on assignments. The combination of WebAssign and an e-book version of the textbook additionally allows us to lower the cost of this course for you.

#### Getting started:

- Go to [www.webassign.net/student.html](http://www.webassign.net/student.html) and click the button "I have a Class Key".
- You will then have a chance to enter a class key. Use the key for your studio section from the following list:

Time	Sec. #	Instructor	Class Key
TU 7:30–9:20	Sec. 6	Bansal	ksu 4759 5136
TU 9:30–11:20	Sec. 1	Kumarappan	ksu 1376 8213
TU 11:30–1:20	Sec. 2	Sorensen	ksu 5015 9822
TU 1:30–3:20	Sec. 3	Nemzer	ksu 2631 6674
TU 3:30–5:20	Sec. 7	Bansal	ksu 6259 1109
WF 7:30–9:20	Sec. 4	Farooq	ksu 8671 4997
WF 9:30–11:20	Sec. 5	Nemzer	ksu 3141 3720

- You should see a message saying that your Class Key is recognized. Make sure that the course it returns is the correct one (it will be identified by instructor and Sec. #).
- You should choose to create a WebAssign account.
- At this point, you need to enter your account info (name, password, etc) and push the button to create your WebAssign account.
- The next screen you see will tell you that you haven't yet purchased access and that you have some number of days remaining on a trial period.
- You can purchase access online. It will cost \$25.00 for this semester, which also gives you access to the electronic version of the textbook. (Next semester will cost another \$25.00.)

#### Some Important Features:

- One drawback of WebAssign is that it most easily handles problems that have numerical or simple symbolic answers. Grading will have a right/wrong character, and we will not assign partial credit.
- Note that for most problems, WebAssign randomizes the numerical values in a problem for each student. The problems are otherwise identical for everyone. Thus, when your studio instructor works out a problem — usually based on the numbers in the printed text — the final numerical answer will be different, but the method of solution will be identical to WebAssign.
- A numerical problem in WebAssign will be counted as correct if it differs by 2% or less from the true answer. As a practical matter, this means you should keep three significant figures in all numerical answers. Exceptions to this rule will be noted if necessary on the particular problem.
- You will need to enter numbers in scientific notation in a way that your computer can understand. This is accomplished with the "E" or "e" format, which is standard for nearly all computer applications. For the number  $1.94 \times 10^{-11}$ , for instance, you type 1.94E-11 or 1.94e-11 (both work). Notice the lack of spaces between characters. If the exponent is positive, you can either change the sign to + or leave the sign off, so  $1.02 \times 10^3$  can be input as 1.02E3, 1.02E+3, or 1.02e3.
- At some point in the class we will use the number  $e$ , the base of the natural log system, in the exponential function. Computers use the form "EXP(x)" or "exp(x)" for the exponential function,  $e^x$ . Note that 1.94E-11 is not the same as  $1.94 * \exp(-11)$ .
- WebAssign can understand mathematical expressions. If an answer turns out to be  $\sqrt{2}$ , you can input this either as 1.41 or as "sqrt(2)". WebAssign accepts either 9 or 6+3, and so on. Division is like this:  $5=10/2$ . Common functions with fairly obvious meanings are: sqrt(x), sin(x), cos(x), tan(x), exp(x), ln(x). A power is written like  $2^3$ . The inverse trigonometric functions have an "a" in front: asin(x) is the inverse sine function, or the arcsine. WebAssign evaluates expressions from left-to-right, unless you override this order with parentheses. This can be important:  $9/3*2=6$  and 1.5 is  $9/3/2$  or  $9/(3*2)$ . You can always evaluate a number with your calculator, if you prefer, and type the number in.
- WebAssign also can accept text answers sometimes, or symbolic answers. Follow the online help suggestions in these occasions.

#### Where to get help:

If you are having problems with the mechanics of WebAssign, first try asking a classmate or checking the online help for WebAssign. Next, check the Message Board for the class on KSU online. You can also try one of your studio instructors (although most of them are as new to WebAssign as you are!). If these haven't helped answer your question, try Prof. Esry. Finally, you can try to contact WebAssign directly. For help on the physics problems themselves, see your studio instructors or visit the Physics Help Room.