

WeBWorK at UW-Platteville

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1 What is WeBWorK?

According to the [WeBWorK Documentation Wiki](#),

WeBWorK is a well-tested homework system for delivering individualized problems over the web. By providing students with immediate feedback as to the correctness of their answers, students can be encouraged to make multiple attempts until they succeed. With individualized problem sets, students can work together but will have to enter their own work to receive credit.

The instructors are provided with real-time statistics, resulting in lesson plans that can be customized to better serve students. As of June 2025 there were more than 1300 institutions using WeBWorK and the Open Problem library now has over 35,000 curated and indexed exercises.

At UW-Platteville, the WeBWorK site is [<https://webwork.uwplatt.edu/webwork2/>]; you can log in using the same username and password that you use for email and other UW-Platteville systems. Please enter your username in all lowercase letters, and do not include the “@uwplatt.edu.”

If you want, you can point students to the [Student Information Wiki](#). There’s also a pre-written Orientation homework set that you can assign to help students get familiar with the system.

2 Setting up a course


Course creation


Every time you want to use WeBWorK in a class, we have to start by setting up a new WeBWorK course. To make that happen, email the math department’s WeBWorK coordinator (currently [Vicki Reuter](#)). Please be sure to mention which course(s) you want to use WeBWorK in.

Once your course is created, it will show up at [<https://webwork.uwplatt.edu/webwork2/>], near the bottom of a long list of courses.

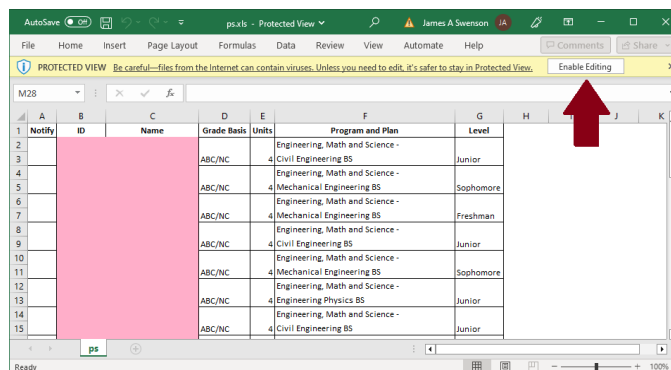
Building a classlist

At the beginning of the semester, it’s best to import your classlist from PASS. Nothing about this is automatic! I use a homemade [spreadsheet](#) that simplifies some of the work. Here’s how I do it.

First, in PASS, open your class roster [Go to your Instructor WorkCenter, then to My Schedule, and click the “Access Class Roster” icon  at the far left of the course listing.

Next, click the “Download Enrolled Students Table to Excel” icon  at the top of the classlist (the second icon to the right of “Personalize — Find”). Don’t close the PASS window: you’ll be back here in a minute or two.

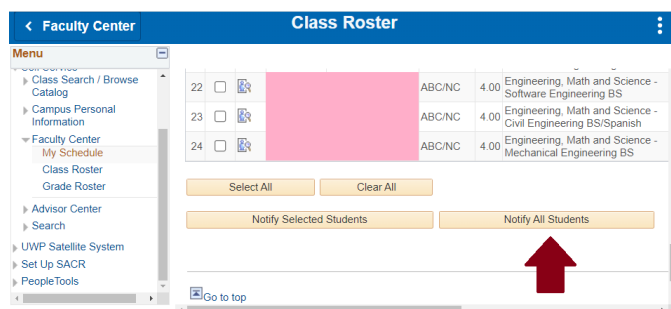
Save that file (`ps.xls`, by default) in a place where you’ll be able to find it, then open it in Excel. You will probably get a warning that the file “could be corrupted or unsafe,” but that’s nothing to worry about. If necessary, click “Enable Editing” so that you can make changes to the file.



Unfortunately, each student usually takes up two rows in this spreadsheet. Let's get rid of the blank rows: select all cells [CTRL-A], unmerge cells [Home / Merge & Center / Unmerge Cells], and sort the rows [Data/Sort, check "My data has headers," and Sort by "Name"].

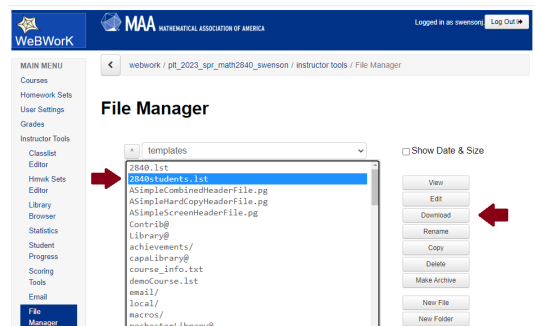
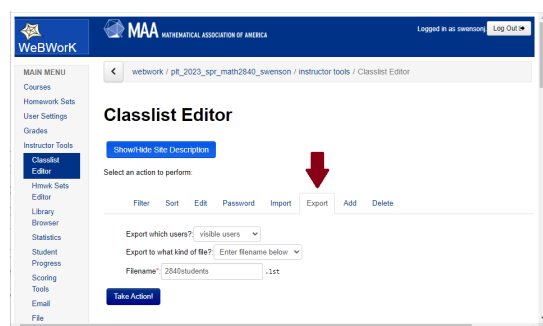
That's half of the data that we need, and now we need to organize it. Download and open the Converter, [WeBWorkClasslistConverter.xlsx]. Copy just the column of names from the PASS spreadsheet (Column C) and paste it into the Converter in the indicated location (cell B11).

Next, we need the students' email addresses. In PASS, at the bottom of the classlist, click "Notify All Students" to open an email addressed to the entire section. Don't send that email! Instead, cut the address list from the BCC box and paste it into the Converter, in cell C6 of the "Email formatter" tab. (The tabs are at the bottom of the spreadsheet window.)



If you have multiple sections of this class, you can also unhide column I of the Converter and enter the section number for each student.

Now we're ready to pass the information to WeBWork. Go to your WeBWork course and export the (empty) classlist, as follows. From the MAIN MENU, choose Classlist Editor (under Instructor Tools), and select the Export tab. Leave the first two options set to "visible users" and "Enter filename below" and enter a filename for your exported classlist in the text box, then click "Take Action!" Then move over to the File Manager (under Instructor Tools), highlight the file you just created, and click "Download." Save the file with an LST extension, somewhere where you'll be able to find it.



Now open that file in a plain text editor like Notepad or Wordpad (*not* Microsoft Word) — you may need to right-click the file and choose "Open with..." Finally, copy and paste the column of student data from the Converter (column M in the Main tab) into the new LST file.

If you have multiple sections of the same class, go back to PASS and repeat the steps to add the students from the other section(s). Take the time to look through your data and make sure nothing has gotten mixed up: every line of the file should show the information for a single student.

Save the LST file and upload it to WeBWorK: From the File Manager, click “Choose File” (or “Browse,” depending on your system) and select your LST file, then click “Upload.” Now go back to the Classlist Editor and select the Import tab. In the first dropdown menu, choose the file you just uploaded; leave the other options set to “no users” and “any users,” and click “Take Action!” Your students now have accounts in the course. They can log into WeBWorK the same way you do, with their `uwplatt.edu` username (all lowercase) and password.

After you’ve populated your classlist for the first time, you can add students to your course manually. From the Classlist Editor, choose the Add tab, enter the number of students you want to add, and click “Take Action!” The “Student ID” is the online username, not the ID number: each student’s entry should look like “Swenson / James / swensonj / swensonj / swensonj@uwplatt.edu.” You can leave the last three items blank if you want, or enter a section number.

If a student drops your course, go to the Classlist Editor and select the Edit tab. Leave the dropdown menu on “selected users” and mark the checkbox next to the student who has withdrawn, then click the blue “Take Action!” button. Then set the student’s Status to “Drop” and click “Take Action!” That way, all of the student’s data will be preserved, but the student won’t be able to log into your course anymore, and they won’t be included when you export grades, which is helpful when you’re transferring scores to Canvas.

3 Homework

Attempts per problem

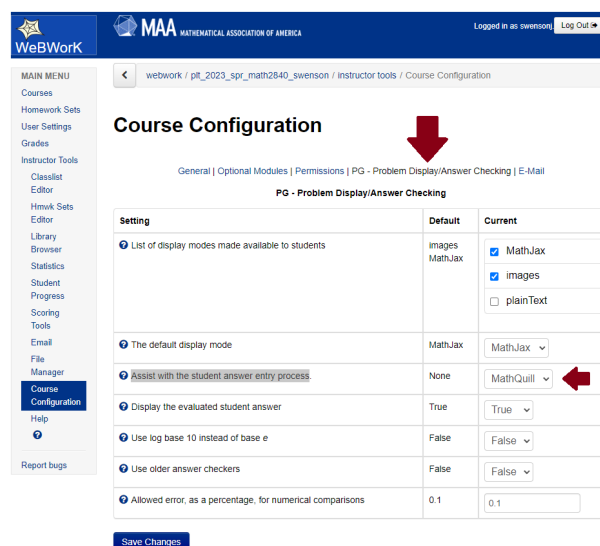
By default, WeBWorK allows students to attempt each problem an unlimited number of times. *Before you create any homework sets*, you can change this default setting. (There’s also a different method to change the number of attempts allowed on an individual problem, once you’ve created some homework sets.)

Important: Be careful not to change anything else when you do this!

From the MAIN MENU, go to the File Manager (under Instructor Tools), navigate up to the top directory, and download the file “`course.conf`.” Now open that file in a plain text editor like Notepad or Wordpad (*not* Microsoft Word). Add the line `$problemDefaults{max_attempts} = 10;` (including the final semicolon) at the end of the file, replacing the 10 by your preferred default number of attempts (or -1 for unlimited attempts). Save the file and upload it to WeBWorK: in the File Manager, click “Choose File” and select “`course.conf`,” then press the blue Upload button to overwrite the existing version.

Helping students to type math

Typing math is inconvenient, and it can be useful to help students recognize what they’ve actually typed. WeBWorK supports a few refinements to this process; I recommend MathQuill, which renders the students’ entries in real time as they type. To turn on MathQuill, go to Course Configuration (in the MAIN MENU under Instructor Tools) and choose the “PG - Problem Display/Answer Checking” screen. Select MathQuill next to “Assist with the student answer entry process,” then click the blue “Save Changes” button.



The screenshot shows the WeBWorK interface with the Course Configuration page open. The left sidebar contains the MAIN MENU with options like Courses, Homework Sets, User Settings, Grades, Instructor Tools, and Course Configuration. The main content area is titled 'Course Configuration' and has a sub-header 'PG - Problem Display/Answer Checking'. A table lists various settings with their default and current values. A red arrow points to the 'Assist with the student answer entry process' setting, which is currently set to 'None' and has a dropdown menu showing 'MathQuill' as an option. Another red arrow points to the 'MathQuill' option in the dropdown menu.

| Setting | Default | Current |
|---|-------------------|---|
| List of display modes made available to students | Images MathJax | <input checked="" type="checkbox"/> MathJax <input checked="" type="checkbox"/> Images <input type="checkbox"/> PlainText |
| The default display mode | MathJax | MathJax |
| Assist with the student answer entry process | None | MathQuill |
| Display the evaluated student answer | True | True |
| Use log base 10 instead of base e | False | False |
| Use older answer checkers | False | False |
| Allowed error, as a percentage, for numerical comparisons | 0.1 | 0.1 |

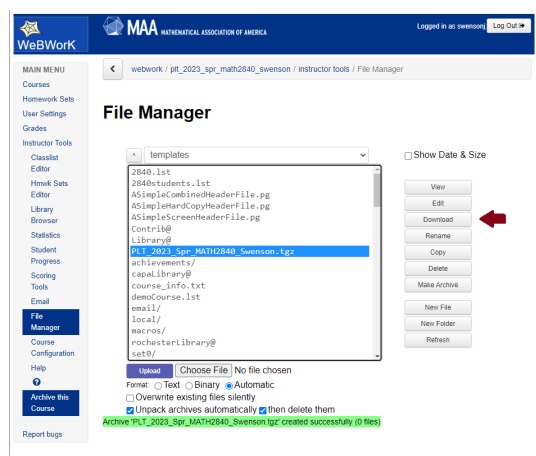
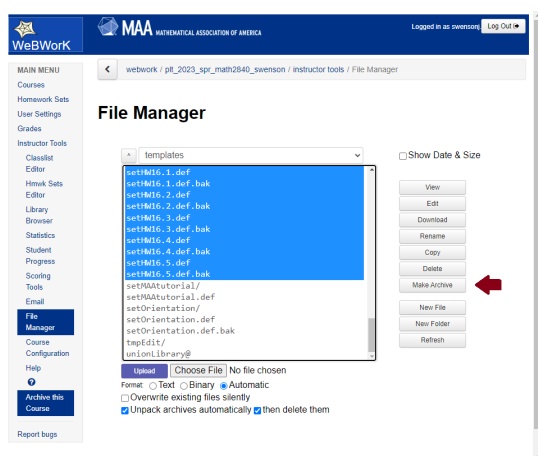
Save Changes

Importing homework sets from another course

If you're using WeBWorK in a course for the first time, it's very likely that someone at UW-Platteville has done it before, and is willing to share their work. You can search the course list at [<https://webwork.uwplatt.edu/webwork2/>] for candidates!

If there are already assignments out there that meet your needs, or provide a useful starting point, you can import them into your course. First, someone (the original instructor or the WeBWorK coordinator) has to go into the course that holds the assignments and export them, as follows. In the Hmwk Sets Editor (under Instructor Tools), go to the Export tab and choose the sets you want to export, then click "Take Action!" The next screen gives you a chance to de-select sets if you want; then click "Take Action!" again. This creates a .DEF file for each set.

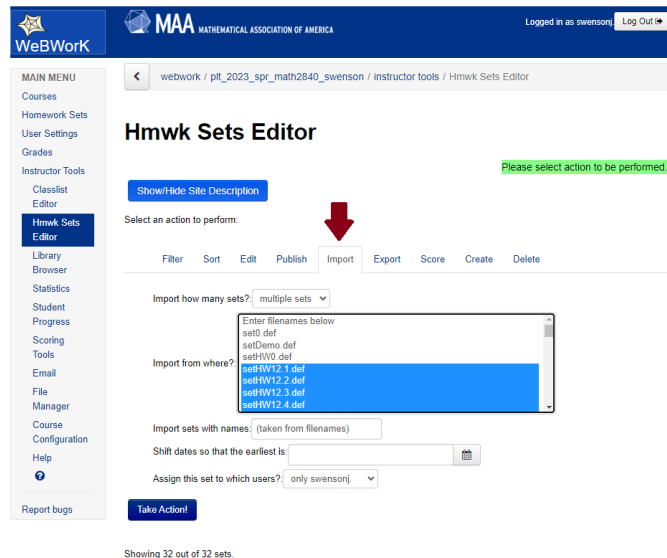
In the File Manager, highlight the .DEF files for the sets you want to export (hold CTRL or Shift to highlight multiple files), then click Make Archive. This packs all of the highlighted sets into a single .TGZ file; note its filename in the green highlighted text at the bottom of the window. Select that file and click "Download," and save it somewhere where you'll be able to find it.



After downloading the .TGZ file, give it to the person who's going to import the homework sets. They import it as follows: Go to the File Manager and upload the file. (First click "Choose File" and select the .TGZ file, then click the blue Upload button, leaving "Unpack archives automatically" and "then delete them" checked. Then, in the Hmwk Sets Editor, go to the Import tab. Tell WeBWorK to import "multiple sets," and select the appropriate files. You can leave the other settings alone in that window, or change them if you want, then click "Take Action!"


That's all you need to do if all of the problems come from the Open Problem Library. If the set contains problems that aren't from the OPL, or that have been modified, then the relevant problem files also need to be moved. By default, these are saved in the **templates/local/** folder. You'll need to transport that folder to the corresponding location in the new course: as above, click Make Archive to create a single .TGZ file, note its filename, download it to a place where you'll be able to find it, and then use the File Manager in the new course to upload and unpack the file where it belongs.

Importing the sets does not automatically assign them to the students! To assign just one set to all students: You can open the Hmwk Sets Editor, then click the fraction that appears in the "Edit Assigned Users" column for that set. On the "Users Assigned to Set <SetName>" page, click the "Assign to All Current Users" button. Otherwise, you can click "Instructor Tools" in the MAIN MENU. Highlight the desired student names (probably all of them) in the left box and the desired set(s) in the right box (using the SHIFT and CTRL keys to highlight multiple entries). Then click "Assign (selected users to selected sets)."

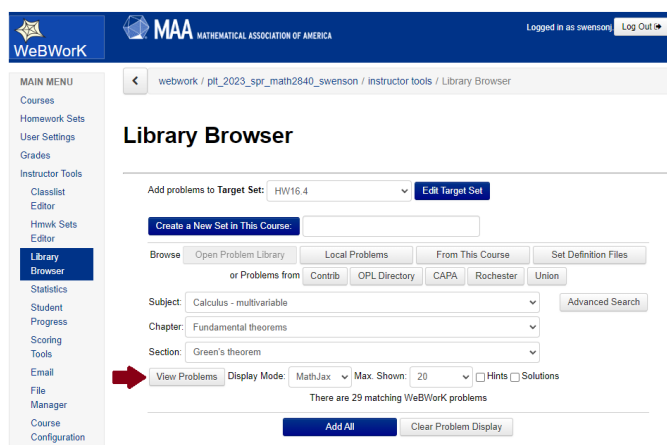


A prebuilt set called “Orientation” should be available for import. Consider assigning it to your students (removing problems as appropriate for your class); it will help them learn to navigate WeBWorK.

Creating a homework set

To build a homework set from scratch, you’ll start from the Create tab in the Hmwk Sets Editor. Enter the assignment’s name (“HW01,” or whatever you choose), tell WeBWorK to create it as “a new empty set,” and click “Take Action!” Once you’ve done that, move to the Edit tab and click the pencil icon  next to the set name to set up deadlines for the assignment.

Once you have at least one homework set in your course, you can add problems from the Open Problem Library as follows. Go to the Library Browser (in the MAIN MENU under Instructor Tools). In the first dropdown menu, select the set to which you want to add problems. Below, choose your course, chapter, and section and click “View Problems” to see a list of pre-written problems that are ready to be assigned. If you see one you like, click the “Add” button above it to put it into your selected set.



You can also write your own problems, but it’s a touchy process, and some programming experience will be necessary. Sergio Chaves has written an excellent [WeBWorK Problem Creation Tutorial](#) if you’re interested in giving it a try.

Your students won’t be able to see the homework sets until you assign them. When you’re ready to assign a set, go to the Hmwk Sets Editor and click the fraction that appears for that set under “Edit Assigned Users,” then click the blue “Assign to All Current Users” button. That set will become visible to students, but they will only be able to see the problems after the set’s Open Date.

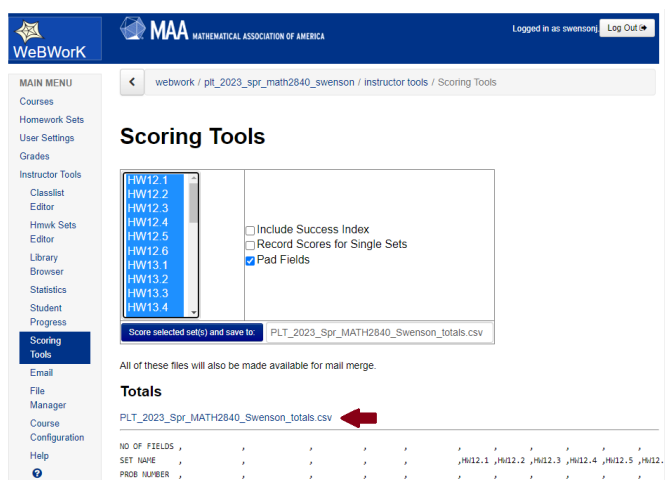
Student grades

By default, each WeBWorK problem is worth one point. To change that, go to the Hmwk Sets Editor and click the number that appears for that set under “Edit Problems,” adjust the problem’s Weight, then click the blue “Save Changes” button. Note that WeBWorK only allows integer weights.

WeBWorK tracks the students’ scores in real time, updating whenever they submit a solution to a problem. You can see the students’ scores on a certain assignment, or a single student’s scores on all assignments, by going to Student Progress (in the MAIN MENU under Instructor Tools) and following the appropriate link.

If you need to, you can directly change a student’s score for a single problem. To do that, go to the Hmwk Sets Editor and click the fraction for the appropriate set under “Edit Assigned Users.” In the right column, click “Edit data for **username**,” set the problem’s Status to the desired score (as a proportion of the total possible score, from 0 to 1), and click the blue “Save Changes” button.

You’ll want to transfer grades from WeBWorK to Canvas, and it’s a bit of a pain. Before you start, you’ll need to create each assignment in Canvas, and export and open your Canvas gradebook. Then do the same in WeBWorK: from Scoring Tools (in the MAIN MENU under Instructor Tools), highlight the homework sets whose grades you want to export, edit the filename if you want, click “Score selected set(s) and save to:” and click the link that appears below to download your WeBWorK gradebook.



Copy and paste the scores carefully! *Warning:* You (the instructor) and the **admin** account will both have entries in the WeBWorK gradebook, and you’ll want to delete those rows.

Tip: I always add a temporary column to the Canvas gradebook and paste the students’ names into it alongside the grades I’m transferring, then compare names in each row before deleting the temporary column. I also use Excel to rescale the grades before copying them, to make each WeBWorK assignment worth the same number of points in Canvas, but that’s up to you and the details of your syllabus.

Once the grades are copied over, you can save the Canvas gradebook and import it back into Canvas.

4 Resources

Please feel free to send your WeBWorK questions to me ([James Swenson](#)) or to the math department’s WeBWorK Coordinator (currently [Vicki Reuter](#)). You can also check out the [WeBWorK Documentation Wiki](#).