

SAMPLE

A Brief Introduction to WeBWorK for Instructors

The document outlines procedures for

1. logging into WeBWorK for both instructors and students,
2. verifying students and finding the student user ID and the student password,
3. selecting an assignment for a class,
4. setting a start , a due , and an answer date for the assignment,
5. assigning all the students the selected WeBWorK assignment,
6. viewing a student's progress or the class performance,
7. retrieving the scores for the modules,
8. creating a "External Link" in Blackboard.
9. splitting or shortening a WeBWorK module

Also this document contains

10. some strategies used in Fall 2006 for MTH 2003,
11. the assignment acronyms used for MTH 2003, MTH 2205, and MTH 2207.

Logging Into WeBWorK for Instructors

Your logging into WeBWorK will be based on the following information:

- a. Your User ID will be the first initial of your first name concatenated with your last name, ***all lower case***.
- b. Your initial password will be ***ww0909xx*** , where "xx" are your first and last initials; ***all letters are lower-case***. You should change your password after you logon for the first time. (Refer to the ***Note*** below.)
- c. The e-mail that your students will respond to will be the one that is listed on the Faculty Directory. If you prefer another e-mail address, at which your students can contact you, then you change this address on the same page where you change your password. (Refer to the ***Note*** below.)

Note If you wish to change your password or your e-mail address, you can "click" on the link "Password/Email" which appears in the left column just under "Homework assignments" and make the changes on the page that appears.

Once your WeBWorK course has been created, you'll find your course at the URL where WeBWorK is installed. There are two URLs: ***http://www.baruch.cuny.edu/webwork2*** and ***http://math.baruch.cuny.edu/webwork2***. For an "External Link" in Blackboard, use ***second*** URL. (Refer to ***Detailed Procedure For Creating an "External Link" in Blackboard to WeBWorK*** .)

On the web page that appears, select the hyperlink to your course, e.g, if your section is MTH 2003 JM13A, then there will be a link labeled "MTH2003_JM13A_F09", or, if your section is MTH 2205 DG24B, then there will be a link labeled "MTH2205_DG24B_F09". By selecting this link, you will arrive at the log-in page for the section. The log-in ID and the password for you are the ones that are described above. (Beware that ***both*** the log-in ID and the password are ***case-sensitive***.)

Logging Into WeBWorK for Students

The log-in procedure for the students is the same as for the instructor in principle, but the user ID and the password are different:

- a. The student's user ID is determined by his/her Baruchmail address, e.g., if the student Baruchmail address is vincent.tong37@baruchmail.cuny.edu, then his WeBWorK user ID is vincent_tong37 (***all lower case and the period is replaced by an underscore***.)
- b. The student password is the student's eSIMS PIN, ***nnnnnn*** , six digits usually based on the student's birthday, but ***not*** always. This PIN is also the one ***initially*** issued to the student to access eSIMS.

Verifying Students and Finding the Student User ID and the Student Password

If the student is having problems with accessing WeBWorK, then you can check his/her username or password by selecting ***Classlist Editor*** after you have logged in. The page displayed contains all the students who were enrolled in your section *four(?)* days before the beginning of the semester. Along with the list of students, you can verify the username and the password which is listed under ***Student ID***. If a student doesn't appear on this page, then the student can be added manually. (Refer to the next section ***Adding a Student to Your Section*** .)

If you feel uncomfortable about adding the student, then send to me the following information and I'll add the student for you: your WeBWorK section; student's first and last Names; student's PIN that is used for eSIMS.

Adding a Student to Your Section

As always happens, there may be additional students assigned to your section after the initial registration period or students who have transferred from an other section. Consequently, your WeBWorK won't have the additional students in its database. This portion describes how you can add these students to your section.

After you have logged-in, select ***Instructor Tools***. From the ***Instructor Tools*** page, you'll see in the bottom half of the page an option "Add 'new users'". By selecting this option, you'll arrive at a page where there is a small window that permits you to enter the number of additional users; the default is 1. If it is only one student that you need to add, then skip down to the row of blanks where information about the student is to be filled-in. The ***only*** items of information that are crucial are the student's last and first names, the ***password***, which is referred to as ***Student ID***, the ***Login Name***, which is determined the same way that the other students' names are determined, and the full e-mail address. Once this information has been filled in, scroll down and select the button ***Add users***.

If you wish, you may assign sets to the new students before selecting ***Add users***.

The student password may be any character string that you choose.

Selecting an Assignment for a Class

After you've correctly logged-in, you will arrive at a page where, in the left-most column, there is a link labeled ***Instructor Tools*** (there is another link at the top of the page). By selecting it, you will be at a page where the table on the right side is marked "Sets". From the list, select the assignment that you wish to give to the students. Below this table there some "buttons", select "'Edit' one set". (A list of the acronyms for the WeBWorK assignments is found at the end of this document.)

The new page has a table near the top "General Information". Decide when the assignment is accessible to the students, when the assignment is due and when the answers can be seen. Also you decide if the listing of the assignment should be visible to the students.

Setting a Start , a Due , and an Answer Dates for the Assignment

Go the third table with the headings "Problems", "Data", and "Display Mode". From the menu for "Display Mode" select "images" and "click" "Refresh Display". The typeset problems will appear and you can see what type of the problem the class will be working on. Be sure to "Save Changes"; particularly, after you have filled out the "General Information" table.

Assigning All the Students the Selected WeBWorK Assignment

Go back to ***Instructor Tools*** by "clicking" on this option in the left column, select the assignment once again from the list, and "click" on the "button" "'View/edit' all users for one set". At the top of the new page, select the

“button” “Assign to All Current Users”. The assignment is now assigned all users.

If you are finished with WeBWorK , then make sure that you log out.

Viewing a Student’s Progress or the Class Performance

You can view the progress of an individual student or the class as a whole on a particular module by using ***Student Progress*** from the ***Instructor Tools***. By selecting this option, you may view either the progress of a particular student over all assigned modules or the progress of the entire class on a particular module.

If you wish to see what problems a given student actually sees when logging-in, then, from the ***Instructor Tools***, select one of the students listed and the “button” labeled “Act as”. When you are taken to the particular student’s WeBWorK starting page, you should note that the right column of the page contains information about the correct way to enter arithmetic operations and various common functions. After you are finished with the “Act as” feature, you are select the option “Stop as acting as ...” and then log out as yourself if you’re finished.

Also if you receive a student e-mail message formatted while the student was logged into WeBWorK, then there will be a hyperlink attached to the message. When you “click” on the link, you will be taken the specific problem that the student has a question about after you log-in. Moreover, you should note that you are “acting as” the student, but any answers that you submit will ***not*** be recorded.

Retrieving the Scores for the Modules

There is a feature available that allows you to retrieve the scores of some or all of the modules. It is fairly quick, although you may have to “fiddle around” with a spreadsheet program, if you want a format more suitable to your taste.

If you look at the blue column on the left on the page to which you are taken after you log-in, you will see a hyperlink ***Scoring tools***. When you select this link, you will arrive at a page where you can select which assignments you want the program to score. If you select them all, the program will score all of them. (Note that there is a check box where the default is to include an index. The index is a ranking of each student for each of the assignment based on the number of correct answers and the number of attempts. I usually uncheck the box.)

After selecting the ones that you want scored, the program will display the students and their performance in each of the assignments. Also you will see a hyperlink of the form “MTH2003_XXNNX_F09.csv”, a comma-separated-value file. When you select this link, the csv file will be downloaded to your PC. (Please make note of where the file is being saved.)

Once the file has been downloaded and you “double-click” on the saved file on the PC, the file will open using the default spreadsheet program; most likely it will be Excel. (A csv file is a text-based spreadsheet.) The spreadsheet presented to you will contain all the students in your WeBWorK section along with all the scores and the headings will be the module designations.

The spreadsheet layout may not be to your liking. One thing is that the names may not be in alphabetical order. The order is based on the order in which the names were originally entered and if initially the order was not alphabetized, the spreadsheet list will not be alphabetized. If you have had some experience with sorting in a spreadsheet or know of someone who has done it, you can sort the names so that not only are the names listed alphabetically but also the corresponding data will be carried along with the sorting. If you may a mistake in your sorting and you forgot to make a backup, you can return to your WeBWorK section and download another copy.

Detailed Procedure For Creating an “External Link” in Blackboard to WeBWork

Having an external link available for your students and yourself will reduce the confusion over the correct WeBWork section to select when going initially to math.baruch.cuny.edu/webwork2/.

For the external link, you *must* use the URL ***math.baruch.cuny.edu/webwork2***.

After logging into Blackboard, select your MTH 2003 section. For the purpose of this explanation, I will use fictional section of MTH 2003 section which is labeled in WeBWork by “MTH2003_PS13A_XNN” (note the lack of spaces).

1. “Click” on “Control Panel”;
2. In “Control Panel”, select “External Links” from the “Content Area”;
3. From the toolbar that appears near the top, select “External Link”;
4. In the section “External Link Information”, fill in the boxes; e.g.,

Name – WeBWork for MTH 2003 PS13A

URL – http://math.baruch.cuny.edu/webwork2/MTH2003_PS13A_XNN/
(Note that the final “/” is necessary.)

If you wish, you may place in the “Text” box a description of the link.

5. “Click” on “submit” at the bottom of the page.

To test the external link, leave the “Control Panel” and go back to the Blackboard page for your MTH 2003 section. In the left column, there is a link labeled “External Links”. After you select this link, you should be at a page where the WeBWork link should be listed. When you select this link, you should be redirected to the WeBWork page for your section.

Procedure for Splitting or Shortening a WeBWork Module

Below is a procedure for splitting or shortening a WeBWork module. For the purpose of simplicity, “XXX” will represent the acronym for a module from either MTH 2003 or MTH 2205/2007. For example, consider “DR1” for MTH 2003 and “PLF” for MTH 2205/2207.

This first portion covers the splitting of a module:

For the sake of simplicity once again, suppose that you wish to split “XXX” into two modules, say, “XXX_I” and “XXX_II”. (The program doesn’t accept a space, so use an underscore instead.)

After you have logged-in, select “Hmwk Sets Editor” from the left column. The new page contains the list of all modules for your WeBWork section. Go to the module that you want to split and place a checkmark by the module. (The instructions below will describe the creation of “XXX_I”. The creation of “XXX_II” will be done by following that same instructions.)

Scrolling back to the top of the page, select “Create a new set named:...” and give a name to the new set, say, “XXX_I”. To the right of the space where you’ve just entered a new set name, there is another box that has a drop-down menu, select the option “a duplicate of the first selected set”. Then click on “Take Action!”.

After the program has performed the task, you can scroll down the page and see that “XXX_I” has been created

with exactly the same problems as “XXX”. Before proceeding, first unselect “XXX” and then select “XXX_I”.

Returning to the top of the page, select “Edit selected sets” and click on “Take Action!”.

Once the program has performed the task, a new page appears with “XXX_I” appearing as a link. Clicking on this link, the new page that appears contains three tables. Go down to the third table with the headings “Problems”, “Data”, and “Display Mode:” and select the option “images” from the drop-down menu for “Display Mode:”. Click “Refresh Display”.

You can now go down the list of problems and decide which problems you do *not* want for “XXX_I” by going to the column “Problems” and checking the box “Delete it?” associated with the given problem. For example, if you want to assign only the odd-numbered problems for “XXX_I”, then check the box “Delete it?” for the even-numbered problems from 2 to 20.

If you want the numbering of the remaining problems to be consecutive in “XXX_I”, click the box “Force problems to be numbered consecutively from one” located at the bottom of the page.

Be sure to click on the “radio” button “Save changes”.

Note: “Delete it?” simply deletes the listing of the problem from the given set not the physical problem.

To shorten a module, follow the instructions above but without creating a new set.

Some Strategies for Using WeBWorK

Below are some strategies used by some MTH 2003 instructors during the Fall semester of 2006. The comments are essentially untouched except for some spelling corrections. Also the comments are edited to keep the anonymity of the instructor.

1. I used the WeBWorK for all my student assignments last semester. I basically split up the course material assigned by WeBWorK into 10 somewhat equal assignments so that students had an assignment due every week or two. Usually, I gave them about 1 week to do the assignment and I just used the best 8 out of 10 for each student to allow for missed assignments for whatever reason. This also allowed the students to have a couple of "bad" grades as they became familiar with the WeBWorK set up and how to submit their answers. For each assignment there was an equal weight even if one had more questions than another. I prescreened the questions and simply deleted any that I thought would not be helpful for my students but there were not too many that fell into that category.
2. I assigned one or two webwork assignments per class meeting and made them due the following week. Once a week I gave a short quiz (3 or 4 questions) that had both webwork type and uniform final type problems. There were a few students on a few assignments who felt that a week was not enough time, or were determined to get the right answer for a particular problem. These students would ask for certain assignments to be reopened, and, for the most part, I obliged. I counted webwork as 8% of the overall avg.
3. Last semester I typically would use webwork as follows: assign about 10 problems each week (usually incorporating two different sections that we would have finished by the class prior to the WeBWorK due date) and have them due by class time (I did not extend deadlines). At the beginning of each class, I was happy to answer student questions from webwork as part of the normal course HW questions--some students would jot their WeBWorK problems down in their notebooks and others would come in with printed copies. I did not use frequent WeBWorK demonstrations in class because I did not have a computer in the classroom last semester. This semester, however, I will be using the occasional webwork problem as an example in class.

As I mentioned last semester, I answered the bulk of my students' webwork questions via email. They used

the "email instructor" option quite frequently. This necessitated that I use the "login as student" option quite frequently. Generally, this was a great way of promoting academic discussion, but it also became a little burdensome as I would often address the same question several times during the week. This semester, I will probably encourage my students to be active on a forum on our blackboard site where I will be publicly posting my comments on any WeBWorK questions that are emailed to me. I think this will help minimize the repetition in answering emails.

4. I assigned each webwork (ww) assignment when I covered the section in class. I told the students that 5% of their final grade would be based on ww. As the semester progressed and some of the students worked on the ww assignments and asked questions about particular problems, and shared their frustration with others, it became clear to me that some students were spending too much time trying to get a few problems correct in ww. I told them that if they tried 3 times and were unsuccessful to move on.

Assignment Acronyms for MTH 2003

<i>Topic</i>	<i>WeBWorK Module</i>		<i>Topic</i>	<i>WeBWorK Module</i>
Solving Linear Equations	LiE		Slope of a Curve and Derivatives	SCD
Solving Equations of Form $ax^2 - b = 0$	QuE		Derivative Rules I	DR1
Completing the Square	CtS		Limits and Continuity	LCo
Quadratic Formula and Applications	QFA		Limits at Infinity, Infinite Limits, and Asymptotes	LIA
Solving Non-Linear Inequalities	NLI		Derivative Rules II	DR2
The Line	Lin		Chain Rule	ChR
Basic Notions of Functions	BNF		Marginal Functions and Rates of Change	MFR
Applications of Linear Functions	ALF		Implicit Differentiation	ImD
Quadratic Functions	QuF		Related Rates	ReR
The Circle	Cir		Matrices: Basic Operations	MBO
Economic Functions	EcF		Matrix Multiplication	MMu
More on Functions	MoF		Gauss-Jordan Reduction	GJR
Regression	Reg		Inconsistent Systems and Infinite Solutions	ISI

Assignment Acronyms for MTH 2205

Note: Also in the list of available modules for the WeBWorK sections of MTH 2205, there are the modules from MTH 2003 that deal with differentiation, which can be assigned as a review.

<i>Topic</i>	<i>WeBWorK Module</i>		<i>Topic</i>	<i>WeBWorK Module</i>
Extrema of a Function of a Single Variable	XFS		Properties of Logarithmic Functions	PLF
First Derivative Test	FDT		Applications (§4.7)	Ap1
Concavity and the Second Derivative Test	CSD		Antiderivatives	ADe
Applications – Geometric Optimization	AGO		Applications of Antiderivatives	AAD
Applications – Business and Economics	ABE		Substitution (§5.3)	Su1
Linearization and Differentials	LaD		Approximation of Areas	ArA
Inverse Functions	InF		Sigma Notation and Area	SNA
Exponential Functions	ExF		Definite Integral	DeI
e	Exp		Substitution (§5.7)	Su2
Derivative of Exponential Functions	DEF		Applications (§5.8)	Ap2
Logarithmic Functions	Log			

Assignment Acronyms for MTH 2207

For the material dealing with matrices, modules MBO, MMu, GJR, and ISI are associated with the Gordon-Shane monograph and modules SYS, MOP, and INV are associated with the Collison monograph.

<i>Section Topic Number</i>	<i>WeBWorK Modules</i>		<i>Section Topic Number</i>	<i>WeBWorK Modules</i>
1	MBO		13	ReR
2	MMu or SYS		14	XFS
3	GJR or MOP		15	FDT
4	ISI or INV		16	CSD
5	Lin, BNF, ALF		17	-----
6	LCo		18	AGO
7	LIA		19	ABE
8	SCD		20	LaD, DEF
9	DR1		21	Log, Ap1,(PLF)
10	DR2, MFR		22	ADE, Su1
11	ChR		23	DeI, (ArA. SNA)
12	ImD		24	Ap2

The acronyms within parentheses are modules that you may consider assigning.