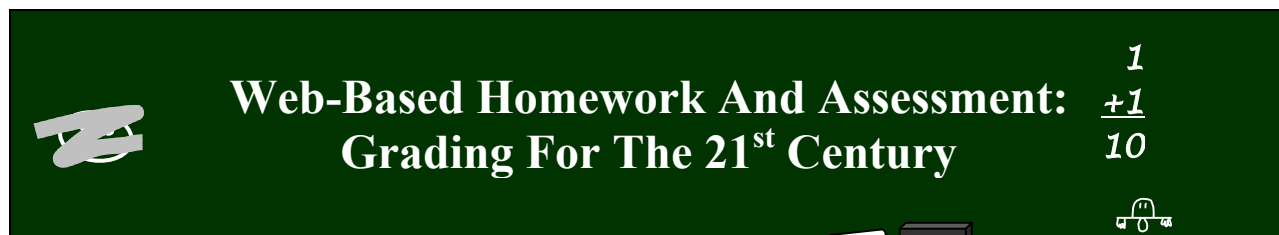




Veteran Education Transfer Plan Cover Sheet

Title of ETP	Web-Based Homework And Assessment: Grading For The 21st Century
Name of IISME Fellow	John Macuk
Fellow's year-round email	jmacuk@fremont.k12.ca.us
Sponsor Company	NASA ARC
Name of Mentor	Denise Kiser
National Board Certificate Area	Intern: single subject Physics
<p>I, the IISME Fellow named above, affirm that the ETP I am submitting is my own work, that I acknowledged sources where appropriate, and that I avoided including any proprietary information of the Sponsor Company. By my submission I am assigning to IISME my entire copyright in the ETP. I understand IISME is simultaneously granting me a license to use the ETP for pedagogical purposes.</p>	
_____ Signature	_____ Date

Category	<p><i>Curriculum</i> Subject: <input type="checkbox"/> Math <input checked="" type="checkbox"/> Science <input type="checkbox"/> Technology _____ Level: <input type="checkbox"/> Elem <input type="checkbox"/> Middle <input checked="" type="checkbox"/> High <input type="checkbox"/> Other <i>Staff Development</i> Describe <u>Use of web-based homework</u> _____ <i>Other</i> Describe _____</p>
Objectives	<p>Train teachers to register and use WebAssign to create self-grading homework assignments online. (Standard XII)</p> <p>Teachers will be able to create and evaluate assignments more quickly than they can by traditional methods. (Standards X, XII)</p> <p>Train teachers how to train their students to register and use WebAssign to complete homework assignments online. (Standard XI)</p> <p>Students will increase number of assignments completed and improve average scores on assignments. (Standards III, X)</p>
Abstract (50 words or less)	<p>Teachers spend too much time grading and not enough time teaching. I want to introduce physics, other science and math teachers to WebAssign, a web-based source of homework. The time consumed in class grading homework takes away from classroom learning and activities. WebAssign homework can be completed with any computer connected to the web, allows for multiple submissions and gives immediate feedback to the students.</p>



Fellow Name John Macuk

Sponsor Company NASA Ames Research Center

Mentor Name Denise Kiser

National Board Certificate Area Intern: single subject Physics

Category: Staff Development

Content Area Science, Math

Grade Level 9-12, but could be used 6-8 as well

Abstract:

Teachers spend too much time grading and not enough time teaching. I want to introduce physics, other science and math teachers to WebAssign, a web-based source of homework. The time consumed in class grading homework takes away from classroom learning and activities. WebAssign homework can be completed with any computer connected to the web, allows for multiple submissions and gives immediate feedback to the students.

Major Teacher objectives and student outcomes

Train teachers to register and use WebAssign to create self-grading homework assignments online. (Standard XII)

Teachers will be able to create and evaluate assignments more quickly than they can by traditional methods. (Standards X, XII)

Train teachers how to train their students to register and use WebAssign to complete homework assignments online. (Standard XI)

Students will increase number of assignments completed and improve average scores on assignments. (Standards III, X)

Introduction:

While I was using WebAssign, the time in class that was spent on homework was entirely in the form of problem solving. Students would ask questions on how to solve particularly difficult problems, and I would either have another student show their solution, or work out the problem myself. Since the variables for each student were randomized, it was possible, if I wished, to show a complete solution before an assignment was due, and the students still had to puzzle out how to apply this to their own version.

Once registered with WebAssign (see below), a teacher is presented with many options for creating assignments. Unless one is comfortable with how WebAssign works, it is best to start with essentially cut-and-paste assignment creation.

By keeping to the simplest way of creating homework assignments, i.e. from pre-existing questions in the teacher's textbook or other textbooks already coded into WebAssign's database, any teacher should be able to create an assignment in less than 20 minutes. Of course, at first, just getting used to the system will slow things down, and will take more time than doing the same work on paper, but as teachers get more proficient, they should be able to create assignments quickly. And of course, the computer does all the grading!

Preparation:

The cost of WebAssign is \$250 dollars for the instructor and \$5.50 for each student. While this is a lot, if you are teaching 100 students then the cost per student totals only \$8.00; I asked the parents to reimburse me one or two dollars – one family gave \$20! – and most did, allowing me to recoup virtually all my own expenses. Parents were especially pleased that they had another way of checking on their children's progress.

I have put together a short guide that will get you up and running with WebAssign. It is a compilation from WebAssign's *Quick Start Guide* and *Getting Started* documents and was created with the permission of WebAssign; the unabridged versions of each can be found at <http://webassign.net>. Many thanks to WebAssign for saving me the work of navigating and writing down all the steps for using their service.

Lastly, you will find the Dos and Don'ts that I have found from a year of use. In addition, registered teachers are given a complete manual, which describes all the capabilities of WebAssign in detail.

The Quick & Dirty Guide to WebAssign

GETTING STARTED

How to REGISTER

1. Go to <http://webassign.net>

Feel free to explore the various options, but I'll assume that you either want to get your feet wet with a free trial, or dive right in with a subscription – either one will get you up and running.

If you are the parsimonious, conservative type – or are timid and shy – click on the yellow free trial button.

You can then sign up for a free trial

Fill in the information required, and WebAssign will contact you shortly: I was registered within a day or two. When you are registered, proceed to logging in.

If you are daring, bold and adventurous – or are independently wealthy or somebody else is paying for this – then click on the red order button.

Now click on the yellow sign up button.

Fill in the information required, and WebAssign will contact you shortly: I was registered within a day or two, and my hard copy of the manual arrived within a week. When you are registered, proceed to logging in.

WebAssign

Search: go [Contact Us](#)

Features Content Purchase How It Works More... Customer Care

Imagine... The perfect instructional tool

Order Now! Ready to subscribe? Click now and you'll enjoy the benefits of WebAssign in no time!

Order Now!

Free Trial of WebAssign Take advantage of a WebAssign free trial today!

Sign Up Now!

"We have more students spending more time on more homework than ever before because of the way WebAssign has been developed and implemented."

Dr. Albert L. Batten
US Air Force Academy

More feedback...

Log In

Demo

WebAssign

Search: go [Contact Us](#)

Features Content Purchase How It Works More... Customer Care

Purchasing Info
Pricing
Finding Funds
Free Trial

-- Quick Links --

Free Trial

Take advantage of WebAssign's free trial offer today! As a free-trial holder, you will be able to create a class, make assignments, and experience all the benefits of WebAssign, just as if you were a subscriber.

The trial period lasts for six weeks, during which time your WebAssign account is fully functional. This gives you the opportunity to try out the service and see how it can best be used in your classroom.

There is no cost or obligation of any kind, but if you wish to subscribe at the end of the trial period, we can easily retain all the class and assignment information you created during your trial.

WebAssign

Search: go [Contact Us](#)

Features Content Purchase How It Works More... Customer Care

Purchasing Info
Pricing
Finding Funds
Free Trial

-- Quick Links --

WebAssign Free Trial Form

YES, sign me up for a six-week free trial of WebAssign.

To sign up for your free trial, we need some information about you and your class. Once you have registered, we will set up a few typical assignments for your students using questions from your textbook.

We hope you and your students will like this opportunity, and will order WebAssign for your classes. You are under no obligation to order WebAssign by taking advantage of this free trial.

A free trial is available only to bona fide instructors at recognized educational institutions only. Others should [contact WebAssign](#).

WebAssign

Search: go [Contact Us](#)

Features Content Purchase How It Works More... Customer Care

Purchasing Info
Pricing
Finding Funds
Free Trial

-- Quick Links --

Sign Me Up for WebAssign!

Faculty:

To sign up for WebAssign [Click Here](#)

You will be asked to provide some information about you, your school, and payment method.

Once we receive your order, our account manager will set up your first class and notify you by e-mail when the account is active and your User's Manual will be shipped. As a subscriber, you can set up as many classes as you like.

"In the short time that I have been using WebAssign I can see a notable difference in the comfort level and the grades of my students."

Dorothy Nyhoff
Reed Custer HS

WebAssign

Search: go [Contact Us](#)

Features Content Purchase How It Works More... Customer Care

Purchasing Info
Pricing
Finding Funds
Free Trial

-- Quick Links --

WebAssign Order Form

YES, I am ready to order WebAssign.net for my students.

Satisfaction guaranteed!


If you are a student wishing to order a [student access code](#), please use our secure [student access card order form](#).

Customer Information

Fields in RED are required.

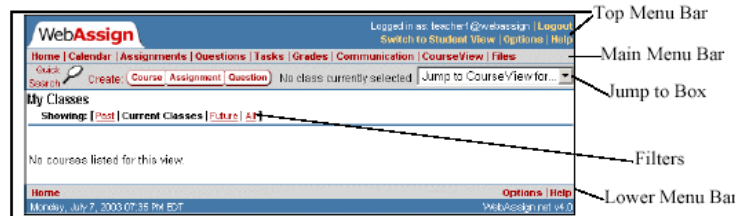
How to LOG IN

1. Go to <http://webassign.net> There is a single login for version 4. Everyone, students, faculty, tutors, administrators, all log in from a single login page.
2. Enter your Username, Institution, and Password.
3. Click Login.



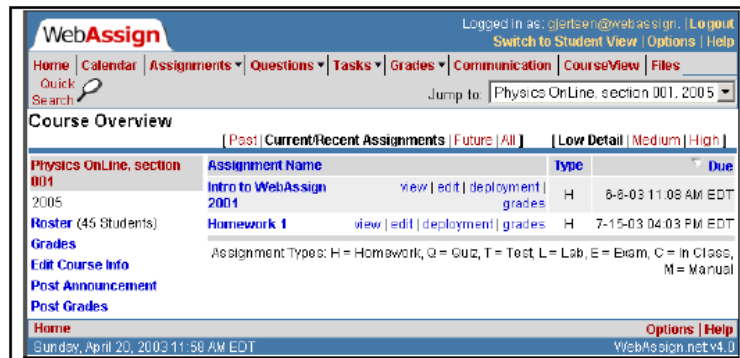
The image shows the WebAssign login page. It has a red header with the text "WebAssign login". Below the header, it says "Welcome to WebAssign!". There are three input fields: "Username", "Institution (what's this?)", and "Password (forgot password?)". A red "Log In" button is centered below the fields. Below the button is a link "(Trouble Logging In?)". At the bottom, there is a tip: "Tip: bookmark this page for quick access to WebAssign."

The page you receive after clicking Log In is your WebAssign home page. If you do not have any current classes and you have not changed your preferences with Options, you will receive a page with the text "No courses listed for this view".



The image shows the WebAssign home page with several annotations. The "Top Menu Bar" is at the top right, containing "Logged in as: teacher@webassign.net | Logout | Switch to Student View | Options | Help". The "Main Menu Bar" is below it, containing "Home | Calendar | Assignments | Questions | Tasks | Grades | Communication | CourseView | Files". A "Jump to Box" is located to the right of the Main Menu Bar, containing "No class currently selected | Jump to CourseView for...". The "Filters" section is below the Jump to Box, containing "Showing: [Post] Current Classes | Future | All". The "Lower Menu Bar" is at the bottom, containing "Home | Monday, July 7, 2003 07:35 PM EDT | Options | Help | WebAssign.net v4.0".

If you have current classes and you have not changed your preferences with Options, you will receive a page with your current classes listed along with information about your current and recent assignments and quick links to Roster, Grades, Course Info, Announcements, and Posting Grades.



The image shows the WebAssign home page with current classes listed. The "Top Menu Bar" is at the top right, containing "Logged in as: gjerfse1@webassign.net | Logout | Switch to Student View | Options | Help". The "Main Menu Bar" is below it, containing "Home | Calendar | Assignments | Questions | Tasks | Grades | Communication | CourseView | Files". A "Jump to Box" is located to the right of the Main Menu Bar, containing "Jump to: Physics OnLine, section 001, 2005". The "Course Overview" section is below the Jump to Box, containing a table of assignments. The table has columns for "Physics OnLine, section", "Assignment Name", "Type", and "Due". The table lists two assignments: "Intro to WebAssign 2001" and "Homework 1".

Physics OnLine, section	Assignment Name	Type	Due
001 2005	Intro to WebAssign 2001	view edit deployment grades H	6-8-03 11:08 AM EDT
Roster (45 Students)	Homework 1	view edit deployment grades H	7-15-03 04:03 PM EDT

Grades
Assignment Types: H = Homework, Q = Quiz, T = Test, L = Lab, E = Exam, C = In Class, M = Manual

Home | Sunday, April 20, 2003 11:58 AM EDT | Options | Help | WebAssign.net v4.0

How to CHANGE MY PASSWORD

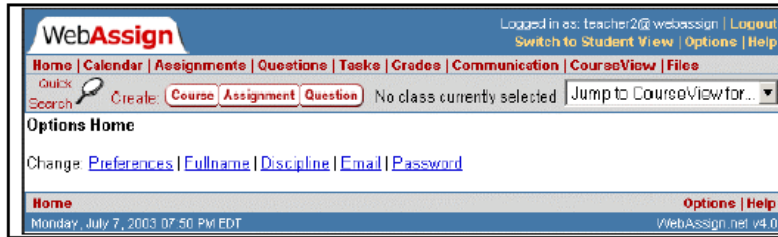
1. Click Options in the Top Bar.
2. Click Password.
3. Type your current password, your new password, and retype your new password.
4. Click Save.



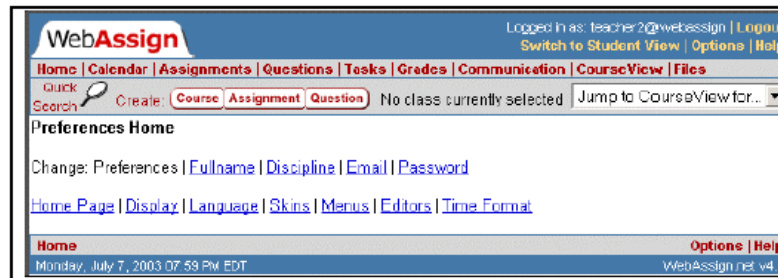
The image shows the WebAssign home page with the "Options" menu item in the Top Menu Bar highlighted. The "Top Menu Bar" is at the top right, containing "Logged in as: teacher2@webassign.net | Logout | Switch to Student View | Options | Help". The "Main Menu Bar" is below it, containing "Home | Calendar | Assignments | Questions | Tasks | Grades | Communication | CourseView | Files".

How to CHANGE MY WEBASSIGN DISPLAY PREFERENCES

1. Click Options in the Top Bar.



2. Click Preferences.



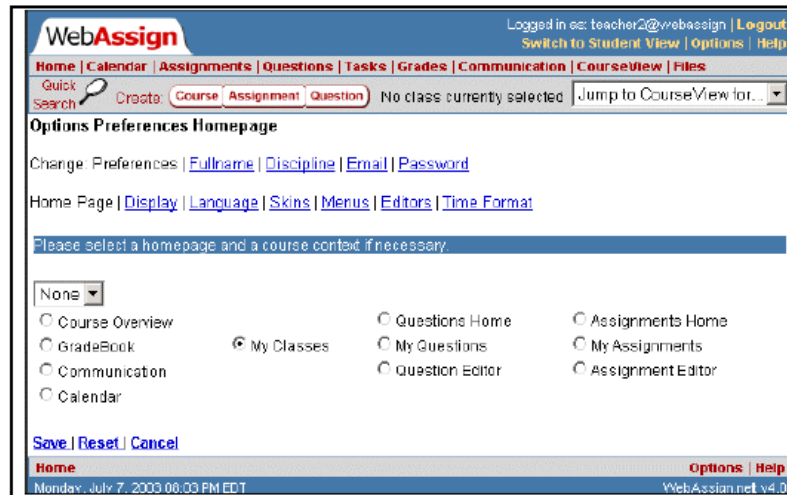
3. Click Home Page to change the view you see when you first login and when you click Home in the Main Menu Bar.

4. Click Display to choose preferences for the initial display of some of your pages.

5. Click Skins to change the color scheme of your pages.

6. Click Menus to turn on and off the pulldown menus in the Main Menu Bar.

7. Click Editors to customize the way the Question and Assignment Editors first appear.



8. Click Time Format to choose 12 or 24 hour display.

Class Management

How to CREATE A NEW COURSE

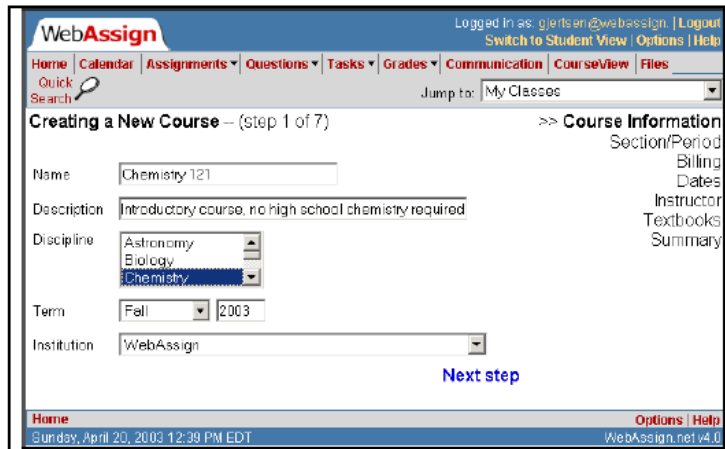
1. Select Create Course from Tasks.



2. The Create Course Wizard guides you through the steps.

3. After each step, click Next step.

4. You will be asked for information about your course including the name of your course, the student fee payment method, the begin and end dates, the name of the textbook associated with your class, the days and times your class meets, your preferences for communications, and whether you want to be a student in your course.



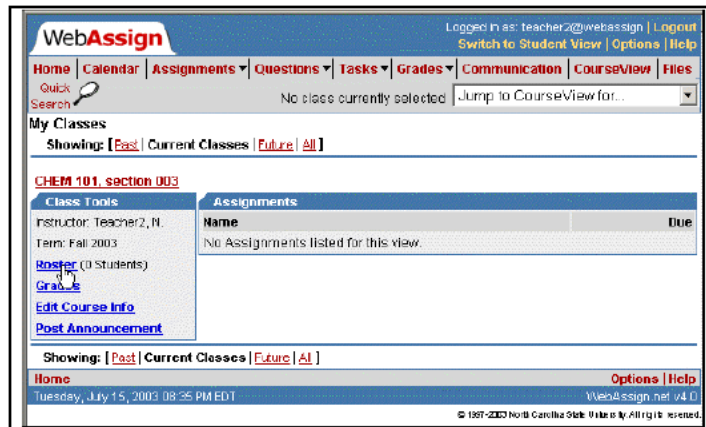
5. Click Save Course.

How to CHANGE MY COURSE INFORMATION

1. Click CourseView in the Main Menu Bar.
2. Select the course you want to edit from the pull-down menu, if necessary.
3. Click Edit Course Info.

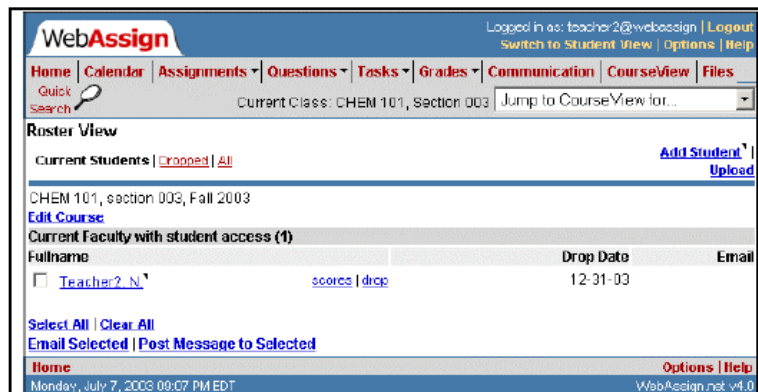
How to ADD A TEXTBOOK FOR MY CLASS

1. Follow CHANGE MY COURSE INFO.
2. Click Textbooks.
3. Select your textbook from the list.
4. Click Save.



How to ADD MY STUDENT ROSTER

1. Click CourseView in the Main Menu Bar.
2. Click Roster.
3. Click Upload.
4. Follow the instructions. You can either Copy and Paste your list, or upload directly from a file. **The first line of your list should define the order of your student information: username, fullname, password, (and optionally) email, ssn.**



5. Click **Review**.
6. Click **Save** if the roster is correct.

Roster Upload

Roster Upload

Your roster appears to be formatted correctly.
Please check this page carefully for errors before continuing.
If you find errors, click [back](#) to correct them.

Information
Upload
>> Review
Results

Add
These usernames will be added to your roster.

username	fullname	password	email	ssn
ataylor@webassign	Taylor, Andrew J.	12345	ajtaylor@demo.edu	12345
emwalker@webassign	Walker, Ellie M.	13422	emwalker@cc.net	13422
hcCrump@webassign	Crump, Helena C.	56453	crump@aol.com	56453
bpfife@webassign	Fife, Bernard F.	25974	bpfife@cc.net	25974

Drop students not on this list
Click [Save](#) to upload your roster

[Cancel](#)

7. Click Roster to return to your Roster View page.

How to ADD A SINGLE STUDENT

1. Click CourseView and then Roster.
2. Click Add Student.
3. Fill out the information and Save.

How to SEE WHICH OF MY STUDENTS HAVE REGISTERED

1. Click CourseView and then Roster.
2. Click Who's Registered?

Roster View

[Add Student](#) | [Upload](#)

CHEM 101, section 003, Fall 2003

[Edit Course](#)

Current Students (4)

Fullname	Drop Date	Email
<input type="checkbox"/> Crump, Helena C. scores drop	12-31-03	crump@aol.com
<input type="checkbox"/> Fife, Bernard F. scores drop	12-31-03	bpfife@cc.net
<input type="checkbox"/> Taylor, Andrew J. scores drop	12-31-03	ajtaylor@demo.edu
<input type="checkbox"/> Walker, Ellie M. scores drop	12-31-03	emwalker@cc.net

Current Faculty with student access (1)

Fullname	Drop Date	Email
<input type="checkbox"/> Teacher 2, N. scores drop	12-31-03	

[Select All](#) | [Clear All](#)
[Email Selected](#) | [Post Message to Selected](#)

[Home](#) [Options](#) | [Help](#)

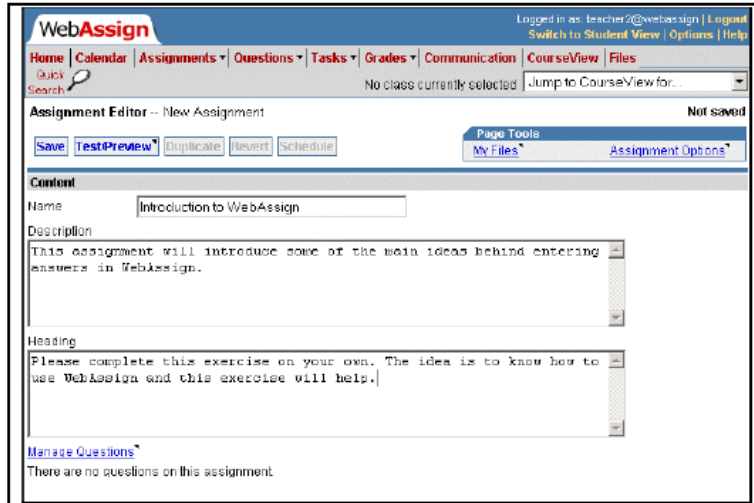
Assignments

How to CREATE AN ASSIGNMENT

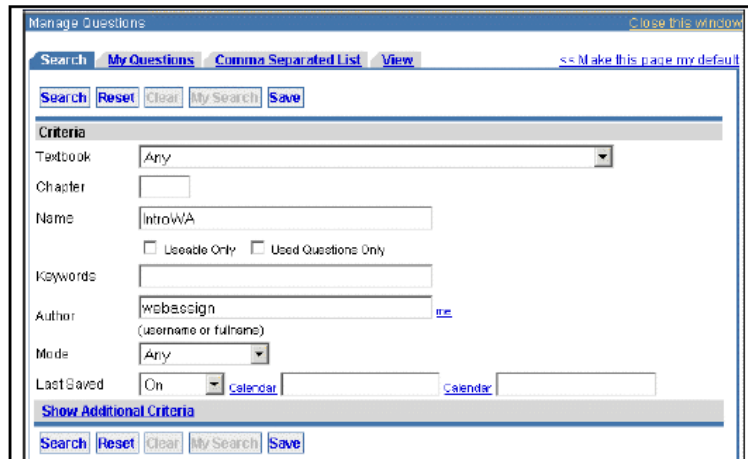
1. Select Create from Assignment.



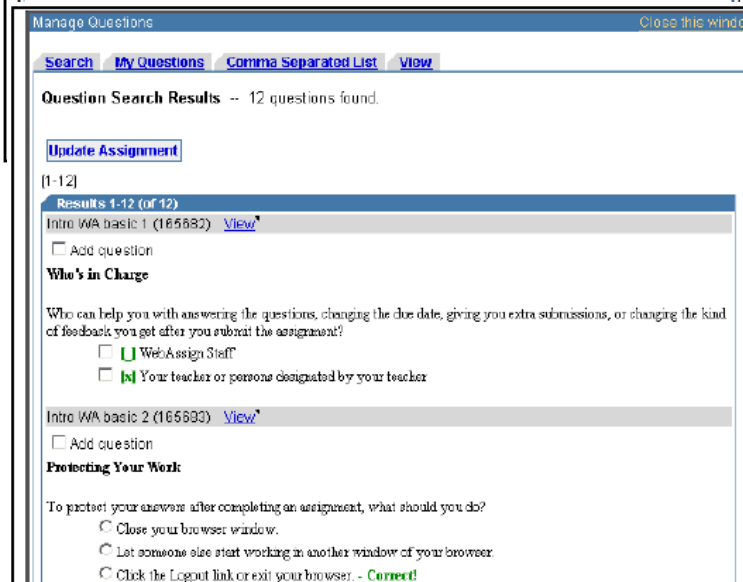
2. Enter the Name, Description, and Heading into the editor.



3. Click Manage Questions.



4. Use the Search, My Questions, or Comma Separated List to choose questions.



How to REVIEW QUESTIONS FROM MY TEXTBOOK

1. Select Search from Questions.
2. Choose your textbook from the pulldown menu.
3. Enter the chapter number you wish to review.
4. Choose the Format for the Results page.
5. Click Search.

How to FIND A QUESTION

1. Select Search from Questions.
2. Fill in one or more of the search fields. For example, type template in the Name box.
3. Choose the way you want the Results displayed, how many questions per page, how to sort, and whether to see the full display of the questions or just the name and ID, keywords, and classification.
4. Click Search.
5. Click Update Assignment.
6. Adjust the Administration Settings, if necessary, by entering a code (optional), selecting the number of Submissions Allowed, the Type, the Permission, Randomization, Which Graded, and the Feedback.
7. Save. WebAssign automatically assigns an Assignment ID number to the assignment.

Feedback	
Before due date	After due date
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

How to GIVE THE ASSIGNMENT TO MY CLASS

1. Click schedule in the submenu of the Assignment Editor. If you are not in the Assignment Editor, you can find your assignment by selecting My Assignments from Assignments in the Main Menu Bar. Once you see a list of your assignments, click the schedule link on the line with the assignment.

Course	Dates
CHEM 101, section 003, Fall 2003	Available Aug 08 2003 08:00 AM EDT
<input checked="" type="checkbox"/> Available to Students	Due Aug 12 2003 8:30 PM EDT
	Last Visible Dec 31 2003 09:00 PM EDT

2. Check the Available to Students box to put the assignment in a particular course.
3. Enter the Available, Due, and Last Visible dates. Available, Due, and Last Visible are links to an interactive calendar.
4. Save.

How to FIND AN EXISTING ASSIGNMENT

1. Select Search from Assignments.
2. Fill in one of the Search fields, for example, fill in part of the name and click me next to the author.
3. Click Submit. The results of your assignment search opens with a list of all assignments meeting your search criteria.
4. Also, try selecting My Assignments and My Deployments from Assignments in the Main Menu Bar, as well as Quick Search. These tools give more opportunity for finding what you need.

How to REMOVE AN ASSIGNMENT FROM AN EXISTING CLASS

1. Select My Deployments from Assignments.
2. Click the assignment name you want to remove.
3. Uncheck the Available to Students box.
4. Save.

How to PREVIEW MY ASSIGNMENT

1. Click Test/Preview in the submenu of the Assignment Editor. If you are not in the Assignment Editor, you can find your assignment by selecting My Assignments from the Assignments Menu in the Main Menu Bar. Once you see a list of your assignments, click the View link in the assignment of interest row.

How to PRINT AN ASSIGNMENT

1. Follow the instructions to PREVIEW MY ASSIGNMENT.
2. Click Print page.

How to VIEW MY ASSIGNMENTS AS A STUDENT

1. Click Switch to Student View.
2. Select the class of interest from the pulldown menu, if you are a student in more than one class.
3. If you see a message, "You are not currently listed in any courses." switch to the faculty view and add yourself to your class following How to ADD A SINGLE STUDENT.

How to CHANGE THE DUE DATE ON AN ASSIGNMENT

1. Click CourseView in the Main Menu Bar.
2. Click Schedule in the assignment of interest row.
3. Change the due date.
4. Save.

How to WEIGHT EACH QUESTION ON MY ASSIGNMENT

1. If you do not have the assignment in the Assignment Editor, select My Assignments from Assignments in the Main Menu Bar. Once you see a list of your assignments, click the edit link in the assignment of interest row.
2. Adjust the Point column next to each question. You may also use the Edit button to weight the parts of a question exactly as you desire.
3. Save.

How to POST A GRADE FOR A PAPER ASSIGNMENT

1. Select Add Scores to GradeBook from Grades.
2. Choose between entering information for one assignment manually or uploading one or more assignments and scores from a file.
3. If you choose to enter the information manually, enter the name, type, description, total points, and due date.
4. Select if you want to enter the scores by hand or with a file.
5. Click Add Scores.
6. Enter the scores or browse to the location of the file.
7. Save.

How to GIVE AN EXTENSION OR EXTRA SUBMISSIONS TO A STUDENT

1. Click CourseView in the Main Menu Bar and select the course of interest from the pulldown menu, if necessary.
2. Click Grades.
3. Check the boxes next to students who need an extension.
4. Click Grant Extensions/Submissions.
5. Adjust the date and time and the number of submissions if desired.
6. Enter a plus or minus adjustment if desired.
7. Save.

How to VIEW THE CLASS AVERAGE ON AN ASSIGNMENT

1. Follow VIEW MY STUDENTS' GRADES.
2. Click Show Analysis.

How to WEIGHT EACH ASSIGNMENT FOR THE FINAL COURSE GRADE

1. Select Settings from Grades.
2. Select the course of interest from the pulldown menu, if necessary.
3. Enter the weight for each type assignment.
4. Enter the number of each type you want dropped before calculating the grade.
5. Select what, when and if the student will see the grades in their grade view.
6. Save.

Communications

The Help Desk and posting announcements will be your most common method of answering student questions online; for the more daring, chat forums are also available.

How to USE THE HELP DESK

1. To enable the Help Desk, click Communication in the Main Menu Bar.
2. Select a course from the pulldown menu, if necessary.
3. Make sure the enable text in the Help Desk section is not a link.
4. You will see how many messages, answered and total, are in your Help Desk. Your students use their link to the Help Desk from their assignments to write these messages.
5. Click Requests.
6. Click the assignment name of one of the messages.
7. To see the student's work, click the assignment name under Responses. A new window pops up with the student's work.
8. Click Reply to correspond with the student.
9. Save.
10. Your students will see your response when they next visit that particular assignment.

How to POST A CLASS ANNOUNCEMENT

1. Click Communication in the Main Menu Bar and select the course of interest from the pulldown menu, if necessary.
2. Click New Announcement.
3. Entry a title for the announcement and the announcement itself.
4. Preview if desired.
5. Save.

How to COMMUNICATE WITH MY STUDENTS

1. Click Communication in the Main Menu Bar and select the course of interest from the pulldown menu, if necessary.
2. Decide if you want to enable messages within WebAssign, you would like to have messages go to and from your students' and your email account, or you would like to disable messaging.
3. Click New Message.
4. Check the students you want the message to go to.
5. Enter the subject and the message.
6. Click Send.

The screenshot shows the 'Communication Announcement Editor' window. At the top, it says 'Communication Home' and 'Last Saved: Jul 16, 2003 07:52 PM EDT'. Below that, it indicates 'Editing: Week 1 - What to bring'. The main area has two text boxes: 'Title' with the text 'Week 1 - What to bring' and 'Announcement' with the text 'It is important to bring your lab books to class every time we meet this week. You will also need your safety glasses.'. Below the text boxes, there is a preview section showing the rendered text: 'Week 1 - What to bring' and 'It is important to bring your lab books to class every time we meet this week. You will also need your safety glasses'. At the bottom, there are radio buttons for 'Available Now', 'Available by date: begins' (with a date field), 'ends' (with a date field), 'then', 'hide', and 'archive'. There are also radio buttons for 'Archived' and 'Hidden'. At the very bottom, there are buttons for 'Save', 'Reset', 'Preview', and 'Cancel'.

How to CREATE A FORUM

1. Click Communications in the Main Menu Bar and select the course of interest from the pulldown menu, if necessary.
2. Click New Forum.
3. Enter a title and description of the forum.
4. Save.

Communication Home

CHEM 101, section 003

Communication Tools
Go to Communication Home for...

Message Board			Announcements		
New Forum			New Announcement		
No current forums			Current Announcements		
			Week 2 - How the class did on the test. archive hide		
			Week 3 - Special lecture archive hide		
			Archived Announcements		

Private Messages			Help Desk		
New Message			enabled disable		
enable use email disabled			enabled disable		

	Unread	Total		Unanswered	Total
Inbox	0	0	Requests	0	0
Sent		0			

How to HIDE A STUDENT POST ON A FORUM

1. Click Communications in the Main Menu Bar and select the course of interest from the pulldown menu, if necessary.
2. Click the name of the Forum that has the comment you want to edit.
3. If you want to change the name of a topic, click edit in the row of that topic.
4. If you want to hide or delete one of the posts to a topic, click the topic name and click hide or delete in the post of interest row.

Problems, Pitfalls, and other Perils

DON'T edit a question.

DON'T write questions.

DON'T change the order of questions in an assignment once your students have started using it.

DON'T program assignments for adjustable scoring until you become familiar with straight scoring.

DON'T delete a question in an assignment once your students have started using it.

DO weight a question to zero if you want to remove it from an existing assignment.

DO create at least one bogus class to practice on.

DO create extra classes so you can assign different textbooks to them.

DO select previously used questions from available texts.

DO use short answer or multiple-choice questions – if a problem contains long answers as well as the former, you can weight that part to zero

DO move an assignment to a bogus class when you wish to delete it.

DO duplicate assignments for other class sections after saving them for the first section.

Evaluation/Assessment Measures:

As shown above, WebAssign has many features that allow teachers to track the progress of students and classes. In addition, teachers can compare student grades with and without WebAssign, classes prior to using WebAssign, or any combination of these. Depending on how much of their grades are already in electronic grade books, all sorts of analyses on student performance can be done.

For example, in the next two pages I have included several graphs of student performance from my Physics classes of the last two school years. The classes of 2002-2003 were introduced to WebAssign; during the first quarter, these students used the traditional textbook for their homework; some of the assignments I checked for completeness during my prep, the others were scored by the students during class and then reviewed by me.

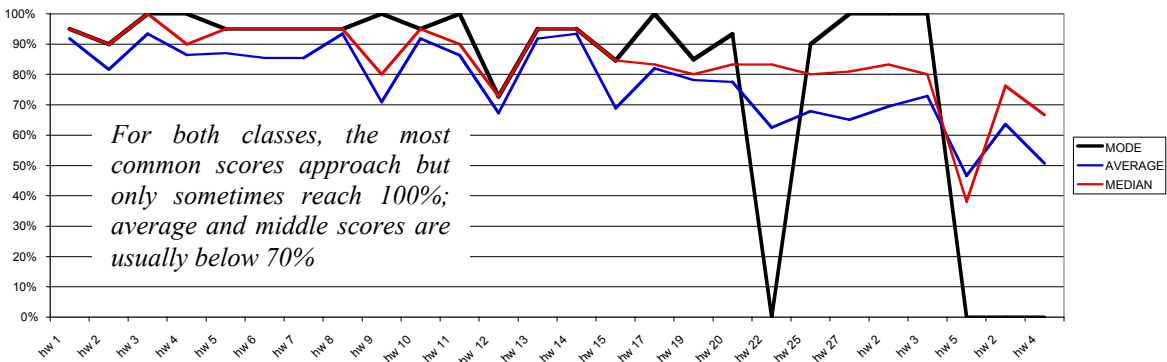
At the second quarter I made the transition to WebAssign, but allowed students to complete homework from the textbook if they were having difficulty learning the new system. These assignments had to be graded by me.

By the beginning of the second semester, all students had switched to using WebAssign, and I used it exclusively from then on. All homework was graded online, and class time spent on homework was incorporated into the lesson, as group solving of problems.

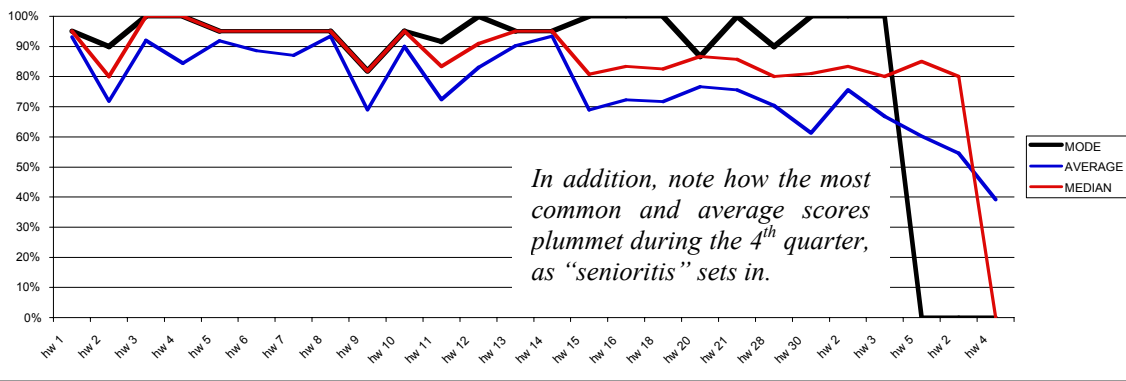
To help you better interpret the graphs below, which were made simply by exporting grades to MS Excel and using the chart wizard, a little background on each class is in order. Both of these classes are compared to my two Physics classes from 2001-2002 who had the same textbook, but not WebAssign.

During 2002-2003, my first period class generally scored lower than second period, but had fewer honors students or students involved in programs such as drama or “We The People”. Second period, by contrast, had many more high achievers, but considerable distractions throughout the year.

Physics HW Grades 2001-2002

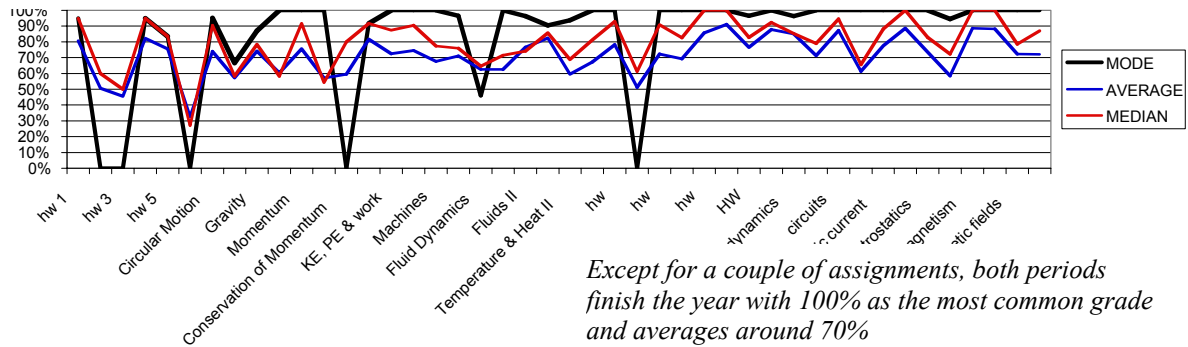


Physics HW Grades 2001-2002

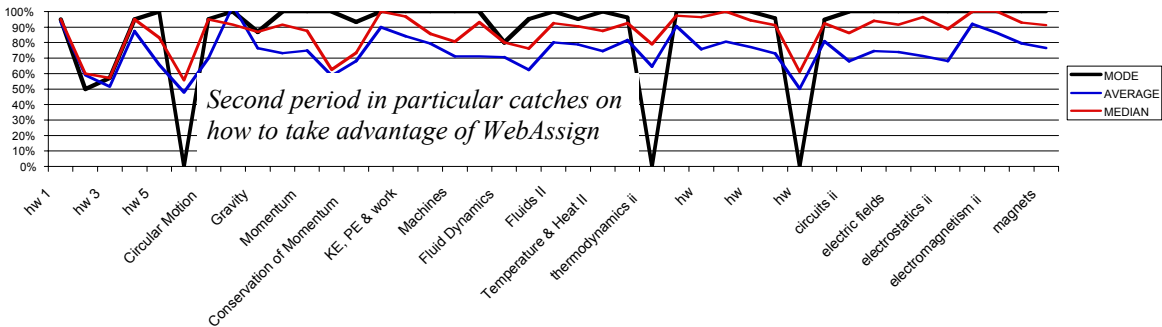


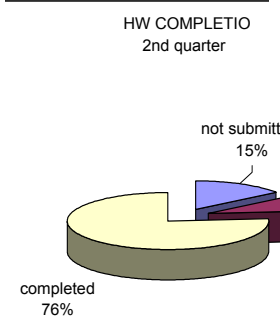
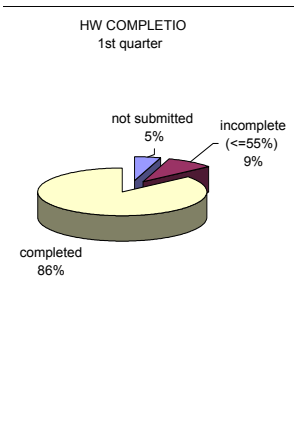
While both periods have a roller coaster first quarter, grades pick up after WebAssign begins to be used.

1st Period Physics HW Scores

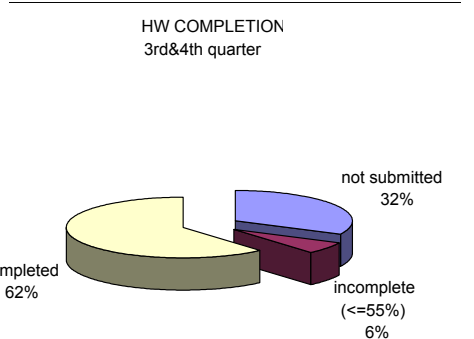
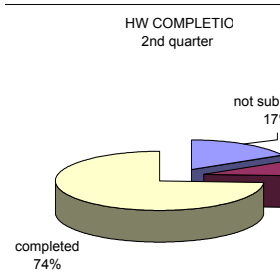
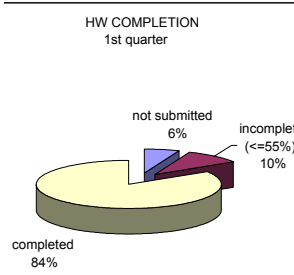
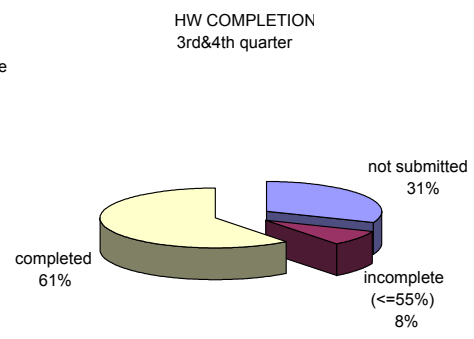


2nd Period Physics HW Scores

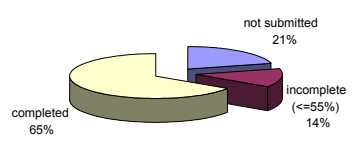




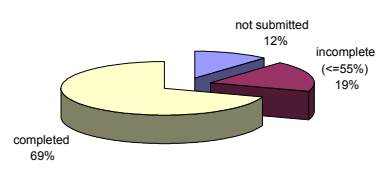
It is clear that the students of 2001-2002 were having difficulty completing homework assignments as the year wore on; while poor homework remained constant, the number of skipped assignments grew dramatically.



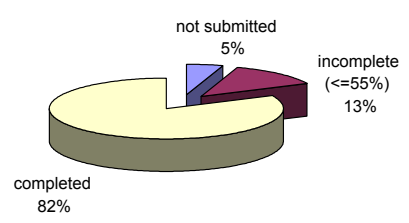
**1st Period Physics HW:
1st quarter**



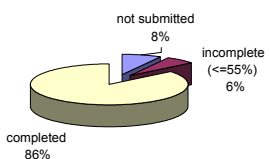
**1st Period Physics HW:
2nd quarter**



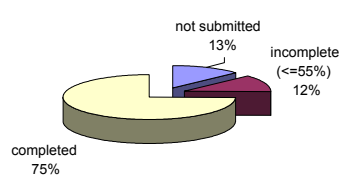
**1st Period Physics HW:
3rd&4th quarter**



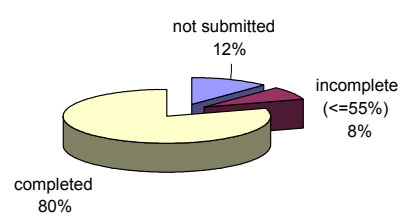
**2nd Period Physics HW:
1st Quarter**



**2nd Period Physics HW:
2nd quarter**



**2nd Period Physics HW:
3rd&4th quarter**



While 2nd period's completion rate showed little change, 1st period's improvement with WebAssign was exactly as I had hoped, showing steady increases in completion with commensurate decreases in skipped assignments.

Looking to the future

Learning to use WebAssign does take time, and initially, teachers will find themselves spending more time on homework than before, but this will pass. Before long, they won't go back to the old way of doing homework!

Extensions of this ETP will include how to use WebAssign with other faculty at your school, how to create quizzes, tests and labs online! Once teachers become familiar with all of the capabilities of this service, which even I have only scratched, it will be possible for them to create an almost-paperless class!

RSVP

Please fill out the attached survey and return it to jmacuk@fremont.k12.ca.us . Thanks!