

WebHW

A Web Based Homework Submission System

User's Guide



Version 1.1, July 2002

© Charles Price, 2002

Table of Contents

Table of Contents	2
Introduction	3
Administrators	4
Local Paths	4
Instructors.....	5
Add a Section	6
Add a CoInstructor	7
Assign TAs.....	8
Manage Assignments	9
Access Times	10
View Submissions	11
Grading.....	12
Students	13

Introduction

WebHW is a web based homework submission system designed primarily to facilitate submission, grading and return of homework assignments in electronic format. It allows a course instructor to create assignment folders, assign teaching assistants, establish due dates and late assignment policies, and schedule graded assignments for distribution to students. It also allows students to submit assignments, pickup assignments and verify past submissions.

WebHW has three main components: a student interface (WebHW), an instructor interface (WebHW-instr), and an administrator interface (WebHW-admin). Each is entirely web based and may be accessed from any valid Internet connection unless a local firewall or other network configuration prohibits access. WebHW should be run on a secure web server in order to protect user privacy. In addition to the web interfaces, instructors and TAs also have read access to the submitted assignments and write access to the folder used for returning graded assignments. The graded process itself is handled outside of this software tool.

Administrators

The WebHW administrator installs the software into a secure web server's cgi-bin area preferably in a dedicated sub-folder although this is not a requirement. During the install the administrator must edit each interface program to customize WebHW for the local site. The administrator must specify the following parameters:

CLASSDIR – the storage location for the class specific WebHW files. This folder will contain the list of administrators and the folder for each class that will use the system. The class folders will contain the instructor and TA lists, the section and assignment folders and all of the submitted and graded assignments. The folder should be open for reading and writing by the web server process, but should not be accessible by either students or instructors. For example `LOC=/afs/uncc/coe/classes/homework`

AUTHPROGRAM – an authentication program that is used to verify student and instructor logins. The authentication program must accept two arguments (userid and password) and return OK if the supplied values are valid. For example: `AUTHPROGRAM=/afs/uncc/coe/secure-web/cgi-bin/pam_auth` will use the program `pam_auth` which authenticates to a Kerberos user database using a PAM module.

AUTHOR_EMAIL – the email address of a person who is responsible for the administration of WebHW. This information is listed at the bottom of every WebHW page. It should always point to an address that is monitored so that any problem reports or questions will be addressed immediately. For example: `AUTHOR_EMAIL=mlc@uncc.edu`.

LOGDIR – a location for storage of the log files that detail the time of each successful submission or pickup attempt.

The administrator also creates the administrators control file. This is a file in the CLASSDIR called `.administrators` that contains a list of the uids of every person who will have administrator privileges.

Finally the administrator uses the administrator interface to add each of the classes that will use WebHW, assign instructors for each class, and create archives of any classes from prior semesters in order to prepare the folder for use in the current semester. The archive operation moves the entire class folder into an archive folder under the CLASSDIR folder, appends an appropriate date stamp, and optionally preserves the section folders and instructor assignments.

Local Paths

The current paths to the WebHW tools are

Administrators: <https://www.coe.uncc.edu/cgi-bin/homework/WebHW-admin>

Instructors: <https://www.coe.uncc.edu/cgi-bin/homework/WebHW-instr>

Students: <https://www.coe.uncc.edu/cgi-bin/homework/WebHW>

Instructors

The instructor interface first prompts for a username, password and class selection. The username and password are verified against a standard authentication program, and the instructor list is checked to ensure that the instructor has selected a class for which they have been given instructor privileges. If the instructor passes the checks, a menu of available actions is presented



Welcome to the Engineering Home Work System Instructor Interface

Charles E Price MOSA1234 Wed Jul 10 15:00:04 EDT 2002

You may either

or select a section:

and then choose one of the following actions:

(If you use the Back button on your browser, you may have to hit the Refresh button to see your changes.)

This page is maintained by mlc@uncc.edu

The first two options, Add a Section and Add a CoInstructor, apply to the class as a whole, but the other two options apply to a specific section which should be selected from the pull down menu prior to clicking on the action button. In cases where an instructors wishes to create multiple sections with identical information, they may select ALL from the section pull down menu. Any further actions that they taken while ALL sections is selected will be applied to all existing selections. This feature would typically be used by first add all the sections and then selecting ALL sections prior to assigning TAs, adding assignments and setting access times. This allows the instructor to avoid having to repeatedly enter identical information for multiple sections. This feature should be used with care.

Add a Section

The instructor's first step is to create the section folders for each class section that will use WebHW.

Welcome to the Engineering Home Work System Instructor Interface

Charles E Price MOSA1234 Mon Jul 1 16:43:03 EDT 2002

Current Sections: 001

Enter the Section identifier: e.g. 002 or L01

Add

Return to Main Menu

This page is maintained by mlc@uncc.edu

The section numbers must follow the university's standard format of either three numbers or one letter followed by two numbers. It is not necessary to create a section folder for every class section, but only those that will be allowed to submit homework. It is permissible for students to be in more than one section. For example, homework can be collected independently in both the lecture and lab sections of a course. It is the student's responsibility to submit their assignment to the proper section – the software makes no attempt to enforce course or section registration.

Upon clicking Add, the instructor will be shown a confirmation page or an error message that explains why the requested section folder could not be created.

Add a CoInstructor

Some instructors, particularly those with large classes or graduate TAs, may wish to add a CoInstructor.

Welcome to the Engineering Home Work System Instructor Interface

Charles E Price MOSA1234 Wed Jul 10 15:01:49 EDT 2002

Current CoInstructors for MOSA1234:

patolley

(To remove a CoInstructor: uncheck the box next to the userid and click OK)

Add a CoInstructor: (Enter the userid and click OK)

OK

Return to Main Menu

This page is maintained by mlc@uncc.edu

A CoInstructor has the same permissions as an instructor. They can assess submitted assignments, and use all functions of the WebHW instructor interface including removing the original instructor. In general, undergraduate TAs should not be made CoInstructors but the software does not attempt to prevent this.

Assign TAs

The instructor may assign Teaching Assistants to the individual sections at any time.

Welcome to the Engineering Home Work System Instructor Interface

Charles E Price MOSA1234 001 Tue Jul 2 09:30:27 EDT
2002

Current TAs for MOSA1234 section 001:

ttpatton

(To remove a TA: uncheck the box next to the userid and click OK)

Add a TA: (Enter the userid and click OK)

TAs are not given any access to the instructor interface. Adding TAs simply grants them access to the submitted assignments folders so that they can grade the student submissions.

If ALL was selected from the sections pull down menu, then this TA list will be applied to all sections of this class.

Manage Assignments

The third function, Manage Assignments, present a list of further options:

Welcome to the Engineering Home Work System Instructor Interface

Charles E Price MOSA1234 001 Tue Jul 2 09:33:57 EDT
2002

You may either

Add an Assignment

or select an assignment:

assn1 ▼

and then choose one of the following actions:

Set Access Times

View Submissions

Return to Main Menu

This page is maintained by mlc@uncc.edu

The first option, Add an Assignment, applies to the section as a whole, but the other two options apply to a specific assignment so that the assignment must be selected from the pull down menu prior to clicking on the action button.

Adding an assignment works in much the same way as adding a section. Assignment folders will always have the format assn followed by a one or two digit number. This format is enforced when the assignment folders are created by limiting the instructor's input to a number between 1 and 99. If ALL has been selected from the sections pull down menu, then the assignment will be added to each existing section.

Access Times

WebHW enforces limited time access for students to submit and pickup assignments. The instructor must set the beginning and ending time for submissions, the beginning time for pickup, and choose whether or not to accept late submissions. Once the Set Access button is pressed, the instructor is presented with the current access times in editable pull down menus:

Welcome to the Engineering Home Work System Instructor Interface

Charles E Price MOSA1234 001 Tue Jul 2 09:44:48 EDT
2002

Set the Access times for assn1 in section 001.

Student's may submit assignments beginning Jul / 2 / 2002 at 00 : 00

The assignment due date is Jul / 16 / 2002 at 17 : 00

Accept late submissions Yes No

Student's may pickup their assignments after Jul / 23 / 2002 at 09 : 00

This page is maintained by mlc@uncc.edu

If necessary any of the dates or choices selected on this screen may be changed at any time without affecting previously submitted or graded assignments. This is useful for extending a due date or allowing late assignments because of unforeseen circumstances (e.g. a snow day).

The times are not changed until the Set Time button is pressed. Once that occurs the instructor is presented with a confirmation message. If, after changing the pull down menus, the instructor wishes to keep the current access times, they should simply click on the Go Back button to return to the previous screen.

If ALL has been selected from the sections pull down menu, then the access times will be applied to the chosen assignment in each existing section (if the assignment does not exist in a specific section then no action is taken in that section).

View Submissions

Finally, the instructor may view a list of the current submissions in each of the various sub-folders.

Welcome to the Engineering Home Work System Instructor Interface

Charles E Price MOSA1234 001 Tue Jul 2 10:21:14 EDT
2002

Assignments submitted for MOSA1234 001 assn1

On Time

assn1dagoins.doc assn1jdsaling.doc assn1tclancy.doc
assn1edickens.doc assn1masmith.doc assn1wmfaulkn.doc
assn1ehemming.doc assn1rlsteven.doc assn1wwhitman.doc

Late

assn1wjclinto.doc

Graded

assn1ceprice.doc assn1ceprice.txt assn1edickens.doc assn1tclancy.doc

Superceded

assn1edickens.doc.1025582403 assn1edickens.doc.1025583624

[Go Back](#)

This page is maintained by mlc@uncc.edu

In addition to the student submissions that are stored in the On Time and Late folders and the graded assignments that the TA places into the Graded folder, the software also maintains a Superceded folder which contains any prior submissions that a student may have made. This makes it possible for a student to submit a draft in order to be certain of getting an assignment in on time and then replace it with a final version just before the due date. The replaced draft is retained in order to guarantee that no valid submission is improperly removed and to preserve the history of each student's submissions. In order to track the multiple versions, each file moved to the superceded folder is marked with a time stamp appended to the filename which can be converted to the time at which the file was placed into the superceded folder.

If ALL has been selected from the sections pull down menu, then the submissions for the chosen assignment in each existing section will be displayed.

Grading

WebHW does not include a web interface for teaching assistants because none is needed. Teaching Assistants are only involved in grading the assignments and not in setting up the assignment folders or any other instructor tasks. The procedure for grading is simple. The TA or instructor navigates to the assignment area (e.g. N:\uncc\coe\classes\homework\MOSA1234\001\assn1\ontime), opens each assignment in the appropriate tool (e.g. MS Word for papers submitted in that format), makes annotations if appropriate and saves the file in the graded folder using the same name. If the submitted file type is not appropriate for inline annotations, or if additional feedback should be given outside of the submitted file, the grader may use Notepad to create a .txt file in the graded directory for each student. The name of the .txt file is the same as the name of the student's submission except the file extension is changed to .txt. The naming convention must be strictly followed. Students will only be able to pickup assignments that obey the naming convention. The graded sub-folder should never be used to store anything other than graded assignments. Inappropriate files in this area are automatically deleted. In addition, in order to protect the integrity of the student submissions, neither the instructor, nor the TAs have any write privileges in any location other than graded sub-folders.

It is also possible for the TA or instructor to copy the submitted files to their own personal storage space for grading, but this is not recommended due to concerns for the security and privacy of the submissions. If this approach is selected extreme care should be taken to safeguard the assignments during grading, to properly copy them back to the graded folder when completed, and to remove any copies from the grader's storage space.

Students

The student interface first prompts the student for a username, password and class selection. The username and password are verified against the authentication program. There is no enforcement of class or section registration. A student may submit files to class assignment folders even if they are not enrolled in the course. This was a design decision to allow for the possibility that students might be allowed to audit a course without enrolling, might begin attending a class before completing late registration, or might need to submit an assignment while correcting a problem with their registration. If the student passes the userid/password check, a menu of available actions is presented

Welcome to the Engineering Home Work System

Charles E Price MOSA1234 Tue Jul 2 11:10:18 EDT 2002

Select a Section

Choose one of the following options:

This page is maintained by mlc@uncc.edu

Each of the student's choices requires that they select the appropriate section. The first option takes them to a screen that allows them to select an assignment and upload a file as their submission.

Welcome to the Engineering Home Work System

Charles E Price MOSA1234 001 Tue Jul 2 11:23:49 EDT 2002

Select an assignment to submit:

Select a file to submit:

This page is maintained by mlc@uncc.edu

Only those assignments that are currently accepting submissions will be presented in the list. If there are no assignments that are currently accepting submissions the student will receive an informative message instead of this upload form. The student may type in the name of any file accessible from their computer or choose Browse to access a graphical file selection interface. Once the file is selected and OK has been pressed, the selected file is uploaded to the appropriate assignment folder, a message is added to the log file, and the student is presented a confirmation message that they can print out for their records if desired.

The second option, Pickup and Assignment, displays a list of files that are available for pickup. By clicking on one of the files, it is downloaded to the student's computer and they are prompted to save the file.

The final option allows a student to see a list of all of their prior submissions in order to verify that they have successfully submitted their assignments.