

## WEB PAGE AND LIST SERVE UTILIZATION TO APPROACH 24/7 STUDENT-FACULTY COMMUNICATION

William K. Szaroletta  
Purdue University

### ABSTRACT

As a general trend, 24/7 is becoming an industry standard for information availability. Students are no different in demanding 100% “up time” of communication with the professor and demanding quicker feedback to their non-lecture-time questions, quizzes, exams, homework, and lab reports. In a nutshell, students desire office hours on a 24/7 basis. This paper details the establishment and testing of a part-public, part-private course web page and a course email list serve including all registered students. This technology implementation has been tested for a sophomore-level strength of materials class for the purpose of improving the communications loop times between the students and professor and improving student satisfaction.

The public portion of the web page includes a course outline, lecture and laboratory syllabi, daily homework assignments, examination schedules, and email access to the professor. The private portion of the web page (available to only registered students with valid computer accounts) includes homework problem solutions, examination solutions, common laboratory data, and other potentially copyrightable course material. Hyperlinks are liberally provided on the web page to support ease of navigation (including return paths) to course material and the professor. One feature that has proven extremely useful to the utility of this technology has been the implementation of a revision page, which allows tracking of modifications to the web page.

This paper describes utilization of technology to successfully improve student-faculty communication and in the process has improved student satisfaction with the course.

### INTRODUCTION:

The National Survey of Student Engagement (NSSE) 2000 Report<sup>1</sup>, "National Benchmarks of Effective Educational Practice" points out that student engagement is enhanced by contact between students and faculty members. The study concludes that the more contact the student has with the faculty member, the better in terms of improved student engagement.

The author has observed that students, in general, have developed study habits that lead them to expect to obtain faculty input at non-standard hours; basically students are now desiring 24/7 uptime of faculty. Since no faculty member can provide this access, the methods described in this paper have allowed the author to effectively produce a faculty-student communication environment that approaches 24/7 with little additional effort on the faculty member's part.

It is the intention of the author to help other faculty members increase their faculty-student communication through utilization of similar methods of utilizing the described Web Page Approach and List Serve Approach.

## WEB PAGE APPROACH

A course information webpage with multiple hyper-links to other pertinent course information is posted before the first class meeting. This structure allows students to view the webpage through their browsers and find out important information on textbooks to procure and other course-related materials in advance of the first lecture.

The top portion of the course information webpage for Applied Strength of Materials, MET 211, for the Fall 2000 semester is shown in the screen capture shown below in Figure 1<sup>2</sup>. This website is continually updated during the semester and gives the student an up-to-date course guide.

It is important to test all of the hyperlinks to make sure they are operational before “going live” with the course web page. All students should be able to access the course web page from the departmental webpage through hyperlinks and/or directly after receiving the course’s hyperlink from the course instructor.

The time currency of the website is crucial to keeping student attention to the website. Updates should be incorporated as they are finalized and the students should be flagged that an update has been posted. One innovative feature of the course’s website is the clarity with which it conveys information about course updates, modifications, or changes to the students. A revision date is shown near the upper right hand corner of the course home page with a hyperlink to a revision file. This revision date is hyper-linked to a revision file that provides the student a summary overview of what has changed on the course site, saving the student search time. This revision file contains information about time-stamping the date of changes and providing a brief summary of the modifications. A screenshot of the format and content of the revision file is shown below in Figure 2. Relative to faculty-student communication, this feature is of huge benefit. The faculty member can post information to the website and flag it by rolling the date on the hyperlink to the revision.htm file. Students have commented in student rating sheets that they appreciate the time-savings this feature affords them. WebCT<sup>3</sup> provides similar functionality of flagging the students when new information is placed into the course folder. WebCT is being explored for future incorporation.

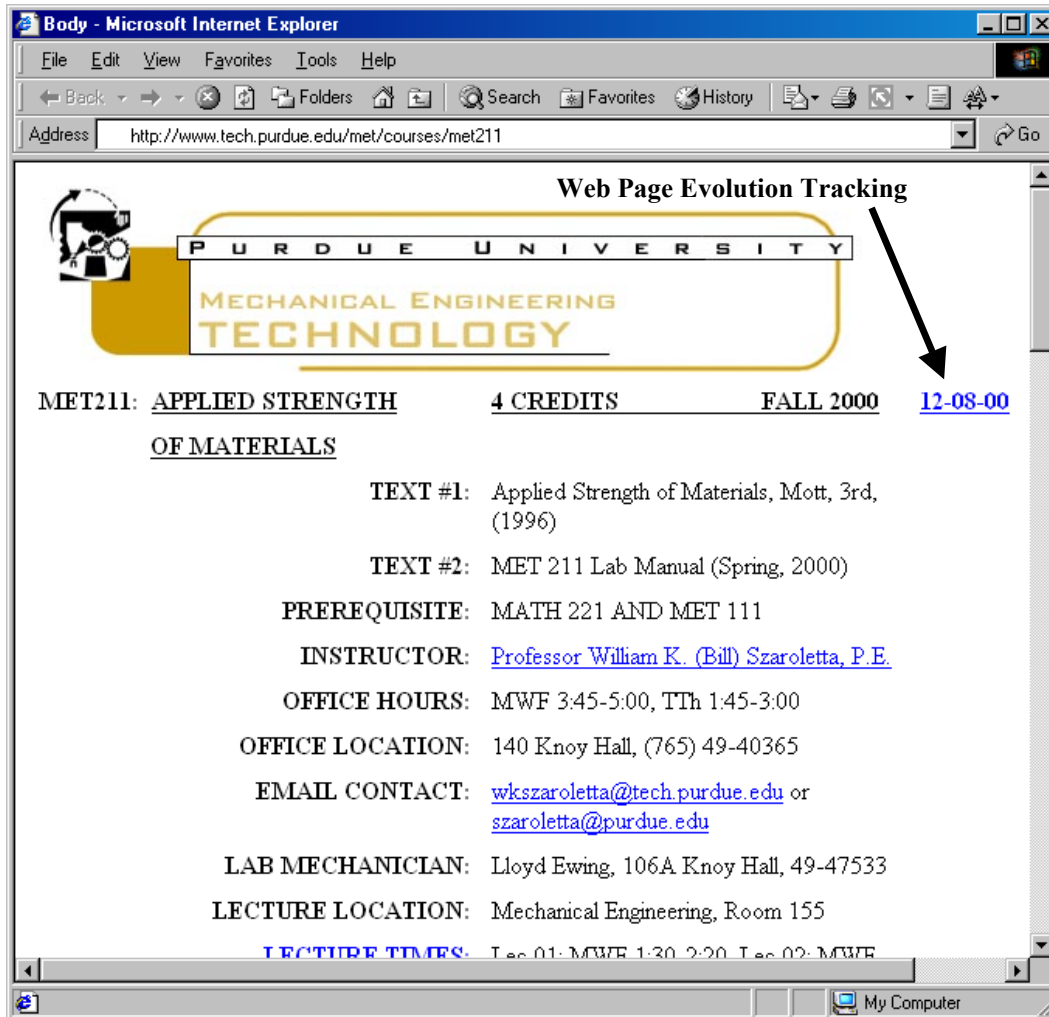
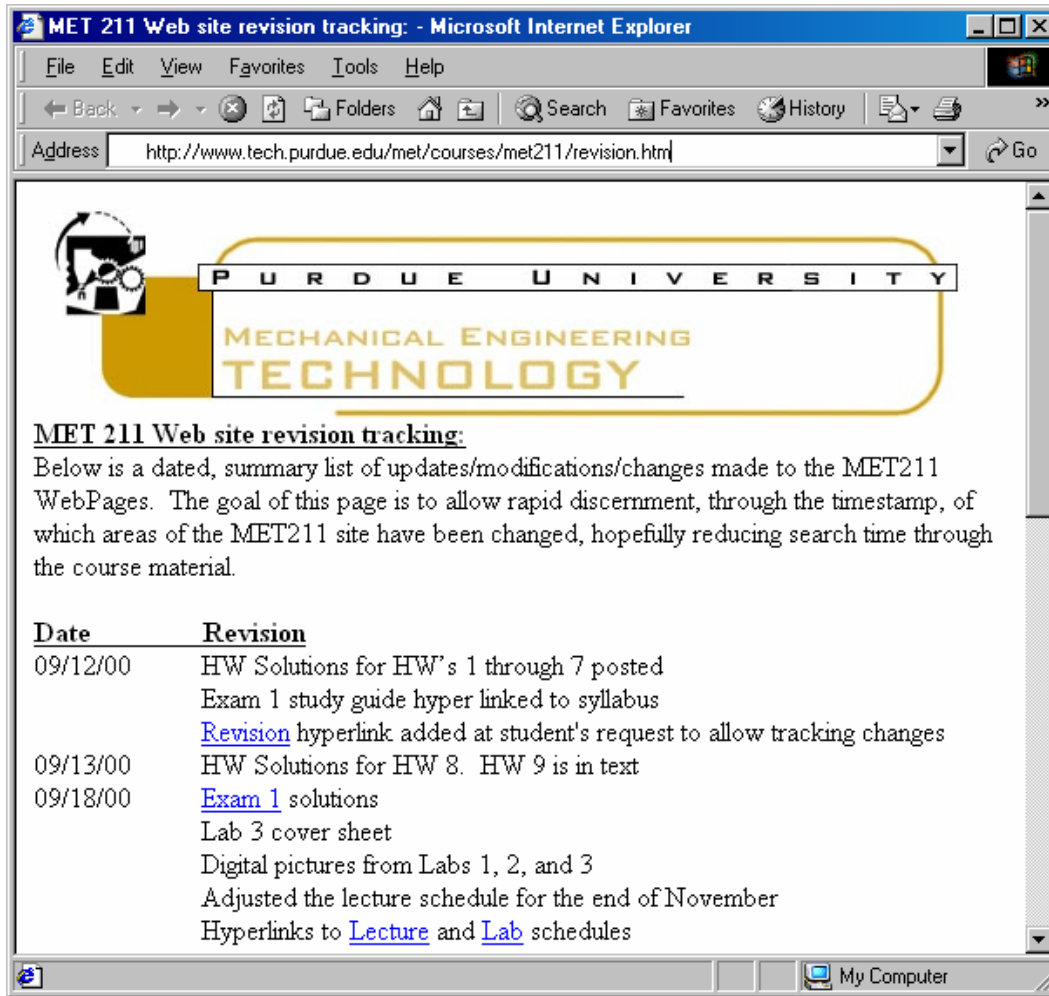
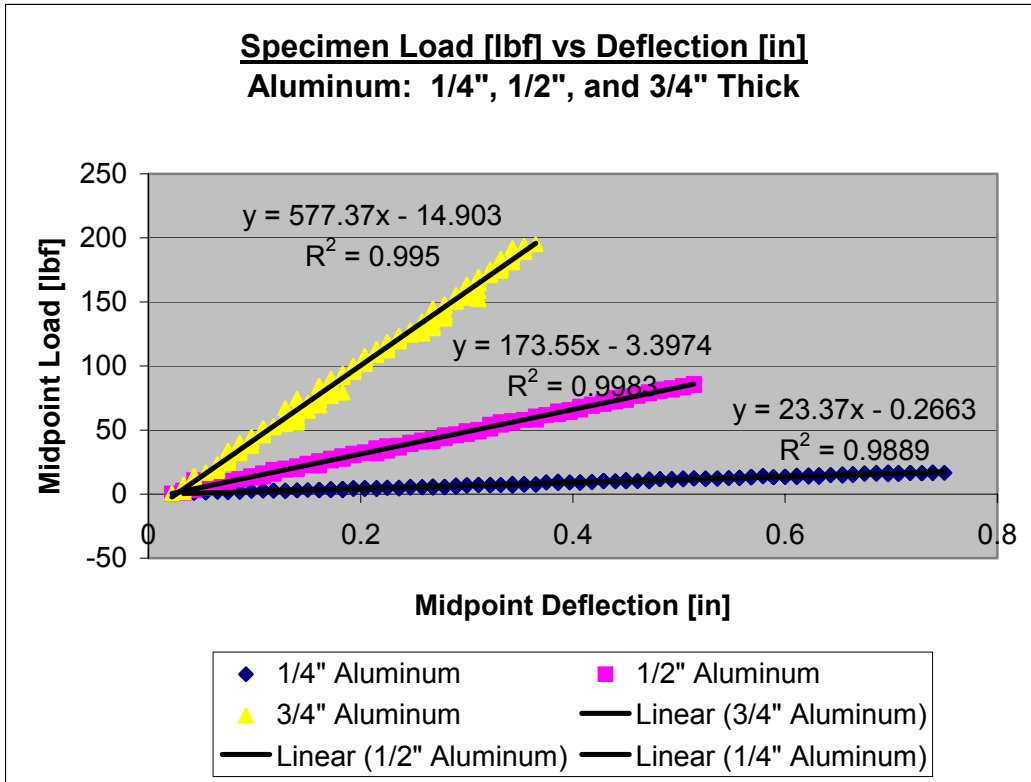


Figure 1: Partial Screen Capture of MET 211 Course Website for Fall 2000



**Figure 2: Screen Capture of Innovative Revision.htm File Structure.**

The course web page includes a “private” folder, which requires a valid network login ID and password to gain access. This folder is a useful repository for homework, quiz, and exam solutions as well as laboratory information. An example of laboratory information, in the form of an MS Excel™<sup>4</sup> chart and spreadsheet, that is intended solely for the laboratory students is shown in Figure 3 below.



**Figure 3: Example of laboratory information posted in the private folder of the course’s file structure. This MS Excel™ chart and spreadsheet are accessible only by students with valid login ID and password.**

### LIST SERVE APPROACH

The List Serve approach described next helps facilitate faculty-student communication and provide additional benefits. The List Serve is utilized to broadcast information that has high time value allowing all of the course’s students to have access to information rapidly. Simple news such as hints on homeworks and room changes for examinations to more complex news including clarification on lecture material can be passed onto the students. Student phone calls, hallway conversations, and lecture/lab questions that raise points requiring clarification are also served using the course List Serve. Overall, the benefit to the course List Serve is that everyone is privy to the same information; or to use one of the author’s favorite clichés, “singing off the same song sheet”

Creation of the course List Serve has provided a key additional benefit to the author: help with memorization of student names and faces. Email addresses of each registered student are obtained routinely from the Registrar’s Office at the beginning of each semester and it is a simple matter to convert these email addresses into a course List Serve. WebCT-based courses can be auto-populated with student names and email addresses upon faculty request. While both provide a course List Serve, an approach will be described which can help with learning student

names. At an appropriately early-in-the-semester class meeting, the author utilizes a digital camera to record faces and names of each student. These digital photographs are then imported into a MS Word™ document and printed out in hard copy. The author's preference is for "action" shots taken during laboratory of each of the students instead of "posed" shots as shown in Figure 4 below. Instead of utilizing the Registrar's email address information directly as the course List Serve, the author inputs the names into a course List Serve one by one using MS Outlook™. As each individual student name and corresponding email address is entered into the List Serve, the author looks at the digital image of the student for about five seconds and repeats the first and last name of the student out loud. In this manner, the author has found it is relatively easier to memorize all of the students names (measured against viewing the posed, "mug shot" images) since there are actions involved.



**Figure 4: Memorization aid for matching student names and faces using "action" shots taken during laboratory. The author views this picture while inputting student names and email addresses into a course List Serve.**

Memorizing student names is critical to building rapport with students and, in the process, facilitating faculty-student communication. The author uses his new knowledge of faces and names to establish an environment where he can call on certain students by name during lecture,

during office hour visits, and during casual encounters on campus. The author's MS Outlook™ inbox is checked late every night, early every morning, and regularly during the day. In doing so, the author has been able to respond to student concerns in a rapid manner that has been universally praised by students.

## CONCLUSIONS

This paper has shown how combining to relatively available technologies has enabled the author to approach 24/7 up-time in faculty-student communications. Web Page and List Serve approaches were described in enough detail to allow ease of replication for other courses. The advantages of this course management system observed through student and faculty feedback, which include positive comments on the:

- Quicker student-to-faculty and faculty-to-student(s) communication through the List Serve.
- Improved distribution of course material including handouts, solutions, data, announcements, etc.
- Improved data format flexibility (text, spreadsheet, presentation, video, etc).
- Quality of student reports through Web Page and integrated MS Office™ software suite usage.
- Changes, amplifications, and corrections that can be communicated to all students rapidly.
- Morning and evening checks of faculty email inbox allowing most questions to be addressed immediately via return email.
- Questions raised during normal office hours can be clarified and communicated via email.
- Improved faculty contact time that is provided for off-campus work-study students.
- Improved memorization of student names that is afforded through creation of a course List Serve.

The benefits of this improved communication are well documented and, in the author's opinion, worth the extra effort to raise student satisfaction. Future work will look at migration of this methodology to other courses and to monitor student satisfaction ratings over time.

## BIBLIOGRAPHY

1. National Survey Student Engagement (NSSE) 2000 Report, "National Benchmarks of Effective Educational Practice (2000): [www.iub.edu/~nsse](http://www.iub.edu/~nsse).
2. Purdue University MET 211 Course Website <http://www.tech.purdue.edu/met/course/met211/>, December, 2000
3. WebCT home page, <http://www.webct.com> , December, 2000.
4. Microsoft Corporation home page, <http://www.microsoft.com> , December, 2000.

## BIOGRAPHY

WILLIAM K. SZAROLETTA, P.E.

William K. Szaroletta is an Assistant Professor of Mechanical Engineering Technology at Purdue University where he presently teaches solid mechanics courses. He is a member of ASEE and ASME. He has 18 years industry experience in engineering and project management positions and 6 years university teaching experience. His current applied research interests are experimental mechanics, lab automation, and optimal design using genetic algorithms.