Elements of Web Programming
CS 329E
Spring 2024

[50910] MWF 9:00 am - 10:00 am (Location: GDC 5.302)
[50915] MWF 10:00 pm - 11:00 pm (Location: GDC 5.302)

Instructor: Dr. William C. (Bill) Bulko (bulko@cs.utexas.edu)
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Phone: 512-471-7021
Office Hours: posted at http://www.cs.utexas.edu/~bulko/

TAs: Names, email addresses, and Office Hours posted on Ed Discussion

Course Website: http://www.cs.utexas.edu/~bulko/2024spring/329E.html

Course Prerequisites: CS 313E with a grade of at least C-.

Course Textbook: Zybook "Web Programming" by Vahid Lysecky. Not required.

University Calendar: Key dates are listed at http://registrar.utexas.edu/calendars/23-24.

Course Objectives:

This is an upper-division elective course in the Elements of Computing program for non-CS majors. Computing has become an integral part of all natural sciences and engineering disciplines. This is an introductory course in web development. By the end of the course, students will be able to understand and articulate the unique challenges of developing web pages and applications, and will be able to create simple web applications from scratch using technologies such as HTML, CSS, Javascript, jQuery, PHP, and MySQL.

It is assumed that you know Python at the level taught in CS 303E and CS 313E. We will not be using any software packages such as Dreamweaver, or content management systems like Drupal. Prior experience using HTML or other packages to develop web pages is not required or expected.

In addition to learning the technical details of building a web application, we will also discuss and think about design issues. We will interleave our lectures on design with discussions on technical topics during the first half of the course. The second half of the course will be mainly technical topics.

General Policies:

- Your performance in this class will be determined by you! It will require a strong dedication to learning the material, and may require a substantial time commitment to complete the programming assignments.

- **Class attendance is mandatory.** You are expected to show up on time for class, and stay for the whole lecture. Be aware that we will cover topics and examples in class that you will not get anywhere else. Since the textbook is not required, the class lectures will often be your primary source of information necessary to complete your homework assignments.

- Classes will be recorded for the convenience of those who must miss class for a legitimate reason, and so you can rewatch demos done in class. However, remember they are no substitute for attending the live lectures, since you cannot see anything written on the whiteboard, and you often cannot hear discussion that takes place in the classroom. Recordings will be automatically posted on the Lectures Online tab in Canvas.

- Cell phones **must** be silenced and put away for the entire lecture unless use is approved by the instructor. You may not make or receive calls on your cell phone, or send or receive text messages during lectures.

- You are responsible for all material posted to the website and sent as email. Ignorance of such material is no excuse. You are responsible for all material presented in the lectures. Note that lectures are likely to include some material that is not available elsewhere (such as in the textbook).

- Religious Holy Days: by UT Austin policy, you **must** notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, I will give you an opportunity to complete the missed work within a reasonable time after the absence.

- Your conduct in class should be conducive towards a positive learning environment for your class mates as well as yourself.

Grading Procedures:

Your performance in this class will be evaluated using your scores for 15 homework assignments and three exams. All assignments will be graded by the TA, and the scores will be entered on Canvas. Check your scores regularly on Canvas to make sure that we have entered them correctly. If you wish to dispute a grade, you have one week from the date the grade is posted to do so. Send your TA an e-mail and see if you can resolve your differences. If you cannot resolve your differences, you may send me an e-mail explaining the situation. ***We will not entertain any grade disputes after one week.***

Do not assume that the "Total" column in Canvas accurately reflects your grade in the course. Instead, you should reference the following table:

Component	Weight

Homework assignments:
    15 homework assignments:
        drop the lowest,
        average the rest
	40%

Exams: three exams, 20% each	60%
Total	100%

Due dates for each of the items in the above table will be posted on the course website.

Homework:

There will be homework assignments (sometimes more than one a week) that you can complete on your own computer or in a CS lab on campus. The only way to learn web development is to program. Doing the programming assignments is crucial to performing well in class.

Assignments start out easy, but get harder over the semester. If you find you have considerable difficulty with HW2 or HW3, please get help from the instructor or a TA immediately. The assignments will require a substantial time commitment over several days: an average of 10 to 15 hours per week is not unusual. Be sure to start early, and budget sufficient time to complete assignments before the deadline. Procrastination is a sure way to fail this course.

We will automatically drop the lowest of your 15 homework assignments, so the average of your 14 best scores is worth 40% of your final grade. However, there will be at least one assignment that you are NOT permitted to drop. It will be clearly stated in the assignment if it is one of these.

Exams are open-book, open-notes, so your completed homework assignments will be valuable to you as templates from which you can build solutions to the exam problems. Be sure to save copies of all of your homework assignments.   It will also be useful in cases where your program gets lost or corrupted, and the timestamp on the file can be used to prove you completed the assignment on time.

If an assignment tells you to use specific names for your files, make sure you use them. You must also ensure that you turn in the assignment to the correct place, often a specific directory in your namespace on the CS servers. Assignments which do not conform to these requirements will receive a 5% penalty.

Slip Days for Homework:

We do not give extensions on homework assignments. Instead, we use a "slip day" system to manage late homework. Slip days are intended to help you manage emergencies, acute illnesses, conflicts with other classes, and other life circumstances outside of class. You can earn up to 10 slip days at the start of the semester by completing the syllabus quiz on time and answering the questions correctly. DO NOT waste them.

Each slip day enables you to turn in your assignment up to 24 hours late. You may use a maximum of 2 slip days on any given assignment. Slip days cannot be broken into smaller pieces; you either use a slip day for a 24-hour extension, or you don't.

The 24-hour clock includes weekends and vacation days. For example, if an assignment is due at 11:59 pm Friday night, you can use one slip day to extend the deadline to 11:59 pm Saturday, and a second slip day to extend it to 11:59 pm Sunday night. If you do not turn it in by then, you will receive a zero for the assignment.

Once you use up your slip days for the semester, late programming assignments will not be accepted for any reason; in other words, all late assignments will receive a score of zero.

You cannot use slip days to extend a deadline past the last day of classes.

We will automatically apply slip days to late assignments unless you tell us otherwise. It is your responsibility to know how many slip days you have remaining.

Exams:

There will be three open-book, open-notes exams that you take at home. They will be scheduled for three hours on the specific evenings listed on the course website. There is no final exam for this course during finals week.

There are no make-up exams. There will be no exceptions to this rule. The exam dates are posted before the start of the semester, so plan accordingly.

Final Grades:

There is no curve in this course. A standard plus/minus system will be used to calculate final grades:

Percent	Letter Grade
94+	A
90 - 93.9	A-
87 - 89.9	B+
84 - 86.9	B
80 - 83.9	B-
77 - 79.9	C+
74 - 76.9	C
70 - 73.9	C-
60 - 69.9	D
0 - 59.9	F

Academic Integrity:

University of Texas Honor Code: the core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community. Each student in this course is expected to abide by this code. Any work submitted by a student in this course for academic credit will be the student's own work.

Study Groups

- You are encouraged to form study groups of 4-5 students to meet regularly (weekly is recommended) to discuss the course. Typically, you will review the lectures, do the reading, and attempt the homework independently before your weekly meeting with your study group. **Studying for exams together is permitted and encouraged.**

- While you are free to discuss the course material with your classmates and are encouraged to form study groups for the exams, collaboration on homework or programming assignments is **not** permitted. Helping a friend understand the intent of a homework or programming assignment specification is permitted.

- Students who work together too closely (e.g. design their solution together) should be aware that this is a form of cheating called collusion and is subject to academic penalties. Cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e-mail, an e-mail attachment file, a diskette, or a hard copy.

- If you are unsure about how to work together with your friend in a legal, helpful manner, do come and talk with us. Remember, it is always okay to "work together" with your professor or TA!

- You are responsible for turning in your own work on all assignments. **Unauthorized** collusion is not allowed and constitutes a violation of the university's policies on academic integrity.

- You are responsible for protecting your work from being copied by others. Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action.

- During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any

collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.

- **Do not post solutions to any problems on Ed Discussion**.

The homework, programs, and exams must be the work of students turning them in. University policy (see Dean of Students' policies on academic integrity) will be followed strictly. We will be running a sophisticated program on all submitted assignments to detect plagiarism. If we do detect any cases of academic dishonesty, we will assign a grade of F to all students involved and refer the cases to the Dean of Students.

Acts that exceed the bounds defined by the approved collaboration practices will be considered cheating. Such acts include:

- Copying solutions, code, or programs from someone else or giving someone else your solutions, code, or programs.
- Participation in a discussion group that develops a solution that everyone copies.
- Posting your code to homework problems on the Internet (including Ed Discussion and social media).
- Copying solutions from the Internet (including Ed Discussion, social media, or "cheater" sites such as Chegg or Course Hero). Note that this course is unique in that you are encouraged to take advantage of tutorials and sample code available on the internet, but only as templates, not solutions.
- Employing someone to write the solutions for you on homework assignment problems.

I urge everyone in the class to take appropriate measures for protecting your work. You should protect your files, homework solution sheets, etc. as deemed reasonable.

General University Notices and Policies

Use of E-mail for Official Correspondence to Students: All students should become familiar with the University's official e-mail student notification policy. It is the student's responsibility to keep the University informed as to changes in his or her e-mail address. Students are expected to check e-mail on a frequent and regular basis in order to stay current with University-related communications, recognizing that certain communications may be time-critical. It is recommended that e-mail be checked daily, but at a minimum, twice per week. The complete text of this policy and instructions for updating your e-mail address are available at **http://www.utexas.edu/its/help/utmail/1564** .

Documented Disability Statement: Any student with a documented disability who requires academic accommodations should contact Services for Students with Disabilities (SSD). Faculty are not required to provide accommodations without an official accommodation letter from SSD.

- Please notify me as quickly as possible if the material being presented in class is not accessible (e.g., instructional videos need captioning, course packets are not readable for proper alternative text conversion, etc.).
- Contact Services for Students with Disabilities at 471-6259 (voice) or 1-866-329-3986 (video phone) or reference SSD's website for more disability-related information: http://ddce.utexas.edu/disability.

Behavior Concerns Advice Line (BCAL): If you are worried about someone who is acting differently, you may use the Behavior Concerns Advice Line to discuss by phone your concerns about another individual's behavior. This service is provided through a partnership among the Office of the Dean of Students, the Counseling and Mental Health Center (CMHC), the Employee Assistance Program (EAP), and The University of Texas Police Department (UTPD). Call 512-232-5050 or visit http://www.utexas.edu/safety/bcal.

Q drop Policy: The State of Texas has enacted a law that limits the number of course drops for academic reasons to six (6). As stated in Senate Bill 1231:

> "Beginning with the fall 2007 academic term, an institution of higher education may not permit an undergraduate student a total of more than six dropped courses, including any course a transfer student has dropped at another institution of higher education, unless the student shows good cause for dropping more than that number."

Emergency Evacuation Policy: Occupants of buildings on the UT Austin campus are required to evacuate and assemble outside when a fire alarm is activated or an announcement is made. Please be aware of the following policies regarding evacuation:

- Familiarize yourself with all exit doors of the classroom and the building. Remember that the nearest exit door may not be the one you used when you entered the building.
- If you require assistance to evacuate, inform me in writing during the first week of class.
- In the event of an evacuation, follow my instructions or those of class instructors.

Do not re-enter a building unless you're given instructions by the Austin Fire Department, the UT Austin Police Department, or the Fire Prevention Services office.

Classroom Safety and COVID-19: When this class meets in-person, we will be in the classroom listed in the course schedule and at the top of this syllabus. When we meet virtually, the links will be available in the Zoom tab of Canvas.

- Adhere to university mask guidance.
- Vaccinations are widely available, free, and not billed to health insurance. The vaccine will help protect against the transmission of the virus to others and reduce serious symptoms in those who are vaccinated.
- Proactive Community Testing remains an important part of the university's efforts to protect our community. Tests are fast and free.
- Visit protect.utexas.edu for more information.