Course Syllabus

Jump to Today

EECS 493 -- User Interface Development -- Fall 2020

Your Instructional Staff

Instructors:

Mark ("Guz") Guzdial (<u>mjguz@umich.edu (mailto:mjguz@umich.edu)</u>)

Office hours: Tuesday 2-3 pm, https://umich.zoom.us/j/97310525044)

Mark ("Ack") Ackerman (ackerm@umich.edu)

Office hours: Thursday 6-7pm and by appointment

Location: https://umich.zoom.us/j/98371259756

GSI: Pei-Yao Hung (peiyaoh). Zoom link: https://umich.zoom.us/j/99990048476 (https://umich.zoom.us/j/99990048476)

IAs: Alexander Woo (wooalex), Kai Ren Cheng (ckairen), Darren Young (realdy), Jessica Wu (kpwuxige), Eliza Ho (elizadh), Mabel Chan (mabelcha), Sahil Patel (sletap)

Staff Email: eecs493-fall20-staff@umich.edu (mailto:eecs493-f20-staff@umich.edu)

Class Meeting Times:

Tuesdays and Thursdays 3-4:30 and 4:30-6.

Each synchronous class will be 20-45 minutes **within the normal class time**. Recordings will be available afterwards, and activities will be available for 24 hours after the class time. You may attend either class time.

Before the synchronous class, you will be expected to watch video(s) comprising up to an hour of material. The total for the entire class (sync and videos) will be 80 minutes.

The beginning time for each synchronous class will be announced in class the previous class day and in

See the **Lectures page** for more information.

Discussion Sections:

TBD

See the **Discussion page** for more information

Learning Objectives

Summary: For students to gain practical experience with the design, implementation, and testing of user interfaces. This course will present design methods, UI abstractions, and practical examples of tools and languages commonly used in UI development. *The course and project will be focused on web development for UI creation*. Significant experience with object-oriented programming is assumed, and experience with web technologies is beneficial. The course will cover core concepts and methods in web programming.

Tentative Schedule

The schedule will likely be in flux more than usual this semester. Please check back weekly for changes. We will post announcements for modifications. Clarifications will be provided in response to questions in Piazza. Recordings are on Past Lectures page

| Week | Monday | Tuesday | Wednesday | Thursday | Friday | Quizzes |
|------|--------|---|-----------|--|----------|---------|
| 1 | | 9/1 Intro and Overview of HCI. | | 9/3 UI Design and Considerations | | |
| 2 | | 9/8 UI Concepts, Widgets, Containers. | | 9/10 Web Architecture, Programming Languages and HTML. | | |
| 3 | | 9/15 Hierarchies, Inheritance, and Layout Management. | | 9/17 CSS and Layout in Action. | | Quiz 1 |
| 1 | | 9/22 Interactivity and | _ | 0/24 JavaScript basics | <u> </u> | Oui- 2 |

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| 4 | Events | ฮ/24 Javaอนามุเ มลธเตร | Quiz z |
| 5 | 9/29 JavaScript objects, selectors, and events | 10/1 jQuery, listeners, asynch, AJAX | Quiz 3 |
| 6 | 10/6 Catchup - No Pre, just Synch | 10/8 Boostrap | Quiz 4 |
| 7 | 10/13 Design for Social | 10/15 Design for Social and Beyond; Guest lectures | |
| 8 | 10/20/2020 MIDTERM EXAM | 10/22 MVC: Libraries and frameworks ; React, Angular, Vue; Introduction to Vue | |
| 9 | 10/27: Our MVC Frameworks: vue.js cont'd | 10/29 Into the UI: Windowing Systems, Graphics, Event Architectures | Quiz 5 |
| 10 | 11/3 Design Methods: UX1 (no sync class - go vote) | 11/5 Required activity: Present Team Storyboards. | Quiz 6 |
| 11 | 11/10 Prototyping: UX2. | 11/12 Evaluation Methods: | |

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| | | | | UAS | | |
| 12 | | 11/17 UI Accessibility | | 11/19/2020 Visions of the Future of HCI | | Quiz 7 |
| 13 | NOBODY ON CAMPUS FROM HERE ON OUT | 12/1 Work on Project | | 12/3 Work on Project | l | Compreh Quiz (Qu |
| 14 | | | | | | |
| 15 | | 12/8 Final Project Deliverables due 11:59pm | 12/9 Final Presentation comments due 11:59pm | | | |
| | | | | Final Exam time TBD | | |

Quiz Policy

Most quizzes will focus on the materials in the last two weeks. The final quiz is comprehensive, as a review in preparation for the final exam. The lowest quiz grade will be dropped. If you took all the quizzes, take the comprehensive quiz as a review and don't worry about the score. If you missed a quiz, use the comprehensive quiz as your makeup.

Quizzes will be available after classes on Thursday nights at 8 pm and due by Sunday at 11:59 pm. Plan to take 20-40 minutes.

Quiz Discussion Policy: Students are not to discuss the quiz *with anyone* during the time when the quiz is available, for now, 8 pm Thursday through 11:59pm Sunday. This includes clarification questions in Discussion, and certainly not discussing answers or reasoning in Piazza.

We **encourage** discussion about the quiz after it is finished -- that's a great opportunity to learn. While we review the quizzes before posting, we do make mistakes. If we have made a mistake in a question,

we can and will correct the grading. But discussing questions should wait until after the quiz period.

Discussion Sections, Study Groups, and Problem Sets

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Projects

The scale the projects will be what 4 people working for a month can accomplish. See **Exemplary Project Videos from Winter 2020 EECS 493** for some past projects that got As.

You will choose your own team members. You will choose your own projects, but they will be based in a small set of themes (eg, winter in Ann Arbor) that we pick.

We will have a forum for matchmaking teams, if you don't know people in the class already. The forum will also serve to find team members if you have a project idea you'd like to do (eg, a game to shoot the snow monsters).

The projects will consist of:

- Phase 0: team roster and project description (due 10/29)
- Phase 1: storyboards (due 11/5) and feedback (due 11/8)
- Phase 2: prototype (code due 11/19*), team reports (due 11/19)
- Phase 3: evaluation (final report due 12/8)
- Phase 4: video presentation (due 12/6) and feedback (due 12/9), final code (due 12/8), team reports (due 12/8)

Readings

No textbook is required for this class, though some readings will be assigned for each major section. These will help you get a better sense of the space, and understand more deeply some of the concepts from class.

Grading

- 5% Lecture Participation:
 - If you participate in 50% of pre-lecture quizzes and synch questions (within 24 hours of synchronous class time) is 5 points, 40% is 4 points, 30% is 3 points. No credit < 30%.
- 2% Discussion Participation.
 - If you participate in 50% of Discussion check-ins is 2 points, 30% is 1 point.
- 25% Quizzes (7 will count, all in Canvas -- there will be 8 quizzes and we drop the lowest. The last quiz is comprehensive and will be a review for the final exam)
- 15% Midterm Exam
- 15% Individual Homework (anticipate 3)
- 20% Team Project
 - Four phases: Storyboard (5% of total grade), prototype(5%), evaluation (5%), final deliverable and presentation (5%)
- 18% Final Exam

course. This avoids an interesting pathology in the grading scheme. This requirement can be waived with a note from the disability office.

Outside-of-Class Support

- For discussion forums (Piazza), only expect prompt replies between 10am and 6pm IAs/GSIs
 have lives too, so please leave yourself time to get help if it's needed.
- If you have a question not appropriate for the discussion forums, please email the entire teaching team: eecs493-f20-staff@umich.edu
- IMPORTANT: In rare cases, you may have a personal matter you need to discuss. In this case, you
 may email either Ack or Guz directly, but please use the email title prefix: "EECS493-Fall20: " or your
 email will most likely get lost (We receive hundreds of emails / messages per day, and cannot
 promise an immediate response to emails sent directly to me instead of to the teaching team, but I'll
 do my best.)
- OFFICE HOURS: see above (see also <u>Google calendar</u>
 (https://calendar.google.com/calendar/u/0?
 cid=Y191ZHQ0OGh1NzVzNGltcThpNGY5aTc2bmZhMEBncm91cC5jYWxlbmRhci5nb29nbGUuY29t)).

Exceptions

There are no exceptions except for medical reasons (with a note from your doctor) and for family emergencies. Recruiting and other similar activities are not grounds for exceptions, sorry (but companies will generally schedule around exams).

Late Policy

There is no leniency on late quizzes or exams. Quizzes turned in after the due time and date receive zero credit.

For programming assignments (individual) 1-3, you can turn it in after the due date up to 48 hours late for 10% off per day No assignments are accepted 49 hours or later after the deadline.

Regrading Policy

If you question your grade on a quiz or assignment or midterm, you can mail eecs493-f20-staff@umich.edu with:

- A screenshot of the problem you're challenging.
- What you believe the correct answer to be.

The problem will be reviewed by the grader of that problem or quiz first. If you are dissatisfied with the response, you can mail back to eecs493-f20-staff@umich.edu, indicating that you are challenging the

You may request a regrade only within one week after the grade is posted in Canvas. For the final exam, you can get your final exam and request a regrade at the start of the next semester.

Plagiarism and Cheating

We want you to get all the help you need to complete the individual assignments, including working with other students. You are going to learn the most by writing your own code, and making sure that you understand any code that you work on with others. We may use automatic plagiarism detection software, comparing your code to others in the class, past terms, and examples we can find on-line. If it indicates that you might have copied code from someone else, we will contact you so that we can all understand what went wrong. We'll work with you to get you back on track.

Please do not work with others on quizzes or exams. There's plenty of ways to get help in this course, so let's find a legitimate way to get you the knowledge + grade you want.

Honor Code [Official]

All students (including LS&A and Engineering) are required to observe the Engineering Honor Code in all assignments and exams. A copy of the honor code can be found at http://ossa.engin.umich.edu/honor-council/. (http://ossa.engin.umich.edu/honor-council/). Please make sure that you clearly understand what constitutes cheating. If you are not sure in any specific case, you should ask the teaching staff. The University takes honor code violations seriously, and penalties can be severe. You are not allowed to share your code with anyone other than your partner. You are not allowed to make use of project or homework solutions by others, including solutions from previous semesters.

Do not post code on piazza or any other discussion forum. Make sure that you do not upload your code on github public repositories or anywhere else on the Internet, as this also constitutes violation of the honor code.

Any suspected violations of the honor code will be reported.

Disabilities and Conflicts

Students with disabilities that are documented with the Services for Students with Disabilities (<u>SSWD</u> (http://www.umich.edu/%7Esswd) Office should contact the professor during the first three weeks of class to make appropriate arrangements.

Course Summary: