

CS 6314 - Web Programming Languages

INSTRUCTOR:

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Virtual office hours: MS Teams MW, 10am – 11am, 1pm-2pm

and by appointment

All timings are listed according to Central Standard Time (CST).

TA contact information and office hours will be posted on eLearning once a TA is assigned to the course.

Course Description

Web Programming Languages course provides a detailed presentation and understanding of web architecture, standards, protocols, tools, and technologies. The course introduces students to basic tools required for web programming including HTML/HTML5, CSS, and JavaScript. It will familiarize students with AJAX, XML, JSON as well as database technologies, and server-side programming. There will be an introduction to full stack web development via Node.js and MongoDB. The course will also cover advanced web programming architecture, web security protocols & standards, techniques and algorithms related to web services, cloud computing and semantic web.

Prerequisite

CS 5343: Algorithm Analysis and Data Structures.

Textbook and Materials

<u>Fundamentals of Web Development, 3rd Edition</u> (Recommended Textbook) Randy Connolly, Ricardo Hoar

All other course materials/resources will be provided online.

	Online: January 18 - February 4
Instructional Mode	Face-to-face: February 7 - May 5
Class meetings	Class meetings: Tuesday and Thursday, 1pm-2:15pm.
	Class meetings will be held online through MS Teams until Feb 7 ^{th.} and all students are required to join the class session synchronously (during scheduled day and time).
	Once returned to face-to-face teaching modality, all students will be required to attend classes in person.
	In case you cannot attend the class, you need to notify me before class time. As there will be live quizzes, makeup quizzes will only be given in case of prior notification and legitimate reasons.
Pedagogy and Structure	Active Learning: You will need to get prepared for the class for best learning experience.
	<u>Friday:</u> For the technology we'll learn upcoming week, corresponding power point presentation will be posted. You will be responsible for reading and studying slides before class meeting on Tuesday.
	<u>Tuesday:</u> We'll cover most important points from lecture slides, have a Q&A and quiz. For all practical subjects, there will be also a hands-on part.
	Thursday: You will be given a small lab assignment. They are called practice works. These are small assignments that you can finish during class meeting on Thursday. For students who are new to web technologies and to give consideration to difficulties introduced by COVID, due date for practice works will be end of the day (11:59pm) Sunday .
	In addition to practice works, you will complete a final project (group project) with four deliverables.
Course Platform	All course materials including announcements, lecture notes/slides, practice works, assignments will be posted on eLearning.
	You will turn in your assignments/project through eLearning portal. No email submissions will be accepted.
	Office hours will be held virtually on MS Teams. Meeting links for office hour and class meetings will be posted on eLearning.

Topics

Introduction to Web Development
How the Web Works
HTML, CSS
Javascript, Modern Javascript
Asynchronous Javascript
Introduction to React
RESTful Web Services
Server Side Development with Node.js
Working with Databases
Managing State
Web Security

Evaluation:

Your final grade for the course will be based on following percentages:

Quizzes 10% (10 quizzes)

Exam-1 20% Exam-2 20%

Practice Works 20% (6 practice works) Final Project 30% (group project)

Letter grades will be assigned according to following scale:

A: 93-100 A-: 90-92 B+: 85-89 B: 80-84 B-: 75-79 C+: 70-74 C: below 70

Exams

All exams will be held at the Testing Center. Please register for ALL your exams via this link: https://ets.utdallas.edu/testing-center.

"Student Guidelines" for Testing Center: https://ets.utdallas.edu/testing-center/students/

Exam dates: (tentative)

Exam-1: March 10, 1pm Exam-2: April 28, 1pm

Course Policies

- Practice works/assignments should be turned in no later than the deadline announced by the instructor. Turn in what is completed by the deadline for partial credit. No late submissions will be accepted.
- Any indication of cheating and/or plagiarism on an exam, assignment or project will be an automatic 0 (zero) for all students who are involved. Solutions copied from the internet, instructor's manual, etc. will be also given zero credit.
- There will be no makeup exams unless there is a serious conflict that prevents you to take the exam during scheduled exam time and prior notification of such condition is required.
- If there are questions/doubts about grading, please contact <u>course TA</u> within one week of grade announcement.

Communication

The best way of communication with the Instructor and course TA is through email. Since class sizes are large, when you send an email, ensure to include the course number (i.e. CS 6314.001) and your NetID at the end of email message. Each student is responsible for the content/instructions of email communications. Student emails will be answered within 1-2 working days under normal circumstances.

Classroom Conduct Requirements Related to Public Health Measures

UT Dallas will follow the public health and safety guidelines put forth by the Centers for Disease Control and Prevention (CDC), the Texas Department of State Health Services (DSHS), and local public health agencies that are in effect at that time during the Spring 2022 semester to the extent allowed by state governance. Texas Governor Greg Abbott's Executive Order GA-38 prohibits us from mandating vaccines and face coverings for UT Dallas employees, students, and members of the public on campus. However, we strongly encourage all Comets to get vaccinated and wear face coverings as recommended by the CDC.

Verifying COVID-19 Isolations or Quarantines

Students need to self-report COVID-19 positive results or exposures via an <u>online form</u> so that university campus tracers can verify, record, and take necessary campus precautions. When faculty are notified by students rather than by the Dean of Students' Office that the students are isolating or quarantining, students will be reminded to self-report via online form and they will not be able to attend class until cleared by campus tracers.

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. You are encouraged to get a COVID-19 vaccine and register your vaccination status through the voluntary vaccine report form.

Proactive Community Testing remains an important part of the university's efforts to protect our community. Tests are fast and free. Please check the <u>Comets United</u> webpage for additional information.

Student Safety remains an important part of the UT Dallas' efforts to protect our community. All students will adhere to the Comet Commitment. Unvaccinated Comets will be expected to complete the mandatory Required Daily Health Screening. Those students who do not comply will be referred to the Office of Community Standards and Conduct for disciplinary action under the Student Code of Conduct – UTSP5003. All students are encouraged to read the Recommendations for Students Returning to Campus issued on August 2, 2021.

Visit <u>Comets United webpage</u> to obtain the latest information on the University's guidance and resources for campus health and safety.

Course Access and Navigation

This course can be accessed using your UT Dallas NetID account on the <u>eLearning</u> website. Please see the course access and navigation section of the <u>Getting Started with eLearning</u> webpage for more information. To become familiar with the eLearning tool, please see the <u>Student eLearning Tutorials</u> webpage.

UT Dallas provides eLearning technical support 24 hours a day, 7 days a week. The <u>eLearning Support Center</u> includes a toll-free telephone number for immediate assistance (1-866-588-3192), email request service, and an online chat service.

Class Recordings

Students are expected to follow appropriate University policies and maintain the security of passwords used to access recorded lectures. Unless the Office of Student AccessAbility has approved the student to record the instruction, students are expressly prohibited from recording any part of this course. Recordings may not be published, reproduced, or shared with those not in the class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Class Materials

The Instructor may provide class materials that will be made available to all students registered for this class as they are intended to supplement the classroom experience. These materials may be downloaded during the course, however, these materials are for registered students' use only. Classroom materials may not be reproduced or shared with those not in class, or uploaded to other online environments except to implement an approved Office of Student AccessAbility accommodation. Failure to comply with these University requirements is a violation of the Student Code of Conduct.

Disability Services

It is the policy and practice of The University of Texas at Dallas to make reasonable accommodations for students with properly documented disabilities. However, written notification from the Office of Student AccessAbility (OSA) is required. Students who have questions about receiving accommodations, or those who have, or think they may have, a disability (mobility, sensory, health, psychological, learning, etc.) are invited to contact the Office of Student AccessAbility for a confidential discussion. OSA is located in the Student Services Building, suite 3.200. They can be reached by phone at (972) 883-2098, or by email at studentaccess@utdallas.edu.

For University's policies and procedures including COVID-19 guidelines and resources, please see https://go.utdallas.edu/syllabus-policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Instructor.