CS 6314.001/002 – Web Programming Languages

INSTRUCTOR:
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Office: ECSS 3.405
Office hours: Tuesday 10am-12pm, Thursday 10am-11am

Course Description

Web Programming Languages course provides a detailed presentation and understanding of web architecture, standards, protocols, tools, and technologies. The course also introduces students to basic tools required for web programming including HTML/HTML5, CSS, and JavaScript. The course will familiarize students with AJAX, XML, JSON as well as database technologies, and server-side programming using PHP and Ruby on Rails. We will also deal with 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.

Optional Textbooks and Materials

1. Fundamentals of Web Development. Randy Connolly and Ricardo Hoar. ISBN-978-0133407150.

2. Learning PHP, MySQL & JavaScript, 4th Edition. Robin Nixon. © 2014 O'Reilly Media, Inc. ISBN-13: 978-1-4919-1866-1. (Available online at UTD Library, Safari Online Books)

3. HTML & CSS: The Good Parts. Ben Henick. © 2010 O'Reilly Media, Inc. ISBN-13: 978-0-596-15760-9. (Available online at UTD Library, Safari Online Books)

4. Beginning JavaScript, 4th Edition Author: Paul Wilton and Jeremy McPeak. Wrox. ISBN 978-0-470-52593-7. (Available online at UTD Library, Safari Online Books)

5. The Ruby on Rails Tutorial, Learn Web Development with Rails. Michael Hartl. https://www.railstutorial.org/book

All required materials are provided on the course eLearning page.

Topics

Introduction to web architecture, standards, protocols, tools, and technologies
HTML, HTML5 and CSS
JavaScript, JQuery
AJAX, XML Technologies, JSON
Database Technologies and SQL
Server-side programming with PHP
Full stack web development with Ruby on Rails
Introduction to Service Oriented Architecture (SOA) and Web Services
SOAP Web Services
RESTful Web Services
Web Security
Cloud Computing
Semantic Web

Evaluation:

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

Exam-1	20%
Exam-2	20%
Quizzes	10%
Practice Work	10% (5-6 practice sessions)
Assignments	20% (5 homework)
Final Project	20% (group project)

Letter grades will be assigned according to the following scale:

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

Communication

The best way of communication with the Instructor and course TA's is through email. Since classes are over crowded, when you send an email, make sure you include your course number, section number, net-id and full name at the end of email message. Each student is responsible for the content/instructions of email communications.

Announcements, assignments and projects will be posted on eLearning system. Students will turn in their assignments/projects through eLearning portal.

Course Policies

- 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.
- You should do your own work on exams/projects and for assignments. Copying another student's work is not acceptable. Any indication of cheating and/or plagiarism on an exam/assignment/project will be an automatic 0 (zero) for the exam/assignment/project for all students involved. Solutions copied from the internet, instructor's manual, etc. will be also given zero credit.
- Regular class attendance and participation is expected and is the responsibility of each individual. **The department policy for attendance is: three consecutive absences result in one letter grade drop and four consecutive absences result in an F.**
- If a student should elect not to attend a class, (s)he is responsible for any announcements and contents of missed lectures.
- Cell phone use is not allowed during the lectures. This is due to two important reasons: 1. It potentially causes distraction and this affects the overall quality of the lecture. 2. Research shows student performance is adversely affected by digital device use and those students who are engaged in cell phone/laptop use receive lower final grades as compared to their peers who do not use any electronic device and take paper and pen notes.
- Once you come to class, it is not appropriate to leave the class early for any reason. If you know you have to leave early for an unavoidable and important reason, make sure you sit close to the door and leave the classroom without distracting others while leaving. For the same reason, you also make sure you come to class on time.
- There will be no makeup exams unless there is a serious conflict that prevents you to take the exam on scheduled date and time and prior notification of such a condition is required.
- If there are questions/doubts about grading, please see the grader or instructor within one week of grade announcement.

See also UTD's policies at http://go.utdallas.edu/syllabus-policies

This syllabus is subject to change at any time at the discretion of the Professor.