CS355 Web Technologies **Course Syllabus** **Spring 2024**

Instructor: Dr. Ismail Hababeh
Kholoud Nairoukh
Department of Computer Science
School of Electrical Engineering and Information Technology
German Jordanian University
Email: Ismail.Hababeh@gju.edu.jo
Office: M319.
M106.

All relevant course information as well as all slides and other material will be published on the (http://elearning.gju.edu.jo).

Course Objectives

The main objectives of this course:

- Understanding of contemporary web design
- Recognize, learn and implement best practices used by web designers
- Write a standard HTML document involving a different element types, including hyperlinks, images, lists, tables, and forms
- Use CSS to implement a variety of presentation effects in HTML documents, including explicit positioning of elements
- Create websites with HTML/CSS
- Write a client-side function that uses a regular expression to validate form entry.
- Develop event-driven programs that use HTML intrinsic event attributes, DOM event listeners, and DOM-generated events.
- Describe how a web server responds to an HTTP request for a dynamic resource
- Explain parameter passing from client to server, including the generation of query strings from forms and server-side processing
- Describe sessions conceptually and explain how the concept can be implemented using cookies and URL rewriting
- Explain common security threats such as cross-site scripting and misformed HTTP requests and demonstrate avoidance techniques for each
- Develop a web application that employs the MVC architecture

Course Description

The course covers the theoretical and practical aspects of web technologies. The main topics of the course include:

- Introduction to Internet
- Concepts of HTTP, URI, Web browsers, Web servers, HTML, CSS
- Cascading Style Sheets CSS
- Introduction to Java Script
- JSP Application Design
- Introduction to Servlets
- JDBC (Java Database Connectivity)
- Cookies and Sessions
- PHP
- Document Object Model (DOM) API

The main software tools that are used to develop web applications include Apache Tomcat NetBeans, PHP, HTML, CSS, , and Java.

Prerequisites:

CS117 Object Oriented Programming
CS263 Database Management Systems

Textbook:

- "Learning Web Design, Fourth Edition" Robbins, Jennifer Niederst, 2021.
- “Programming the world wide web” Sebesta, Robert W., 2002.
- Larry Ullman’s books from the Visual Quickpro series
- PHP & MySQL for Dummies
- Beginning PHP 5 and MySQL: From Novice to Professional by W. Jason Gilmore.
- Internet and World Wide Web: How To Program 5th Edition
  by Paul Deitel (Author), Harvey Deitel (Author), Abbey Deitel.
- Head First Servlets and JSP, 2nd Edition, by Kathy Sierra, Bryan Basham, Bert Bates, Released March 2008, Publisher(s): O'Reilly Media, Inc. ISBN: 9780596516680

Course Evaluation:

Grading Component	Points
Midterm	30%
Assignments	15%
Project	15%
Final	40%

Course Project:

There is a course project that accounts for 15 points. The student will work individually to complete the project. Each student will be asked to develop a web page that mimics a real-life, large-scale application. The student should present his/her project at the end of the course.

Collaboration Policy

Discussing and exchanging ideas is encouraged. You may help each other with general techniques, although specific solutions to homework assignments should be developed individually. However, except if specifically allowed by the instructor, copying from any outside sources (e.g., fellow students, Internet, etc.) on any material to be graded is not permitted, and will be considered cheating.

Assignments Due Dates

All assignments must be turned in the class MS-Teams on the due dates for full credit. No assignments will be accepted after the due date.