

University of Arkansas – Fort Smith
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General Syllabus

CSCE 20303 Web Systems

Credit Hours: 3

Lecture Hours: 3

Laboratory Hours: 0

Prerequisites: CSCE 10204 Foundations of Programming II

Effective: 2020-2021

I. Course Information

A. Catalog Description

Provides the knowledge to create web applications and the technologies used to create and deliver them. Web page authoring and design using HTML and CSS, information architecture, web servers, web standards, and server-side programming with scripting language.

II. Student Learning Outcomes

A. Subject Matter

Upon successful completion of the program, students will:

1. Design and implement web applications using client-side and server-side scripting languages.
2. Implement the communication process between a web client and a web server using the HTTP protocol.
3. Create mobile web sites with a fluid design.
4. Make informed judgments in computing practice based on legal and ethical principles.
5. Apply security issues related to web sites, databases and applications.

B. University Learning Outcomes (ULO)

This course enhances student abilities in the following areas:

Analytical Skills

Critical Thinking Skills

Students will identify problems/issues and develop solutions/analysis. Students will research, evaluate, and compare information from varying sources in order to evaluate authority, accuracy, regency, and bias relevant to the problems/issues. Students will generate solutions/analysis of problems/issues evaluated. Student will assess and justify the solutions and/or analysis.

Global & Cultural Perspectives

Students will reflect upon cultural differences and their implications for interacting with people from cultures other than their own. Students will demonstrate understanding or application of their discipline in a global environment. Students will demonstrate how their discipline impacts or is impacted by different cultures.

III. Major Course Topics

- A.** Web technologies
- B.** All the different client-side and server-side technologies
- C.** Different frameworks and APIs
- D.** Information architecture
- E.** Web navigation
- F.** Information access types
- G.** Digital media
- H.** Data that is delivered via web
- I.** Devices that deliver web content
- J.** Web development
- K.** Web Services
- L.** Front-end and Back-end Development
- M.** Liquid Design
- N.** Scripting techniques
- O.** Scripting Languages – client and server
- P.** Vulnerabilities and security – basic risks or weaknesses within Web Development