COP 4854 Cutting-Edge Web Technologies

Credits: 3 credits

Textbook, Title, Author, and Year: None

Reference Materials: N/A

Specific Course Information
Catalog Description: To develop hands-on knowledge of the latest web development tools, languages and models. Students will develop projects consisting of innovative Web-based solutions. Topics include: characteristics and foundations of Rich Internet Applications (RIAs), server-side technologies and languages, client-side technologies and languages, usability and human factors, and content sharing tools and technologies.

Prerequisites: *COP 3530 and COP 3813 (strictly enforced).*

Specific Goals for the Course:
Upon successful completion of this course, students will be able to:

- The student will be able to describe the essential components of Internet-based applications. (a, e, k)
- The student will be able to create interactive Web pages and Web-based applications using programming tools. (a, e, k)
- The student will be able to demonstrate a solid conceptual understanding of the main standards and technologies associated with contemporary Web applications. (a, e, k)
- The student will learn be able to acquire hands-on experience by developing web-based projects using some of the latest tools, languages, techniques, and best practices. (a, b, e, h, k)
- The student will be able to effectively communicate in writing project reports. (g)

Brief List of Topics to be Covered:
1. Identify the key components, design principles, and technologies behind successful contemporary web-based applications.
2. Design web-based applications using the latest tools, technologies, languages, frameworks, and best practices.
3. Demonstrate a solid conceptual understanding of the main standards and technologies associated with contemporary web-based applications.
4. Contrast and compare modern languages, frameworks, and tools used to build web-based solutions.
5. Design mobile applications using contemporary tools and frameworks.