

Course Outline

1. Document Information

Degree Program	Computer Science
Course Number	CS 221
Course Title	Introduction to Internet and Mobile Computing
Semester Hours	4
Course Coordinator	S M Nahian AI Sunny
Revision Term	Fall 2024
Latest Revision	Fall 2024

2. Catalog Description

As a preparation course for students to prepare for higher level core curricula, this course provides a comprehensive introduction to a broad range of fundamental computer system concepts and principles. Coverage includes fundamentals of network, internet, and world-wide-web; client-side web application development; core Linux/Unix systems concepts and tools used for server-side applications; and Android App development.

3. Textbooks

- None, all instructional material is available online.

4. References

5. Course Learning Outcomes

- Providing students with an introduction to web application development using HTML/CSS/JavaScript and Linux as a major server-side operating system.
- Introducing students to mobile device application development.
- Improving students' familiarity with the practical elements of software development, which should improve their programming skills for all higher level courses and their future careers.

6. Assessment of the Contribution to Student Outcomes

Outcome	1	2	3	4	5	6
Assessed	X	X				X

7. Prerequisites by Topic

CS 202 with grade of C or better.

8. Major Topics Covered in the Course

1. Introduction to internet computing
 - How the web works
 - Client-server architecture
2. Introduction to web development
 - HTML – Basic elements, tables, forms, multimedia etc.
 - CSS – Styling formats, selectors, classes, common properties
 - JavaScript – variables, functions, accessing and manipulating HTML/CSS elements
3. Introduction to the Linux/Unix environment
 - Software installation and management
 - Linux command line and frequently used commands
 - Basic shell scripting
 - Editors: Emacs, Vi, etc.
4. Android Application Development
 - Android platform architecture and Software Development Kit (SDK)
 - Using GUIs and custom views
 - Integrating content provider connections
 - Understand bound and unbound services
 - Notification, alarms, and camera services
 - Accessing and managing Internet resources and web services