

NET 260 Internet Dev & Support

COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

In this comprehensive capstone course, students will delve into the intricacies of managing and deploying web infrastructures, with a focus on the lifecycle of Internet domain names, on-premise web server and database management, and the migration of services between on-premise and cloud environments, specifically Microsoft Azure. This class is designed to provide hands-on experience and a deep understanding of the technical and administrative aspects of web infrastructure.

Course Hours per Week: Class, 3. Semester Hours Credit, 3.

LEARNING OUTCOMES:

Upon completing requirements for this course, the student will be able to:

1. Gain comprehensive knowledge on selecting, purchasing, and managing internet domain names, including DNS configuration and registrar interactions.
2. Acquire the skills to set up, configure, and maintain on-premise web servers and databases.
3. Effectively deploy on-premise services to the internet, mastering network configurations, security protocols, and public accessibility strategies.
4. Develop proficiency in migrating on-premise services to Microsoft Azure, utilizing cloud tools and services for seamless transitions.
5. Master the process of safely returning services from Azure to an on-premise setup, ensuring data integrity and minimal disruption.

OUTLINE OF INSTRUCTION:

- I. Introduction to Internet standards and TCP/IP
- II. Public Accessibility: DNS, Domain Name Integration, IANA and address registrars
- III. Web servers – HTTP protocol and servers
- IV. Setting up a Web Server
- V. Maintaining Web Servers and Databases
- VI. Cloud Migration Strategies and Execution
- VII. Security standards
- VIII. Azure Management
- IX. Azure Metrics
- X. Reverse Migration Strategies
- XI. Ethics and Issues

REQUIRED TEXTBOOK AND MATERIAL:

The textbook and other instructional material will be determined by the instructor.