EDINBORO UNIVERSITY OF PENNSYLVANIA
Department of Mathematics and Computer Science

Web Server Administration

CSCI 325   3 Credit Hours

Catalog Description:
This course introduces students to the theory and practice of installing, configuring and maintaining network services required to support a web site. Students will install, configure, optimize and perform restorable system backups for various software services on multiple operating systems. Prerequisites CSCI 230 and CSCI 280

Course Outline:

  I. Planning and Implementing Large Projects
             A. Collecting Requirements
             B. Evaluating Needs
             C. Documentation
 II. Network Concepts
             A. Practical IP (Internet Protocol)
             B. Domain Name Services
             C. Networking Hardware
             D. Survey of Network Protocols
                    1. Hyper Text Transfer Protocol
                    2. Secure Shell
                    3. Telnet
III. Web Servers
             A. Survey of Existing Web Server Software
             B. Installation and Configuration
             C. Performance Tuning and Access Monitoring
             D. Backup and Recovery
             E. Extending and Adding Packages
 IV. Database Servers
             A. Survey of Existing Database Server Software
             B. Installation and Configuration
             C. Backup and Recovery
  V. Security
             A. Overview of Network Security
             B. Securing Web Servers
             C. Database Security

Course Objectives and Assessments

Objective	Assessment
1. Install, configure, deploy and maintain web (HTTP) servers.	A. Students will install, configure and deploy a web server. B. Students will install extension packages to a web server.
2. Install, configure, deploy and maintain database servers	A. Students will install, configure and deploy a database server. B. Students will add users and databases to a database server.
3. Maintain effective system backups.	A. Students will back up and restore configuration files and data associated with web and database servers.
4. Understand the basic theory of operation of web site related services.	A. Students will answer questions related to web site services. B. Students will answer questions related to the theory and operation of the internet.
5. Establish and maintain secure systems.	A. Students will describe best practices for maintaining secure servers. B. Students will install and configure secure systems and will maintain secure systems by installing security patches. C. Students will investigate security flaws by attempting to exploit such flaws in a closed classroom system lab.