
COURSE PREFIX/NO: IST 273
COURSE TITLE: Advanced Client/Server System
LEC HRS/WEEK: 3.0
LAB HRS/WEEK: 0.0
CREDIT HRS/SEMESTER: 3.0

[Distance Learning Attendance/VA Statement](#)
[Textbook Information](#)

COURSE DESCRIPTION

This course provides extensive practical experience with commercially available client/service development tools. The student will use visual development tools to create G.U.I. client applications and to compose statements for server access.

COURSE COMPETENCIES

Upon successful completion of this course, the student will be able to:

Module I: Networking Concepts and Resource Management

1. Describe the Windows networking architecture and use the Microsoft Management Console
2. Install new hardware on a computer running Windows, update the operating system, manage client access licenses, and troubleshoot boot problems
3. Work with basic and dynamic disks, implement disk quotas, and manage the compression and encryption of files and folders
4. Share drives, folders, and printers with network users, and control access to these shared resources by assigning share and NTFS permissions
5. Install and manage network printers

Module II: Monitoring and Managing Network Users and Security

1. Monitor server and network health and security using the Performance Console, Task Manager, and Event Viewer.
2. Plan and configure Windows auditing using Group Policy and Active Directory
3. Create and maintain user objects in Active Directory, and create user profiles
4. Create group objects in Active Directory to organize users and simplify the process of assigning access permissions
5. Control network users and workstations using group policies.
6. Publish shared folders and printers in Active Directory, redirect special folders, and use group policies to deploy software on the network
7. Create sites and subnets, and configure and troubleshoot intersite Active Directory replication
8. Manage Active Directory object and container permissions, locate and move Active Directory objects, delegate administrative control of organizational units (OUs), and troubleshoot Active Directory

Module III: Protocol Management and Design

1. Describe the TCP/IP protocol suite, install and configure a Microsoft TCP/IP client, and use TCP/IP utilities to test a network and troubleshoot communication problems
2. Explain how DHCP works, install and configure a DHCP server, and troubleshoot DHCP
3. Explain the Windows name resolution process, install a DNS server, configure a Windows DNS client, use static mappings and troubleshoot DNS
4. Describe the DNS process, install the Domain Name System (DNS) service, create zones, manage resource records, and manage SOA.

5. Create and administer Web sites and File Transfer Protocol (FTP) sites, create virtual directories, and manage site security; and troubleshoot IIS using Internet Information Services (IIS)
6. Configure and enable Windows Server Routing and Remote Access, configure a VPN server and a VPN client, configure Routing and Remote Access to use network address translation (NAT), enable Internet Connection Firewall (ICF), and install Terminal Services and the Terminal Services Licensing server using Windows remote access technology
7. Back up a network using backup hardware and software as well as the various backup types and strategies and backup and restore Active Directory data using the Windows backup program.

COURSE REQUIREMENTS

All students are responsible for attaining competencies through completion of the following course requirements:

- attending class
- reading assigned material
- completing assigned exercises
- completing lab assignments
- completing all tests

ATTENDANCE POLICY

The attendance policy as stated in the York Technical College Handbook will be enforced. Makeup tests will not be given for theory tests. If a student must miss a theory test, he/she will get a zero for that test. However, students have the option of taking the comprehensive final. The student's grade on the comprehensive final will replace his/her missed theory test grade. It is the student's responsibility to schedule a time for a makeup hands-on test with his/her instructor.

ACADEMIC INTEGRITY

The policies stated in the York Technical College Handbook will be enforced. Any student violating the policy will be subject to academic discipline.

METHOD OF INSTRUCTION

The instructor will discuss the principles introduced in each chapter and demonstrate the methods described there. The student will reinforce this lecture material by reading the textbook as assigned. During this course, the student will be given opportunities to practice on a computer the skills being learned by doing lab assignments. These lab assignments will be vital in learning to use sample software packages, and the student should expect to spend time outside the class period as well as time given during class to complete this work. The student will have an opportunity to review solutions in class. Should a student need additional assistance, instructors will be available during their posted office hours.

EVALUATION STRATEGIES/GRADING PROCEDURE

A minimum of three tests and five labs will be given covering the above competencies. These tests and the lab work determine the final semester grade as described below. No makeup tests will be given except for the hands-on component of the course. **If a student passes the current Microsoft Certification Exam after the course has begun and before the final exam is given, the student will exempt the final exam.** Passing the Microsoft Certification Exam does not exempt the student from completing all labs, written module exams, and hands-on exams. A minimum grade of C is required for all students in computer technology programs.

GRADING SCALE

Module I	Tests 60% Homework/Labs 40%	Percent of Final Grade 33%
Module II	Tests 60% Homework/Labs 40%	Percent of Final Grade 33%
Module III	Tests 60% Homework/Labs 40%	Percent of Final Grade 34%

LETTER GRADE

A	90 - 100
B	80 - 89
C	70 - 79
D	60 - 69
F	Below 60

ENTRY-LEVEL SKILLS

The student should be familiar with the Windows environment. The student must be able to read and comprehend assigned material.

PREREQUISITES: IST 251 or IST 252

CO-REQUISITES: N/A

DISABILITY STATEMENT: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Office (SRO) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.