BOROUGH OF MANHATTANCOMMUNITY COLLEGE
CityUniversity of New York

Department of Computer Information Systems
Office S150/Phone: 212-220-1476

Title of Course
Telecommunication Networks II **Class hours: 2**
CIS 445 **Lab hours: 3**
Credits: 3

Course Description

This course is a second course in telecommunications networks with special emphasis on Local Area Networks (LAN). It covers the fundamentals of LAN technology, such as wiring and topology as well as implementation and management of LANs. Advanced topics include LAN connectivity and future LAN directions.

Prerequisites : CSC 345 (Telecommunication Network I) or departmental approval

Basic skills-ENG 095; ESL 095; ACR 095; MAT 012/ 051;

Learning Outcomes and Assessment

After completing this course, students will be able to:

- **Outcome:** Explain different types of operating systems
  Assessment: Lab exercises, homework and exam questions
- **Outcome:** Install and implement Windows 7/8
  Assessment: Home work, short essays and exam questions
- **Outcome:** Configure and manage Windows 7/8
  Assessment: Lab exercises, homework and exam questions
- **Outcome:** Identify and configure physical and logical components of LAN
  Assessment: Lab exercises and homework
- **Outcome:** Configure and manage router, switch and PIX
  Assessment: Lab exercises, case study project and exam questions

General Education Outcomes and Assessment

- **Quantitative Skills –** Students will use quantitative skills and concepts and methods of mathematics to solve problems
  Assessment: Use formulas, graphs and concepts of mathematics to solve problems inassignments
- **Information and Technology Literacy –** Students will collect, evaluate and interpret information and effectively use information technologies
  Assessment: Use securityhardware and software to complete assignments and lab exercises

Required Text & Readings

1. MCTS Guide to Microsoft Windows 7 (Exam # 70-680)
(Networking (Course Technology)) [Paperback]
Byron Wright (Author), Leon Plesniarski (Author)
Publisher: Course Technology
ISBN-10: 1111309779
ISBN-13: 978-1111309770

2. MCTS Lab Manual for Wright/Plesniarski's

MCTS Guide to Microsoft Windows 7 (Exam # 70-680) [Paperback]
Byron Wright (Author), Leon Plesniarski (Author)
Publisher: Course Technology
ISBN-10: 1111309787
ISBN-13: 978-1111309787

Other Resources

Flash drives and CDs are needed for use during Lab.
Use of Technology (if applicable)

Evaluation & Requirements of Students

First Exam	25%
Midterm	25%
Final Exam	25%
Quiz/Homework	10%
Project	15%
Total	100%

Outline of Topics:

1. Microcomputer and Networking Basics
   - Hardware, Software and operating system concepts
   - Network components
   - LAN/MAN/WAN
   - Networking under Windows 7/8

2. Introduction to Windows 7/8
   - Comparison among Windows Vista, Windows 7 and Windows 8
   - The Windows 7/8 Environment
   - Windows 7/8 hardware requirements
   - Hardware resource settings
   - Features of Windows 7/8
   - Introduction to Windows 7/8 Active Directory
   - Windows 7/8 architecture

3. Installing Windows 7/8
   - Upgrading versus installing
   - Booting multiple operating systems
   - Planning the installation
   - Setup options

4. Using the Systems Utilities
   - Control panel overview
   - Microsoft management console
   - Administrative tools

5. Managing Windows 7/8 Files Systems and Data Storage
   - File storage basics
   - File systems
   - Disk management actions
   - Creating and managing shared folders
   - Managing NTFS permissions
   - Distributed file system

6. Users, Groups, Profiles and Policies

- Creating users and group accounts
- Managing users and group accounts
- Troubleshooting cached credentials

7. Windows 7/8 Security Features
   - Security polices
   - Encryption
   - Password management
   - Access control
   - Using security configuration manager tools
   - Auditing access to resources and analyzing security logs

8. Windows 7/8 Disaster Recovery and Protection
   - Planning for disaster recovery
   - Backup methods and scheduling
   - Automated system recovery
   - Advanced startup options
   - The recovery console

9. MonitoringWindows 7/8 Performance
   - Task manager
   - Event viewer
   - Performance console
   - Configuring and managing services
   - Optimizing performances for mobileWindows 7/8 users

10. Windows 7 Registry
    - Windows 7 registry overview
    - Windows 7 registry keys
    - Registry editors

11. TroubleshootingWindows 7/8
    - General principles of troubleshooting
    - Troubleshooting tools
    - Applying service packs and hot fixes
    - Microsoft troubleshooting references

12. Implementing and Managing routers, switches and PIX
    - Installing routers, switches and PIX
    - Configuring and managing routers, switches and PIX
    - Troubleshooting routers, switches and PIX

13. Virtualization and Clouding systems
    - Introduction to VDI
    - Introduction to clouding

College Attendance Policy:
At BMCC, the maximum number of absences is limited to one more hour than the number of hours a class meets in one week. For example, you may be enrolled in a three-hour class. In that class, you would be allowed 4 hours of absence (not 4 days). In the case of excessive absences, the instructor has the option to lower the grade or assign an F or WU grade.

Academic Adjustments for Students with Disabilities:
Students with disabilities who require reasonable accommodations or academic adjustments for this course must contact the Office of Services for Students with Disabilities. BMCC is committed to providing equal access to all programs and curricula to all students.

BMCC Policy on Plagiarism and Academic Integrity Statement:
Plagiarism is the presentation of someone else's ideas, words or artistic, scientific, or technical work as one's own creation. Using the idea or work of another is permissible only when the original author is identified. Paraphrasing and summarizing, as well as direct quotations, require citations to the original source. Plagiarism may be intentional or unintentional. Lack of dishonest intent does not necessarily absolve a student of responsibility for plagiarism.

Students who are unsure how and when to provide documentation are advised to consult with their instructors. The library has guides designed to help students to appropriately identify a cited work. The full policy can be found on BMCC's web side, www.bmcc.cuny.edu. For further information on integrity and behavior, please consult the college bulletin (also available online).