

**Bergen Community College
Division of Business, Math & Social Science**

**Information Technology
Course Syllabus**

Course Title: INF-160 – Networking Technologies and Data Communications

Credits/Hours: 3 credits/3 hours lecture

Course Description:

Networking Technologies and Data Communications offers a comprehensive coverage of networking and data transmission key terms, concepts, and development strategies. Topics include: the history of network development, network media, network protocols, network/data transmission theory (OSI layers and IEEE standards), network types, network design, client/server configuration, network administration, network remote access, wide area networks, and network troubleshooting. The course assists in preparing the student for the MCSE certification exams offered by Microsoft and the Foundations Level CIW certification. 3 lectures, 3 credits.

Textbooks and Supplies: See course outline

Student Learning Objectives	Assessment Measures
1. Identify the components of a network and determine the type of network design most appropriate for a given site.	Written exam Team projects
2. Identify the different media used in network communications, distinguish among them, and determine how to use them to connect servers and clients in a network.	Written exam Team projects
3. Differentiate among networking standards, protocols, and access methods and determine which is most appropriate for a given network.	Written exam Team projects
4. Recognize the primary network architectures, identify their major characteristics, and determine which is most appropriate for a proposed network.	Written exam
5. Identify the primary functions of network operating systems and distinguish among centralized computing environments, client/server environments and peer-to-peer environments.	Written exam Team projects
6. Determine how to implement and support the major networking components, including the server, operating system, and clients.	Written exam
7. Recognize how to secure data adequately on a given network and protect the system's components.	Written exam
8. Distinguish between LANs and wide-area networks (WANs) and identify the components used to expand a LAN into a WAN.	Written exam Team projects

College Competencies:	Student Learning Objective:
1. COMMUNICATION—Students will read, write, speak, and listen effectively.	1, 2, 3, 5, 8

2. CRITICAL THINKING—Students will actively reflect on, reason about, and form independent judgments on a variety of ideas and information, and use these skills to guide their beliefs and actions.	3, 4, 5, 6
3. CIVIC RESPONSIBILITY—Students will demonstrate an awareness of the responsibilities of intelligent citizenship in a diverse and pluralistic society, and will demonstrate cultural, global, and environmental awareness.	7
4. QUANTITATIVE REASONING—Students will correctly apply and reason about mathematical and formal concepts and operations, and will correctly interpret and analyze numerical data.	1
5. TECHNOLOGICAL AND INFORMATION LITERACY—Students will demonstrate computer literacy, and will be able to retrieve, organize, and analyze information using both technological and traditional means.	1-8
6. INTERPERSONAL SKILLS—Students will demonstrate an ability to maintain personal and professional relationships, engage in meaningful teamwork, and resolve conflicts.	1, 2, 3, 5, 8

Course Content: See course outline (available from instructor)

Assessment:

An average of 60% from combined assessment measures is required to demonstrate **minimal** proficiency in course material. If this course is part of your major course of study you should consider 70% minimal.

90% or above	A
85%	B+
80%	B
75%	C+
70%	C
60%	D
Less than 60%	F

Tests/Quizzes/Classwork:

Exam 1	20%
Exam 2	20%
Exam 3	20%
Quizzes	20%
Class work/homework	20%

There will be three exams given during the course. Each exam will be drawn from the new material presented in class. There will be short quizzes as chapters are completed. The quizzes are only given at the very beginning of a class and only students who are present when the quiz is distributed may participate.

Students are required to take examinations on the day and time they are scheduled. If special circumstances require a test schedule adjustment, this must be worked out in advance with the instructor. If a student misses an exam (except for prearranged circumstances with the instructor) a zero grade will be assigned.

The instructor can be reached by telephone (see course outline for appropriate phone number), e-mail, or written note left in the Divisional Office (during the day) A-30C or Adjunct Lounge C-107. If there are extreme circumstances (documentation may be required) that prevent a student from

taking a test according to the published schedule, use one of the above options to contact the instructor before the next class. An arrangement for a special testing schedule is solely at the discretion of the instructor. A student who waits for the next class session to speak with the instructor will not be accommodated with a special test schedule.

It is the student's responsibility to finish an examination correctly and completely. Therefore, when computer Scantron forms are used as answer sheets, the student must use a Number 2 lead pencil and erase all stray marks completely. The burden of proper erasure is at test taking time. Once the examinations are returned to the students, there will be no grade adjustments made due to inappropriate completion of the response form.

Lab projects:

A number of assignments will be done in class by working in small groups. In some cases this will be done to promote active discussion and involvement. In many cases students will write up the results of their small group discussion to be handed in.

Homework:

It is anticipated that students will spend 4-6 hours per week outside of class reading, studying, reviewing, and working with exercises and supplemental resources associated with this course. In addition to any homework assignment given during class, it is a **standing assignment** that the student read each chapter of the book prior to its discussion. Following the class discussion, the student should reread the material and work with the exercises throughout the text.

Policies:

- Lateness – The roll will be taken at the beginning of class. If the student is not in attendance at that time, he/she will be carried in the roll book as being absent unless the instructor is notified immediately after class. Attendance sheets cannot be adjusted at following class meetings.
- The student must adhere to all college policies. Due to the nature of this course, it is recommended that the student review the policy titled "*Acceptable Information Technology Use at Bergen Community College*".
- The use of portable electronic devices such as pagers and cell phones is not permitted while class is in session. Please be sure to silence electronic devices before entering class.
- The use of electronic devices to play music during class is prohibited.
- Students are expected to demonstrate listening, reading, note taking, and writing skills. The student will need to take notes during class discussions and understand and follow verbal and written directions. All assignments and correspondence with the instructor (including e-mail) must be well written in full sentence format. Proper paragraph format must be used for all postings to the student bulletin board (if applicable).
- The subject line of all e-mail correspondence to the instructor must contain the course number and section and student's name. Any e-mail received without this information will not be opened.
- Plagiarism in any form will be treated as a failure to complete an assignment. All work submitted should reflect individual effort by the student.
- In borderline cases that arise in almost every class each semester a student's attendance, class participation, attitude, and observed effort will be considered in helping to determine the student's final grade.

If the instructor does not appear after 20 minutes following the scheduled time, students should generate an attendance list. One volunteer member need deliver the list, containing the course title, date, and instructor's name, to Adjunct Lounge C-107or to the Divisional Office (during the day) A-304.