

**CENTER FOR APPLIED INFORMATION TECHNOLOGY
TOWSON UNIVERSITY**

AIT 620: Business Data Communications

Credit Hours: 3

Prerequisite: AIT 610

Course Contents: This course provides an overview of data communications, as an integral element of business. Core concepts such as analog and digital signals, are introduced. In addition, data communications characteristics and configurations are investigated; these topics include: protocols, Internet, communications media, data transmission, error management, transmission efficiency, modulation methods, multiplexing schemes, and networks – wired and wireless. The course will also discuss the network security and information assurance aspects of business data communications.

Learning Objectives:

1. Understand fundamental terminology and characteristics of data communications, including representative communication protocols
2. Know the characteristics of various communications signals and media; and identify advantages, disadvantages, and uses of each medium
3. Explain the most common means of achieving transmission efficiency, including the most common multiplexing and modulation techniques
4. Understand communication hardware and software well enough to perform the analysis and design of network and data communications applications
5. Evaluate, select, and implement data communication options within an organization

Suggested Textbook:

1. Stallings, W., *Business Data Communications*, Fourth Edition, Prentice Hall

Other References/Journals:

1. Peterson, L. L, Davie, B.S., *Computer Networks: A Systems Approach*, Third Edition, Morgan Kaufmann
2. Kurose, J.F., Ross, K.W., *Computer Networking, A top-down Approach Featuring Internet*, Third edition, Addison-Wesley