

Introduction to Communication Technology ETE 1010

(3 Credits)

Fall 2008

COURSE SYLLABUS

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Recommended Materials 3-ring notebook, USB Flash Drive

Class Schedule Lecture & Lab: M-W-F (8:30 a.m. - 10:20 a.m.)

Course Fee: \$20

Textbooks

Daley, B. (2008). *Computers Are Your Future 2008* (Introductory) 8/E. Upper Saddle River, NJ: Pearson Prentice Hall.
Web Site: http://wps.prenhall.com/bp_daley_ciyf_8

Resource Materials

ProBase Engineering Technology (2006). *Information and Communication Technology - Student and Instructor's Guides*. Reston, VA: International Technology Education Association (ITEA).

Orsak, G.C., Wood, S.L., Douglas, S.C., Munson, D.C., Treichler, J.R., Athale, R.A., & Yoder, M.A. (2004). *Engineering Our Digital Future* Upper Saddle River, NJ: Prentice Hall (ISBN: 0-13-184828-3)

Course Overview

Communication systems help people exchange information and ideas. These systems allow people to grow intellectually, express feelings, and better understand diverse cultures. This course explores the application of tools, materials, and energy in designing, producing, using, and assessing communication systems. Instructional strategies used in this course introduce students to the world of communication technology through a variety of presentations, discussions, and laboratory activities. Students will produce graphic and electronic media as they explore and apply communication technologies. Most activities are designed for small group work since communication takes place between two parties or machines.

Communication technology helps people exchange ideas and information, over short distances and across the globe. Individuals and entire nations can stay in contact with others due to powerful information systems. These same devices and technologies also provide hours of entertainment or recreation. This is a truly amazing age, dominated by digital gadgets and networks.

Naturally, our ability to communicate has changed dramatically over the centuries. Early human communication was based on crude gestures, writing on clay tablets, and cave paintings. As civilization grew, formal languages and illustration techniques were developed. Technical means such as the printing press, screening printing techniques, and eventually electronic media followed. The application of electricity and development of electronic media has opened the world to rapid information exchange. Today satellite links and the Internet spread messages around the world instantaneously.

Information technologies and systems can be described by using a simple model of the communication process that includes these elements:

- **Sender:** The human or mechanical source of an idea or information.
- **Encoder:** The device or technique used to format the information for communication.
- **Transmitter:** The device that moves the message from a sender to a receiver.
- **Channel:** The avenue that the transmitter uses to physically move a message (often referred to as the medium).
- **Receiver.** The device that captures a message at its destination.
- **Decoder:** The device or technique used to make the transmitted message understandable for the receiver.
- **Storage:** A device or technique used to hold a message for later use.
- **Retrieval:** The techniques used to extract (download, etc.) a coded message from storage

Course Objectives

At the completion of this course the student will be able to:

1. Describe the impact of communication systems and information technology on individuals and society.
2. Discuss major methods used to transmit and receive information.
3. Operate common equipment (e.g., digital camera, digital camcorder, etc.) used in audio and video production.
4. Be able to use a variety of application software associated with communication technology (e.g., word processing, photo enhancement and manipulation, etc.).
5. Describe basic operations of the computer and be able to identify its common components and peripherals.
6. Demonstrate how to use various hardware and software (e.g., the computer, a scanner, laser printer, etc.) associated with Desktop Publishing.
7. Describe basic principles and practices associated with computer networks.
8. Discuss the meanings of design and engineering design.
9. Use a variety of applications associated with the Internet.
10. Discuss future trends in the field of communication technology.

ITEA Standards Addressed in the Course

Standard #1: Students will develop and understanding of the characteristics and scope of technology

Standard #8: Students will develop and understanding of design.

Standard #9: Students will develop and understanding of engineering design.

Standard #17: Students will be able to develop an understanding of and be able to select and use information communication technologies.

Course Activities:

In this course, the student will be required to complete the following activities:

1. All assigned readings and participate in class discussions.
2. Student Activity Sheets
3. Student Web Activity Sheets
4. Audio and Video productions
5. Newsletter
6. Digital Photography
7. Multimedia Presentation
8. Develop a WebQuest
9. Complete selected proBase activities.
10. Complete two quizzes and a final exam.

Helpful Internet Reference Sites

- Graphics Comm Central: <http://teched.vt.edu/gcc>
- The International Society for Technology in Education (ISTE): <http://www.iste.org>
- The International Technology Education Association (ITEA): www.iteaconnect.org
- ASEE Engineering K12 Center: <http://www.engineeringk12.org/>
- *Communication Technology Update 9th Edition*:
<http://www.tfi.com/pubs/ctu/cturedev.html>
- *History of Technology Series by Dennis Karwatka*:
<http://www.techdirections.com/bookshistory.html>
- *2006-2007 Middle School Technology Activities, The Official TSA Competitive Events Guide*: <http://www.tsaweb.org>
- SkillsUSA Championships, Technical Standards 2005-2007: <http://www.skillsusa.org>

NOTE: MATERIALS TURNED IN LATE WILL RECEIVE A DEDUCTION OF 10% FROM THE TOTAL POINTS

NOTE: If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center, preferably during the first week of the course. Any requests for special considerations relating to attendance, pedagogy, taking of examinations, etc., must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative formats-- large print, audio diskette or Braille.

ETE 1010
COURSE OUTLINE
Fall Semester 2008

- Week 1:** Course Overview
August 25 ITEA Standard #17
Chapter 1: Computers & You
Spotlight: Ethics
Student Activity #1
Web Activity A
Complete proBase Preliminary Challenge: *Talking Through Times*
- Week 2:** **Labor Day Holiday Monday 9/01/08: No Class**
September 1 Chapter 2: The Internet and World Wide Web
Spotlight: E-Commerce
Student Activity #2
Web Activity B
- Week 3:** Chapter 3: Wired and Wireless Communication
September 8 Web Activity C
Spotlight: Home Networks
- Week 4:** Chapter 4: System Software
September 15 Introduction to Audio & Video Production
Student Activity #3
Web Activity D
Spotlight: File Management
- Week 5:** Audio and Video Production
September 22 Student Activity #4
- Week 6:** Audio and Video Production
September 29 ***Quiz #1: Chapters 1-4***
- Week 7:** Chapter 5: Application Software: Tools for Productivity
October 6 *Spotlight:* File Management
Student Activity #5
Web Activity E
Spotlight: Microsoft Office

- Week 8:** Chapter 6: Inside the System Unit
 October 13 Student Activity #6
 Web Activity F
Spotlight: Buying and Upgrading Your Computer System
FALL BREAK: No Class Friday October 17, 2008
Friday Classes Moved to Thursday October 16, 2008
- Week 9:** Chapter 7: Input/Output Storage
 October 20 Web Activity G
 proBase Learning Cycles
Spotlight: Multimedia Devices
- Week 10:** Chapter 8: Network: Communicating and Sharing Resources
 October 27 Student Activity #7
 proBase Learning Cycles
 Web Activity H
- Week 11:** proBase Learning Cycles Presentations
 November 3 Student Activity #8
- Week 12:** Chapter 9: Privacy, Crime, and Security
 November 10 proBase Learning Cycles Presentations
- Week 13:** proBase Learning Cycles Presentations
 November 17 *Quiz #2: Chapters 5-8*
- Week 14:** *Thanksgiving BREAK* (11/26- 11/28)
 November 24
- Week 15:** Complete Assigned Activities - No Test Week
 December 1 Last Week of Class: All Activities Due Friday 12/05/06
- FINAL EXAM: Wednesday, December 10, 2008 - 7:30 - 9:20 a.m.**

ETE 1010
COURSE EVALUATION
Fall 2008

<u>Course Activities</u>	<u>Points</u>
Activity #1 (25 pts)	_____
Activity #2 (25 pts)	_____
Activity #3 (25 pts)	_____
Activity #4 (25 pts)	_____
Activity #5 (25 pts)	_____
Activity #6 (25 pts)	_____
 <i>Web Activities (15 points each = 120 points)</i>	
A. _____ B. _____ C. _____ D. _____ E. _____ F. _____ G. _____ H. _____	
Webquest (30 pts.).....	_____
proBase Learning Cycle Presentation (30 pts.).....	_____
Quiz #1 - Chapters 1-4 (40 pts).....	_____
Quiz #2 - Chapters 5-8 (40 pts).....	_____
Final Exam (40 pts).....	_____
TOTAL (450)	_____

Grading Scale

419 - 450 A	405 - 418 A-
392 - 404 B+	374 - 391 B 360 - 373 B-
347 - 359 C+	329 - 346 C 315 - 328 C-
284 - 314 D+	270 - 283 D