

Computer systems and Networking

ETE 3050

Spring 2009
3 Credits

Course Syllabus

Instructor: Steve Williams
ETE grad students
IS Building, Room 006 (grad office downstairs)
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Class Schedule: Tuesday and Thursday 1:30 p.m. - 4:15 p.m.

Course Fee: \$15

Course Reference Materials:

Lowe, D. (2005). *Networking All-in-One Desk Reference For Dummies, 2nd Edition*. Hoboken, NJ: Wiley Publishing. ISBN: 0-7645-9939-9

Lowe, D. (2007). *Networking For Dummies, 8th Edition*. Hoboken, NJ: Wiley Publishing. ISBN: 978-0-470-05620-2

Mueller, S. (2008). *Upgrading and Repairing PCs (18th Edition)*. Indianapolis, IN: QUE

Daley, B. (2007). *Computers Are Your Future 2007 (introductory) ninth edition*. Upper Saddle River, NJ: Pearson Prentice Hall.

Home PC Builder (<http://www.homepcbuidler.com>)

Class Materials needed: 3-Ring Notebook, USB Flash Drive

Course Description:

This course is for majors in engineering and technology education to explore computer systems, software, and networking as primarily found in secondary school systems. In this class, you will have the opportunity to “spec out” and build a computer. You will learn about troubleshooting computers and also learn about the basics involved in networking computers. In addition, this course will cover advanced video applications and how to prepare and deliver information related to information and communication technologies.

Course Objectives:

At the completion of this course, you should be able to:

1. Identify and explain the function of various computer related components.
2. “Spec out” and build a Windows based computer system.
3. Network a “wired” and “wireless” computer network.
4. Troubleshoot common computer and network problems.
5. Plan, organize, shot and edit a HD “training video”
6. Develop a CAMTASIA studio computer training project.
7. Demonstrate how to use various hardware and software (e.g., camcorder, editing system, switcher, ect.) associated with audio and video systems.
8. Describe how to integrate multimedia into an engineering and technology education program.
9. Use the internet to enhance the teaching and learning environment by developing an internet related activity (e.g. Home Page, WebQuest, ect.)
10. Identify appropriate activities and experiences that can be used to teach students about information and communication technologies.
11. Discuss current trends in communication technology.
12. Discuss the major objectives of standard # 17 of the STL’s and ISTE technology standards.

Major course Requirements:

1. Attend class, participate in discussions, and complete assigned readings and student activities.
2. Spec out and build a computer.
3. Produce a HD training video.
4. Set-up various network configurations.
5. Complete a presentation that details a current communication technology (e.g. wireless broadband, RFID, SMART board, ect.)
6. Complete an Internet activity related to communication and information technology.
7. Develop a CAMTASIA Studio Project.
8. Complete one final exam.

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.

Class Schedule

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I reserve the right to revise and change the Class Schedule as needed.

Week #1: 1/6/09	Course introduction Standard #17 In-class worksheet and discussion
Week #2: 1/13/09	Introduction to computer Systems and Components Building Computers Hardware Software
Week #3: 1/20/09	Building a computer Introduction to CAMTASIA
Week #4: 1/27/09	Digital Video Applications Training video
Week #5: 2/3/09	Video Applications
Week #6: 2/10/09	Introduction to Networks Networking Basics
Week #7: 2/17/09	No Class (Follow Monday Schedule)
Week #8: 2/24/09	Building a Network
Week #9: 3/3/09	Wireless Networking Home Networking
Week #10: 3/10/09	No Class (Spring Break)
Week #11: 3/17/09	TCP/IP and the Internet
Week #12: 3/24/09	Internet application Presentation
Week #13: 3/31/09	Trouble shooting and Disaster Planning

Week #14: Administration and Security
4/7/09

Week #15: Video Presentations
4/14/09

Week #16: Last Week of School – No Test Week
4/21/09 All assignments must be completed by the end of class on Thursday.

Week #17: Final Exam
4/28/09 11:30 a.m. – 1:20 p.m.

Grades:

Grades will be based around 4 areas listed as follows:

Participation	25%
Assignments	40%
In-Class activities	25%
Quizzes and Final Exam	10%
Total	100%

Participation grades will be given for actual participation in discussions and presentations, not for simply attending class. Please feel free to make comments and ask questions. Don't hesitate to disagree with me but be prepared to back up your position.

Assignments will make up the bulk of your homework and lab work. Try and make these assignments something you can refer back to and possibly use again. These assignments include but are not limited to Building a computer CAMTASIA project, Networking, Internet application, Training video, Technology presentation.

In-Class activities are an essential part of the course. I will attempt to provide experience that will help you as you set up your classrooms in the future. I do not take attendance everyday, however if you are not in attendance you will not be able to receive credit for these activities without a legitimate excuse (it has to be good and let me know in advance). Some of the in class work will be done in groups but it is your responsibility to ensure you get something out of them.

Quizzes will be given on an as needed basis. If I feel students are not paying attention or if participation is poor by the group I will not hesitate to schedule a quiz. It is possible to not have any quizzes but usually at least 2 are needed before students get the point. The final exam will be based on the course objectives with Multiple Choice, matching, short answer, and essay questions.

Grade sheets will be distributed every Tuesday. Please talk to me about grade concerns before they become a bigger issue.

Finally there will be several points throughout the semester when I will conduct a two way informal evaluation of the course. This is your opportunity to request changes in the course or my teaching style along with my opportunity to provide you with feedback on your performance in the course. Please use these evaluations to help me make this course as useful as possible.