

Engineering Technology –IET Option

Course Number and name: E T 160. Basic Computer Operating Systems

Credits & Contact Hours: 3cr. each week has two lectures of 1 hour 15 min. each.
Total semester contact hours are approximately 37.5.

Instructor's name: Carmen C. Boje

Textbook title, author, and year: Guide to Parallel Operating Systems with Microsoft Windows XP and Linux by: Ron Carswell, Heidi Webb, Terrill Freese, Thomson Course Technology Incorporated, 2007. ISBN 1-4188-3725-3

supplemental materials - Internet Explorer, Linux and Windows 7

Specific Course Information:

- a. **Course Catalog Description** - Basics of the most commonly used computer operating systems, command line interface, file systems, file manipulations, remote login, etc. Introduction to computer programming operations.
- b. **Prerequisite** – N/A
- c. This course is required for IET degrees

Course Goals & Objectives:

- a. The course introduces the key features of computer operating systems. It assumes that the students have previously used a personal computer with the Windows or Linux operating systems. The operating system concepts will be presented on both of the two operating systems in parallel. Students will be able to switch between the two operating systems to complete the numerous hands-on activities.
- b. **Related ABET Student Outcomes:** The following are the student outcomes that directly relate to Criterion 3.
 - a) an appropriate mastery of the knowledge, techniques, skills and modern tools of their disciplines; including:
 1. The use of current application software; **the design and use of operating systems**; and the analysis, design, testing, and documentation of computer programs for the use in information engineering technologies.
Also ABET 2.b, 2.c, 2.d, 2.f

Course topics and lecture hours devoted to each topic:

TOPICS	HRS.
• Hardware and Software Components	3
• File Systems and Directory Commands	3
• Files and Files Attributes, Text Editors	3
• Command line	1
• Graphical User Interface	1
• Applications and Operating System Management	3

Laboratory Projects: Each laboratory class is 40 minutes. Laboratory exercises are done in conjunction with the text readings and the lecture materials. The laboratories are designed to learn Windows XP, Windows 7 and Linux operating systems. **Equipment utilized by the students include:** computers with Internet Explorer, Linux and Windows 7 installed.

Example of topics for laboratories include:

1. Lab 1: Software Components
2. Lab 2: File Systems
3. Lab 3: Directory Commands
4. Lab 4: Files and File Attributes
5. Lab 5: Text Editors
6. Lab 6: Linux Lab
7. Lab 7: Command Line
8. Lab 8: Graphical User Interface
9. Lab 9: Applications
10. Lab 10: Operating System Management
11. Assignment 11: Research Paper presentation of one Operating System (other than Linux Fedora or Windows XP);

Prepared by: Carmen C. Boje

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