

Broward Community College

Course Outline

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STATUS: A

COMMON COURSE NUMBER: CET 1461C

COURSE TITLE: Technical Computer Applications

CREDIT HOURS: 3

CONTACT HOURS BREAKDOWN:

Lecture/Discussion 32

Lab 32

Other 0

Contact Hours/Week 4

CATALOG COURSE DESCRIPTION:

Prerequisite: EET 1015C and MTB 1325

Corequisite: None

Technical computer applications, including the use of the Windows operating system, Computer applications such as word processing, spreadsheets, presentation graphics, an introduction to CAD (Computer-Aided Design) and electronic simulation software is presented with emphasis on the solution of problems in the Engineering Technology fields. This course is geared towards the Engineering Technology students.

General Education Requirements - Associate of Arts Degree, meets Area(s):

General Education Requirements - Associate in Science Degree, meets Area(s):

UNIT TITLES:

1. Windows Operating System
2. Word Processing Software
3. Spreadsheet Software
4. Presentation Graphics Software
5. Introduction to CAD Software
6. Electronics Simulation Software

I. Course Overview:

Upon successful completion of this course, the students should be able to produce laboratory reports and research papers using a word processor and spreadsheet, understand power points and do simple drawings using CAD. The students should also be able to simulate electronic circuits using the simulation package tool.

II. Units:

Unit 1. Introduction to Windows

General Outcome:

1.0 The students should be able to explain the use of the Windows operating system to manage files and programs.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 1.1** Boot the computer.
- 1.2** Navigate the desktop.
- 1.3** Use menus and toolbars.
- 1.4** Format a disk.
- 1.5** Create/delete a subdirectory.
- 1.6** Copy/move/delete a file.
- 1.7** Launch an application.
- 1.8** Shutdown the computer.

Unit 2. Word Processing Software

General Outcome:

2.0 The students should be able to use word processing software to generate technical reports and research papers.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to understand and describe:

2.1 Enter and edit text.

2.2 Print, load and save documents.

2.3 Use directory commands to format, spell check and check the grammar of documents.

2.4 Add header/footer and page numbers to documents.

2.5 Import graphics, tables and other files from other software.

Unit 3. Spreadsheet Software

General Outcome:

3.0 The students should be able to describe the concept of a spreadsheet and to generate a simple spreadsheet.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 3.1 Describe the differences between use and function of spreadsheet software and database software.
- 3.2 Discuss and apply the Main Menu.
- 3.3 Move around the spreadsheet.
- 3.4 Develop formulas to generate data tables.
- 3.5 Use functions in spreadsheets.
- 3.6 Print, save and load worksheets.
- 3.7 Create charts and graphs using spreadsheets.
- 3.8 Import formatted text to spreadsheets.

Unit 4. Presentation Graphics Software

General Outcome:

4.0 The students should be able to create, modify, print, save presentations and be able to run slides shows using PowerPoint.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 4.1 Create a presentation.
- 4.2 Modify/Enhance a presentation using design templates.
- 4.3 Add, remove and change animation scheme to a presentation.
- 4.4 Add images, sound and other elements to presentations.
- 4.5 Save a presentation.
- 4.6 Print presentation and notes.

Unit 5. Introduction to CAD Software

General Outcome:

5.0 The students should be able to use simple commands in CAD to do basic drawings.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 5.1 Set up units.
- 5.2 Set up the size of a drawing.
- 5.3 Use the zoom command and all sub-commands under zoom.
- 5.4 Use the GRID command.
- 5.5 Use the line command.
- 5.6 Use the F keys.
- 5.7 Use the OOPS and ERASE commands to eliminate part of a drawing.
- 5.8 Use the CIRCLE command.
- 5.9 Execute a simple drawing using CAD.

Unit 6. Electronics Simulation Software

General Outcome:

6.0 The students should be able understand the how to simulate electronics circuits using the simulation tools.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

6.1 Draw circuit using the simulation package tool.

6.2 Understand libraries and electronic symbols for different parts.

6.3 Modify/enhance a circuit.

6.4 Simulate the circuit.

6.5 Print the output/circuit.