



Course Syllabus

COSC 1301 – Microcomputer Applications

Catalog Description: Overview of computer information systems. Introduces computer hardware, software, procedures, systems, and human resources and explores their integration and application in business and other segments in society. The fundamentals of computer problem solving and programming in a higher level programming language may be discussed and applied. Lecture hours = 3, Lab hours = 0

Prerequisites: None

Semester Credit Hours: 3

Lecture Hours per Week: 3

Contact Hours per Semester: 48

State Approval Code: 1101015207

Course Subject/Catalog Number: COSC 1301

Course Title: Microcomputer Applications

Course Curriculum: State Criteria (those marked with an X reflect the state-mandated competencies taught in this course)

Basic Intellectual Competencies in the Core Curriculum

- Reading
- Writing
- Speaking
- Listening
- Critical thinking
- Computer literacy

Perspectives in the Core Curriculum

- Establish broad and multiple perspectives on the individual in relationship to the larger society and world in which he/she lives, and to understand the responsibilities of living in a culturally and ethnically diversified world.
- Stimulate a capacity to discuss and reflect upon individual, political, economic, and social aspects of life in order to understand ways in which to be a responsible member of society.
- Recognize the importance of maintaining health and wellness.
- Develop a capacity to use knowledge of how technology and science affect their lives.
- Develop personal values for ethical behavior.
- Develop the ability to make aesthetic judgments.
- Use logical reasoning in problem solving.

- Integrate knowledge and understand the interrelationships of the scholarly disciplines.

Core Components and Related Exemplary Educational Objectives

Communication (composition, speech, modern language)

The objective of a communication component of a core curriculum is to enable the student to communicate effectively in clear and correct prose in a style appropriate to the subject, occasion, and audience.

- To understand and demonstrate writing and speaking processes through invention, organization, drafting, revision, editing, and presentation.
- To understand the importance of specifying audience and purpose and to select appropriate communications choices.
- To understand and appropriately apply modes of expression, i.e. descriptive, expository, narrative, scientific, and self-expressive, in written, visual, and oral communication.
- To participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.
- To understand and apply basic principles of proficiency in the development of exposition and argument.
- To develop the ability to research and write a documented paper and/or to give an oral presentation.

Mathematics

The objective of the mathematics component of the core curriculum is to develop a quantitatively literate college graduate. Every college graduate should be able to apply basic mathematical tools in the solution of real-world problems.

- To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real-world situations.
- To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically.
- To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.
- To use appropriate technology to enhance mathematical thinking and understanding and to solve mathematical problems and judge the reasonableness of the results.
- To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them.
- To recognize the limitations of mathematical and statistical models.
- To develop the view that mathematics is an evolving discipline, interrelated with human culture, and understand its connections to other disciplines.

Natural Sciences

The objective of the study of a natural sciences component of a core curriculum is to enable the student to understand, construct, and evaluate relationships in the natural sciences, and to enable the student to understand the bases for building and testing theories.

- To understand and apply method and appropriate technology to the study of natural sciences.
- To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
- To identify and recognize the differences among competing scientific theories.

- To demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies.
- To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

Humanities and Visual and Performing Arts

The objective of the humanities and visual and performing arts in a core curriculum is to expand students' knowledge of the human condition and human cultures, especially in relation to behaviors, ideas, and values expressed in works of human imagination and thought. Through study in disciplines such as literature, philosophy, and the visual and performing arts, students will engage in critical analysis, form aesthetic judgments, and develop an appreciation of the arts and humanities as fundamental to the health and survival of any society. Students should have experiences in both the arts and humanities.

- To demonstrate awareness of the scope and variety of works in the arts and humanities.
- To understand those works as expressions of individual and human values within an historical and social context.
- To respond critically to works in the arts and humanities.
- To engage in the creative process or interpretive performance and comprehend the physical and intellectual demands required of the author or visual or performing artist.
- To articulate an informed personal reaction to works in the arts and humanities.
- To develop an appreciation for the aesthetic principles that guide or govern the humanities and arts.
- To demonstrate knowledge of the influence of literature, philosophy, and/or the arts on intercultural experiences.

Social and Behavioral Sciences

The objective of a social and behavioral science component of a core curriculum is to increase students' knowledge of how social and behavioral scientists discover, describe, and explain the behaviors and interactions among individuals, groups, institutions, events, and ideas. Such knowledge will better equip students to understand themselves and the roles they play in addressing the issues facing humanity.

- To employ the appropriate methods, technologies, and data that social and behavioral scientists use to investigate the human condition.
- To examine social institutions and processes across a range of historical periods, social structures, and cultures.
- To use and critique alternative explanatory systems or theories.
- To develop and communicate alternative explanations or solutions for contemporary social issues.
- To analyze the effects of historical, social, political, economic, cultural, and global forces on the area under study.
- To comprehend the origins and evolution of U.S. and Texas political systems, with a focus on the growth of political institutions, the constitutions of the U.S. and Texas, federalism, civil liberties, and civil and human rights.
- To understand the evolution and current role of the U.S. in the world.
- To differentiate and analyze historical evidence (documentary and statistical) and differing points of view.
- To recognize and apply reasonable criteria for the acceptability of historical evidence and social research.
- To analyze, critically assess, and develop creative solutions to public policy problems.
- To recognize and assume one's responsibility as a citizen in a democratic society by learning to think for oneself, by engaging in public discourse, and by obtaining information through the news

media and other appropriate information sources about politics and public policy.

- To identify and understand differences and commonalities within diverse cultures.

Instructional Goals and Purposes:

The purpose for this course is to provide students from any academic discipline with the ability to use computer-based technology in communicating, solving problems and acquiring information. Core-educated students should have an understanding of the computer limits, problem solving abilities and the possibilities associated with the use of computer technology. They should have the tools necessary to evaluate and learn new technologies as they become available in the processing and retrieving of information.

General Course Objectives:

1. Examine the essential computer concepts.
2. Explore the basics of Microsoft Windows XP.
3. Examine file management.
4. Examine Internet browser and e-mail basics.
5. Use Microsoft Word to create a document.
6. Use Microsoft Word to edit and format a document.
7. Use Microsoft Excel to manage data.
8. Work with formulas and functions in Microsoft Excel.
9. View and work with a table in Microsoft Access.
10. Create and maintain a database in Microsoft Access.
11. Create a presentation in Microsoft PowerPoint.
12. Applying and modifying text and graphic objects in a Microsoft PowerPoint presentation.
13. Use technology to locate current articles and write summaries.

Specific Course Objectives:

After studying the material presented in the text and online, the student should be able to complete all behavioral/learning objectives listed below with a minimum competency of 70% on exams and quizzes.

- 1. Examine the essential computer concepts.**
 - a. Describe the components of a computer system.
 - b. Compare the types of computers.
 - c. Define a personal computer's hardware in terms of its functions: input, output, processing, and storage.
 - d. Examine data representation and the ASCII code.
 - e. Describe how peripheral devices are connected to a personal computer.
 - f. Identify the hardware and software that are used to establish a network connection.
 - g. Explain how Internet access, e-mail, and the World Wide Web affect the use of computers.
 - h. Discuss the types of system software and their functions.
 - i. Identify popular application software.
 - j. Describe how data is shared among different types of application software.
- 2. Explore the basics of Microsoft Windows XP.**
 - a. Start Windows XP and tour the desktop.
 - b. Explore the Start menu.
 - c. Run software programs, switch between them, and close them.
 - d. Manipulate windows.
 - e. Identify and use the controls in menus, toolbars, and dialog boxes.
 - f. Navigate your computer with Windows Explorer and My Computer.
 - g. Change the view of the items in your computer.
 - h. Get help when you need it.
 - i. Shut down windows.

- 3. Examine file management.**
 - a. Develop file management strategies.
 - b. Explore files and folders.
 - c. Create, name, copy, move, and delete folders.
 - d. Name, copy, move, and delete files.
 - e. Work with compressed files.

- 4. Examine Internet browser and e-mail basics.**
 - a. Learn the relationship between the Internet and the World Wide Web.
 - b. Learn about Web pages and Web browsers.
 - c. Learn about addresses.
 - d. Navigate links on Web pages.
 - e. Return to Web sites using the History list.
 - f. Create and organize favorites.
 - g. Print a Web page.
 - h. Save a Web page and a graphic from a Web page.
 - i. Learn about e-mail and e-mail software.
 - j. Send receive, reply to, and print an e-mail message.
 - k. Gain an understanding of e-mail etiquette.
 - l. Add and delete contacts in the Address Book.
 - m. Add an attachment to a message.

- 5. Use Microsoft Word to create a document.**
 - a. Plan a document.
 - b. Identify the components of the Word window.
 - c. Choose commands using toolbars and menus.
 - d. Create a new document.
 - e. Scroll a document and move the insertion point.
 - f. Correct errors and undo and redo changes.
 - g. Save, preview, and print a document.
 - h. Enter the date with AutoComplete.
 - i. Remove Smart Tags.
 - j. Create an envelope.

- 6. Use Microsoft Word to edit and format a document.**
 - a. Check spelling and grammar.
 - b. Select and delete text.
 - c. Move text within the document.
 - d. Find and replace text.
 - e. Change margins, line spacing, alignment, and paragraph indents.
 - f. Copy formatting with the Format Painter.
 - g. Change fonts and adjust font sizes.
 - h. Emphasize points with bullets, numbering, bold, underlining, and italics.
 - i. Preview formatted text.
 - j. Add a comment to a document.
 - k. Use the Research task pane.

- 7. Use Microsoft Excel to manage data.**
 - a. Learn about spreadsheets and how they work.
 - b. Identify major components of the Excel window.
 - c. Navigate within and between worksheets.
 - d. Enter text, dates, data, and formulas into a worksheet.
 - e. Change the size of a column or row.
 - f. Select and move cell ranges.
 - g. Calculate totals with AutoSum.
 - h. Insert and delete a column or row.

- i. Work in edit mode.
- j. Undo an action
- k. Insert, move, and rename a worksheet.
- l. Check the spelling in a workbook.
- m. Preview and print a workbook.
- n. Display the formulas within a worksheet.

8. Work with formulas and functions in Microsoft Excel.

- a. Learn about the syntax of an Excel function
- b. Use the SUM, AVERAGE, and MAX functions.
- c. Copy and paste formulas.
- d. Work with relative, absolute, and mixed references.
- e. Change the magnification of the workbook.
- f. Insert a function using the Insert Function dialog box.
- g. Use Auto Fill to insert formulas and complete a series.
- h. Insert the current date using a Date function.
- i. Work with Financial functions.
- j. Work with Logical functions.

9. View and work with a table in Microsoft Access.

- a. Define the terms field, record, table, relational database, primary key, and foreign key.
- b. Open an existing database.
- c. Identify the components of the Access and Database windows.
- d. Open and navigate a table.
- e. Learn how Access saves a database.
- f. Open an existing query, and create, sort, and navigate a new query.
- g. Create and navigate a form.
- h. Create, preview, and navigate a report.
- i. Learn how to manage a database by backing up, restoring, compacting, and converting a database.

10. Create and maintain a database in Microsoft Access.

- a. Learn the guidelines for designing databases and setting field properties.
- b. Create a new database.
- c. Create and save a table.
- d. Define fields and specify a table's primary key.
- e. Add records to a table.
- f. Modify the structure of a table.
- g. Delete, move, and add fields.
- h. Change field properties.
- i. Update field property changes.
- j. Copy records and import tables from another Access database.
- k. Delete and change records.

11. Create a presentation in Microsoft PowerPoint.

- a. Open and view an existing PowerPoint presentation.
- b. Switch views and navigate a presentation.
- c. View a presentation in Slide Show view.
- d. Create a presentation using the AutoContent Wizard
- e. Add, move, and delete slides.
- f. Promote and demote text in the Outline tab.
- g. Create speaker notes for slides.
- h. Check the spelling and style in a presentation.
- i. Preview and print slides.
- j. Print outlines, handouts, and speaker notes.

12. Applying and modifying text and graphic objects in a Microsoft PowerPoint presentation.

- a. Create a presentation from a template.
- b. Apply a new template.
- c. Insert, resize, and recolor a clip-art image.
- d. Modify the design using the slide master.
- e. Insert a bitmap image on a slide.
- f. Reformat text and resize text boxes.
- g. Apply a second design template
- h. Insert tab stops to align text.
- i. Change the layouts of existing slides.
- j. Reposition text boxes.
- k. Create and modify a table.
- l. Create a diagram using the Diagram Gallery.
- m. Draw a simple graphic using AutoShapes.
- n. Modify and rotate an AutoShape graphic
- o. Insert and rotate text boxes
- p. Create a summary slide.

13. Use technology to locate current articles and write summaries.

- a. Use the Internet to access the online databases.
- b. Locate appropriate articles in computer periodicals.
- c. Read the articles online and print a copy for the instructor.
- d. Use a word processor to write a 500 word paper over the article using the instructor's format.
- e. Submit the paper electronically through WebCT.

Course Content:

Students in all sections of Microcomputer Applications will be required to do all the following:

1. Students will read assigned sections in the text and complete online quizzes and any assigned review sheets covering that material.
2. Students will create a computer-related research project.
3. Students will complete all online objective computer concept exams.
4. Students will complete all assigned application exercises and exams which may include textbook cases, SAM 2003 training and exams, and/or SAM ProGrader 2003 projects.

Methods of Instruction/Course Format/Delivery:

This course is offered in the traditional classroom and over the Internet using WebCT. Students in the traditional class and in the Internet class will have access to this course via WebCT. Students in the traditional class will meet regularly for lecture over the material. Students in the Internet class will only be required to meet with the instructor for testing; however, Internet students are always welcome to attend the traditional class. Resources provided through WebCT include

- A schedule of assignments
- Online quizzes and exams
- Online assignments
- Course Handouts
- Discussion Board
- Email (totally contained within WebCT)

Some classes also utilize the SAM 2003 Assessment and Training for Microsoft Office 2003. The instructor will set up specific Office 2003 skill tasks to be completed. The student will have access to the Observe, Practice and Apply features for each task scheduled. This software is designed to train and test the student on individual skills within the Office 2003 software.

Some classes will also be implementing the SAM 2003 ProGrader software provided by Course Technology that allows the instructor to schedule an Office 2003 project to be completed by the student. The students will receive immediate feedback upon submission of their document. They are allowed to

view a detailed report listing each instruction, the expected result and their submission. ProGrader will allow the student to view the report, make their corrections and submit the project again until the submission limit set by the instructor is met.

Assessment:

The following items will be assigned during the semester and used to calculate the student's final grade:

- Major Exams
All tests will be administered by the teacher in traditional classes and by a proctor at the Carthage, Center, or Marshall sites for Panola College students. A Virtual College of Texas student will be able to take proctored exams at the college he or she currently attends. If you are unable to take a test when it is scheduled, you must reschedule the test with the instructor prior to the testing date. An excused absence and makeup test may be granted for sudden illness or unforeseen circumstances.

Major Exams will consist of objective tests taken in WebCT over the computer concept material or application exams, possibly given in SAM 2003.
- Quizzes
Online quizzes in WebCT will cover the computer concept objectives of the course. Other quiz grades could come from SAM 2003 Assignments and SAM ProGrader 2003 assignments. Both of these software supplements are administered through Course Technology via the Internet. The student must register their PIN numbers bundled with their textbook in order to have access to these programs.
- Assignments
The students will be asked to write one research paper concerning a current computer-related topic. Other assignments could include New Perspectives Labs or crossword reviews corresponding to the concept chapters in the textbook. Various Review Assignments and Cases will also be required to be completed as the application tutorials are covered.

Course Grade:

The grading scale for this course is as follows:

- Major Exams 60%
- Quizzes 20%
- Assignments 20%

Texts, Materials, and Supplies:

- New Perspectives on Microsoft Office 2003, First Course - Premium Edition, 2007, Goldberg and Shelton, Thomson Course Technology (ISBN: 141886076X)
- SAM 2003 Assessment and Training for Microsoft Office 2003, student edition v. 3.1 (ISBN: 1423912608)
- Headphones with a speaker jack are optional
- SAM 2003 ProGrader Project-Based Homework and Assessment Tool for Microsoft Office 2003, v. 1.5 (ISBN: 1423912802)
- 50MB or greater Storage Media (USB2 compatible)
- Access to a personal computer with Internet connections and a typical installation of Microsoft Office 2003
- Folder to store portfolio documents

Other:

- For current texts and materials, use the following link to access bookstore listings: <http://www.panola.edu/collegestore.htm>
- For testing services, use the following link: <http://www.panola.edu/instruction/dl/testing.htm>