

COSC 116-SPREADSHEETING 3 CREDITS

SYLLABUS

CATALOG DESCRIPTION

Comprehensive coverage of current spreadsheeting software - from basic data entry and formatting to complex functions, data importation, and Macro creation. Students will be taught about most of the features available in the software, and will be required to apply the skills learned through the course. Special emphasis is placed on spreadsheet development for mathematical and financial/accounting applications. This course can be used to prepare for the corresponding Microsoft Certified Application Specialist exam.

Prerequisites: MATH 096/APAL 061, ENGL 095/APEN 070, RDNG 095/APRD 058

Semester Offered: Fall, Spring

Common Student Learning Outcomes

Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...

BROAD AND SPECIALIZED LEARNING

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

CRITICAL THINKING

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

CULTURAL AND CIVIC ENGAGEMENT

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

EFFECTIVE COMMUNICATION

Students will exchange ideas and information with clarity in multiple contexts.

INFORMATION LITERACY

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

INTEGRATING TECHNOLOGIES

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

Course Learning Outcomes

Upon successful completion of the course, the student will be able to...

- I. Using Excel to Manage Data
- II. Apply General, Conditional, and Custom Formatting to a Workbook

- III. Work with Basic and Advanced Formulas and Functions, and Filtering
- IV. Work with Charts and Graphics
- V. Work with Excel Tables, PivotTables, and PivotCharts
- VI. Manage Multiple and Shared Worksheets/Workbooks, and Excel-Integrated Content
- VII. Develop an Excel Macro Application
- VIII. Create a Financial Analysis and Perform What-If Analyses
- IX. Connect to and Use External Data

Specific Learning Outcomes

Upon successful completion of the course, the student will be able to

1. Explain the purpose of electronic spreadsheets.
2. Identify the major components of Excel.
3. Learn shortcuts for data entry.)
4. Learn features of Autofill.
5. Manipulate cells by moving, copying, inserting and deleting.
6. Create formulas using relative, absolute, and mixed references.
7. Create 3-D formulas and functions.
8. Use SUM, AVERAGE, MAX, MIN, COUNT, PMT, PV, IF, COUNTIF, SUMIF, AND, OR, NOT, and VLOOKUP, as well as many other mathematical, logical, text, database, etc. functions.
9. Perform what-if analyses using Goal Seek, Scenarios, and Solver, and one-and two variable tables.
10. Format data using the Number, Currency, Accounting, Percent, custom, and conditional formats.
11. Create a custom format.
12. Apply headers and footers in a professional manner.
13. Format cells with borders, patterns and adjusting the alignments to make worksheets more readable.
14. Apply conditional formatting appropriately.
15. Apply data validation appropriately.
16. Apply protection appropriately.
17. Name cells and be able to use name in formulas and functions.
18. Effectively represent data using various charts and graphics.
19. Maintain data using sorting, filtering, and subtotals.
20. Create, edit and format PivotTables.
21. Create hyperlinks to connect files.
22. Publish a non-interactive and interactive web page.
23. Integrate Excel with other Microsoft® Office application software.
24. Understand the difference between linking and embedding.
25. Audit an existing workbook using trace precedent and trace dependent features to solve “problems” in a workbook.
26. Track changes from multiple users by reviewing comments, accepting/rejecting changes. (i,vi) (LTIA)
27. Merge shared workbooks.
28. Create macros and customize Excel’s Menus and Toolbars.
29. Consolidate information from multiple worksheets and workbooks.
30. Use the basic concepts and principles of Visual Basic programming language within an Excel workbook.

In order to challenge this course, the student must take and successfully pass the Microsoft Certification Exam(s).