

COURSE OUTLINE

CMSY-117

Advanced Spreadsheets

1 Semester Hour

HOWARD COMMUNITY COLLEGE

Description

After successful completion of this course, the student will be able to use advanced formatting techniques and functions, perform what-if analyses, create PivotTables, use custom and advanced filters, and audit worksheets.

This course may be completed in fewer than 14 weeks and may be started at any time during the school year. All of the work (except tests) may be done outside of class if student has compatible software. Prerequisite: CMSY-101.

Overall Course Objectives

Upon completion of this course, the student will be able to:

1. Retrieve records using AutoFilter, create a custom filter, and filter a list using Excel's Advanced Filter feature.
2. Insert automatic subtotals, use lookup functions to locate list entries, and apply database functions to summarize list data that meets specific criteria.
3. Use advanced financial, statistical, and math functions.
4. Track what-if scenarios and generate summary reports using Excel Scenario Manager.
5. Use Goal Seek and Solver to perform what-if analyses involving multiple variables.
6. Plan, design, create, update, and change the layout of a PivotTable report.
7. Exchange data between Excel and other Windows programs which includes embedding and linking.
8. Create a shared workbook.
9. Perform a worksheet audit and add comments.
10. Record and run a macro.

Major Topics

- I. Working with Lists
 - A. Sorting a list
 - B. Creating a custom filter
 - C. Filtering a list with Advanced Filters
 - D. Extracting list data
 - E. Creating subtotals using grouping and outlines
 - F. Using data validation
- II. Using Advanced Functions
 - A. Using financial functions: PMT and PV
 - B. Using math and trig functions: ROUND, RAND, and SUMIF
 - C. Using statistical functions: COUNTIF, Range names
 - D. Using the V LOOKUP function
 - E. Using the IF function
- III. Using Analysis Tools
 - A. Performing a what-if analysis
 - B. Creating scenarios

- C. Using Goal Seek
- D. Using Solver
- E. Planning, designing, creating, and updating a PivotTable
- F. Creating a PivotTable report
- G. Projecting values using trendlines and regression analysis
- IV. Exchanging Data with Other Programs
 - A. Importing a text file and a database table
 - B. Using Microsoft Query
 - C. Embedding and linking objects
 - D. Using XML
- V. Collaborating with Workgroups
 - A. Setting up a shared workbook and tracking changes
 - B. Applying and removing passwords
 - C. Applying and removing cell, worksheet, and workbook protection
- VI. Managing and Auditing Worksheets
 - A. Auditing workbooks
 - B. Recording, running, and editing a macro
- VII. Working with Templates and Workbooks
 - A. Creating and editing a template
 - B. Managing workbook properties
 - C. Consolidating data from several worksheets
- VIII. Using Advanced Formatting Tools
 - A. Creating custom formats
 - B. Using conditional formatting
 - C. Using cropping and rotating tools
 - D. Using Paste Special

Course Requirements

- Grading/exams: Specific assignments and procedures for evaluating student performance in the class will be described in the individual class syllabus, but will include the following:
1. Multiple choice, true/false tests
 2. Computer hands-on tests
 3. Projects

Other Course Information

Call 410-772-4876 between 9 a.m. and 3 p.m. for more information about this course.
 This course is a business elective.