

Northern Marianas College
CURRICULUM ACTION REQUEST

Effective Semester / Session: Spring 2010

Type of Action:

- New
- Modification
- Move to Inactive (Stop Out)
- Cancellation

Course Alpha and Number: CS 150

Course Title: Spreadsheet Applications

Reason for initiating, revising, or canceling:

Beginning in Spring 2010, MS Office 2007 will be installed in the computer classrooms in building W, and will be used in CS 150 Spreadsheet Applications, instead of the previous MS Office 2003 version. This course guide is being revised to update the textbook used in this course to a newer edition that is consistent with MS Office 2007.

Wil Maui

1/21/10

Proposer: Wil Maui, Instructor

Date

Joseph

1-21-10

Department Chair

Date

Joseph

1-21-10

Dean of Academic Programs and Services

Date

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Course Guide

Course: CS 150 Spreadsheet Applications

1. Department

Business

2. Purpose

This course is designed to give students knowledge, skills, and ability to use spreadsheet as a vital processing, analytical, and reporting tool in today's business and other organizations environment. This course uses Microsoft Excel 2007. This course is required for all business students with majors in Accounting and in Computer Applications and is an elective for students in Business Management. This course can also benefit business managers, teachers, and other professionals in the community.

3. Description

A. Required/Recommended Textbook(s) and Related Materials

Required: Grauer, Robert T., Judy Scheeren, and Keith Mulbery.
Exploring Microsoft Office Excel 2007, Comprehensive. 2nd ed. Upper Saddle River, NJ: Pearson Education, Inc., 2010.
Readability level: Grade 8.5

B. Contact Hours

1. **Lecture:** 3 hours per week / 45 hours per semester
2. **Lab:** Class is held in a computer classroom/lab
3. **Other:**

C. Credits

1. **Number:** 3
2. **Type:** Regular degree credits

D. Catalogue Course Description

This is an intermediate to advanced course in spreadsheet applications that builds on the knowledge and skills introduced in CS 103 Introduction to Computers. This course covers entering different types of data into worksheets, performing calculations with formulas, making *what-if* decisions, managing a list or a dataset, summarizing data into tables and charts, and creating reports for print and the Web. This course uses Microsoft Excel 2007.
Prerequisite: CS 103. English Placement Level: EN 093/094.
Math Placement Level: None. (Offered Fall and Spring)

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E. Degree or Certificate Requirements Met by Course

This is a required course for students in Business Administration with majors in Accounting and in Computer Applications. It is also an elective course for majors in Business Management.

F. Course Activities and Design

This course consists of class lectures and daily in-class exercises, homework assignments, in-class exams, and take-home exams. Exercises come from the textbook and from local sources and focus primarily on business, but also cover other areas.

4. Course Prerequisite(s); Concurrent Course Enrollment; Required English/Mathematics Placement Level(s)

Prerequisite(s): CS 103

English Placement Level: EN 093/094

Math Placement Level: None

5. Estimated Cost of Course; Instructional Resources Needed

Cost to the Student: Tuition for a 3-credit course, cost of textbook, and the student activities fee.

Cost to the College: Instructor's salary.

Instructional resources needed for this course include instructor's computer system, application software, classroom computer projector and projection screen, flash drives, whiteboard, whiteboard markers, photocopied handouts, and appropriate reference materials.

6. Method of Evaluation

Student grades will be based on the regular letter grade system as described below:

- A: Excellent – grade points: 4.0;
- B: Above average – grade points: 3.0;
- C: Average – grade points: 2.0;
- D: Below average – grade points: 1.0;
- F: Failure – grade points: 0.0.

NMC's grading and attendance policies will be followed.

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7. Course Outline

This is a topical outline and does not necessarily indicate the sequence in which the material will be presented.

1.0 Spreadsheet Application Program Review

- 1.1 The Excel interface: Menus, toolbars, commands and how to use and customize them
- 1.2 Excel data file: Workbook, worksheets, columns, rows, and cells
- 1.3 Understanding different type of cell entries: Constants and formulas
- 1.4 Creating, editing, formatting and printing a workbook

2.0 Doing Calculations: Formulas and Functions

- 2.1 Creating user-defined formulas and using functions
- 2.2 Using cell references in formulas: Relative, absolute and mixed references
- 2.3 Creating formulas using pointing
- 2.4 Copying cell contents and completing a series using the fill handle

3.0 Preparing Reports

- 3.1 Summarizing data with charts: Types of charts, creating and customizing charts
- 3.2 Integrating Excel objects with other Windows application programs: Object linking and embedding and hyperlinks
- 3.3 Print-previewing a worksheet/workbook; including headers, footers, page numbers, page breaks; changing margins, orientation and other options

4.0 Decision Making (*What If?*) in Spreadsheet

- 4.1 Making "*what if*" decisions with commands GOAL SEEK and SCENARIO and others
- 4.2 Making alternative choices with the functions IF and LOOKUP

5.0 Consolidating Data

- 5.1 Working with multiple worksheets, creating formulas and links among worksheets, and understanding worksheet references
- 5.2 Linking workbooks, understanding workbook references, and using workspaces

6.0 Excel and the Internet

- 6.1 Creating and editing hyperlinks to files and Web sites
- 6.2 Creating and editing Web pages in Excel

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7.0 Managing Lists or Datasets

- 7.1 Creating lists: Adding, editing, deleting records
- 7.2 Validating data
- 7.3 Importing and exporting data
- 7.4 Sorting and filtering lists
- 7.5 Summarizing data using database functions and the SUBTOTAL command
- 7.6 Summarizing lists into tables and charts using PivotTable and PivotChart commands

8.0 Automating Repetitive Tasks: Using Macros

- 8.1 Define, record, and run a macro
- 8.2 Edit statements in macro
- 8.3 Create a custom button to run a macro
- 8.4 Creating a new macro from an existing one

8. Instructional Goals

This course will introduce students to:

- 1.0 Creating and formatting data in worksheets;
- 2.0 Using user-defined formulas and functions to perform calculations in worksheets;
- 3.0 Creating different types of charts for presentations and reports;
- 4.0 Consolidating data by doing calculations with multiple worksheets and multiple workbooks;
- 5.0 Making “what if” decisions and evaluating alternative solutions using spreadsheet;
- 6.0 Creating and managing lists (or datasets);
- 7.0 Producing summary statistics from lists;
- 8.0 Integrating Excel objects with other Windows application programs, converting worksheets into Web pages, and creating hyperlinks;
- 9.0 Automating repetitive tasks using spreadsheet macros; and
- 10.0 Preparing and printing reports.

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9. Student Learning Outcomes

Upon successful completion of this course, students will be able to:

- 1.0 Create and format tables for different topics;
- 2.0 Use functions and user-defined formulas to perform calculations in worksheets;
- 3.0 Consolidate data and do calculations with multiple worksheets and multiple workbooks;
- 4.0 Create different types of charts for presentations and reports;
- 5.0 Make “what if” decisions and evaluate alternative solutions to problems using spreadsheet;
- 6.0 Create and manage lists for businesses and other areas;
- 7.0 Produce summary statistics from lists;
- 8.0 Integrate Excel objects with other Windows application programs, convert workbooks into Web pages, and create hyperlinks;
- 9.0 Automate repetitive tasks using spreadsheet macros; and
- 10.0 Prepare and print reports.

10. Assessment Measures

Assessment of student learning may include, but not be limited to, the following:

- 1.0 Daily classwork;
- 2.0 Homework assignments;
- 3.0 In-class tests; and
- 4.0 Take home tests.