Las Positas College
3000 Campus Hill Drive
Livermore, CA 94551-7650
(925) 424-1000
(925) 443-0742 (Fax)

Course Outline for CIS 54

EXCEL: INTRO TO SPREADSHEETS

Effective: Spring 2018

I. CATALOG DESCRIPTION:
CIS 54 — EXCEL: INTRO TO SPREADSHEETS — 4.00 units

This is a comprehensive spreadsheet class using Microsoft Excel to create a variety of spreadsheets with emphasis on business applications. Introductory, intermediate, and advanced topics are covered. Introductory topics include entering, editing, and formatting data, creating basic formulas using arithmetic operator and functions, creating charts, saving and printing worksheets. Intermediate topics include using Excel's Table features for sorting filtering and summarizing data, creating PivotTables, working with multiple worksheets and workbooks, naming cells, data validation,recording macros, and protecting worksheets. Advanced topics include using financial functions such as PMT, RATE, FV, creating nested IFs, using VLOOKUP and HLOOKUP functions, using What-If analysis tools such as Goal Seek, one and two variable Data Tables, and Scenario Manager, sharing workbooks, and integrating Excel with other Office applications.

3.00 Units Lecture 1.00 Units Lab

Strongly Recommended
CIS 50 - Intro to Computing Info Tech

Grading Methods:
Letter or P/NP

Discipline:
- Computer Information Systems

	MIN
Lecture Hours:	54.00
Lab Hours:	54.00
Total Hours:	108.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

Before entering this course, it is strongly recommended that the student should be able to:

A. CIS50
1. Solve common business problems using approporiate Information Technology applications and systems;
2. Demonstrate familiarity with the computing environment, including the hardware, operating system, the user interface, and applications;
3. Demonstrate the possible solution(s) for simple business applications by applying productivity tools including, word processing, spreadsheets, databases, and presentation software;

IV. MEASURABLE OBJECTIVES:

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

A. Create, edit, save, print and debug simple spreadsheets for business data processing applications;
B. Develop proficiency in planning and producing spreadsheets;
C. Manipulate spreadsheet data files;
D. Use formulas and functions to analyze data for different business applications;
E. Use Excel's Table features to maintain lists;
F. Integrate worksheet data with other Office applications;
G. Perform What-If analysis using tools such as Goal Seek, Scenario Manager, Solver, and one and two variable data tables;
H. Create, edit, format, and print charts from spreadsheet data;
I. Create complex formulas using Excel functions such including IF, VLOOKUP, PMT, FV, RATE, IFERROR, etc.

V. CONTENT:
A. Getting Started with Excel
1. Explore the Excel window
2. Open and save a worksheet
3. Enter labels and values
4. Name and move a worksheet

5. Preview and print a worksheet
6. Get Help
7. Close a workbook and exit Excel

B. Formatting a Workbook
1. Plan and design a worksheet
2. Use fonts and font sizes
3. Change attributes and alignment
4. Adjust column widths
5. Insert and delete rows and columns
6. Apply colors, patterns and borders
7. Use conditional formatting
8. Format values

C. Working with Formulas and Functions
1. Enter formulas
2. Format values
3. Create complex formulas using multiple arithmatic operators
4. Introduce Excel functions
    a. SUM
    b. AVERAGE
    c. MIN
    d. MAX
    e. COUNT
5. Understand relative and absolute cell references
6. Copy formulas with relative cell references
7. Copy formulas with absolute cell references
8. Complex Functions and nested functions
    a. IF including nested IFs and AND and OR functions
    b. VLOOKUP/HLOOKUP
    c. IFERROR

D. Working with Charts
1. Explore chart types and subtypes
2. Create charts
3. Move and resize a chart
4. Edit a chart
5. Format a chart
6. Enhance a chart
7. Use Excel's Sparklines feature to create charts
8. Preview and print a chart

E. Working with Excel Tables, PivotTables, and PivotCharts
1. Insert an Excel Table and use Table features such as
    a. Sorting (by one or more fields)
    b. Filtering (by one or more fields)
    c. Formatting
    d. Inserting a Total Row
    e. Add a slicer
2. Creating custom lists
3. Apply Conditional Formatting using data bars
4. Create and format a PivotTable
5. Refreshing the Pivot Table
6. Creating a PivotChart

F. Managing Multiple Worksheets and Workbooks
1. Create 3D formulas within workbooks and to external workbooks
2. Group Worksheets
    a. Format
    b. Create formulas
    c. Printing
3. Update linked workbooks
4. Insert hyperlinks
5. Share a Workbook
6. Compare and Merge Workbooks
7. Entering Data into a Shared Workbook

G. Developing an Excel Application
1. Accessing the Developer tab
2. Recording a macro
3. Running a macro
4. Opening a worksheet the contains a macro
    a. Macro security
5. Editing a Macro with VBA Code
6. Creating buttons to run macros
7. Saving a workbook that contains macros

H. Using Advanced Features
1. Create subtotals
2. Use Financial Functions, e.g., PMT, RATE, FV, CUMPMT,
3. Performing What-If analyses using Goal Seek, Scenario Manager, one and two variable Data Tables, and Solver
4. Connect to External Data
5. Integrating Excel with Other Windows Programs

VI. METHODS OF INSTRUCTION:

A. **Lecture** -
B. Hands-on laboratory assignments
C. Discussion boards
D. Reading assignments and student research on the web
E. PowerPoint presentations
F. Lab presentation and classroom demonstration

VII. TYPICAL ASSIGNMENTS:

A. Read and DO the numbered steps in Module 2, pages EX 65-122.
B. Hands on lab assignment, such as;
1. Complete Review Assignment, pages EX 123-124.

C. Discussion Board Activities, such as:
1. Click on the Discussion Board link and select the Discussion Board 2—Cloud Storage item.
a. 15 Points--Add a thread and write 2-3 paragraphs that describe:
1. What you discovered about cloud storage, pros and cons, challenges and advantages, etc. and ways that you might see using a cloud storage site in your work or school life.
2. If you currently use a cloud storage site, discuss your experiences using cloud storage. What cloud storage site(s) do you use? Why have you used a cloud storage site? What do you consider to be the strengths and weaknesses of the site that you are using?
3. If you are not currently using a cloud storage site, what's holding you back, what are your concerns? Now that you've researched cloud storage do you think it might be something you would use in the future?
b. 5 Points--Read the post of at least 3 of your classmates and response to their post.

VIII. EVALUATION:

A. **Methods**

1. Quizzes
2. Projects
3. Lab Activities
4. Other:
a. Discussion Board activites

B. **Frequency**

1. Module quizzes and 3-4 Unit Quizzes covering materials from mulitple modules
2. Weekly hand-on laboratory assignments
3. 3-4 Unit Projects covering materials from multiple modules
4. Final Project and Quiz
5. 3-4 Discussions board activities

IX. TYPICAL TEXTS:

1. Jamrich-Parsons, June, Dan Oja, Patrick Carey, and Carol DeJardins. *New Perspectives on Microsoft Office 365 & Excel 2016 Comprehensive.* 1st ed., Cengage Learning, 2017.
2. Scott, Alex. *Microsoft Excel 2016: Comprehensive.* 1st ed., Labyrinth Learning, 2017.
3. Gaskin, Shelley, and Alicia Vargas. *GO! with Microsoft Excel 2016: Comprehensive.* 1st ed., Pearson Higher Education, 2017.

X. OTHER MATERIALS REQUIRED OF STUDENTS:

A. Go Print card
B. Storage media, e.g., USB flash memory drive, external hard drive