I. CATALOG DESCRIPTION:
A. Department Information:
Division: Business & Information Technology
Department: Computer Information Technology
Course ID: CIT 114
Course Title: Spreadsheets: Excel
Units: 3
Lecture: 3 Hours
Laboratory: None
Prerequisite: None
Departmental recommendation: CIT 100 or CIT 101

B. Catalog and Schedule Descriptions:
Production of workbooks using EXCEL, which integrates spreadsheet analysis, information management, and graphics. Includes the design and the use of worksheets; how to enter labels, numbers, formulas, and create graphs; how to format worksheets professionally; how to use Excel functions in different applications and understand the concept of data management in Excel; how to use the concept of what-if-analysis; how to consolidate data in a 3-D workbook and establish File Linking; and how to integrate Excel with the Web. (Formerly MIS/OIS 176).

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

III. EXPECTED OUTCOMES FOR STUDENTS:
Upon successful completion of the course, students should be able to:
A. use Excel procedures in different types of business applications.
B. recognize and understand Excel folder window and Excel terminology.
C. operate and use online help.
D. differentiate between relative, absolute, and mixed references.
E. create, reconstruct, and formulate charts.
F. identify the proper commands and layout to construct a mathematical computational spreadsheet addressing different actual business applications.
G. evaluate the validity of the spreadsheet by administering what-if analysis and isolating assumptions in a worksheet.
H. formulate workable formulas to facilitate speed of mathematical computations. Assimilate proper spreadsheet commands to produce printed worksheets and graphs.
I. design worksheets and charts using-color, borders, different fonts, and column and row sizes and conditional formatting.
J. compose and use formulas using relative, absolute, and mixed cell references.
K. create a database list in Excel and analyze the data.
L. use decision making functions in Excel such as the IF function, the Vlookup function, and Financial functions.
M. analyze worksheet data by using Goal Seek.

IV. CONTENT:
A. Starting Excel
1. Explaining the elements of Excel window
2. Explaining Excel terminology
3. Saving and exiting a worksheet
4. Printing a worksheet in the regular view and in the formulas view
5. Explaining the Page Setup command in the print preview screen
B. Distinguishing between a formula, a constant, and a function

       1. Selecting cell and entering a label, or a formula, or a function
       2. Describe the pointing method to insert the cell addresses automatically by Excel
       3. Learning how to edit, delete cell contents

C.   Using the Fill Handle
       1. Using several samples that explain the advantage of using the Fill Handle in copying formulas in a worksheet or in generating a specific list pattern

D.   Entering Numbers and using Excel statistical functions
       1. Using the Sum, Min, Max, Count, and the Range Functions
       2. Using Dates functions
       3. Including functions in formulas

E.   Formatting the Worksheet
       1. Inserting and deleting columns and rows
       2. Adjusting column width and row height
       3. Using the AutoFit feature in Excel

F.   Using, Auto Format
       1. Applying the AutoFormat command and getting familiar with the predefined worksheet formats in Excel
       2. Applying the Conditional Formatting command

G.   Adding a Chart
       1. Using the Chart Wizard and understanding the 4 steps in creating charts
       2. Distinguishing between the different types of charts and stating the advantages and disadvantages of each
       3. Using the Drawing toolbar to enhance a chart by creating objects, and 3-D shapes
       4. Creating a compound document consisting of a word processing memo, a worksheet, and a chart
       5. Save a worksheet as a Web page and insert hyperlink into an excel worksheet.

H.   Consolidating data in 3-D workbooks
       1. Distinguishing between a cell reference, a worksheet reference, and a 3-D reference
       2. Consolidating data from multiple worksheets within a workbook
       3. Distinguishing between a source workbook and dependent workbook
       4. Creating external references to link workbooks

I.   Creating a List in Excel
       1. Adding, editing, and deleting records in an existing list
       2. Using the Sort command, and a understanding the concept of Ascending and Descending sorting and multiple sorting keys
       3. Using the AutoFilter and the advanced filter commands to display subset of a list
       4. Using a Subtotals command to summarize data in a list.
       5. Using DSUM, DAVERAGE, DMAX, and DCOUNT Functions

J.   Financial Functions
       1. Using the PMT, FV, functions and Goal Seek to help in decision making or determining the future value of a retirement account
       2. Using IF and Vlookup functions to implement decision making in a worksheet

V.   METHODS OF INSTRUCTION:
A.   Lecture
B.   Interactive lecture using the LCD unit which projects the computer's screen on the board
C.   Demonstration
D.   Directed discussion and discovery
E.   Writing assignments
F.   Data-Show computer display
G.   Simulation exercises

VI.   TYPICAL ASSIGNMENTS:
A.   Reading, writing, problem solving or performance.
       1. Read assignments, follow preparation steps thoroughly, and create a worksheet and embedded chart. Use the SUM function or the AutoSum button to sum each column

of numbers. Use the fill handle to copy a cell to adjacent cells in a row. Determine multiple Row Totals by using the SUM function. Use AutoFormat to format the body of the worksheet. Add a 3-d column chart to the worksheet. Save and print the workbook.

    2. Read the guided exercise and follow all directions carefully to complete the worksheet formulas. Format the worksheet in a professional way. Using the student floppy disk that accompanies the book make the necessary changes to the worksheet. Save and print the worksheet.

VII.   EVALUATION:
    A.   Methods of Evaluation
        1. Students are evaluated on their ability to apply course concepts to what they read.
        2. Examinations and Quizzes
            a.   Use the Excel Payment Function to determine the monthly payment of a car
            b.   Create the Loan Analysis Worksheet. Using Excel Financial Functions and the appropriate formulas to decide on the best loan
        3. Practice exercises
        4. Class participation
        5. Term Project: All students will create an Excel workbook that will meet a specific need that they might have in their business or personal lives. This project is a great opportunity for the students to apply the concepts that they have learned in Excel and practice critical thinking to solve problems that they might have. The Term Project is due on or before the last day of class.
    B.   Frequency of Evaluation
        1. Quizzes
        2. Weekly practice exercises
        3. Four examinations
        4. One (1) final exam.

VIII.   TYPICAL TEXTS:
Grauer, Robert T. and Barber, Maryann. <u>Exploring Microsoft Excel 2002</u>, Upper Saddle River, NJ: Prentice Hall, 2000.
Tobias, Carole. <u>Excel 2002: A Professional Approach:</u>, Columbus, OH: Thompson Learning, 2002
Steward, Kathleen, <u>Excel 2002</u>, Columbus, OH: Glencoe McGraw-Hill, 2002

VIII.   OTHER SUPPLIES REQUIRED OF STUDENTS: One zip disk