

## **Common Course Outline for: CIM1220 Business Problem Solving Analyzing-Excel**

### **A. Course Description**

1. Number of credits: 3
2. Lecture hours per week: 3  
Lab hours per week: None
3. Prerequisites: Successful completion of CIM/BUSN 1201 with C or better or successful completion of equivalent computer competency tests administered by Normandale's CIM department. Placement in READ 1106 and ENGC 1101.
4. Co-requisites: None
5. MNTC Goals: None

**Catalogue description:** Emphasizes worksheet formatting, formula design, advanced functions, macro commands (Visual Basic for Applications), graphing, PivotTables, and data analysis. Students will learn features using business scenarios. Keyboarding and proofreading skills recommended. After taking this course, students will be prepared to take the Microsoft Office Systems (MOS) Excel Certified Application Specialist Exam. Prerequisite: Successful completion of CIM/BUSN 1201 with C or better or successful completion of equivalent computer competency tests administered by Normandale's CIM department. Placement in READ 1106 and ENGC 1101. Keyboarding and proofreading skills recommended.

**B. Date last revised:** February, 2016

### **C. Outline of Major Content Areas**

Formatting a Workbook  
Working with Formulas and Functions  
Creating Advanced Charts  
Working with Excel Tables, PivotTables, and PivotCharts  
Managing Multiple Worksheets and Workbooks  
Using Advanced Functions and Conditional Formatting  
Working with Lists (filtering, sorting)  
Developing an Excel Application  
Developing a Financial Analysis  
Performing What-if Analyses  
Connecting to External Data  
Expanding Excel with VBA

### **D. Course Learning Outcomes**

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

1. Design and develop custom applications using Excel.
2. Solve complex problems using advanced formulas and formatting features of Excel.
3. Simulate a decision making application by running what-if scenarios.

4. Create charts to enable better data interpretation.
5. Use templates and multiple worksheets in a workbook proficiently.
6. Create and edit macros using Visual Basic for Applications.
7. Develop an application designed to meet a specific business need that meets professional development standards.

#### **E. Methods for Assessing Student Learning**

1. Evaluations are based on workbooks created in Excel. Some of these workbooks will be assigned as homework and others will be in-class exams. The in-class exams are intended to measure the student's ability to create workbooks independently.
2. Individual instructors may choose to incorporate the following into their evaluation system: attendance, homework assignments, group projects/quizzes, computer-based skills assessment.

**F. Special Information:** All of the following skills can be acquired by successfully completing CIM/BUSN 1201. Success in this course is more likely if the student has good reading, thinking, and study skills. The beginning student should expect to spend about 6-9 hours a week completing the assignments outside of class. Students need easy access to a computer outside of the classroom. Sections of this course may be offered using alternative delivery format such as distance delivery. Check the class schedule for designated sections.

Students are welcome to use the Computer Open Lab. Pick up the Computer Center printed schedule for hours and procedures. Software used in the classrooms is the same as in the Open Lab. Students can download latest version Microsoft Office. The software is free of charge.

Latest version of Microsoft Excel on a Windows based PC are needed for the course.

Students entering the class must be able to use Windows for essential file management tasks (reading a directory, recognizing internal vs. external vs. network drives, copying, deleting, and renaming files) and to launch an application. Students will have had prior experiences planning, designing, creating, editing, printing, saving, and retrieving spreadsheets using Excel or another commercial spreadsheet program. Specific Excel features students should be proficient in: entering basic formulas and copying formulas using absolute and relative cell referencing, managing multiple worksheets in a workbook, and using functions. A familiarity with more advanced features such as data tables, macros, the scenario manager, goal seeking, database features, and pivot tables will be helpful.