OUTCOMES BASED LEARNING MATRIX

Course: CTIM106 – Intermediate Excel (1 credit, 15 hours)
Department: Computer Technology and Information Management

Description: This course is a continuation of Beginning Excel. Advanced work with formulas and functions will receive major emphasis. Other topics include tables and data features, pivot tables, data analysis features, and integration. Students increase their efficiency as they develop problem-solving spreadsheet skills for various business applications.

While completing the table below, remember that the individual outcomes you list in the first column should answer this question: **What must the learner know and be able to do at the end of the course?** Items in the third column should answer the question: **How do we know?** The second column is where teachers can be most creative; it's for pedagogy. Each rectangle in column one should contain just one outcome; the corresponding rectangles in columns two and three, however, may contain more than one item. Using the code at the end of the matrix, indicate the core competencies being strengthened by the outcomes activities and the assessment tools.

*COURSE OUTCOMES	OUTCOMES ACTIVITIES	ASSESSMENT TOOLS
At the conclusions of this course, the student will be able to use these sophisticated features of Excel spreadsheet software: 1. multiple worksheets and workbooks	1. a. create a static and dynamic consolidation of data from multiple worksheets (CCT, QL, IG) b. link workbooks to consolidate data among worksheets (CCT, QL, IG) c. group worksheets and edit and format grouped worksheets (CCT, QL, IG)	1. Quiz/test on terminology and Content (CCT, WC, QL, IG) 2. Demonstrate to instructor (CCT, QL, IG) 3. Hands-on application assignments completed in class and out-of-class (CCT, QL, IG, WC) 4. Hands-on application tests completed in class/online (CT, TS, R, W)
2. advanced functions	2. a. use advanced functions	Referenced above

	including DSUM, DAVERAGE, DCOUNT, INDEX, MATCH, MAD, MSE, STDEV.S, PV, FV, NPV, CONCATENATE, EXACT, REPLACE, SUMIFS, AVERAGEIFS, COUNTIFS, etc. (CCT, QL, IG) b. use nested functions (CCT, QL, IG) c. use Watch Window (CCT, QL, IG)	Referenced above Referenced above
3. set data validation and workbook protection	3. set data validation, input Messages, and error alerts (CCT, QL, IG)	Referenced above
4. create and use forms and templates	4. a. create and use a form with form controls and Active X controls (CCT, QL, IG) b. create a new workbook and template and save a new template (CCT, QL, IG)	Referenced above
5. share and manage workbooks	5. a. mark a workbook as final encrypt a workbook with a password (CCT, IG) b. share a workbook, set change tracking options, and compare and merge workbooks (CCT, IG)	 Referenced above

	c. inspect a workbook, check compatibility, and define a trusted location (CCT, IG)	
6. use decision-making tools such as solver and create and manage scenarios	6. a. install and use Solver to find a solution (CCT, QL, IG) b. understand and create Solver reports such as the Answer report, the Sensitivity Report, and the Limits report (CCT, QL, IG) c. create and manage scenarios for worksheet data using Scenario manager (CCT, QL, IG)	Referenced above
7. customize PivotTables and PivotCharts	7. customize a PivotTable and PivotChart by editing value field settings including a custom calculation; inserting a calculated field; refreshing data; displaying slicers; and formatting (CCT, QL, IG)	Referenced above
8. build one variable and two variable tables	8. build one-variable and two-variable data tables. (CCT, QL, IG)	Referenced above

*Try to express an outcome as an infinitive phrase that concludes this sentence: **At the end of the course, the students should be able to . . ..** Finding the line between too general and too specific can be difficult. In an English Composition course, for instance, it is probably too general to say, "The student should be able to write effective essays." It is probably too specific to say, "The student should be able to write an introductory paragraph of at least 50 words, containing an attention-getting device, an announcement of the narrowed topic, and an explicit thesis sentence." Just right might read, "The student will write introductions that gather attention and focus the essay."

** Indicate the Core Competencies that apply to the outcomes activities and assessment tools: critical and creative thinking (CCT); oral communications (OC); quantitative literacy (QL); information literacy (IL); written communication (WC); civic engagement (CE); integrative learning (IG); global learning (GL).