REGULAR COURSE SYLLABUS

School of: Professional Studies

Department: Engineering Technology

CIP Code: 15.0303

Prefix & Course Number: EET 2340

Course Title: Technical Programming Applications

Check All That Apply: Required for Major: X Required for Minor: X Specified Elective: ___

Required for Concentration: ___ Elective: ___ Service Course: X

Required for Certificate: X

Credit Hours: 3 (3+0)

Total Contact Hours per semester (assuming 15-16 week semester):

Lecture 45 Lab 0 Internship ____ Practicum ____ Other (please specify type and hours): ____

Schedule Type(s): L Grading Mode(s): L

Variable Topics Courses (list restrictions, including the maximum number of hours that can be earned**):

** NOTE: This information must be included in the course description.

Restrictions (Variable Topics Course): ___

Prerequisite(s): MTH 1400 or (MTH 1110 and MTH 1120) or higher level math course, with a grade of “C” or better.

Corequisite(s): ___

Prerequisite(s) or Corequisite(s): ___

Banner Enforced:

Prerequisite(s): MTH 1400 or (MTH 1110 and MTH 1120) or MTH 1410 or MTH 2410, with a grade of “C” or better.

Corequisite(s): ___

Prerequisite(s) or Corequisite(s): ___

Catalog Course Description:
This is a beginning-level course using Visual Basic and spreadsheets. Students will solve engineering applications problems from the various areas of civil, electrical and mechanical engineering technology.

APPROVED:

Department Chair OR Program Director 12/6/08

Dean OR Associate Dean 2/13/08

Associate VP, Academic Affairs 3/7/08

*If crosslisted, attach completed Course Crosslisting Agreement Form
EET 2340:
Required Reading and Other Materials will be equivalent to:


Specific, Measurable Student Behavioral Learning Objectives:
Upon completion of this course the student should be able to:
1. Analyze and solve basic engineering problems
2. Decompose a problem into a flow-chart of constituent tasks and decisions.
4. Create solutions for real world engineering problems from multiple disciplines
   a. Civil Engineering
   b. Mechanical Engineering
   c. Electrical Engineering, Electrical and Mechanical
   d. Applied Mathematics
5. Document Programs through annotation, comments and meaningful variable names.
6. Identify and correct program errors using standard debugging methods.

Detailed Outline of Course Content (Major Topics and Subtopics) or Outline of Field Experience/Internship (experience, responsibilities and supervision):
I. Introduction to event driven programming
II. Writing Programs:
   A. Elements and Form
   B. Input and Output
   C. Numbers and Variables
   D. Arithmetic Operators
   E. Conditional Branching
   F. Loops
   G. Arrays and Matrices
   H. Advanced Input/Output Commands
   I. Numeric Functions
   J. Subroutines, And Functions
   K. Strings and String Functions
   L. Random Numbers
   M. File I/O

III. Engineering Applications:
   A. Analysis of Electrical Circuits Containing:
      1. Resistors
      2. Inductors
      3. Capacitors
      4. Combinations of Above
   B. Circuit Design

IV. Spreadsheets
   A. Civil
   B. Electrical
   C. Mechanical

Evaluation of Student Performance:
1. Written exams
2. Homework
3. Programming Assignments