

## Master Syllabus

### OPT 1198 - Excel for Engineering Technology

**Division:** Science, Mathematics and Engineering

**Department:** Operations Technology

**Credit Hour Total:** 1.0

**Lab Hrs:** 2.0

**Date Revised:** October 2013

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#### Course Description:

Students will gain an understanding of Excel software and how to analyze and solve engineering technology problems, emphasizing the advanced use of spreadsheets, including programming with macros. Two lab hours per week.

#### General Education Outcomes:

- ▣ Oral Communication Competency
- ▣ Written Communication Competency
- ▣ Critical Thinking/Problem Solving Competency
- ▣ Values/Citizenship/Community Competency
- ▣ Computer Literacy Competency
- ▣ Information Literacy Competency

#### Course Outcomes:

##### Spreadsheets

Utilize advanced capabilities of spreadsheets to analyze and display data and solve problems.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% of students score 70% on exams

##### Problem solving techniques

Demonstrate the ability to use various quantitative problem solving techniques to specified problem.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% of students score 70% on exams

##### Macros

Demonstrate the ability to create macros and to integrate them into a spreadsheet.

**Assessment Method:** Locally developed exams

**Performance Criteria:** 70% of students score 70% on exams

#### Outline:

Introduction to Excel  
Formatting  
Excel functions  
Graphing with Excel  
Linear regression  
Statistical analysis  
Time value of money with Excel and macros