

Template for ABET course syllabi (new format)

1. *Course number and name*

**ENGR 290: Introduction to MATLAB**

2. *Credits and contact hours*

one 2 hours and 50-minute lab sessions/week for seven weeks.

3. *Instructor's or course coordinator's name*

Instructor: Dr Morris Megerian, Professor of Mechanical Engineering

Course coordinator: Dr Morris Megerian, Professor of Mechanical Engineering

4. *Text book, title, author, and year*

Not required

*other supplemental materials*

D. Hanselman, Mastering MATLAB 6. Prentice Hall, 2001

W. J. Palm, Introduction to MATLAB 6. McGraw-Hill, 2002

David C. Kuncicky, MATLAB Programming. Prentice Hall, 2004

5. *Specific course information*

a. *brief description of the content of the course (catalog description)*

Basic introduction to MATLAB language. Array manipulations, control-flow, script and function files. Simple 2-D plotting and editing. Programming assignments.

b. *prerequisites or co-requisites*

A course in programming

c. *indicate whether a required, elective, or selected elective course in the program*

Required for Civil and Mechanical Engineering

6. *Specific goals for the course*

a. *specific outcomes of instruction, ex. The student will be able to explain the significance of current research about a particular topic.*

- To introduce the basic operations of the MATLAB language.
- To write simple script files and function files in ATLAB and to
- Effectively use the built- in features of 2-D plotting.

b. *explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course.*

Course addresses ABET Student Outcome(s): a, k.

7. *Brief list of topics to be covered*

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- To introduce the basic operation of MATLAB language
- MATLAB environment
- MATLAB functions
- Matrix Computations
- Symbolic mathematics
- Numerical techniques