COURSE TITLE: ME 075 Introduction to Computer Aided Engineering (required)

CATALOG DESCRIPTION: Introduction to the use of computers for engineering, science and mathematical computations. Provides basic computer operation skills, and includes the use of modern interactive symbolic and numerical computation packages as well as an introduction to programming methods for solving problems. The use of graphical visualization tools for output will be emphasized. Sample applications will be drawn from a variety of science and engineering areas. Lecture one hour, laboratory three hours. Prerequisite: 2 units.

GOALS:
Understanding of logic and its fundamental application to computer programming. Knowledge of MATLAB applications as an engineering tool.

MEASUREMENT: Student performance is measured using the standard CSUS grading scale, A-F. Students must earn a C- or better in ME 75 to complete the course. Measurement of the extent to which each objective is met is done using standard tools (homework, and exams). The final exam is comprehensive. The specific tools are indicated for each objective.

OBJECTIVES: By the end of the semester, the student will be able to:
1. understand and apply logic (homework, Quiz 1 & 2, final)
2. utilize MATLAB for programming (homework, Quiz 2, final)
3. utilize MATLAB for engineering problem solutions (homework, quizzes, final)
4. utilize MATLAB for creating 2-D and 3-D plots (homework, Quiz 4 & 5, final)

Prepared by: Susan Hall Date: Spring 2003