Course Objectives & Outcomes
College of Science & Engineering

Department: Electrical Engineering
Course Number: EE 3345
Course Name: Signals and Systems

Objective 1) Knowledge about basic signal and system modeling concept and definitions

Outcomes
1) Student understand continuous-time signals and discrete-time signals
2) Student understand linear time-invariant systems theory and applications
3) Student can perform mathematical and graphical convolution of signals and systems

Assignments that demonstrate accomplishment of this outcome:
   1) Weekly homework assignment. Answers require some calculations and drawing.
   2) Quizzes and 1 midterm exam.
   3) MATLAB assignments. Plot various continuous-time and discrete-time signals.

Objective 2) Knowledge about the application and use of mathematical transforms and state-variables in order to solve electrical engineering problems

Outcomes
1) Student understand continuous-time and discrete-time Fourier series/transforms
2) Student can sketch the magnitude and phase of signals in transform domains
3) Student can solve electrical engineering signals and circuit problems

Assignments that demonstrate accomplishment of this outcome:
   1) Weekly homework assignments. Answers require calculations and table lookup.
   2) Quizzes, 1 midterm exam, and 1 final exam.
   3) MATLAB assignments. Plot signals in transform domain.

Objective 3) Knowledge in the use of a modern computation software tool for the analysis of electrical engineering problems

Outcomes
1) Student learn how to use the mathematical analysis tool called MATLAB
2) Student can plot the signals in both time domain and transform domains using MATLAB
3) Student can solve electrical engineering signal and circuit problems using MATLAB

Assignments that demonstrate accomplishment of this outcome:
   1) MATLAB assignments. Answers require the codes and the plotted graphs.