

ENGINEERING

ENGR 0015 INTRODUCTION TO ENGINEERING ANALYSIS 3 cr.

Introduces students to basic topics in engineering, the role of the computer in engineering, ill-structured problem-solving and report writing. The course includes material on the use of UNIX, HTML, spread sheets, and MATLAB. Data analysis and curve fitting is done in both MATLAB and Excel. The writing component includes four detailed reports and includes an oral presentation. The course goals are: to introduce the fundamentals of what engineering is, what engineers do, why a diverse work force is needed and what values come with working in a group environment; to introduce the required library research skills and communication skills used by all engineers; to introduce the role of the computer in engineering problem solving , including the basic analytical, programming design, graphical, and problem solving skills used by most engineers in their profession; and to provide an overview of how material in the basic sciences and mathematics is applied by engineers to solve practical problems of interest to society.

Corequisite: MATH 0200.

ENGR 0016 INTRODUCTION TO ENGINEERING COMPUTING 3 cr.

Introduces students to social topics in engineering, the role of the computer in engineering, ill-structured problem-solving and report writing. The course includes material on the use of MATLAB and C++. Students learn the fundamentals of computing in engineering, including program design, program development, and debugging. Applications to problems in engineering analysis with topics selected from ENGR 0015. The writing component includes four detailed reports and may include an oral presentation.

Prerequisite: ENGR 0015.

ENGR 0081 FRESHMAN ENGINEERING SEMINAR 1 0 cr.

An in-depth orientation in the various areas of engineering and the related fields of employment. Includes small group meetings with departmental representatives and special freshman academic advisors. A formal departmental choice is made at the conclusion of these courses.

Prerequisite: None.

ENGR 0082 FRESHMAN ENGINEERING SEMINAR 2 0 cr.

An in-depth orientation in the various areas of engineering and the related fields of employment. Includes small group meetings with departmental representatives and special freshman academic advisors. A formal departmental choice is made at the conclusion of these courses.

Prerequisite: None.