

COURSE SYLLABUS (2 Page)

Course Number: ENGR 1201
Course Name: Introduction to Engineering Practices and Principles I

Credits and Contact Hours: 2

Instructor: Donald Blackmon

Textbook: *Title:* Engineering Communication
Authors: Knisley and Knisley
Year: 2015

Title: The 7 Habits of Highly Effective People
Authors: Covey
Year: 1989

Title: Lyle's Law
Authors: Feisel
Year: 2013

Other Supplemental Materials: Handouts

Catalog Description: An introduction to the different disciplines within engineering; the college's computing system; academic, personal and professional development; teamwork; project planning; engineering design; engineering calculations; and oral and written communication skills within a multi-disciplinary format.

Most Recently Offered (Day): Spring 2016, Fall 2015, Summer 2015

Most Recently Offered (Evening): Course has not been offered in 3 years

Pre-Requisites/Co-Requisites: MATH 1241 (Co-requisite)

Course is: Required (R)

Goals: This course is designed to introduce first year engineering students to the various disciplines and practices in the profession, encourage and excite them about their opportunities to make an impact in society, and provide them with a glimpse of some of the tools, techniques, and skills of the profession.

This course is also part of the college's Prospect for Success (PFS) freshman curriculum. It is intended to foster academic engagement via three specific learning outcomes: Commitment to Success, Inquiry, and Cultural Awareness. Two of the PFS learning outcomes are measured in this course:

- Commitment to Success: Students will identify specific and realistic goals for their collegiate experience, develop or exhibit strategies for achieving those goals, and recognize the need to make change in light of experience.
- Cultural Awareness: Students will demonstrate an understanding of

themselves, and of others, as individuals whose worldview and capacities are shaped by culture and experience and a willingness to take the worldview and capacities of others into consideration.

Inquiry is integrated into a selected course in the second semester of the student's freshman curriculum. Thus, by the end of the freshman year students will reflect upon and enhance their personal understanding and meaning of each PFS outcome.

Student Outcomes Addressed:

In this course, students will develop the following Student Outcomes:

- A. an ability to apply knowledge of mathematics, science, and engineering
- C. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- D. an ability to function on multidisciplinary teams
- G. an ability to communicate effectively
- H. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- I. a recognition of the need for, and an ability to engage in life-long learning

Course Topics:

- Engineering disciplines
- Engineering design process
- Project management tools and techniques
- Multidisciplinary teamwork skills
- Academic success and professional development
- Oral and written communications