

XIDS 2002
Fall 2018

What do you know about Challenges in Engineering?
TLC 2105 **Monday: 2:00 – 3:50 pm**

Instructor

Dr. Sharmistha Basu-Dutt

Room: 2136 TLC

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Office hours M, W: 9 – 11 am and T, R 1 – 3 pm

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Course Outline The objective of the course is to introduce students to the engineering profession along with personalized advising related to their education and career objectives.

Learning Outcomes Students will: (i) Develop an appreciation for the nature of engineering, (ii) Distinguish between the different branches of engineering, (iii) Understand the benefits, challenges, and ethical standards of engineering in the real world, (iv) Obtain information about study, experience and practice opportunities in engineering, (v) Develop critical thinking, problem solving, oral and written communications skills.

Course Policy

The class meets on Mondays from 2:00 – 3:50 pm in TLC 3108. Please come to class on time, and do not leave early. Remember to fill your water bottle or use the restroom before class. You are expected to behave **professionally** in this course, which means considering the effect that your behavior will have on other people involved in the course. Use of cell phones and/or personal laptops are not allowed during lecture. There is no textbook for the course. Selected reading material will be posted on Course Den for use in class assignments and exams. Refer to the student handbook for information on academic honesty, academic support, campus carry and other policies https://www.westga.edu/administration/vpaa/assets/docs/faculty-resources/common_language_for_course_syllabi_v2.pdf

Exams, Individual Classwork and Group Projects

Classwork, homework and presentations will be worth 300 points. Late work will not be graded. Use the following websites for the various presentations: (i) <http://www.careercornerstone.org/engineering/engineering.htm> for *Careers* presentation, (ii) <http://spinoff.nasa.gov/> for *NASA Spinoff* presentation, (iii) <http://www.engineeringchallenges.org/cms/challenges.aspx> for *Grand Challenges* presentation.

A *group project* on building and marketing a scaled model of the International Space Station (http://er.jsc.nasa.gov/seh/International_Space_Station.pdf) is worth 100 points.

Grading Total 500 points > 90.0%: A 80-89%: B 70-79%: C 60-69%: D <60.0%: F

Tentative Schedule

	Topic of Discussion	HW/CW (Points)
August 20	Introduction to UWG Scavenger Hunt (20)	
August 27	All About Engineering Summary (20)	
September 3	<i>No class - Labor Day</i>	
September 10	<i>No class – complete online Sustainability module <u>by midnight</u> (20)</i>	
September 17	Engineering Professional and Teams Summary (20)	
September 24	Engineering Disasters and Ethics Analysis (20)	
October 1	MIDTERM	Closed notes exam (100)
October 8	Careers Presentation I	In-class group presentation (50)
October 15	Careers Presentation II	
October 22	<i>No class – Build ISS</i>	
October 29	ISS Project	In-class group presentation (100)
November 5	Grand Engineering Challenges	In-class group presentation (25)
November 12	<i>No class – complete NASA spinoff brochure and submit <u>by midnight</u> (25)</i>	
November 19	<i>No class – Thanksgiving Holiday</i>	
November 26	Wrap-up/Evaluations	
December 3	FINALS	Closed notes exam (100)