Course Title: BME 3303: Foundations of Biomedical Engineering I

Class Time: Fall Semester
TTR 12:00 noon - 1:20 pm  Room: LART 207

Textbook: none, Handouts may be provided

Instructors: Thomas Boland, Ph.D.  tboland@utep.edu

Office hours: by appointment

Goals:
This course teaches the application of various engineering principles to analysis and understanding of the structure, function, and control of biological systems. Prereq: Engineering standing or consent of instructor.

POINTS DISTRIBUTION:  In class work 10%, Home work 20%, Midterm 30% Final 30%

Approximate Schedule:
Week 1: Introduction to class, introduction to biomedical engineering
Week 2: Ethics and Research Design
Week 3: Overview of Molecular & Cellular Principles
Week 4: Cells, tissues, organs
Week 5: Orthopedic devices and their design
Week 6-7: Wound healing
Week 7-9: Cardiovascular devices and their design
Week 10: Biocompatibility
Week 11-12: Biomaterials
Week 13: Sterilization
Week 14: Wound closure
Week 15: Ophthalmic devices/ device regulation

Disability
If you have or suspect a disability and need accommodations, you should contact The Disabled Student Services Office (DSSO) at 747-5148. You can also email the office at dss@utep.edu or go by the Union Building East, Room 106. For additional information, visit the DSSO website at www.utep.edu/dsso/.

Academic Integrity
The instructors expect a commitment to truthfulness, honor and responsibility, without which you cannot earn the trust and respect of others. Therefore, we will not tolerate plagiarism, lying, cheating, or stealing in any form.

Honor Code: “I, _________________________, hereby pledge that I have read and understood the entire syllabus for the course, BME 3303 Foundations of BME I , and I will abide by the policies described above.