



MT271 Jan 3:0

Introduction to Biomaterials Science and Engineering

Instructor

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Teaching Assistant

Email:

Department: Materials Engineering

Course Time:

Lecture venue:

Detailed Course Page:

Announcements

Brief description of the course

This course will introduce basic concepts of biomaterials research and development including discussion on different types of materials used for biomedical applications and their relevant properties.

Prerequisites

None

Syllabus

Contents: Surface engineering for biocompatibility; Protein adsorption to materials surfaces; Blood compatibility of materials; Immune response to materials; Corrosion and wear of implanted medical devices; Scaffolds for tissue engineering and regenerative medicine; Concepts in drug delivery; Regulatory issues and ethics

Course outcomes

Learn the basic concepts in the use of materials for biomedical applications and the principles of biological response to materials

Grading policy

Exam 1: 25%; Exam 2: 25%; Final exam: 50%

Assignments

Resources