

**MAT 416 Biomaterials Science and Biocompatibility  
(Spring 2021)**

**Instructor:** Gözde İnce (gozdeince@sabanciuniv.edu)  
Office No: FENS 2009  
Phone No: 9878

**Teaching Assistants:** TBA

**Lecture Hours:** Tuesday: 11.40 -12.30  
Thursday: 10.40 -12.30

**Requirements:**  
2 Midterm Exam (20%)  
Group Project (30%)  
Final Exam (30%)

**Resources:**

- Introduction to Biomaterials (Agrawal, Ong et al)
- Biomaterials: An Introduction (Park, Lakes)
- Biomaterials Science (Ratner et al.)
- Handbook of Biomaterial Properties (Murphy, Black et al.)

**Academic Integrity Policy:**

If acts of violations of academic integrity (copying/returning someone else's work, attending classes/exams on behalf of other people, using resources other than allowed during online exams etc) detected, all parties involved will receive zero grades from that assignment and disciplinary actions will be taken.

**Grading Policy:**

Course grades will be based on the curve system.

Minimum of 10% (of the max grade for that item) from each grading item will be required to pass the course.

## **Course Outline (tentative)**

Week 1: Introduction

Week 2: Basic Properties

Week 3: Body response to biomaterials

Week 4 - 5: Metallic Biomaterials

Week 6 -7: Ceramics in Bioapplications

Week 8 - 9: Polymeric Biomaterials

Week 10: Composite Biomaterials

Week 11: Natural Biomaterials

Week 12: Surface Modification

Week 13: Evaluation of biomaterials

Week 14: Project presentations