

Name of the Lecture	Bioceramics
Level of the Lecture	Graduate
Length of the Lecture	25 minutes
Type of the Lecture	Online
Lecturer	Prof. Dr. Oguzhan Gunduz
Lecturer Email	oguzhan@marmara.edu.tr
Aim of the Lecture	Providing students with both basic and up-to-date information in the field of bioceramics.
Content of the lecture	<ol style="list-style-type: none"> 1. Background and scope of bioceramics 2. Classifications of Ceramics <ol style="list-style-type: none"> 1. Bioinert ceramics 2. Bioactive ceramics 3. Bioresorbable ceramics 3. Types of bioceramics <ol style="list-style-type: none"> 1. Alumina and zirconia <ol style="list-style-type: none"> 1. Alumina (Source, Composition, Structure, Properties) 2. Zirconia (Source, Composition, Structure, Properties) 2. Glasses and glass-ceramics <ol style="list-style-type: none"> 1. Glasses (Source, Composition, Structure, Properties) 2. Glass-ceramics (Source, Composition, Structure, Properties) 3. Calcium phosphate bioceramics <ol style="list-style-type: none"> 1. Hydroxyapatite (Source, Composition, Structure, Properties) 2. Tricalcium phosphate-based ceramics (Source, Composition, Structure, Properties) 4. Carbon-based bioceramics (Source, Composition, Structure, Properties) 4. Fabrication process of bioceramics 5. Osteoinduction, osteoconduction and osteointegration 6. Biomedical applications of bioceramics <ol style="list-style-type: none"> 1. Orthopedic applications 2. Dental applications 3. Surface coatings 4. Bone tissue engineering 5. Others 7. Future perspectives
Recommended Sources	-

Language of the lecture	English
Learning Outputs	General information about Ceramics
	Bioceramics and their applications in the field of tissue engineering
	Bioceramic composites and tissue substitutes