

# FINAL EXAM

**Date: 8 December 2025 Monday**

**Time: 10:30 - 12:00**

**ONLINE- Requires Respondus LockDown Browser + Webcam**

You will have 4 questions each 25 points.

First question is about defining some biomaterials terminology.

Following three questions will be about the main topics of biomaterials science.

All subjects in canvas are included in the final exam (only ethichs and law/legal chapters are not included)

Please answer each question in detail, short answers will recieve low grades.

Good Luck ...

## SUBJECTS INCLUDED IN FINAL EXAM

*(Course materials are available FGCU Canvas System)*

- **08.18.2025 Introduction to Biomaterials Science.pdf**
- **08.20.2025 Evolution of Biomaterials.pdf**
- **08.25.2025 Materials in Biomaterials Science\_ Ceramics, Glasses, HA and Carbon.pdf**
- **08.27.2025 Materials in Biomaterials Science\_ Metals.pdf**
- **09.03.2025 Mechanics of Biomaterials-1 (Dr Jiehong Liao) (Internal Forces (Review), Normal and Shear Stress)**
  - M0L1 WKS - Internal Forces.pdf
  - M0L1 SOL - Internal Forces.pdf
  - M1L7 WKS - Normal and Shear Stress.pdf
  - M1L7 SOL - Normal and Shear Stress.pdf
- **09.08.2025 Mechanics of Biomaterials-2 (Dr. Lura Derek) (Normal and Shear Stress (Problems), Introduction to Design)**
  - M1L8 WKS - Introduction to Design.pdf
  - M1L8 SOL - Introduction to Design.pdf
- **09.10.2025 Mechanics of Biomaterials-3 (Dr Jiehong Liao) (Strain and Poisson's Ratio)**

M1L9 SOL - Strain.pdf

M1L9 WKS - Strain.pdf

➤ **09.15.2025 Mechanics of Biomaterials-4 (Dr Lura Derek) (Mechanical Properties of Materials)**

M1L10 WKS - Mechanical Properties of Materials.pdf

M1L10 SOL - Mechanical Properties of Materials.pdf

➤ **09.17.2025 Mechanics of Biomaterials-5 (Dr Lura Derek) (Axial Deformation)**

**M1L11 SOL - Axial Deformation (Worksheet A & B).pdf**

M1L11 SOL - Axial Deformation (Worksheet C & D).pdf

M1L11 WKS - Axial Deformation.pdf

➤ **09.22.2025 Materials in Biomaterials Science-Polymers\_Polyurethanes\_Silicones\_Fluorinated Biomaterials.pdf**

➤ **09.24.2025 Materials in Biomaterials Science-Hydrogels\_Compositesx.pdf**

➤ **09.29.2025 Cardiovascular Medical Devices\_ Heart Valves, Pacemakers, and Defibrillators.pdf**

➤ **10.01.2025 Applications of Biomaterials: Orthopedic Applications-1**

➤ **10.08.2025 Applications of Biomaterials: Orthopedic Applications-2**

➤ **10.27.2025 Applications of Biomaterials: Dental Applications-1**

➤ **11.03.2025 Applications of Biomaterials: Dental Applications-2**

➤ **11.05.2025 Applications of Biomaterials; Dental Implants and Distraction Osteogenesis Biomaterials**

➤ **11.10.2025 Sterilization and Disinfection of Biomaterials.pdf**

➤ **11.17.2025 Lifecycle Management and Safety.pdf**

➤ **11.24.2025 Bone Substitutes in Oral and Maxillofacial Applications Bone Tissue Engineering.pdf**