

**TOTAL EXAMINATION PROGRAM**  
**PEO Syllabus of Examinations, 2004 Edition**

**BIOMEDICAL/BIOCHEMICAL ENGINEERING**

**INTRODUCTION**

A full set of Biomedical/Biochemical Engineering examinations consists of the following, three-hour examination papers and an engineering report. Candidates will be assigned examinations based on an assessment of their academic background. Examinations from discipline syllabi other than those specific to the candidates' discipline may be assigned at the discretion of PEO's Academic Requirement Committee.

**BASIC STUDIES EXAMINATIONS**

04-BS-1	Mathematics
04-BS-2	Probability and Statistics
04-BS-3	Statics and Dynamics
04-BS-4	Electric Circuits and Power
04-BS-5	Advanced Mathematics
04-BS-6	Mechanics of Materials
04-BS-7	Mechanics of Fluids
04-BS-10	Thermodynamics
04-BS-11	Properties of Materials
04-BS-12	Organic Chemistry
04-BS-13	Biology
04-BS-14	Geology
04-BS-15	Engineering Graphics and Design Process

**PROFESSIONAL EXAMS – SPECIFIC TO BIOMEDICAL/BIOCHEMICAL ENGINEERING**

**GROUP A**

04-Bio-A1	Biomaterials and Biocompatibility
04-Bio-A2	Process Dynamics and Control
04-Bio-A3	Cellular and Molecular Biology and Biochemistry
04-Bio-A4	Biomechanics
04-Bio-A5	Enzyme and Microbial Kinetics
04-Bio-A6	Anatomy and Physiology
04-Bio-A7	Fluid Mechanics
04-Bio-A8	Biophysical Measurements
04-Bio-A9	Bioreactor Design

**GROUP B**

04-Bio-B1	Biochemical Separations
04-Bio-B2	Prostheses and Orthoses
04-Bio-B3	Biotransport Phenomena
04-Bio-B4	Digital Image Processing
04-Bio-B5	Cell and Tissue Engineering
04-Bio-B6	Bioinstrumentation
04-Bio-B7	Robotics and Manufacturing Automation
04-Bio-B8	Rehabilitation Engineering
04-Bio-B9	Artificial Intelligence and Expert Systems
04-Bio-B10	Analytical Biochemistry
04-Bio-B11	Ergonomics
04-Bio-B12	Applied Optics/Photonics

**COMPLEMENTARY STUDIES**

11-CS-1	Engineering Economics
11-CS-2	Engineering in Society – Health & Safety
11-CS-3	Sustainability, Engineering and the Environment
11-CS-4	Engineering Management

3.2	Engineering Report
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