

## TEMPLATE FOR COURSE SPECIFICATION

### HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

#### COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programme specification.

1. Teaching Institution	Ministry of higher education & scientific research
2. University Department/Centre	University of Baghdad / Alkharizmi College of Engineering / Biomedical Engineering Department
3. Course title/code	Biomaterial
4. Programme(s) to which it contributes	B.Sc. Biomedical engineering
5. Modes of Attendance offered	Full time
6. Semester/Year	Semester
7. Number of hours tuition (total)	hours (total)
8. Date of production/revision of this specification	٢٠٢١
9. Aims of the Course	To gain the required knowledge about biomaterial and their applications in biomedical field.

10. Learning Outcomes, Teaching, Learning and Assessment Method.

A- Knowledge and Understanding

- A1.
- A2.√
- A3.√
- A4.
- A5.
- A6 .

B. Subject-specific skills

- B1.√
- B2.
- B3. √

Teaching and Learning Methods

- Lectures where the students write information presented to them via slide show, overhead or written by the lecturer;
- Lectures where the students have some printed notes/handouts and may annotate, or expand these during a spoken lecture;

Assessment methods

- Written examinations (Summative assessment);
- Individual written project report(s) of both individual and group projects;
- Homework.

C. Thinking Skills

- C1.
- C2.
- C3.√
- C4. √

Teaching and Learning Methods

Assessment methods

- Individual written project report(s) of both individual and group projects;

**D. General and Transferable Skills (other skills relevant to employability and personal development)**

- D1.√
- D2.√
- D3.
- D4.

**11. Course Structure / Course 1**

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1			<b>Ceramics</b>		
2			<b>Mechanical properties 1</b>		
3			<b>Mechanical properties 2</b>		
4			<b>Exam</b>		
5			<b>Failure (Fracture)</b>		
6			<b>Failure (Fatigue)</b>		
7			<b>Failure (stress cycle parameters)</b>		
8			<b>Exam</b>		
9			<b>Electrical properties</b>		
10			<b>Optical properties</b>		
11			<b>Introduction to tissue engineering</b>		
12			<b>Principles of tissue engineering</b>		
13			<b>Exam</b>		
14			<b>Mid Exam</b>		
15			<b>Review</b>		

**12. Infrastructure**

**Required reading:**

- CORE TEXTS
- COURSE MATERIALS
- OTHER

- An Introduction to Biomaterial, BD Ratner, AS Hoffman, FJ Schoen, JE Lemons , 2004.
- The Biomedical Engineering Handbook, Jozeph D. Bronzino, 2009.

Special requirements (include for example workshops, periodicals, IT software, websites)	
Community-based facilities (include for example, guest Lectures , internship , field studies)	

13. Admissions	
Pre-requisites	
Minimum number of students	
Maximum number of students	