# 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.

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|---|---|
| 1. Teaching Institution | Ministry of higher education & scientific research |
| 2. University Department/Centre | University of Baghdad / Alkhwarizmi College of Engineering / Biomedical Engineering Department |
| 3. Course title/code | Clinical Engineering- |
| 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 | |
| 9. Aims of the Course | |

To gain the required knowledge about clinical engineering and its 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 |
| ١ | | | **Estimation of risk factor** | | |
| ٢ | | | **Cases to study** | | |
| ٣ | | | **Important clinical engineering duties** | | |
| ٤ | | | **Exam** | | |
| ٥ | | | **Dynamic risk factor** | | |
| ٦ | | | **Examples of medical devices and static risk factor** | | |
| ٧ | | | **Clinical Engineering Program Indicators** | | |
| ٨ | | | **Exam** | | |
| ٩ | | | **Data Communication 2** | | |
| ١٠ | | | **Network Models 2** | | |
| ١١ | | | **Picture Archiving and Communication Systems (PACS) 2** | | |
| ١٢ | | | **Digital Imaging and Communications in Medicine (DICOM) 2** | | |
| ١٣ | | | **Exam** | | |
| ١٤ | | | **Mid Exam** | | |
| ١٥ | | | **Review** | | |

| 12. Infrastructure | |
|---|---|
| Required reading:<br>· CORE TEXTS<br>· COURSE MATERIALS<br>· OTHER | - A. Taktak, P. Ganney, D. Long and P. White, Clinical Engineering: A Handbook for Clinical and Biomedical Engineers, 2014<br>- The Biomedical Engineering Handbook, Jozeph D. Bronzino, 2009. |

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| 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 | |