

## 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	Baghdad University- Al-Khwarizmi College of Engineering
2. University Department/Centre	Biomedical Engineering
3. Course title/code	Electronics devices and application
4. Programme(s) to which it contributes	BSc in Biomedical Engineering
5. Modes of Attendance offered	Full time attendance
6. Semester/Year	One Semesters per year
7. Number of hours tuition (total)	45 hours in the semester
8. Date of production/revision of this specification	
9. Aims of the Course	
By the end of this course, The students will be able to: 1- Know the theory and background Transistor Frequency Response. 2- Know the applications and operations of Feed Back Analysis Negative Feed Back. 3- learn about the Feed Back Analysis, Positive Feed Back	

4- investigate the 555 Timer

5- Training on Practical Circuits, Timers, Drivers and Power Supplies

#### A- Knowledge and Understanding

A1.

A2.

A3.

#### 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;
- Question and answer sessions during lectures or staff Office Hours;
- Laboratory sessions.

#### Assessment methods

- Written examinations (Summative assessment);
- Oral presentations of individual and group work;
- Homework;
- Practical skills will be assessed through laboratory experiments, write-ups, coursework reports, project reports and presentations;
- Presentation skills through group presentations and poster presentations.

#### C. Thinking Skills

C1.

C2.

C3.

C4.

#### Teaching and Learning Methods

External lectures from industry or clinicians;

- Feedback given to students during tutorials;

- Question and answer sessions during lectures or staff Office Hours;
- Completion of web-based exercises or computer based laboratory sessions;

#### Assessment methods

- Individual written project report(s) of both individual and group projects;
- Practical skills will be assessed through laboratory experiments, write-ups, coursework reports, project reports and presentations;
  - Presentation skills through group presentations and poster presentations.

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

- D1.
- D2.

#### Teaching and Learning Methods

- Lectures where the students have some printed notes/handouts and may annotate, or expand these during a spoken lecture;
- Lecture material placed on web-pages or other e-learning environment;
- External lectures from industry or clinicians;
- Question and answer sessions during lectures or staff Office Hours;

#### Assessment Methods

- Practical skills will be assessed through laboratory experiments, write-ups, coursework reports, project reports and presentations;
- Presentation skills through group presentations and poster presentations.

### 11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
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	Objective	Period	Notes

1	Transistor Frequency Response A) BJT Transistor - Low Frequency Response - High Frequency Response	8+8 Hour Two Week	
	Transistor Frequency Response B) FET Transistor - Low Frequency Response - High Frequency Response	8+8 Hour Two Week	
2	Feed Back Analysis A) Negative Feed Back - Voltage Shunt - Current Shunt - Voltage Series - Current Series	8 Hour One Week	
	I) Negative Feed Back Approach in BJT Transistor	8 Hour One Week	
	II) Negative Feed Back Approach in FET Transistor	8 Hour One Week	
			Exam-I
	III) Negative Feed Back Approach in OP-Amp.	8 Hour One Week	
	Feed Back Analysis B) Positive Feed Back ( Non- Sinusoidal Oscillates) I) Transistors - A stable - Mon stable	8+8 Hour Two Week	
	II) 555 Timer - A stable - Mon stable	8+8 Hour Two Week	
3	Practical Circuits - Timers - Drivers - Power Supplies	8+8 Hour Two Week	
			Exam-II
	Total		15 Week

13. Admissions	
Pre-requisites	<b>Electronic</b>
Minimum number of students	<b>10</b>
Maximum number of students	<b>40</b>

12. Infrastructure	
Required reading: · CORE TEXTS · COURSE MATERIALS · OTHER	1-Electronic Devices and Circuit Theory by Robert L. Boylestad 2- Electronic devices and circuits by Jicob Milliman 3-ELECTRONIC DEVICES by Thomas L. Floyd
Special requirements (include for example workshops, periodicals, IT software, websites)	<b>Electronics Workbench software package</b>
Community-based facilities (include for example, guest Lectures , internship , field studies)	