## **FACULTY OF ENGINEERING**

## DEPARTMENT OF ELECTRONIC AND ELECTRICAL ENGINEERING

# **ELECTRONIC AND ELECTRICAL ENGINEERING – Bahrain**

Bachelor of Engineering with Honours in Electronic and Electrical Engineering - Bahrain Bachelor of Engineering in Electronic and Electrical Engineering - Bahrain Diploma of Higher Education in Electronic and Electrical Engineering - Bahrain

These regulations are to be read in conjunction with <u>General Academic Regulations –</u>
<u>Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.</u>

# **Duration of study**

1. The <u>General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level shall apply.</u>

## Mode of study

2. The programmes are available by full-time study only.

#### Place of study

3. Students will study at the University of Strathclyde, Bahrain.

#### Curriculum

4. **First Year –** All students shall undertake modules amounting to 125 credits delivered by Study Group Ltd. as follows:

## **Compulsory Modules**

Module Code	Module Title	Level	Credits
HF103	Academic English Skills	1	30
MM152	Mathematics for Science and Engineering 1	1	15
MM153	Mathematics for Science and Engineering 2	1	15
XXXX	Lab Skills and Scientific Communication	1	5
CS126	Computing 1	1	15
XXXX	Electronics	1	15
PH186	Physics 1	1	15
PH187	Physics 2	1	15

5. **Second Year** – All students shall undertake modules amounting to 120 credits as follows:

# Compulsory Modules

Module Code	Module Title	Level	Credits
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XXXXX	Engineering Design and Manufacture	2	10
XXXXX	Physical Electronics	2	10
XXXXX	Electromagnetism	2	10
XXXXX	Electronic and Electrical Principles 2	2	20
XXXXX	Digital Electronic Systems	2	20
XXXXX	Electronic and Electrical Techniques and Design 2	2	10
XXXXX	Engineering Design for Software Development 2	2	20
XXXXX	Engineering Mathematics 3E	2	20

6. **Third Year** – All students shall undertake modules amounting to 120 credits as follows:

# **Compulsory Modules**

Module Code	Module Title	Level	Credits
XXX	Signals and Communication Systems	3	20
XXX	Electronic and Electrical Principles 3	3	20
XXX	Instrumentation and Microcontrollers	3	20
XXX	Engineering Analysis	3	20
XXX	Engineering Innovation and Management	3	10
XXX	Engineering Project	3	10
	Elective Modules	3	20

Fourth Year – All students shall undertake modules amounting to 120 credits as follows:

## **Compulsory Modules**

Module Code	Module Title	Level	Credits
XXXXX	Project	4	40

<u>Optional modules</u> Students must choose 80 credits from the list below:

XXXXX	Analogue and Digital System Design	3	20
XXXXX	Renewable Energy Technologies	3	20
XXXXX	Power, Electronics, Machines and Applications	4	20
XXXXX	Power System Design, Operation and Protection	4	20
XXXXX	Analogue Systems	4	20
XXXXX	Digital Signal processing Principles	4	20
XXXXX	Information Transmission and Security	4	20
XXXXX	Communication Networks	4	20
XXXXX	Control Principles	4	20
XXXXX	Photonic Systems	4	20
XXXXX	Robotic Systems	4	20
XXXXX	Advanced Microcontroller Applications	5	20

Exceptionally, such other modules totalling no more than 20 credits as approved by the Programme Director.

#### **Progress**

- 8. In order to progress to the second year of the programme, students are required to have passed all modules with a Credit Weighted Average of 60 by the second attempt and have passed HF103 Academic English Skills at 60 or above.
- 9. In order to progress to third year, the <u>General Academic Regulations Undergraduate</u>, Integrated Master and Professional Graduate Degree Programme Level shall apply.
- 10. In order to progress to fourth year, the <u>General Academic Regulations Undergraduate</u>, <u>Integrated Master and Professional Graduate Degree Programme Level</u> shall apply.

#### **Final Assessment and Honours Classification**

11. The final classification will normally be based on the first assessed attempt at modules taken in the third and fourth years.

**Award:** Subject to the completion of additional national requirements.

- 12. **BEng with Honours:** In order to qualify for the award of the degree of BEng with Honours in Electronic and Electrical Engineering Bahrain, see <u>General Academic Regulations Undergraduate</u>, <u>Integrated Master and Professional Graduate Degree Programme Level</u>. A candidate must have accumulated no fewer than 485 credits from the programme curriculum and must include Project XX496.
- 13. **BEng:** In order to qualify for the award of the degree of BEng in Electronic and Electrical Engineering Bahrain, see <u>General Academic Regulations Undergraduate</u>, <u>Integrated</u>

Master and Professional Graduate Degree Programme Level.

14. **Diploma of Higher Education:** In order to qualify for the award of a Diploma of Higher Education in Electronic and Electrical Engineering - Bahrain, see <u>General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.</u>