



# Bachelor of Engineering Technology

## Programme Length

8 Semesters (Full-Time) - 480 credits

### Programme Entry Requirements

Applicants must achieve the minimum requirements in the English and Mathematics entry tests OR pass the appropriate English and Mathematics courses offered in the Certificate in Academic Preparation programme.

## Majors

- Mechanical Engineering
- Electronic Engineering

# Introduction & Programme Aims

The aim of this programme is to provide students with a comprehensive set of theoretical knowledge and practical skills for employment as engineering technologists.

Both qualifications are fit-for-purpose in terms of addressing the Industrial needs nationally, regionally and internationally. Through the application of the Problem Based learning methodology, the required theoretical, practical and employability skills are transferred to our graduates in order for them to transform into work – ready and enterprising graduates that will enhance the value of the Society and the Bahraini economy.

The students are motivated to learn through the application of engineering analysis, design and the evaluation of real life problems and the inclusion of various courses in English Language, Mathematics, Project Management, Ethics and Social responsibility.

#### **Graduate Profile**

On successful completion of this programme, students will have the skills and knowledge to be able to:

- Apply knowledge of mathematics, science, and engineering fundamentals, to applied engineering problems.
- Solve broadly-defined engineering problems using research and analysis techniques.
- Design solutions for broadly-defined engineering problems taking into account public health and safety, cultural, societal and environmental issues.
- Investigate engineering problems and do experiments to validate theoretical hypotheses.
- Apply modern engineering techniques and tools.
- · Work efficiently and effectively within a team.
- Communicate effectively through reports, technical documents and presentations.

#### Career Opportunities

#### **Mechanical major**

- Industrial Systems.
- Product Design.
- · Manufacturing.
- Product Development.
- Computer Aided Design.
- · Performance evaluation.
- · Reliability & Quality.
- · Project Management.
- · Process control and instrumentation.

#### **Electronic Engineering**

- · Control Engineering.
- Telecommunications.
- Electronic System Design.
- Renewable Energy.
- Embedded Systems.
- · Process Control and Instrumentation.





#### Teaching and Assessment

The programme is delivered through a mixture of classroom teaching, tutorials, guest speakers, online (web-based), laboratory work, workshops, problem-based learning, supervised brief and extended projects, field trips and workplace experience. Assessment of courses is both formative and summative, and typically includes a mix of tests, assignments, laboratory reports, project reports and examinations.

Illock Placement

Starting from Year 2, students are required to complete 80 days of approved work placement. It is expected that this will normally occur in 4 week periods in each year of the programme.

**Qualifications** 

- · Bachelor of Engineering Technology (Mechanical)
- Bachelor of Engineering Technology (Electronics)
- Diploma in Engineering Technology (Mechanical) Exit Qualification at the end of the 3rd Year
- Diploma in Engineering Technology (Electronics) Exit
  Qualification at the end of the 3rd Year

#### Summary of Programme Structure

Each Major is delivered over a 4-year period. In the first year all engineering students study the basic principles of Mechanical and Electronics Engineering as well as Mathematics and English courses with an engineering focus. In the second year, students select their specific major and follow the relating courses according to the stream. They also select other Elective courses required in all Polytechnic degrees while the English courses tailored for engineering, continue through to the end

of the second year. The students continue their studies at the third and fourth year gaining applied knowledge and problem solving skills based mostly on projects development. Each semester, students gain work experience through industry placements organized by the Polytechnic. Project based learning is common in both the Engineering degrees. Students learn through small integrated projects in the early years while the final year consists mostly of large industry linked projects.

