BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS

Introduction

The Bachelor of Chemical Engineering with Honours program is a 4-year program in which students are required to complete 137 credits of coursework before graduating. Students must also choose one of the offered specialization fields in their final year of study: Biochemical Engineering, Process Engineering and Safety, Environmental Engineering and Sustainability, and Advanced Materials. Additionally, students are required to undergo a minimum of 10 weeks of Industrial Training during the break between Semester 6 and Semester 7. The content and structure of the curriculum for this program have been designed based on the needs of stakeholders and in line with the program's objectives and learning outcomes. The main objective of this program is to produce trained engineering graduates in the field of chemical engineering. Chemical engineers are responsible for designing and modifying processes and plants for chemicals, biochemicals, food, water, and wastewater. Moreover, chemical engineers possess knowledge and skills in combustion technology and fuels, heat and mass transfer, material selection, plant safety, environmental concerns, processing, and the impact of technology on society. Chemical engineers must also ensure that the design of any process is efficient, effective, reliable, economical, safe, sustainable, and environmentally friendly.

Career Opportunities

Job opportunities for Chemical Engineering graduates are extensive, with employers ranging from small and medium-sized enterprises to multinational organizations and government agencies. The chemical, petroleum, and natural gas processing industries offer employment in areas such as design, operations, research and development, manufacturing, management, marketing, maintenance, occupational safety, sales, and technical services. Additionally, graduates in chemical engineering also have the opportunity to work as safety engineers or researchers in research institutions and government departments. Past records indicate that graduates from the Department of Chemical and Environmental Engineering often secure jobs relevant to their field of study.

Admission Requirements

Bachelor of Chemical Engineering with Honours (UP6524001) 8 Semester

Minimum Qualification STPM	Minimum Qualification for Matriculation/ Foundation	Minimum Qualification for Diploma/ Equivalent
Meet General University Requirements and	**Meet General University Requirements and**	**Meet General University Requirements and**

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Minimum Qualification STPM	Minimum Qualification for Matriculation/ Foundation	Minimum Qualification for Diploma/ Equivalent
PROGRAM SPECIFIC REQUIREMENT Achieve at least a **CGPA of 2.80**; **and** Achieve at least a **Grade B** at the STPM level in the following subjects: • Additional Mathematics; **and** • Physics / Chemistry / Biology; **and** Achieve at least **BAND 3.0** in the Malaysian University English Test **(MUET)** for examinations starting from Session 1 of 2021 or **BAND 3** for examinations up to the year 2020; **or** Achieve at least **BAND 2.0** in the Malaysian University English Test **(MUET)** for examinations starting from Session 1 of 2021 or **BAND 2** for examinations up to the year 2020, and at least a **Grade C** in the English subject at the SPM level; **and** No physical disability that hinders practical work	**PROGRAM SPECIFIC REQUIREMENT** Achieve at least a **CGPA of 2.80**; **and** Achieve at least a **Grade B** at the Matriculation/ Foundation level in the following subjects: • Mathematics; **and** • Physics / Chemistry / Biology; **and** Achieve at least **BAND 3.0** in the Malaysian University English Test **(MUET)** for examinations starting from Session 1 of 2021 or **BAND 3** for examinations up to the year 2020; **or** Achieve at least BAND 2.0 in the Malaysian University English Test **(MUET)** for examinations starting from Session 1 of 2021 or **BAND 2** for examinations up to the year 2020, and at least a **Grade C** in the English subject at the SPM level; **and** No physical disability that hinders practical work.	**PROGRAM SPECIFIC REQUIREMENT** Hold a Diploma in a relevant field with at least a **CGPA of 2.80** or another qualification recognized by the UPM Senate; **and** Achieve at least **BAND 3.0** in the Malaysian University English Test **(MUET)** for examinations starting from Session 1 of 2021 or **BAND 3** for examinations up to the year 2020; **or** Achieve at least **BAND 2.0** in the Malaysian University English Test **(MUET)** for examinations starting from Session 1 of 2021 or **BAND 2** for examinations up to the year 2020, and at least a **Grade C** in the English subject at the SPM level; **and** No physical disability that hinders practical work.

Curriculum (2021 – 2025)

The courses offered are divided into three categories: General Courses, Core Courses, and Elective Courses:

Curriculum Components	EAC Requirements (minimum credit hours)	Curriculum Bachelor of Chemical Engineering with Honours	Percentage (%)
General Courses	No min set value	20	14.6%
Core Courses	90	102	74.4%
Elective Courses		15	11.0%
Total	**135**	**137**	**100%**

Total Credit Hours for Graduation : 137
Duration of Study : 8 semesters (4 years)

Tuition Fees

Code	Programme	Average Cost Per Student Per Year	Tuition Fees Paid by Students Per Year	Government Subsidy to Students Per Year
63-2	Bachelor of Chemical Engineering with Honours	RM26,315.00	RM4,489.00	RM21,826.00

* Subject to change from time to time.

Contact Officer

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