

Elective and Minor Options
BH-ERM Bachelor of Engineering (Robotics and Mechatronics) (Honours)

Electives / Minor Study	Unit Code	Unit Title	Pre-requisites	Remark
(A) Specialist Studies (Select 4 units)	EEE40002	Integrated Circuit Design	EEE20001	Offered in Semester 1 only
	EEE30001	Analogue Electronics 2	EEE20004 or EEE20006	Offered in Semester 1 only
	TNE30003	Communications Principles	MTH10007 / (MTH10012 & MTH10013)	Offered in Semester 1 only
	EEE40005	Power Electronics	EEE20005 or RME20001	Offered in Semester 2 only
	TNE10006	Network and Switching	Nil	Offered in Semester 2 only
	COS10082	Applied Analytics in Business	Nil	Offered in Semester 1 only
	COS10081	Introduction to Data Science	Nil	Offered in Semester 1 only
	COS20001	User-Centred Design	Nil	Offered in Semester 1 & 2
	COS20007	Object Oriented Programming	COS10009 / SWE20004	Offered in Semester 1 & 2
	SWE20001	Development Project 1: Tools and Practices	COS20007/SWE20004	Offered in Semester 1 & 2
	SWE30010	Development Project 2: Design, Planning and Management	SWE20001 & COS20007/SWE20004/COS20011	Offered in Semester 1 & 2
	COS30008	Data Structures and Patterns	COS20007/SWE20004	Offered in Semester 1 & 2
	COS30019	Introduction to Artificial Intelligence	COS20007/SWE20004	Offered in Semester 1 & 2
	COS30017	Software Development for Mobile Devices	COS20007/SWE20004	Offered in Semester 2 only
	COS10081	Introduction to Data Science	Nil	Offered in Semester 1 & 2
	COS20085	Big Data Architecture and Application	COS10081 & COS20007	Offered in Semester 2 only
	ICT30005	Professional Issues in IT	200 credit points	Offered in Semester 1 only
	MEE40005	Human Factors	100 Credit Points	Offered in Semester 1 only
	MEE20003	Fluid Mechanics 1	MTH10007 / (MTH10012 & MTH10013)	Offered in Semester 1 & 2
	MEE20001	Thermodynamics 1	PHY10001	Offered in Semester 1 only
	MEE30004	Solid Mechanics	MEE20004	Offered in Semester 2 only
	MEE20005	Materials & Manufacturing 1	MEE10001	Offered in Semester 2 only
	EEE80015	Renewable Energy	100 Credit Points	Offered in Semester 1 only
	ENT30014	Social Innovation Internship	100 Credit Points	Offered in Winter term only
	CVE20007	Sustainable Built Environment	CVE10006 or 200 Credit Points	Offered in Semester 2 only
	CSM80006	Engineering Project Management	250 Credit Points	Offered in Semester 2 only
	RSK80004	Introduction to Risk and Due Diligence	250 Credit Points	Offered in Semester 2 only
	CSM80003	Construction Law	250 Credit Points	Offered in Semester 1 only
	MME80001	Resource Planning and Management	250 Credit Points	Offered in Semester 1 only
	BIO10001	Concepts of Biology	NIL	Offered in Semester 1 & 2
	CHE10001	Chemistry 1	NIL	Offered in Semester 1 & 2
(B) Biotechnology Minor	BIO10001	Concepts of Biology	NIL	Offered in Semester 1 & 2
	CHE10001	Chemistry 1	NIL	Offered in Semester 1 & 2
	BCH20002	Introduction to Biochemistry	CHE10001 and BIO10001	Offered in Semester 1 & 2
	BCH20001	Biochemistry of Genes and Proteins	BCH20002 and CHE10001	Offered in Semester 1 only

Note: * Student **MUST** complete (A) OR (B)
* It is the student's own responsibility to check the offering of the units with the various Faculty Course Coordinators each semester, if in doubt.
* Failure to comply with any instruction above may result in time-table clashes and/or delay of completing the Degree in 4 years under normal circumstances.
* Student **MUST NOT** complete their Degree in less than 4 years, in fulfilment with requirement from Board of Engineers Malaysia (BEM).