BB-ERMSCS2 Bachelor of Engineering (Robotics and Mechatronics) (Honours) / Bachelor of Computer Science (Artificial Intelligence) Recommended Study Sequence (Sept Intake)

Year	Semester	Unit of Study		Prerequisites / Co-requisites (CR)
		Unit Code	Unit Name	
1	Sem 1 Sept semester	ENG10003	Mechanics of Structures	Nil
		PHY10004	Electronics and Electromagnetism	Nil
		MTH10013	Linear Algebra and Applications	Nil
		COS10009	Introduction to Programming	Nil
	Sem 2 March semester	MTH10012	Calculus and Applications	Nil
		ENG10001	Engineering, Design and Innovation	Nil
		ENG10002	Engineering Materials	Nil
		PHY10001	Energy and Motion	Nil
2	Sem 3 Sept semester	MEE20004	Structural Mechanics	ENG10003/CVE10004
		MEE20006	Machine Dynamics 1	MTH10013/MTH10007 & PHY10001
		EEE20001	Digital Electronics Design	Nil
		SWE20004	Technical Software Development	ENG10004/COS10001/COS10009/RME10001
	Sem 4 March semester	MTH20014	Mathematics 3B	(MTH10012 & MTH10013) / MTH10007
		EEE20006	Circuits and Electronics 1	PHY10004/EEE10001 & MTH10013/MTH10007
		MEE20002@	Computer Aided Engineering Mechanical	ENG10001/RME10001
		EEE20003@	Embedded Microcontrollers	EEE20001 & (SWE20004/COS10009/RME10001/RME10002)
3	Sem 5 Sept semester	MME30001@	Engineering Management 1	100 credit points
		RME20001	Electrical Actuators and Sensors	PHY10004/EEE10001
		COS10011	Creating Web Applications	COS10009 (CR)
		TNE10006	Network and Switching	Nil
		EAT20008	Professional Experience in Engineering#	*Introductory Seminar*
	Sem 6 March semester	MEE30003@	Machine Design	MEE20004
		RME30002@	Control and Automation	(MTH20014/MTH20007/MTH20005) & (PHY10004/EEE20006/EEE10001)
		COS20015	Fundamentals of Data management	COS10009
		COS20007	Object-oriented Programming	COS10001 / COS10009 / INF10016 / SWE20004
4	Sem 7 Sept semester	RME40002*@	Mechatronics Systems Design	EEE20003
		RME30003@	Robotic Control	RME30002
		COS30019	Introduction to Artificial Intelligence	COS20007 / COS30008
		COS30008	Data Structure and Patterns	COS20007 / COS30016 / SWE20004 / COS20011
	Sem 8 March semester	MEE40003*@	Machine Dynamics 2	MEE20006
		RME40003*@	Robot System Design	250 credit points
		COS30018	Intelligent Systems	COS20007 / COS20011 / COS30016 / SWE20004
		COS30081	Fundamentals of Natural Language Processing	COS20015 & COS30019
5	Sem 9 Sept semester	ENG40001*@	Final Year Research Project 1	287.5 credit points
		EEE30004*@	Digital Signal Processing	(MTH20005/MTH20010/MTH20014) & (EEE20002/EEE20006)
		INF30029	Information Technology Project Management	150 CPs & (INF10003 / SWE20004 / COS20007)
		COS30082	Applied Machine Learning	COS30018 / COS30019
	Sem 10 March semester	ENG40002*@	Final Year Research Project 2	ENG40001
		MME40001	Engineering Management 2	100 credit points
		COS20001	User-Centered Design	Nil
		ICT30005	Professional Issues in IT	200 credit points

11 Core units (Engineering)	**16** Robotics and Mechatronics Major units	* Outcome Units (R&M)
5 Core units (Computer Science)	**8** Artificial Intelligence Major units	@ Honours Merit Units (R&M)
	Industrial Placement	

 # EAT20008 Professional Experience in Engineering is compulsory for all students. It must be taken before the last semester of study as part of EAC's requirement. Introductory Seminar will be conducted in week 4 of semester.