

Bachelor of Engineering

- Students starting in Spring of 2012 would be able to enrol only in general education subjects; The core of the Bachelor of Engineering program will start from September 2012 on regular semesters (Autumn and Spring)
- All students need to sit for challenge test for Mathematics and Physics and if necessary they may be requested to complete foundation subjects.
- The recommended degree planner is to complete the program in four years including two summer semesters for general education subjects and one entire summer dedicated to the internship. The recommended load in regular semesters is 24 credit points.

Structure

1. General Education (GEC): Six subjects covering English Language (2 subjects), Islamic Studies and Culture (1 subject), Ethics (1 subject) and Humanities (2 subjects).
2. Mathematics and Basic Sciences (All majors)
 1. Algebra and Differential Calculus
 2. Series and Integral Calculus
 3. Differential Equations
 4. Linear Algebra
 5. Engineering Statistics
 6. Fundamentals of Physics A
 7. Fundamentals of Physics B
 8. Engineering Programming I
 9. Engineering Programming II
3. Engineering Foundation (All majors)
 1. Introduction Electrical Engineering Systems
 2. Introduction to Circuits and Devices
 3. Circuits and Devices
 4. Signals and Systems
 5. Electronics
 6. Power Engineering I
 7. Digital Hardware I
 8. Engineering Design and Management II
 9. Engineering Fundamentals
 10. Digital Signal Processing
 11. Digital Hardware II
 12. Control Theory
 13. Engineering Design and Management III
 14. Communication Systems
 15. Data Communications
4. Major Subjects
 16. Major in Electrical Engineering (EE)
 - Power Engineering II
 - Three Subjects from EE list
 - One Specialization Subject
 17. Major in Telecommunications Engineering (TE)
 - Communication Systems Modelling
 - Three Subjects from TE list
 - One Specialization Subject
 18. Major in Computer Engineering (CE)
 - Embedded Java Systems
 - Three Subjects from CE list
 - One Specialization Subject
5. Thesis (18 credit points)
6. Internship (12 weeks, fulltime)

Year 1 (Autumn)		CP	Year 1 (Spring)		CP	Year 1 (Summer)		CP
CSCI191	Engineering Programming 1	6	CSCI192	Engineering Programming 2	6	English	English 1 (GEC)	6
ECTE171	Introduction to Electrical Engineering Systems	6	ENGG291	Engineering Fundamentals	6	ARTS017	Islamic Culture (GEC)	6
MATH141	Foundations of Engineering Mathematics	6	MATH142	Essentials of Engineering Mathematics	6			
PHYS141	Fundamentals of Physics A	6	PHYS142	Fundamentals of Physics B	6			
	Total	24		Total	24	Total		12

Year 2 (Autumn)		CP	Year 2 (Spring)		CP	Year 2 (Summer)		CP
ECTE172	Introduction to Circuits and Devices	6	ECTE202	Circuits and Systems	6	English 2	English 2 (GEC)	6
MATH291	Diff. Equations	3	MATH253	Linear Algebra	4	Ethics	Ethics (GEC)	6
ECTE233	Digital Hardware 1	6	ECTE222	Power Engineering 1	6			
ECTE203	Signals and Systems	6	ECTE212	Electronics	6			
ECTE250	Engineering Design and Management 2	3	ECTE250	Engineering Design and Management 2	3			
	Total	24		Total	25	Total		12

Year 3 (Autumn)		CP	Year 3 (Spring)		CP	Year 3 (Summer)		CP
ECTE350	Engineering Design and Management 3	3	ECTE350	Engineering Design and Management 3	3			
ECTE333	Digital Hardware 2	6	ECTE344	Control Theory	6			
ECTE301	Digital Signal Processing	6	ECTE363	Communication Systems	6			
ECTE364	Data Communications	6	Major Subject		6			
STAT291	Engineering Statistics	3						
	Total	24		Total	21	Internship		

Year 4 (Autumn)		CP	Year 4 (Spring)		CP	Year 4 (Summer)		CP
ECTE457	Thesis (Part I)	6	ECTE457	Thesis (Part II)	12			
Major Subject		6	Final Year Specialisation		6			
Major Subject		6	ARTS035	GEC in Humanities or Arts	6			
Major Subject		6	PSCY015 or LAW101	GEC in Social or Behavioural Sciences	6			
	Total	24		Total	30			