

BSc in Computer Engineering – Curriculum Chart

Term 1

Courses	Credits	Code	Prerequisites/ (Corequisites)	Type
General Mathematics 1	۳	۳۸۱۳.۰۳		B
General Physics 1	۳	۳۸۱۵.۰۴	(General Mathematics1)	B
Fundamentals of Computer and Programming	۳	۱۴۲۲.۷۲	(Fundamentals of Computer and Programming Workshop)	C
Fundamentals of Computer and Programming Workshop	۱	۱۴۲۲۳۷۷	(Fundamentals of Computer and Programming)	C
General Computer Workshop	۱	۱۴۲۲۱۹۴		B
English Language	۳	۳۸۱۹.۰۷		G
Persian Language	۳	۳۸۱۶.۰۸		G
Physical Education 1	۱	۲۲۱.۰.۰۱		G
Total Credits	18			

Term 2

Courses	Credits	Code	Prerequisites/ (Corequisites)	Type
General Mathematics 2	3	۳۸۱۳.۰۴	General Mathematics 1	B
General Physics 2	3	۳۸۱۵.۰۵	General Physics 1	B
Differential Equations	3	۳۸۱۳.۰۹	General Mathematics 1	B
Discrete Mathematics	3	۱۴۲۲۲.۰۰	General Mathematics 1 - Fundamentals of Computer and Programming	C
Advanced Programming	3	۱۴۲۲.۷۴	Fundamentals of Computer and Programming - (Advanced Programming Workshop)	C
Logic Circuits	3	۱۴۲۲.۲۷	(Discrete Mathematics - Logic Circuits Lab)	C
Analytical History of the Early Islam	2	۳۸۱۸.۰۴	-	G
Total Credits	20			

Term 3

Courses	Credits	Code	Prerequisites/ (Corequisites)	Type
Algorithms and Data Structure	۳	۱۴۲۲.۲۳	Discrete Mathematics - Advanced Programming	C
Engineering Statistics and Probability	۳	۳۸۲.۰۳۸	General Mathematics 2	B
English for Students of Computer Engineering	۲	۱۴۲۲.۲۴	English Language	C
Applied Linear Algebra	۳	-	General Mathematics 2	C
Advanced Programming Workshop	۱	۱۴۲۲۳۷۸	Advanced Programming	C
Physics 2 Lab	۱	۳۸۱۵.۱۲	General Physics 2	B
Computer Architecture	۳	۱۴۲۲.۳۰	Logic Circuits - (Computer Architecture Lab)	C
Islamic Thought 1	۲	۳۸۱۸.۰۱	-	G
Total Credits	۱۸			

Term 4

Courses	Credits	Code	Prerequisites/ (Corequisites)	Type
Electric and Electronic Circuits	۳	۱۴۲۲۳۸۰	General Physics 2 - (Differential Equations - Electric and Electronic Circuits)	C
Algorithm Design	۳	۱۴۲۲۳۸۲	Algorithms and Data Structure - Discrete Mathematics	R
Theory of Languages and Machines	۳	۱۴۲۲.۳۳	Algorithms and Data Structure	C
Computer Networks	۳	۱۴۲۲.۳۹	Engineering Statistics and Probability - Computer Architecture - (Operating Systems - Computer Networks Lab)	C
Computer Networks Lab	۱	۱۴۲۲۱۹۲	(Computer Networks)	C
Electric and Electronic Circuits Lab	۱	۱۴۲۲۳۷۹	Electric and Electronic Circuits	C
Physical Education 2	۱	۲۲۱.۰۰۲	-	G
Knowledge of Family and Population	۲	۳۸۱۸.۰۷	-	G
Total Credits	۱۷			

Term 5

Courses	Credits	Code	Prerequisites/ (Corequisites)	Type
Signals and Systems	۳	۱۴۲۲۳۸۷	Differential Equations	R
Web Programming	۳	۱۴۲۲۳۹۷	Computer Networks	R
Compiler Design Principles	۳	۱۴۲۲.۴۵	Algorithms and Data Structures	R
Operating Systems	۳	۱۴۲۲.۳۲	Computer Architecture - (Operating Systems Lab)	C
Research and Presentation Methodology	۲	۱۴۲۲۱۹۵	English for Computer Engineering Students – <i>Term 5 and above only</i>	C
Thematic Commentary of the Quran	۲	۳۸۱۸.۰۳	-	G
Total Credits	۱۶			

Term 6

Courses	Credits	Code	Prerequisites/ (Corequisites)	Type
Programming Languages	۳	۱۴۲۲۳۸۳	Theory of Languages and Machines	R
Fundamentals and Applications of Artificial Intelligence	۳	۱۴۲۲۳۹۲	Algorithms and Data Structure - (Linear Algebra)	R
Operating Systems Lab	۱	۱۴۲۲.۴۹	(Operating Systems)	C
Logic Circuits Lab	۱	۱۴۲۲.۲۸	(Logic Circuits)	C
Management Information Systems	۳	۲۸.۱.۴۷	-	E
Computer Architecture Lab	۱	۱۴۲۲.۳۱	Computer Architecture	C
Project	۳	۱۴۲۲.۵۱	Research and Presentation Methodology	C
Islamic Thought 2	۲	۳۸۱۸.۰۲	-	G
Total Credits	۱۷			

Term 7

Courses	Credits	Code	Prerequisites/ (Corequisites)	Type
Microprocessors and the Assembly Language	۳	۱۴۲۲.۸۱	Computer Architecture - (Microprocessors and the Assembly Language Lab)	C
Software Engineering 1	۳	۱۴۲۲.۴۶	Advanced Programming	C
Microprocessors and the Assembly Language Lab	۱	۱۴۲۲.۳۶	(Microprocessors and the Assembly Language)	C
(Computer) Simulation	۳	۱۴۲۲.۹۱	(Operating Systems - Statistics and Probability)	E
Data Transfer	۳	۱۴۲۲۱۱۱	Computer Networks - Signals and Systems	R
Special Topics 1	۳	۱۴۲۲۱۹۷	-	E
Islamic Revolution and its Roots	۲	۳۸۱۸.۰۵	-	G
Total Credits	۱۸			
the summer preceding Term 7: Internship / 1 credit / required / 142204 / 240 hours required				

Term 8

Courses	Credits	Code	Prerequisites/ (Corequisites)	Type
Data Retrieval	۳	۱۴۲۲۳۸۶	Algorithms and Data Structure - Engineering Statistics and Probability	R
Engineering Economics	۳	۲۸.۱.۲۶	-	E
Database Design Principles	۳	۱۴۲۲.۴۷	Algorithms and Data Structure	R
Graph Theory	۳	۱۴۲۲۱۱۵	-	E
Fundamentals of Data Security	۳	۱۴۲۲۲۹۸	Computer Networks	R
Islamic Ethics	۲	۳۸۱۸.۰۶	-	G
Total Credits	۱۷			

Course Types: G=General B=Basic R=Required C=Core E=Elective