الخطة الدراسية

فيما يلي الخطة الدراسية المقترحة موضحا بها أكواد وأسماء المقررات التي يتم تدريسها بكل فصل دراسي بدءا من السنة الأولى وحتى السنة الخامسة وعدد الساعات المعتمدة وعدد الساعات الفعلية للمحاضرات (Lectures, L) والتمارين (Tutorials, T) والحصص العملية (Practical, P) والأستوديو (Studio, s) والمتطلبات السابقة لدراسة كل مقرر (Pre-requisites) في التخصصات (الشعب) المختلفة.

🔸 *هذه الخطة استرشادية وقابلة للتغيير وفقا لما يقرره مجلس الكلية.*

First Year (all Faculty Students Except for architecture students) - Semester 1

Course code	Course title	Credit hours	L	T	P	Pre-requisites
EB 101	Engineering Mathematics (1)	3	2	2	1	None
EB 111	Engineering Mechanics (1)	3	3	1	0	None
EB 121	Engineering Physics (1)	3	2	2	2	None
EB 141	Eng. Drawing & Descriptive Geometry (1)	3	2	4	0	None
UEC 01	Computer Skills & Programming Concepts (1)	2	1	0	2	None
UGE 01	English Language (1)	2	0	4	2	None
HU 121	Engineering Perspectives and Technology	2	1	0	2	None
Total semester credit hours		**18**				

First Year (all Faculty Students Except for architecture students) – Semester 2

Course code	Course title	Credit hours	L	T	P	Pre-requisites
EB 102	Engineering Mathematics (2)	3	2	2	1	EB101
EB 112	Engineering Mechanics (2)	3	3	1	0	EB101
EB 122	Engineering Physics (2)	3	2	2	2	EB101
EB142	Eng. Drawing & Descriptive Geometry (2)	2	1	2	2	EB141
EB 131	General Chemistry	2	1	1	2	None
EM170	Introduction to Manufacturing Processes	2	1	1	2	None
UEC02E	Computer Skills & Programming Concepts (2)	2	1	1	2	UEC 01
UGE 02	English Language (2)	2	0	4	2	UGE 01
Total semester credit hours		**19**				

Table-1 Humanities Elective Courses

Course code	Course title	Course code	Course title
HU131	Project Management	HU143	Principles of Law
HU132	Accounting and Costs for Engineers	HU144	Communications Laws and Rules
HU133	Engineering Statistics	HU151	Industrial Safety
HU134	Engineering Economy	HU161	Environment and Society
HU135	Sales, Marketing and Communication Techniques	HU162	Human Computer Interaction
HU141	Ethics & Human Rights	HU163	Astronomy and Space Sciences
HU142	Legislations and Contracts	HU170	Risk Management

Computer Engineering Department

Computer Engineering - Second Year – Semester 3

Course code	Course title	Credit hours	L	T	P	Pre-requisites
EB 103	Mathematics (3)	3	2	2	1	EB 102
EB 123	Modern Physics	3	3	1	0	EB122
EE 291	Electric Circuits	4	3	2	1	EB102& EB122
EC 121	Introduction to Digital Logic Design	4	3	2	2	UEC 01
EC 132	Structured Programming	4	3	1	3	UEC02
Total semester credit hours		**18**				

Computer Engineering - Second Year – Semester 4

Course code	Course title	Credit hours	L	T	P	Pre-requisites
UGE 03	English Language (3)	2	0	4	2	UGE 02
EB104	Linear Algebra	3	2	2	1	EB102
EB204	Mathematic (4)	3	2	2	1	EB 103
EC 171	Discrete Mathematics	4	3	2	0	EB102
EC 222	Advanced Digital Logic Design	4	3	2	2	EC 121
HU elective	Humanity Elective-1 (Table-1)	2	2	0	1	UEC02
Total semester credit hours		**18**				

Computer Engineering - Third Year – Semester 5

Course code	Course title	Credit hours	L	T	P	Pre-requisites
EE 232	Electronics	3	2	2	1	EE 291
EE 241	Signals and systems	3	2	2	1	EB204
EC 207	Numerical Analysis using MATLAB	4	3	1	2	EB102
EC 233	Data Structures and Algorithms	4	3	1	3	EC 132 &EC 171
EC 241	Systems Programming	3	2	2	2	EC132
HU elective	Humanity Elective-2 (Table-1)	2	2	1	0	-
Total semester credit hours		**19**				

Computer Engineering - Third Year – Semester 6

Course code	Course title	Credit hours	L	T	P	Pre-requisites
EB 208	Applied Probability and Statistics	3	3	1	0	EB103
EC 234	Object Oriented Programming	4	3	1	3	EC132
EC 235	Advanced Algorithms	3	2	2	2	EC233
EC 271	Computer Organization	3	2	2	2	EC222
EC 292	Concurrent Programming	3	2	2	2	EC234
UGA 03	Arabic Language Skills	2	2	0	0	None
Total semester credit hours		**18**				

Computer Engineering - Fourth Year – Semester 7

Course code	Course title	Credit hours	L	T	P	Pre-requisites
EE 290	Control system (1)	3	2	2	1	EB204
EC 281	Microprocessors and assembly language	4	3	1	3	EC 222
EC 342	Operating Systems	3	2	2	2	EC271&EC 241
EC 351	Database Management Systems	3	2	2	2	EC235&EC 234
EC 361	Data and Computer Communications	3	2	2	2	EB208&EE 241
HU 113	Technical Reports Writing and Presentation Skills	2	1	0	2	UGE 02
Total semester credit hours		**18**				

Computer Engineering - Fourth Year – Semester 8

Course code	Course title	Credit hours	L	T	P	Pre-requisites
EC 312	Embedded Systems	3	2	2	2	EC281
EC 363	Computer Networks	4	3	2	2	EC361
EC 359	Programming Languages & Translators	3	2	2	2	EC241&EC171
EC 365	Computer Security	3	2	2	2	EC361&EC342
EC 372	Computational Models	2	2	1	0	EC 235
UC 01	Communication skills	2	1	0	2	-
Total semester credit hours		**17**				

Computer Engineering - Fifth Year – Semester 9

Course code	Course title	Credit hours	L	T	P	Pre-requisites
EC 352	Software Engineering	3	2	2	2	EC 351
EC 400-1	Graduating Project (1)	5	3	0	6	Department Approval at 9th semester
Electives from Internet and Distributed System Track (Table-3a)						
EC	Computer Elective Course-1 (Table-3a)	3	2	2	2	As per Table-3a
EC	Computer Elective Course-2 (Table-3a)	3	2	2	2	As per Table-3a
EC	Computer Elective Course-3 (Table-3a)	2	1	1	2	As per Table-3a
OR Electives from Embedded System Track (Table-3b)						
EC	Computer Elective Course-1 (Table-3a)	3	2	2	2	As per Table-3b
EC	Computer Elective Course-2 (Table-3a)	3	2	2	2	As per Table-3b
EC	Computer Elective Course-3 (Table-3a)	2	1	1	2	As per Table-3b
Total semester credit hours		**16**				

Computer Engineering - Fifth Year – Semester 10

Course code	Course title	Credit hours	L	T	P	Pre-requisites
EC 383	Intelligent Systems	3	2	2	2	EC 235&EC 234
EC 400-2	Graduating Project (2)	5	3	0	6	EC 400-1
Electives from Internet and Distributed System Track (Table-3a)						
EC	Computer Elective Course-1 (Table-3a)	3	2	2	2	As per Table-3a
EC	Computer Elective Course-2 (Table-3a)	3	2	2	2	As per Table-3a
EC	Computer Elective Course-3 (Table-3a)	2	1	1	2	As per Table-3a
OR Electives from Embedded System Track (Table-3b)						

EC	Computer Elective Course-1 (Table-3a)	3	2	2	2	As per Table-3b
EC	Computer Elective Course-2 (Table-3a)	3	2	2	2	
EC	Computer Elective Course-3 (Table-3a)	2	1	1	2	
Total semester credit hours		**16**				

Table-3a Computer Department Specialization Elective Courses
(Internet and Distributed System Track)

Course Code		Course Title	Credit hours	Pre-requisite
EC 373		Distributed Systems & Web Services	3	EC342& EC361
EC 381		Computer Graphics and Visualization	3	EC234&EC233
EC 385		E-business	2	EC234
EC 386		Multimedia Systems	3	EC361&EC234
EC 387		Decision Support Systems	2	EC351
EE 346		Introduction to computer vision	3	EE241
EC 384		Modeling and Simulation	2	EC233 & EB 208
EC 343		Workflow management	3	EC 233&EC 234
EC 395		Image processing	3	EE 241

Table-3b Computer Department Specialization Elective Courses
(Embedded System Track)

Course Code	Course Title	Credit hours	Pre-requisite
EC 313	Computer Architecture	3	EC 271
EC 362	Digital Signal Processing	3	EE 241
EC 382	Introduction to Biomedical Engineering	2	EC 235& EE 232
EC 384	Modeling and Simulation	2	EC233 & EB 208
EC 388	Introduction to Mechatronics	3	EE290 & EB112 & EC 312
EE 391	Digital Control Systems	3	EE 290 & EE 241
EE 326	Introduction to Robotics	3	EE 290
EC 397	Advanced Computer Architecture and parallel processing	3	EC 313