

Generic Study Plan for BSc. In Computer Engineering

Cohort fall 2018 and before - Total = 144 credit hours

Year 1 - First Semester				Year 1 - Second Semester			
Course #.	Course Title	Pre-req.	Cr.	Course #.	Course Title	Pre-req.	Cr.
MATH105	Calculus I		3	MATH110	Calculus II	MATH105	3
PHYS105	General Physics I		3	CENG205	Digital Design & Computer Org.		3
ITPB103	Principles of Information Tech.		3	CENG202	Discrete Mathematics	MATH105	3
CSBP119	Algorithms and Problem Solving		3	CSBP219	Object-Oriented Programming	CSBP119	3
ESPU1081	Intro to Acad. English for IT		3	GEIL101 or GEIT112	Information Literacy Or Fourth industry Revolution		3
CSBP121	Programming Lab I	CSBP119 (co)	1	CSBP221	Programming Lab II	CSBP121, CSBP219 (co)	1
PHYS135	General Physics Lab I	Co PHYS105	1				
Semester Credit Hours			17	Semester Credit Hours			16
Year 2 - First Semester				Year 2 - Second Semester			
Course #.	Course Title	Pre-Req.	Cr.	Course #.	Course Title	Pre-Req.	Cr.
STAT210	Probability and Statistics	MATH110	3	CENG221	Computer Architecture	CENG205	3
PHYS1120 or (PHYS110 + PHYS140)	Physics II for Engineering General Physics II General Physics Lab II	PHYS 105 (Co) & PHYS135 PHYS 105 PHYS135 & PHYS110 (Co)	4	CENG210	Communication & Networks Fundamentals	CENG205 (co/pre) & PHYS105	3
CENG201	Circuits Fundamentals	PHYS105	3	MATH140	Linear Algebra		3
CENG231	Circuits Lab	Pre/Co CENG201	1	PHYS231	Electronics Fundamentals	PHYS110 or PHYS1120	3
ISLM1103	Islamic Culture		3	HSS105	Emirates Studies		3
CSBP319	Data Structures	CSBP219	3	BIOC100/ CHEM111	Basic Biology I or General Chemistry I		3
Semester Credit Hours			17	Semester Credit Hours			18
Year 3 - First Semester				Year 3 - Second Semester			
Course #.	Course Title	Pre-Req.	Cr.	Course #.	Course Title	Pre-Req.	Cr.
ELEC370	Electronic Circuits	PHYS231 & CENG201	3	CENG320	Signals & Systems I	MATH 275	3
ELEC375	Electronic Circuits Lab	Pre/Co ELEC370	1	CENG324	Digital System Design	CENG205	3
CENG328	Introduction to Embedded Systems	CENG 221	3	CENG325	Digital Design Lab	Pre/Co CENG324	1
CENG329	Introduction to Embedded Systems Lab	Pre/Co CENG328	1	CSBP315	Operating Systems Fundamentals	CENG205	3
ITBP301	Security Principles and Practice	CENG210	3	ITBP418	Entrepreneurship in IT	ITBP301	3
MATH 275	Ordinary Differential Equation or Differential Equations for Eng.	MATH110 & MATH140	3	Elective	Cultural Elective 1		3
ITBP370	Professional Responsibility in IT	ESPU1081	3				
Semester Credit Hours			17	Semester Credit Hours			16
Year 4 - First Semester				Year 4 - Second Semester			
Course #.	Course Title	Pre-Req.	Cr.	Course #.	Course Title	Pre-Req.	Cr.
SWEB300	Software Engineering Fundamentals	CSBP219	3	Elective	Cultural Elective 3		3
ITBP480	Senior Graduation Project I*	STAT210	3	CENG xxx	Major Elective 3 **		3
Elective	Cultural Elective 2		3	CENG xxx	Major Elective 4 **		3
CENG xxx	Major Elective 1 **		3	CENG xxx	Major Elective 5 **		3
CENG xxx	Major Elective 2 **		3	ITBP481	Senior Graduation Project II	ITBP480	3
CENG xxx	Major Elective Lab **		1				
Semester Credit Hours			16	Semester Credit Hours			15
Year 5 - First Semester							
ITBP495: Internship (12 credit hours)							
(Students are not Allowed to register any additional courses during their internship without the approval of the College)							

*Students must have finished 94 Cr. Hr to register in ITBP480

Major electives Courses**	Pre-req.	Major electives Courses*	Pre-req.
CENG 513 Hardware Test & Fault Tolerance	CENG 324	CENG521 Hardware/Software Integration	CENG324, CENG 328, SEWB300
CENG529 Networking Lab	Co (CENG 530)	CENG533 Advanced Network Services	CENG 530
CENG518 VLSI Design	ELEC 370	CENG580 Selected. Topics in Comp Eng.	
CENG530 Computer Network Protocols	CENG 210	CENG532 Network Security or ISEC311	CENG 530, ITBP 301

Cultural Elective Courses

The Global Experience (3 Cr. Hrs.)

HIS 120	Arab Islamic Civilization
HIS 125	Contemporary Civilizations
AGRB 360	Global Agri-Food Trade
BIOE 240	Principles of Environmental science
PSG 250	Principles of International Relations
GEO 200	World Regional Geography
ARCH 346	Contemporary World Architecture
HIS 121	World History: Origins to 1500

Social and Behavioral Sciences (3 Cr. Hrs.)

AGRB 210	Introduction to Agribusiness
ECON 110	Principles of Economics
HSR 140	Introduction to Society and Behavior
HSR 150	Introduction to Government, Policy, and Urban Studies
PSY 100	Introduction to Psychology
SOC 260	Folklore
SWK 200	Introduction to Social Welfare

Humanities/Fine Art (3 Cr. Hrs.)

ARCH 366	History and Theory of Architecture
HSR 120	Introduction to Heritage and Culture
HSR 130	Introduction to Language and Communication
HIS 133	Introduction to Art History
LIT 150	Introduction to Literature
TRS 200	Introduction to Translation
MSC 200	Introduction to Mass Media
MSC 240	World & Arab Media
LNG 100	Introduction to Linguistics
LNG 110	Language, Society & Culture
PHI101	Introduction to Philosophy
PHI270	Philosophy of Education
PHI271	History and Philosophy of Science