

Generic Study Plan for BSc. in Computer Science & Software Eng.

Cohort fall 2019 and after - Total = 130 credit hours

Year 1 - First Semester				Year 1 - Second Semester			
Course #.	Course Title	Pre-req.	Cr.	Course #.	Course Title	Pre-req.	Cr.
ESPU1081	ESP1		3	CENG202	Discrete Mathematics	MATH105	3
MATH105	Calculus I	-	3	MATH110	Calculus II	MATH105	3
CSBP119	Algorithms and Prob. Solving	-	3	CSBP219	Object-Oriented Prog.	CSBP119	3
PHYS105	General Physics I	-	3	CENG205	Digital Design & Com Org.		3
GEIT112	Fourth Industrial Revolution		3	CSBP221	Programming Lab II	CSBP219(co)	1
CSBP121	Programming Lab I	CSEB119 (Co)	1	Math140	Linear Algebra		3
Semester Credit Hours			16	Semester Credit Hours			16
Year 2 - First Semester				Year 2 - Second Semester			
Course #.	Course Title	Pre-Req.	Cr.	Course #.	Course Title	Pre-Req.	Cr.
Elective	Cultural Elective 1		3	CSBP340	Database Systems	CSBP319	3
BIOC100 or CHEM111	Basic Bio. I or Gen. Chemistry		3	ITBP370	Prof. Res. In IT	ESPU1081	3
CENG210	Comm. & Net. Fund	CEN205(co/pre) & PHYS105	3	STAT210	Probability and Statistics	MATH110	3
CSBP315	Operating Systems Fundamentals	CENG205	3	SWEB300	Software Eng. Fundamentals	CSBP219	3
CSBP319	Data Structures	CSBP219	3	ITBP301	Sec. Principles and Practice	CENG210	3
Semester Credit Hours			15	Semester Credit Hours			15
Year 3 - First Semester				Year 3 - Second Semester			
Course #.	Course Title	Pre-Req.	Cr.	Course #.	Course Title	Pre-Req.	Cr.
Elective	Cultural Elective 2		3	CSBP461	Internet Computing	CSBP340	3
CSBP316	Human Computer Interaction	CSBP219	3	CSBP400	Modeling and Simulation	STAT210	3
HSS105	Emirates Society		3	CSBP301	Artificial Intelligence	CSBP319	3
SWEB450	Analysis of Algorithms	CSBP319	3	ITBP321	Web App. Development Lab	Co/Pre CSBP340	1
ITBP418	Entrepreneurship in IT	ITBP301	3	GESU121	Sustainability		3
Semester Credit Hours			15	Semester Credit Hours			13
Year 4 - First Semester				Year 4 - Second Semester			
Course #.	Course Title	Pre-Req.	Cr.	Course #.	Course Title	Pre-Req.	Cr.
CSBP411	Machine Learning	CSBP301	3	CSBPxxx	Major Elective 2**		3
CSBP421	Smart Computer Graphics	CSBP319	3	CSBPxxx	Major elective 3**		3
ISLM100	Islamic Culture		3	CSBPxxx	Major Elective 4**	-	3
ITBP480	Senior Graduation Project I	STAT210	3	PHYS135	Gen. Physics Lab I		1
CSBPxxx	Major elective 1**		3	ITBP481	Senior Graduation Project II	ITBP480	3
Semester Credit Hours			15	Semester Credit Hours			13
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 80 CrHr to register in ITBP480

Major electives Courses**	Pre-req.	Major electives Courses*	Pre-req.
CSBP320 Data Mining	STAT210	CSBP487 Computer Animation and Visualization	CSBP319
CSBP483 Mobile Web.	CSBP340	SWEB451 Game Development	CSBP319
CSBP499 Special Topics in CS	CSBP301 & STAT210	CSBP476 Robotics and Intelligent Systems	CSBP301
CSBP431 Bioinformatics	SWEB450	CSBP491 Computational Intel. Data Management	CSBP319

Cultural Elective Courses		
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
	GEO 200	World Regional Geography
	GHEP111	Happiness and Wellbeing
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
	PHI101	Introduction to Philosophy
	HIS 130	Sheikh Zayed; History, Found.& Dev.

Minor in AI		
Required Courses		
Course	Title	Prerequisite
CSBP301	Artificial Intelligence	CSBP319
Elective Courses (9 Hrs.)		
CSBP411	Machine Learning	CSBP301
CSBP476	Robotics and Intelligent Systems	CSBP301
CSBP441	Applied Computer Vision	CSBP301
CSBP491	Computational Intelligence for Data Management	CSBP319
CSBP499	Special Topics in Computer Science	CSBP319