

# Software Engineering Department

## Recommended Study Plan

### 1<sup>st</sup> Year

First Semester			
Course Number	Course Name	Credits	Prerequisite
MATH 101	Calculus I	3	-
HSS 110	Social Responsibility	3	-
CS 101	Introduction to Programming	3	Passing CIS 99
CS 102	Programming Lab	1	CS 101 or concurrent
ENG 112	English Language II	3	Passing ENG 099
ARB 101	Arabic Language	3	-
<b>Total Hours</b>		<b>16</b>	

Second Semester			
Course Number	Course Name	Credits	Prerequisite
MATH 102	Calculus II	3	MATH 101
CS 112	Introduction to Object-Oriented Programming	3	Passing CS 102
CS 113	Object –Oriented Programming Lab	1	CS 112 or concurrent
MATH 241	Discrete Mathematics	3	-
HSS 100	Entrepreneurship and Innovation	2	-
HSS 129	General Skills	2	-
MS 100	Military Science	3	-
<b>Total Hours</b>		<b>17</b>	

## 2<sup>nd</sup> Year

<b>First Semester</b>			
Course Number	Course Name	Credits	Prerequisite
CS 211	Data Structures	3	Passing CS 112 + MATH 241
CIS 200	Professional & Ethical Issues in Computing	1	-
CIS 201	Introduction to Web Design	1	CS 113
CIS 202	Communication Skills	2	CIS 200 or Concurrent
SE 210	Java Programming	3	Passing CS 113
SE 220	Software Modeling	3	CS 112
CPE 236	Digital Logic Design	3	CS 113
<b>Total</b>		<b>16</b>	

<b>Second Semester</b>			
Course Number	Course Name	Credits	Prerequisite
MATH 233	Probability & Statistics <i>(for CS Students)</i>	3	MATH 102
CS 284	Analysis and Design of Algorithms	3	CS 211
CIS 221	Fundamentals of Database Systems	3	CS 211
SE 230	Fundamentals of Software Engineering	3	CS 211
-	University Elective	3	-
<b>Total</b>		<b>15</b>	

## 3<sup>rd</sup> Year

<b>First Semester</b>			
<b>Course Number</b>	<b>Course Name</b>	<b>Credits</b>	<b>Prerequisite</b>
CIS 341	Web Applications Development	3	CIS 201
CIS 441	Business Data Communication	3	CS 211
SE 310	Visual Programming	3	CS 211 + Passing SE 210
SE 320	System Analysis and Design	3	SE 230 + CIS 221
CPE 200	Numerical Analysis	2	MATH 102
SE 323	Software Documentation	2	SE 230
<b>Total</b>		<b>16</b>	

<b>Second Semester</b>			
<b>Course Number</b>	<b>Course Name</b>	<b>Credits</b>	<b>Prerequisite</b>
CS 375	Principles of Modern Operating Systems	3	CS 284
SE 321	Software Requirement Engineering	3	SE 220 + SE 320
SE 324	Software Architecture & Design	3	SE 320
CS 318	Human Computer Interaction	3	SE 310
SE 371	Client/Server Programming	3	SE 310
SE 326	Software Engineering Lab	1	SE 310
<b>Total</b>		<b>16</b>	

<b>Summer Semester</b>			
<b>Course Number</b>	<b>Course Name</b>	<b>Credits</b>	<b>Prerequisite</b>
SE 390	Practical Training	3	Completion of 90 CHs
<b>Total</b>		<b>3</b>	

## 4<sup>th</sup> Year

<b>First Semester</b>			
Course Number	Course Name	Credits	Prerequisite
SE 430	Software Testing	3	SE 320
SE 431	Software Security	3	SE 324 + CPE 200
SE 491 <sup>(*)</sup>	Graduation Project I	1	Completion of 90 CHs
-	Department Elective	3	-
-	Department Elective	3	-
-	University Elective	3	-
<b>Total</b>		<b>16</b>	

<b>Second Semester</b>			
Course Number	Course Name	Credits	Prerequisite
SE 440	Project Management	3	SE 320
SE 492	Graduation Project II	2	SE 491
SE 432	Software Engineering for Web Applications	3	CIS 341 + SE 371
-	Department Elective	3	-
-	Department Elective	3	-
-	University Elective	3	-
<b>Total</b>		<b>17</b>	

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<sup>(\*)</sup> Students must register "SE 491" before the graduation semester (Semester 1 or Semester 2).