

# Study Plan<sup>c</sup> Guide for a B.Sc. Degree in Computer Science

## A. Study Plan Guide for the General Track

First Year							
First Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
ENGL1001	Upper-Intermediate English	3	3	3	-	F2F	ENGL0099
GERL101B1	German I B1-Track	3	6	9	-	F2F	-
CS116	Computing fundamentals	3		3	-	F2F	-
CS1160	Computing fundamentals lab	1		-	3	F2F	CS116 <sup>co</sup>
ARB100	Arabic	3	3	3	-	OL	ARB0099
MATH101	Calculus I	3	5	3	-	BLD	MATH0099
	University Elective	3					
Total		19		21	3		

First Year								
Second Semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
GERL102B1	German II	B1-Track	3	6	9	-	F2F	GERL101B1
GERL102B2		B2-Track						
NE101	National Education		3	2	3	-	OL	ARB0099, ENGL0099
MATH102	Calculus II		3	5	3	-	F2F	MATH101
CS117	Object-Oriented Programming		3		3	-	F2F	CS116, CS1160 <sup>co</sup>
CS1170	Object-Oriented Programming Lab		1		-	3	BLD	CS116, CS1160 <sup>co</sup> , CS117 <sup>co</sup>
CS201	Discrete Structures		3		3	-	F2F	MATH0099, ARB0099, ENGL0099
CE212	Digital Systems		3		3	-	F2F	CS116, MATH0099, ARB0099, ENGL0099
CE2120	Digital Systems Lab		1		-	3	BLD	CS116, CE212 <sup>co</sup> , MATH0099, ARB0099, ENGL0099
Total			20		24	6		

<sup>c</sup>The following study plan guide does not take into account possible remedial courses.

Second Year								
First Semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
GERL201B1 GERL201B2	German III	B1-Track	3	4	6	-	F2F	GERL102B1 or GERL102B2
		B2-Track						
CE201	Computer Architecture and Organization		3		3	-	F2F	CE212, ARB0099, ENGL0099, MATH0099
CS222	Theory of Algorithms		3		3	-	F2F	CS116, CS201, ARB0099, ENGL0099, MATH0099
CS223	Data Structures		3		2	2	F2F	CS116, ARB0099, ENGL0099, MATH0099
CS263	Database Management Systems		3		2	2	BLD	CS117, ARB0099, ENGL0099, MATH0099
EE317	Linear Algebra		3		3	-	BLD	MATH101, MATH102 <sup>co</sup>
	University Elective		3					
Total			21		19	4		

Second Year								
Second Semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
GERL202B1	German IV	B1-Track	3	6	9	-	F2F	GERL201B1 or GERL201B2
GERL202B2		B2-Track						
MILS100	Military Science		3	2	3	-	OL	-
IE0121	Probability and Statistics		3		3	-	F2F	MATH101
CS264	Visual Programming		3		2	2	F2F	CS117, CS263, ARB0099, ENGL0099, MATH0099
CS342	Software Engineering		3		3	-	BLD	CS117, CS263
CS355	Web Technologies		3		2	2	BLD	CS117, CS263
CS451	Artificial Intelligence		3		3	-	F2F	CS223, CS222
Total			21		25	4		

Third Year								
First Semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
GERL301B1	German V	B1-Track	3	6	9	-	F2F	GERL202B1 or GERL202B2
GERL301B2		B2-Track						
CS323	Computational Theory		3		3	-	F2F	CS222, CS223
CS332	Computer Graphics		3		2	2	F2F	CS223, EE317
CE352	Computer Networks		3		3	-	BLD	CE201
CE357	Operating Systems		3		3	-	F2F	CE201
CS419	Compiler Construction		3		3	-	F2F	CS222, CS223
CE3570	Operating Systems Lab		1		-	3	BLD	CE201, CE357 <sup>co</sup>
Total			19		23	5		

Third Year								
Second Semester								
Course ID	Course Name		Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
					Lect.	Prac.		
GERL302B1	German V	B1-Track	3	6	9	-	F2F	GERL301B1 or GERL301B2
GERL302B2		B2-Track						GERL301B2
ENGL1002	Advanced English		3	3	3	-	F2F	ENGL1001
CS330	Image Understanding		3		2	2	F2F	CS223, EE317
CS356	Information Security		3		3	-	F2F	CS263
CS391	Field Training 160 hours		0		160 hours		F2F	Dept. Approval
CS416	Systems Programming		3		2	2	F2F	CS223
CS477	Mobile Computing		3		2	2	BLD	CS117, CS263
CS492	Senior Project		3		-	9	BLD	Dept. Approval
Total			21		18	15		

Fourth Year							
First Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
	elective course	3					
	elective course	3					
	elective course	3					
	elective course	3					
Total		12	0	0	0		

Fourth Year							
Second Semester							
Course ID	Course Name	Credit Hours	ECTS	Contact Hours		Type	Prerequisites / Corequisites
				Lect.	Prac.		
CS491	International Internship 20 weeks	12		20 weeks		F2F	CS391
Total		12	0	0	36		