

ALLOCATION OF COURSES PER SEMESTER
“Computer Science (4 academic years, 240 ECTS, Bachelor, B.Sc.)”

	Course Type	Course Name	Course Code	Periods Per Week	Period Duration in Minutes	Number of Weeks/ Academic Semester	Total Hours/ Academic Semester	Number of ECTS
1st Academic Year/1st Semester								
1.	Compulsory	Mathematics Foundations for Science and Technology	MAT140	3	50	14	42	6
2.	Compulsory	Programming Principles I – Robotics Lab	CSE100	3	50	14	42	6
3.	Compulsory	Introduction to Computer Science via Robotics	CSE105	3	50	14	42	6
4.	Compulsory	Programming Lab Using Robotics	CSE110	3	50	14	42	6
5.	Compulsory	Instruction in Expository Writing	ENL103	3	50	14	42	6
1st Academic Year/2nd Semester								
6.	Compulsory	Discrete Structures	MAT170	3	50	14	42	6
7.	Compulsory	Programming Principles II	CSE120	3	50	14	42	6
8.	Compulsory	Computer Networking and Web Technologies	CSE125	3	50	14	42	6

9.	Compulsory	Calculus I	MAT150	3	50	14	42	6
10.	Elective	Free Elective	-----	3	50	14	42	6
2nd Academic Year/3rd Semester								
11.	Compulsory	Data Structures & Algorithms	CSE200	3	50	14	42	6
12.	Compulsory	Digital Systems I	ECE200	3	50	14	42	6
13.	Compulsory	Web Programming	CSE213	3	50	14	42	6
14.	Compulsory	Calculus II	MAT200	3	50	14	42	6
15.	Compulsory	Linear Algebra	MAT160	3	50	14	42	6
2nd Academic Year/4th Semester								
16.	Compulsory	Computer Organization and Architecture	ECE210	3	50	14	42	6
17.	Compulsory	Decision Support Systems in Artificial Intelligence	CSE202	3	50	14	42	6
18.	Compulsory	Programming Languages	CSE235	3	50	14	42	6
19.	Compulsory	Probability and Statistics	MAT225	3	50	14	42	6
20.	Compulsory	Writing for Computer Science and Engineering	CSE215	3	50	14	42	6
3rd Academic Year/5th Semester								
21.	Compulsory	Data Communications and Computer Networks	CSE300	3	50	14	42	6
22.	Compulsory	System Programming	CSE306	3	50	14	42	6
23.	Compulsory	Database Management Systems	CSE310	3	50	14	42	6
24.	Elective	Major Elective	----	3	50	14	42	6

25.	Elective	Free Elective	----	3	50	14	42	6
3rd Academic Year/6th Semester								
26.	Compulsory	Fundamentals of Distributed Systems with cloud computing	CSE315	3	50	14	42	6
27.	Compulsory	Operating Systems	CSE320	3	50	14	42	6
28.	Compulsory	Foundation of Programming for AI and ML	CSE322	3	50	14	42	6
29.	Compulsory	Software Engineering I	CSE325	3	50	14	42	6
30.	Elective	Major Elective	-----	3	50	14	42	6
4th Academic Year/7th Semester								
31.	Compulsory	Software Engineering II	CSE410	3	50	14	42	6
32.	Compulsory	Theory of Computation	CSE400	3	50	14	42	6
33.	Compulsory	Information Security	CSE405	3	50	14	42	6
34.	Compulsory	Senior Project	CSE450	3	50	14	42	12
4th Academic Year/8th Semester								
35.	Compulsory	Introduction to Machine Learning	MAT300	3	50	14	42	6
36.	Compulsory	Principles of IoT Systems	CSE402	3	50	14	42	6
37.	Compulsory	Algorithms	CSE415	3	50	14	42	6
38.	Elective	Major Elective	-----	3	50	14	42	6
39.	Elective	Free Elective	-----	3	50	14	42	6

Major Electives listing

Students select three (3) of the following:

CIS405 – Data Mining and Web Mining	6
CSE335 – Smart Phone Programming	6
CSE340 – Human Computer Interaction	6
CSE350 – E-Commerce and the Internet	6
CSE324 – Principles and practice of Object-Oriented Programming	6
CSE414 – Graph Theory and Applications in Networks	6
CSE418 – Internship Project	6
CSE420 – Compiler Design	6
CSE425 – Cybercrime concepts and Legal considerations	6
CSE440 – Contemporary Topics	6
ECE390 – Cloud Engineering	6
ECE405 – Wireless and Mobile Networks	6
ECE430 – Parallel & Distributed Computing	6
MAT212 – Introduction to Cryptography	6