TABLE 2: COURSE DISTRIBUTION PER SEMESTER

A/A	Course type	Course title	Course code	Periods per week	Period duration	weeks per Semester	periods per Semester	Number of ECTS		
	A' Semester									
1.	Required	Introduction to Programming	CSEN 101	2	90 mins	13	26	6		
2.	Required	Introduction to Computer Science and Engineering	CSEN 100	2	90 mins	13	26	6		
3.	Required	Calculus III	MATH 100	2	90 mins	13	39	6		
4.	GE Elective	Academic English	ENGL 100	2	90 mins	13	39	6		
5.	GE Elective	General Education Elective		2	90 mins	13	39	6		
	B' Semester									
6.	Required	Discrete Math	CSEN 111	2	90 mins	13	39	6		
7.	Required	Programming Laboratory	CSEN 112L	2	90 mins	13	26	3		
8.	Required	Elementary Linear Algebra with Applications	MATH 201	2	90 mins	13	39	6		
9.	GE Elective	Advanced Academic English	ENGL 101	2	90 mins	13	39	6		
10.	GE Elective	Ethics	PHIL 130	2	90 mins	13	39	6		
11.	GE Elective	General Education Elective		2	90 mins	13	39	6		

	C' Semester									
12.	Required	Object Oriented Programming	CSEN 201	2	90 mins	13	39	6		
13.	Required	Digital Systems Design	CSEN 203	2	90 mins	13	39	6		
14.	Required	Introduction to Probability and Random Variables	STAT 101	2	90 mins	13	39	6		
15.	Required	Digital Systems Design Laboratory	CSEN 203L	2	90 mins	13	26	3		
16.	GE Elective	Electricity and Magnetism	PHYS 104	2	90 mins	13	39	6		
17.	GE Elective	General Education Elective		2	90 mins	13	39	6		
	D' Semester									
18.	Required	Algorithms and Data Structures	CSEN 214	2	90 mins	13	39	6		
19.	Required	Computer Organization and Design	CSEN 221	2	90 mins	13	39	6		
20.	GE Elective	Introductory Physics II	PHYS 100	2	90 mins	13	39	6		
21.	GE Elective	General Education Elective		2	90 mins	13	39	6		
22.	GE Elective	General Education Elective		2	90 mins	13	39	6		
	E' Semester									
23.	Required	Operating Systems	CSEN 301	2	90 mins	13	39	6		
24.	Required	Theory of Computation	CSEN 302	2	90 mins	13	26	6		

25.	GE Elective	General Education Elective		2	90 mins	13	26	6		
26.	GE Elective	General Education Elective		2	90 mins	13	26	6		
27.	GE Elective	General Education Elective		2	90 mins	13	39	6		
	F' Semester									
28.	Required	Computer Networks	CSEN 311	2	90 mins	13	39	6		
29.	Elective	Database Systems	CSEN 312	2	90 mins	13	26	6		
30.	Required	Software Engineering	CSEN 313	2	90 mins	13	26	6		
31.	GE Elective	General Education Elective		2	90 mins	13	26	6		
32.	GE Elective	General Education Elective		2	90 mins	13	39	6		
		1	G' Sen	nester			<u>l</u>			
33.	Required	Internship	CSEN 490	-	-	-	-	6		
34.	Required	Artificial Intelligence	CSEN 401	2	90 mins	13	26	6		
35.	Elective	Major Elective		2	90 mins	13	26	6		
36.	Elective	Major Elective		2	90 mins	13	26	6		
37.	Elective	General/Technical Elective		2	90 mins	13	26	6		
	H' Semester									
38.	Required	Capstone Project/Thesis	CSEN 499	2	90 mins	13	26	6		
39.	Elective	Major Elective		2	90 mins	13	26	6		

40.	Elective	Major Elective	2	90 mins	13	26	6
41.	Elective	Major Elective	2	90 mins	13	26	6
42.	Elective	General/Technical Elective	2	90 mins	13	26	6

- Major Electives: Cloud Computing, Data Science and Big Data Analytics, Computer Graphics, Information Retrieval and Web Search,
 Mobile Application Development, Cyber and Information Security, Advanced Machine Learning, Autonomous Systems and Robotics,
 Web Programming and Design, Advanced Networking Topics, Advanced Design and Analysis of Algorithms, Distributed Systems,
 Algorithmic Graph Theory, Blockchain, Software Construction, Programming Languages, System and Network Programming, Numerical
 Computing, Digital Media Programming, Game Programming, Compiler Construction, GPU Computing, Signal Processing
- **General/Technical Electives:** Technical electives can be taken from other departments (ex. Engineering Entrepreneurship, Introduction to Project Management) or from Core electives after securing the approval of the Chairperson

Notes:

- every two 90-minute periods in the above table can be replaced with three 60-minute periods and vice versa
- Internship can also be taken in the summer of the third year