

CURRICULAR MAP

COMPUTER SCIENCE



▶▶ LEVELS OF ACHIEVEMENT ■■■■■■■■ 1 = BEGINNER ■■■■■■■■ 2 = INTERMEDIATE ■■■■■■■■ 3 = ADVANCED

▶▶ CORE CREDITS 35 ▶▶ MANDATORY PROGRAM CREDITS 144 ▶▶ ELECTIVE CREDITS 21

COURSE NAME	CREDITS	COURSE TYPE	CORE COMPETENCIES											SPECIFIC COMPETENCIES							REQUIREMENTS		
			Written Communication	Oral Communication	Critical Thinking	Quantitative Reasoning	Information Literacy	Citizenship	Innovative Thinking	A: Science Knowledge Application	B: Experiment Planning and Conducting	C: Process and System Design	D: Multidisciplinary Teamwork	E: Engineering Problem Solving	F: Ethics and Professional Responsibility	G: Effective Communication	H: Engineering Solution Impact Assessment	I: Continuous and Independent Learning	J: Contemporary Knowledge	K: Use of Modern Engineering Tools			
▶▶ TERM 1 CRD 21																							
Language Comprehension and Production 1	4	CORE	1																				HJ24 Leveling of language or have approved Language PDN (level definition test)
Basic Mathematics	6	CORE				1																	MA393 Leveling Math or have approved Maths PDN (level definition test)
Programming I	6	PROGRAM			1																		MA393 Leveling Math or have approved Maths PDN (level definition test)
Creativity Workshop	3	CORE																					Does not have requirements
Ethics and Citizenship	2	CORE							1		1												HJ24 Leveling of language or have approved Language PDN (level definition test)
▶▶ TERM 2 CRD 21																							
Language Comprehension and Production II	4	CORE	2		1																		HJ03 Language Comprehension and Production I
Calculus I	6	CORE				1																	MA420 Basic Mathematics
Business Organization and Management	4	PROGRAM									1												HJ03 Language Comprehension and Production I
Programming II	5	PROGRAM				2																	CC47 Programming I
Academic Research Seminar I	2	CORE	1						1														HJ03 Language Comprehension and Production I
▶▶ TERM 3 CRD 23																							
Algorithms and Data Structures	4	PROGRAM																					CC67 Programming II and simultaneously with MA265 Discrete Mathematics
Requirement Specification and Analysis	3	PROGRAM	1																				AD99 Business Organization and Management
Discrete Mathematics	6	PROGRAM				1																	MA420 Basic Mathematics and CC47 Programming I
Calculus II	6	PROGRAM																					MA262 Calculus I
Computational Mathematics	4	PROGRAM																					MA262 Calculus I
▶▶ TERM 4 CRD 21																							
Algorithmic Complexity	4	PROGRAM																					CC68 Algorithms and Data Structures
Database Design	4	PROGRAM																					CC68 Algorithms and Data Structures
Physics I	4	CORE				1																	MA362 Calculus I and MA95 Leveling of Physics or have approved Physics PDN (level definition test)
Linear Algebra	4	PROGRAM																					MA265 Discrete Mathematics
Computer Architecture and Operating Systems	5	PROGRAM																					MA265 Discrete Mathematics
▶▶ TERM 5 CRD 22																							
Graphic Computing	4	PROGRAM																					CC76 Algorithmic Complexity
Web Development	4	PROGRAM																					SI400 Database Design
Information Management	4	PROGRAM				1																	SI400 Database Design
Physics for Computer Science	6	PROGRAM																					MA466 Physics I
Applied Statistics 1	4	PROGRAM																					MA262 Calculus I
▶▶ TERM 6 CRD 19																							
Artificial Intelligence	5	PROGRAM																					CC76 Algorithmic Complexity
Accounting and Budgeting	4	CORE																					AD99 Business Organization and Management
Software Engineering	3	PROGRAM	2																				SI377 Requirement Specification and Analysis
Communication Network and Protocols	4	PROGRAM																					SI407 Computer Architecture and Operating Systems
Image Processing	3	PROGRAM																					CC76 Algorithmic Complexity
▶▶ TERM 7 CRD 20																							
Experiment Design in Software Engineering	4	PROGRAM																					CC52 Software Engineering
Finance and Economic Engineering	4	PROGRAM																					CA59 Accounting and Budgeting
Machine Learning	5	PROGRAM	3																				SI404 Artificial Intelligence
Topics in Computer Science	4	PROGRAM																					CC76 Algorithmic Complexity
Elective	3	ELECTIVE																					-
▶▶ TERM 8 CRD 18																							
Data Mining	4	PROGRAM																					CC50 Information Management
Software Project Management	4	PROGRAM																					CC52 Software Engineering
Sustainable Business Entrepreneurship	3	PROGRAM																					SI405 Finance and Economic Engineering
Academic Research Seminar II (Engineering)	3	PROGRAM	2																				HJ159 Academic Research Seminar I and 145 approved credits
Professional Performance Workshop	4	PROGRAM																					CC55 Experiment Design in Software Engineering and HJ61 English 5
▶▶ TERM 9 CRD 18																							
Concurrent and Distributed Programming	3	PROGRAM																					CC54 Communication Network and Protocols
IT Security	4	PROGRAM																					CC54 Communication Network and Protocols
Project Workshop I	5	PROGRAM	3	3	3																		SI391 Professional Performance Workshop and have approved 2 pre-professional internships credits and approval of the Program Director
Elective	3	ELECTIVE																					-
Elective	3	ELECTIVE																					-
▶▶ TERM 10 CRD 17																							
Project Workshop II	5	PROGRAM	3	3																			SI408 Project Workshop I
Elective	3	ELECTIVE																					-
Elective	3	ELECTIVE																					-
Elective	3	ELECTIVE																					-
Elective	3	ELECTIVE																					-

▶▶ COURSES 50 ▶▶ TOTAL CREDITS 200