

Course Distribution Per Semester

A/A	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
Year 1 / A' Semester								
(a)	Compulsory	Analysis for Machine Learning 1: Differential Calculus and Applications	CSAI111	1	180	13	39	6
(b)	Compulsory	Discrete Mathematics 1: Logic and Combinatorics	CSAI112	1	180	13	39	6
(c)	Compulsory	Linear Algebra	CSAI113	1	180	13	39	6
(d)	Compulsory	Computer Science Basics with Python	CSAI114	1	180	13	39	6
(e)	Compulsory	Programming Basics with C	CSAI115	1	180	13	39	6
Year 1 / B' Semester								
(f)	Compulsory	Analysis for Machine Learning 2: Integral Calculus and Applications	CSAI121	1	180	13	39	6
(g)	Compulsory	Discrete Mathematics 2:	CSAI122	1	180	13	39	6

		Discrete Probability and Graph Theory						
(h)	Compulsory	Algorithms 1: Basic Toolbox	CSAI123	1	180	13	39	6
(i)	Compulsory	Programming Paradigms	CSAI124	1	180	13	39	6
(j)	Compulsory	ANN1: Introduction to Neural Networks	CSAI125	1	180	13	39	6
Year 2 / C' Semester								
(l)	Compulsory	Pattern Recognition and Machine Learning	CSAI231	1	180	13	39	6
(m)	Compulsory	Continuous Probability Theory	CSAI232	1	180	13	39	6
(n)	Compulsory	Algorithms 2: Data Structures	CSAI233	1	180	13	39	6
(o)	Compulsory	Computer Architecture	CSAI234	1	180	13	39	6
(p)	Compulsory	Algorithm Engineering	CSAI235	1	180	13	39	6



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Year 2 / D' Semester								
(q)	Compulsory	Theoretical Computer Science	CSAI241	1	180	13	39	6
(r)	Compulsory	Optimisation for Machine Learning	CSAI242	1	180	13	39	6
(s)	Compulsory	Project-based Exploration of Modeling and Simulation	CSAI243	1	180	13	39	6
(t)	Compulsory	Human Computer Interaction	CSAI244	1	180	13	39	6
(u)	Compulsory	Data Science and Big Data	CSAI245	1	180	13	39	6
Year 3 / E' Semester								
(v)	Compulsory	Databases	CSAI351	1	180	13	39	6
(w)	Compulsory	Agile Scrum for AI Development	CSAI352	1	180	13	39	6
(x)	Compulsory	Data Mining	CSAI353	1	180	13	39	6
(y)	Compulsory	ANN2: Deep and Reinforcement Learning	CSAI354	1	180	13	39	6
(z)	Elective	Elective 1	*	1	180	13	39	6

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Year 3 / F' Semester								
(aa)	Compulsory	Natural Language Processing and Foundational Models	CSAI361	1	180	13	39	6
(bb)	Compulsory	Artificial Intelligence Lab	CSAI362	1	180	13	39	6
(cc)	Compulsory	Robotics and Computer Vision	CSAI363	1	180	13	39	6
(dd)	Elective	Elective 2	*	1	180	13	39	6
(ee)	Elective	Elective 3	*	1	180	13	39	6
Year 4 / G' Semester								
(ff)	Compulsory	Mobile Applications in Kotlin	CSAI471	1	180	13	39	6
(gg)	Compulsory	AI-Enhanced Cybersecurity: From Theory to Practice	CSAI472	1	180	13	39	6
(hh)	Elective	Elective 4	*	1	180	13	39	6
(ii)	Compulsory	Thesis I	CSAITHE01	1	180	13	39	3
(jj)	Compulsory	Research Methods	CSTHERM	1	180	13	39	3

(kk)	Compulsory	Language for Science	LCS01	1	180	13	39	6
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Year 4 / H' Semester								
(ll)	Compulsory	Industrial Experience (Placement)	CSIE	1	240	13	52	6
(mm)	Compulsory	Responsible AI: Ethical and Legal Considerations	CSAI481	1	180	13	39	6
(nn)	Elective	Elective 5	*	1	180	13	39	6
(ff)	Compulsory	Thesis II	CSAITHE02	1	180	13	39	12

Students will have the option to select 5 elective courses out of the following 12 courses:

Electives								
	Elective	Introduction to Innovation and Entrepreneurship	CSE01	1	180	13	39	6
	Elective	Compilers	CSE02	1	180	13	39	6
	Elective	Distributed Ledger Technologies	CSE03	1	180	13	39	6



	Elective	Game Design & Development	CSE06	1	180	13	39	6
	Elective	Operating Systems	CS242	1	180	13	39	6
	Elective	IoT Networks and Protocols	CSE08	1	180	13	39	6
	Elective	Cyber Crime and Legal Considerations	CSE09	1	180	13	39	6
	Elective	Introduction to Psychology	PSYC100	1	180	13	39	6
	Elective	Analysis and Design of Information Systems	CSE12	1	180	13	39	6
	Elective	Network Management	CSE13	1	180	13	39	6
	Elective	Computer Architecture II	CSE14	1	180	13	39	6
	Elective	Fine-grained Complexity	CSE15	1	180	13	39	6