

B.Tech in Computer Science and Master of Science in Geospatial Technology by Research

Geospatial Technology (Dual Degree) - Semester wise Plan (Subject to minor changes)																
Year & Sem	Course Code	Course Name	Full/Half Sem	Lectures-L, Tutorial-T, Practical-P Hours per week			Credits earned									
				L	T	P	Ins Core	Prog Core	Prog Elec	CS Elec	Maths	Science	Hum	Open Elec	Hons	
	Monsoon															
I-I	MA1.101	Discrete Structures	Full	3	1	0	-	-	-	-	4	-	-	-	-	
	CS0.101	Computer Programming	Full	3	1	3	-	5	-	-	-	-	-	-	-	
	EC2.101	Digital Systems and Microcontroller	Full	3	1	3	-	5	-	-	-	-	-	-	-	
		Spatial Thinking and Practice (Surveying , Geodesy, Photogrammetry)	Full	3	1	0	-	4	-	-	-	-	-	-	-	
	OC1.101	Arts-1	Full	0	2	2	2	-	-	-	-	-	-	-	-	
	OC2.101	Sports-1	Full	0	0	2	1	-	-	-	-	-	-	-	-	
	OC3.101	Value Education-1	Full	2	1	0	2	-	-	-	-	-	-	-	-	
		Sub Total		14	7	13	5	14	0	0	4	0	0	0	0	
		Total													23	
	Spring															
I-II	MA3.101	Linear Algebra	Full	3	1	0	-	-	-	-	4	-	-	-	-	
	CS3.303	Introduction to IoT	Full	2	0	3	-	3	-	-	-	-	-	-		
	CS1.201	Data Structures and Algorithms	Full	3	1	3	-	5	-	-	-	-	-	-	-	
	CS6.201	Introduction to Software Systems	Half	3	1	0	-	2	-	-	-	-	-	-	-	
	CS2.201	Computer Systems Organization	Full	3	1	0	-	4	-	-	-	-	-	-	-	
		Intro to Spatial Sciences with a Lab	Half	1	0	3	-	2	-	-	-	-	-	-	-	
	OC2.102	Sports-2	Full	0	0	2	1	-	-	-	-	-	-	-	-	
	OC1.102	Arts-2	Full	0	2	2	2	-	-	-	-	-	-	-	-	
		Sub Total		15	6	7	3	16	0	0	4	0	0	0	0	
	Total													23		
Year & Sem	Course Code	Course Name	Full/Half Sem	Lectures-L, Tutorial-T, Practical-P Hours per week			Credits earned									
				L	T	P	Ins Core	Prog Core	Prog Elec	CS Elec	Maths	Science	Hum	Open Elec	Hons	
	Monsoon															
II-I	MA6.101	Probability and Statistics	Full	3	1	0	-	-	-		4	-	-	-	-	
	CS4.301	Data and Applicatons	Half 2	3	1	0	-	2	-	-	-	-	-	-		
	CS1.302	Automata Theory	Half 1	3	1	0	-	2	-	-	-	-	-	-		
	CS1.301	Algorithm Analysis and Design	Full	3	1	0	-	4	-	-	-	-	-	-		
	CS3.301	Operating Systems and Networks	Full	3	1	0	-	4	-	-	-	-	-	-		
	CS4.408	Spatial Informatics	Full	3	1	0	-	4	-	-	-	-	-	-	-	
	EC3.202	Embedded Systems Workshop	Half	1	0	2	-	3								

	OC1.103	Sports-3	Full	0	0	2	1	-	-	-	-	-	-	-	-	
		Sub Total		18	6	2	1	19	0	0	4	0	0	0	0	
		Total														24
	Spring															
II-II	CS9.440	Remote Sensing	Full	3	1	0	-	4	-	-	-	-	-	-	-	
		Geospatial for Sustainable Development (Project based)	Full	3	1	0	-	4	-		-	-	-		-	
	CS7.301	Machine, Data and Learning	Full	3	1	0	-	4	-	-	-	-	-	-	-	
	CSx.3nn	Theory/Foundation Breadth Elective – 2	Half	3	1	0	-	-		2	-	-	-	-		
	CS6.301	Design and Analysis of Software Systems	Full	3	1	0	-	4	-	-	-	-	-	-	-	
	HS8.102	Introduction to Human Sciences	Full	3	1	0	-	-	-	-	-	-	4	-	-	
	OC2.104	Sports-4	Full	0	0	2	1	-	-	-	-	-	-	-	-	
	OC3.102	Value Education-2	Full	2	1	0	2	-	-	-	-	-	-	-	-	
		Sub Total		23	8	2	3	16	0	2	0	0	4	0	0	
		Total														25
	Monsoon															
III-I		Honours-1	Full	0	2	6	-	-	-	-	-	-	-	-	-	2
	CS7.404	Digital Image porcessing (Foundation Breadth)	Full	3	1	0	-			4	-	-	-	-	-	
	MA2.101	Real Analysis	Full	3	1	0	-	-	-		4	-	-	-		
		WebGIS and Geospatial Standards	Full	3	1	0	-	4	-	-	-	-	-	-	-	
		CG Stream-1	Full	3	1	0	-		4							
	SC1.110	Science-1	Full	3	1	0	-	-	-	-	-	4	-	-	-	
		Sub Total		15	7	6	0	4	4	4	4	4	0	0	0	2
		Total														22
	Spring															
III-II		Honours-2	Full	0	2	6	-	-	-	-	-	-	-	-	-	2
	CSX.3nn	Theory/Foundation Breadth Elective – 2	Half	3	1	0	-	-		2	-	-	-	-		
	SC1.111	Science-2	Full	3	1	0	-	-	-	-	-	4	-	-	-	
		HSS Elective - 1	Full	3	1	0	-	-	-	-	-	-	4	-	-	
		CS/Bouquet Elective-1	Full	3	1	0	-	-	-	4	-	-	-	-	-	
		CG Stream-2	Full	3	1	0	-		4							
		Sub Total		3	1	0	0	0	4	6	0	4	4	0	0	2
		Total														20
	Monsoon															
IV-I		Honours-3	Full	0	2	6	-	-	-	-	-	-	-	-	-	2
		CG Stream-3	Full	3	1	0	-		4							
		Open Elective-1	Full	3	1	0	-		-	-	-	-	-	4	-	
		CS Bouquet/Elective-2	Full	3	1	0	-	-	-	4	-	-	-	-	-	
		Science Elective-1	Full	3	1	0	-	-	-	-	-	4	-	-	-	
		Basics of Ethics	Full	3	1	0	-	-	-	-	-	-	2	-	-	
		Sub Total		15	7	6	0	0	4	4	0	4	2	4	2	
		Total														20
	Spring															
IV-II		Honours-4	Full	0	2	6	-	-	-	-	-	-	-	-	-	2
		Open Elective-2	Full	3	1	0	-	-	-	-	-	-		4	-	
		CG Steram-4	Full	3	1	0	-	-	4	-	-	-			-	
		Science Elective-2	Full	3	1	0	-	-	-	-	-	4	-	-	-	
		HSS Elective - 2	Full	3	1	0	-	-	-	-	-	-	4	-	-	
		Ethics-2	Full	3	1	0	-	-	-	-	-	-	2	-	-	
		Sub Total		15	7	6	0	0	4	0	0	4	6	4	2	

