

Semester-wise Pattern for Students Admitted to B.E. Mathematics and Computing Programme								
Year	First Semester			U	Second Semester			U
I	BITS	F103	Introduction to Engineering Design and Prototyping	4	BITS	F111	Thermodynamics	3
	BIO	F101	Introduction to Biological Sciences	3	BITS	F112	Technical Report Writing	2
	CHEM	F101	Fundamentals of Chemistry	3	CS	F111	Computer Programming	4
	MATH	F101	Multivariable Calculus	3	MATH	F113	Probability and Statistics	3
	PHY	F101	Oscillations and Waves	3	MATH	F102	Linear Algebra and Complex Variables	3
	BITS	F101	Social Conduct	1	EEE	F111	Electrical Sciences	3
	BITS	K101	Physical Well-being and Creativity	1*	BITS	F102	Innovation and Design Thinking	1
			18				19	
II	MATH	F211	Mathematics III	3	ECON	F211	Principles of Economics	3
	MAC	F211	Linear Algebra and Applications	3			or	or
	MAC	F212	Object Oriented Programming	4	MGTS	F211	Principles of Management	3
	MAC	F213	Discrete Mathematics	3	MAC	F241	Numerical Analysis	3
	MAC	F214	Elementary Real Analysis	3	MAC	F242	Data Structures & Algorithms	4
	BITS	F225	Environmental Studies	3	MAC	F243	Numerical Optimization	3
			Humanities Electives	3(min)	MAC	F244	Stochastic Calculus and Application to Finance	3
			22(min)	MAC	F245	Scientific Computing Laboratory	1	
							17(min)	
Summer BITS F221 Practice School – I (for PS Option Only)								
III	MAC	F311	Algebra I	3	MAC	F341	Design and Analysis of Algorithms	3
	MAC	F312	Foundations of Data Science	3	MAC	F342	Computational Partial Differential Equations	4
	MAC	F313	Statistical Data Analysis	4			Discipline Electives	6
	MAC	F314	Mathematical Modelling	4			Humanities Electives	2
			Discipline Electives	3			Open Elective	3
		Humanities Electives	3					
			20(min)				18(min)	
IV			Open Electives	12	BITS	F412	Practice School-II	20
			Discipline Electives	3(min)			or	or
					BITS	F421T	Thesis	16
				or	F425T	Thesis	18-20	
				or	F424T	Thesis (9) and Electives	15-18	
						(6 to 9)		
			15(min)				15/20	

Discipline Core - 48 Units (15 Courses)

Discipline Electives-12 Units (4 Courses)