GURU GHASIDAS VISHWAVIDYALAYA, BILASPUR

DEPARTMENT OF MATHEMATICS

COURSE STRUCTURE & SYLLABUS-B.Sc. (Hon.) in Mathematics

Sem	Course Type	Course Code	Course Name	Credit/Hours (L-T-P)	Marks CCA^	Marks ESE#	Total Marks
I	CORE 1	AMUATT1	Calculus	5(4-1-0)	30	70	100
	CORE 2	AMUATT2	Algebra and Geometry	5(4-1-0)	30	70	100
	GE-1		Opted from the pool Course and offered by Sister Departments	5	30	70	100
	AEC-1		Opted from the Pool Course offered by University	2	30	70	100
	SEC-1		Opted from the Pool Course offered by University	2	30	70	100
	Additional Credit Course						
			Total Credit	**19**			
II	CORE 3	AMUBTT1	Multivariable Calculus	5(4-1-0)	30	70	100
	CORE 4	AMUBTT2	Ordinary Differential Equations	5(4-1-0)	30	70	100
	GE-2		Opted from the pool Course and offered by Sister Departments	5	30	70	100
	AEC-2		Opted from the Pool Course offered by University	2	30	70	100
	SEC-2		Opted from the Pool Course offered by University	2	30	70	100
	Additional Credit Course						
			Total Credit	**19**			
III	CORE 5	AMUCTT1	Real Analysis	5(4-1-0)	30	70	100
	CORE 6	AMUCTT2	Group Theory	5(4-1-0)	30	70	100
	CORE 7	AMUCTT3	Probability and Statistics	5(4-1-0)	30	70	100
	GE-3		Opted from the pool Course and offered by Sister Departments	5	30	70	100
	AEC-3		Opted from the Pool Course offered by University	2	30	70	100
	Additional Credit Course						
			Total Credit	**22**			

IV	CORE 8	AMUDTT1	Mechanics	5(4-1-0)	30	70	100
	CORE 9	AMUDTT2	Linear Algebra	5(4-1-0)	30	70	100
	CORE 10	AMUDTT3	Partial Differential Equations and Calculus of Variations	5(4-1-0)	30	70	100
	GE-4		Opted from the pool Course and offered by Sister Departments	5	30	70	100
	AEC-4		Opted from the Pool Course offered by University	2	30	70	100
	Internship*	AMUDEF1		06			100
	Additional Credit Course						
			Total Credit	**22+6***			
V	CORE11	AMUETT1	Set Theory and Metric Spaces	5(4-1-0)	30	70	100
	CORE 12	AMUETT2	Advanced Algebra	5(4-1-0)	30	70	100
	DSE (any two)	AMUETD1	Tensors and Differential Geometry	5(4-1-0)	30	70	100
		AMUETD2	Mathematical Logic	5(4-1-0)	30	70	100
		AMUETD3	Integral Transforms and Fourier Analysis	5(4-1-0)	30	70	100
		AMUETD4	Linear Programming	5(4-1-0)	30	70	100
		AMUETD5	Information Theory and Coding	5(4-1-0)	30	70	100
		AMUETD6	Graph Theory	5(4-1-0)	30	70	100
		AMUETD7	Special Theory and Relativity	5(4-1-0)	30	70	100
	AEC-5		Opted from the Pool Course offered by University	2	30	70	100
	Additional Credit Course						
			Total Credit	**22**			
VI	CORE 13	AMUFTT1	Complex Analysis	5(4-1-0)	30	70	100
	CORE 14	AMUFTT2	Numerical Analysis	5(4-1-0)	30	70	100
	DSE (any one)	AMUFTD1	Discrete Mathematics	5(4-1-0)	30	70	100
		AMUFTD2	Wavelets and Applications	5(4-1-0)	30	70	100
		AMUFTD3	Number Theory	5(4-1-0)	30	70	100

	AMUFTD4	Mathematical Finance	5(4-1-0)	30	70	100
	AMUFTD5	C++Programming for Mathematics	5(4-1-0)	30	70	100
	AMUFTD6	Cryptography	5(4-1-0)	30	70	100
	AMUFTD7	Advanced Mechanics	5(4-1-0)	30	70	100
Seminar	AMUFST1 ~			02		100
Dissertation/Project	AMUFDT1 ~			07		100
Additional Credit Course						
Total Credit	**24**					

~The Code generated by the Department., *May be offered during the summer;
^ Continuous Comprehensive Assessment (CCA), # End-Semester Examination (ESE)