

Annexure: I

Faculty of Science
Department of Mathematics
Ordinance, Curriculum & Syllabus
Master of Science (Mathematics)
(2020-21)



Shree Guru Gobind Singh Tricentenary
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Dr. [Signature] *[Signature]* *[Signature]*


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Budhera, Gurugram

M.Sc. Mathematics
Syllabus (2020-21)
Program Structure under Choice Based Credit System (CBCS)

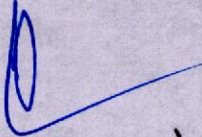
SEMESTER	COURSE CODE	COURSENAME	L	T	P	Contact hours/ week	Credits	Max. Marks	Formative Assessment	Summative Assessment
I	Core Courses (CC)									
	17070101	Real Analysis	3	0	0	3	3	100	40	60
	17070102	Measure Theory	3	0	0	3	3	100	40	60
	17070103	Linear Algebra	3	0	0	3	3	100	40	60
	17070104	Complex Analysis	3	0	0	3	3	100	40	60
	17070105	Ordinary Differential Equations	3	0	0	3	3	100	40	60
	17070106	Ordinary Differential Equations Lab	0	0	4	4	2	100	60	40
	Ability Enhancement Compulsory Course (AECC)									
	17070107	Professional Ethics and Human Values	2	0	0	2	2	100	40	60
	Skill Enhancement Course									
17070108	Introduction to MATLAB	0	0	4	4	2	100	60	40	
Total Credits			17	0	8	25	21	800	360	440
II	Core Courses									
	17070201	Abstract Algebra	3	0	0	3	3	100	40	60
	17070202	Metric Spaces	3	0	0	3	3	100	40	60
	17070203	Topology	3	0	0	3	3	100	40	60
	17070204	Functional Analysis	3	0	0	3	3	100	40	60
	17070205	Probability and Statistics	3	0	0	3	3	100	40	60
	17070206	Probability and Statistics Lab	0	0	4	4	2	100	60	40
	Ability Enhancement Compulsory Course (AECC)									
	17070207	Research Methodology	2	0	0	2	2	100	40	60
	Skill Enhancement Course									
17070208	Programming with Python	0	0	4	4	2	100	60	40	
Total Credits			17	0	8	25	21	800	360	440
	17070209	Summer Training(4/6 weeks)	-	-	-	-	4	200	100	100
III	Specialization									
	Discipline Specific Elective Courses(DSEC)(Four Theory courses and Two Lab Courses)									
		DSEC 1	3	0	0	3	3	100	40	60
		DSEC 2	3	0	0	3	3	100	40	60
		DSEC 3	3	0	0	3	3	100	40	60
		DSEC 4	3	0	0	3	3	100	40	60
		DSEC 3 Lab	0	0	4	4	2	100	60	40
		DSEC 4 Lab	0	0	4	4	2	100	60	40
	Open Elective Course (From University Basket)(Common for all the specializations)									
	17070316	OEC	3	0	0	3	3	100	40	60
Skill Enhancement Course										
17070315	Introduction to LaTeX	0	0	4	2	1	100	60	40	
Total Credits			17	0	8	25	20	800	380	420
IV	Research Training(Mandatory)(Common for all the specializations)									
	17070401	Dissertation / Industry project	0	0	20	20	20	400	200	200
Total Credits			0	0	20	20	20	400	200	200
Grand Total			51	0	44	95	86	3000	1400	1600

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Semester (Credits)	Core Courses	DSE Courses	SE Courses	AEC Courses	Research Training	Open Elective	Total
I	17	-	2	2	-	-	21
II	17	-	2	2	-	-	21
III	-	16	1	-	-	3	20
IV	-	-	-	-	20	-	20
Total	34	16	5	4	20	3	82
Summer Training (4/6 Weeks) after Second Semester							04
Online courses from SWAYAM (Sem - I to Sem - III) Maximum							09
Grand Total							95
Minimum Credits for award of degree							85

Category	Credits	%
Core Course(CC)	34	35
Discipline Specific Elective Course(DSEC)	16	17
Skill Enhancement Course (SEC)	5	6
Ability Enhancement Compulsory Course (AECC)	4	4
Research Training	20	21
Open Elective	3	3
Summer Training after second semester	4	4
Online courses from SWAYAM (Sem - I to Sem - III)	9	10
Total	95	100

Choices for DSEC 1		
S. No.	Course Code	Subject
1	17070301	Discrete Mathematics
2	17070302	Mathematical Modelling and Simulation
3	17070303	Differential Geometry
Choices for DSEC 2		
1	17070304	Special Functions
2	17070305	Fuzzy Sets and its Applications
3	17070306	Fluid Dynamics
Choices for DSEC 3		
1	17070307	Numerical Analysis and its Applications
	17070308	Numerical Analysis and its Applications Lab
2	17070309	Cryptography
	17070310	Cryptography Lab
Choices for DSEC 4		
1	17070311	Mathematical Programming
	17070312	Mathematical Programming Lab
2	17070313	Integral Equations
	17070314	Integral Equations Lab


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