Course curriculum of M.Sc. Mathematics and Computing Program

Department of Mathematics
School of Technology
Pandit Deendayal Energy University

Course structure

Semester I							
Sr. No.	Course/Lab Code	Course/Lab Name	Teaching Scheme				
			L	T	P	C	Hrs./Wk
1.	20MSM501T	Real Analysis	3	1	0	4	4
2.	23MSM501T	Differential Equations	3	1	0	4	4
3.	20MSM503T	Linear Algebra	3	1	0	4	4
4.	23MSM502T	Programing Language C (Theory)	3	0	0	3	3
5.	23MSM502P	Programing Language C Lab	0	0	2	1	2
6.	23MSM503T	Discrete Mathematics	3	1	0	4	4
Total			**15**	**4**	**2**	**20**	**21**

Semester II							
Sr. No.	Course/Lab Code	Course/Lab Name	Teaching Scheme				
			L	T	P	C	Hrs./Wk
1.	20MSM508T	Modern Algebra	3	1	0	4	4
2.	20MSM504T	Probability and Statistics	3	1	0	4	4
3.	23MSM504T	Data Structures	3	0	0	3	3
4.	23MSM504P	Data Structures Lab	0	0	2	1	2
5.	23MSM505T	Optimization Techniques	3	1	0	4	4
6.	20MSM507T	Complex Analysis	3	1	0	4	4
Total			**15**	**4**	**2**	**20**	**21**

Semester III							
Sr. No.	**Course/Lab Code**	**Course/Lab Name**	**Teaching Scheme**				
			L	**T**	**P**	**C**	**Hrs./Wk**
1.	20MSM505T	Numerical Analysis	3	1	0	4	4
2.		Elective 1	3	0	0	3	3
3.		Elective 2 (Core Computer)	3	0	0	3	3
4.		Elective 3	3	0	0	3	3
5.	20MSM603	Project-I	0	0	0	8	--
Total			**12**	**1**	**0**	**21**	**13+Project-1**

Semester IV							
Sr. No.	**Course/Lab Code**	**Course/Lab Name**	**Teaching Scheme**				
			L	**T**	**P**	**C**	**Hrs/Wk**
1.	20MSM617	Project - II	-	-	-	20	--
Total			**-**	**-**	**-**	**20**	**--**

Elective-1		
20MSM604T	Fluid Mechanics	3,0,0
20MSM510T	Calculus of Variation and Integral Equations	3,0,0
20MSM610T	Modeling and Simulation	3,0,0
23MSM601T	Numerics of Partial Differential Equations	3,0,0
23MSM602T	Number Theory and Cryptography	3,0,0
23MSM603T	Random Variables and Stochastic Processes	3,0,0
20MSM602T	Functional Analysis	3,0,0
20MSM509T	Topology	3,0,0

Elective-2 (Core Computer)		
23MSM604T	Design and Analysis of Algorithm	3,0,0
23MSM605T	Formal Language and Automata Theory	3,0,0
23MSM606T	Graph Theory	3,0,0
20MSM511T	Object Oriented and Python Programming	3,0,0
23MSM607T	Theory of Computing	3,0,0

Elective-3		
20MSM614T	Boundary Element Method	3,0,0
23MSM609T	Advanced Abstract Algebra	3,0,0
23MSM610T	Measure Theory and Integration	3,0,0
23MSM611T	Theory of Operators	3,0,0
20MSM608T	Finite Element Method	3,0,0
20MSM612T	Numerical Linear Algebra	3,0,0
23MSM608T	Financial Portfolio Theory and Risk Analysis	3,0,0