

Solapur University, Solapur
School of Computational Sciences
M.Sc. Mathematics Choice Based Credit System (CBCS)
Course Structure

M.Sc. Part-I (Mathematics) w.e.f. June 2018-19

M.Sc. MATHEMATICS SEMESTER-I								
Paper Code	Title of the Paper	Semester Examination			L	T	P	Credits
		Theory	IA	Total				
	Hard Core Theory							
HCT 1.1	Algebra I	70	30	100	4	--	--	4
HCT 1.2	Real Analysis I	70	30	100	4	--	--	4
HCT 1.3	Differential Equations	70	30	100	4	--	--	4
HCT 1.4	Classical Mechanics	70	30	100	4	--	--	4
	Soft Core-Theory (Any one)							
SCT 1.1	Number Theory	70	30	100	4	--	--	4
SCT 1.2	Object Oriented Programming using C++							
	Practical							
HCP1.1	Practical 1 (Practical based on HCT 1.1, HCT1.2, HCT1.3)	35	15	50	--	--	4	2
HCP1.2	Practical 2 (Practical based on HCT 1.4, SCT)	35	15	50	--	--	4	2
	Seminar/Tutorial/ Industrial Visit/ Field Tour	---	25	25	--	1	--	1
Total for Semester-I		420	205	625	--	--	--	25
M.Sc. MATHEMATICS SEMESTER-II								
Code	Title of the Paper	Semester Examination			L	T	P	Credits
		Theory	IA	Total				
	Hard Core Theory							
HCT 2.1	Algebra II	70	30	100	4	--	--	4
HCT 2.2	Real Analysis II	70	30	100	4	--	--	4
HCT 2.3	General Topology	70	30	100	4	--	--	4
*HCT/ P 2.4	Communicate in English Confidently	55	20	75	3	-	1	3
	Soft Core Theory (Any One)							
SCT 2.1	Complex Analysis	70	30	100	4	--	--	4
SCT 2.2	Relativistic Mechanics							
	Open Elective Theory (Any one)							
OET 2.1	Fundamentals in Mathematics	70	30	100	4	--	--	4
OET 2.2	Vedic Mathematics							
	Practical (Hard and Soft core)							
HCP 2.1	Practical 3 (Practical based on HCT 2.1,2.2,2.3 and SCT)	35	15	50	--	--	4	2
	Practical (Open Elective) Any One							
OEP 2.1	Practical 4 (Practical based on OEP 2.1)	35	15	50	--	--	4	2
OEP 2.2	Practical 4 (Practical based on OEP 2.2)							
	Seminar/Tutorial/ Industrial Visit/ Field Tour	---	25	25	--	1	--	1
Total for Semester-II		420	205	625	--	--	--	25

M.Sc. (MATHEMATICS) Part-II w.e.f. June 2018-19

M.Sc. MATHEMATICS SEMESTER-III								
Paper Code	Title of the Paper	Semester Examination			L	T	P	Credits
		Theory	IA	Total				
	Hard Core Theory							
HCT 3.1	Functional Analysis	70	30	100	4	--	--	4
HCT 3.2	Advanced Discrete Mathematics	70	30	100	4	--	--	4
HCT 3.3	Linear Algebra	70	30	100	4	--	--	4
*HCT/ P 3.4	Technical English Communication Skills	55	20	75	3	-	1	3
	Soft Core Theory (Any one)							
SCT 3.1	Differential Geometry	70	30	100	4	--	--	4
SCT 3.2	Fuzzy Mathematics							
	Open Elective Theory (Any One)							
OET 3.1	Numerical Techniques	70	30	100	4	--	--	4
OET 3.2	Optimization Techniques							
	Practical (Hard and Soft core)							
HCP 3.1	Practical 5 (Practical based on HCT and SCT)	35	15	50	--	--	4	2
	Practical (Open Elective) Any One							
OEP 3.1	Practical 6 (Practical based on OET 3.1)	35	15	50	--	--	4	2
OEP 3.2	Practical 6 (Practical based on OET 3.2)							
	Seminar/Tutorial/ Industrial Visit/ Field Tour	---	25	25	--	1	--	1
Total for Semester-III		420	205	625	--	--	--	25
M.Sc. MATHEMATICS SEMESTER-IV								
Code	Title of the Paper	Semester Examination			L	T	P	Credits
		Theory	IA	Total				
	Hard Core Theory							
HCT 4.1	Measure & Integration	70	30	100	4	--	--	4
HCT 4.2	Partial Differential Equations	70	30	100	4	--	--	4
HCT 4.3	Integral Equations	70	30	100	4	--	--	4
HCT 4.4	Operations Research	70	30	100	4	--	--	4
	Soft Core Theory (Any one)							
SCT 4.1	Numerical Analysis	70	30	100	4	--	--	4
SCT 4.2	Lattice Theory							
SCT 4.3	Probability T heory							
	Practical and Project							
HCP 4.1	Practical 7 (Practical based on HCT and SCT)S	35	15	50	--	--	4	2
HCP 4.2	Practical 8 (Project Work)	35	15	50	--	--	4	2
	Seminar/Tutorial/ Industrial Visit/ Field Tour	---	25	25	--	1	--	1
Total for Semester-IV		420	205	625	--	--	--	25
Total				2500	--	--	--	100

L = Lecture T = Tutorials P = Practical IA= Internal Assessment
4 Credits of Theory = 4 Hours of teaching per week
2 Credit of Practical = 4 hours per week
HCT = Hard core theory
SCT = Soft core theory
HCP = Hard core practical
SCP = Soft core practical
OET = Open elective theory
OEP = Open elective practical
MP = Major project
HCT/P = Hard Core Theory / Project

*** Paper is offered only to students of Department of Mathematics, Solapur University, Solapur. Scoring 50% marks is mandatory for successfully completing this semester course.**

*** HCT/P is mandatory for every student who seeks M.Sc. / M.A./M.C.A. degree and has to earn 3 credits in Sem.-II & Sem.-III. In order to pass in the above course the students should secure atleast 27 marks for theory and 10 marks for internal Assesment However these credits will not accumulated for CGPA, in case student fails in these courses he will be declared as fail.**