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VIVEKANANDA GLOBAL UNIVERSITY

(Established by Rajasthan State Legislature and covered u/s 2(f) of the UGC Act, 1956)

FACULTY OF BASIC AND APPLIED SCIENCES

SCHEME & SYLLABUS

FOR

Master of Science (Mathematics)

(Implemented from Academic Session 2018-19 and also for students admitted in 2017-18)

Semester	I	II	III	IV	Total
Credits	24	22	22	22	90

SESSION: 2018-19

Master of Science (Mathematics)

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M.Sc. MATHEMATICS SCHEME EFFECTIVE FROM 2018--19						
SEMESTER I						
Course Code	University Course Type	Course Name	Teaching Scheme			
			L	T	P	C
MAT 158	Core Theory	Advanced Abstract Algebra	4	1	0	5
MAT 159	Core Theory	Topology	4	1	0	5
MAT 160	Core Theory	Integral Transforms	4	1	0	5
MAT 161	Core Theory	Differential Geometry	4	1	0	5
BCS 305	Core Practical	Object Oriented Programming Lab with C++	0	0	4	2
ENG 109	Skill Enhancement Course	Communicative English	2	0	0	2
Total			18	4	4	24

M.Sc. MATHEMATICS SCHEME EFFECTIVE FROM 2018-19						
SEMESTER II						
Course Code	University Course Type	Course Name	Teaching Load			
			L	T	P	C
MAT 162	Core Theory	Functional Analysis	4	1	0	5
MAT 163	Core Theory	Mathematical Programming	4	1	0	5
MAT 164	Core Theory	Combinatorics and Graph Theory	4	1	0	5
DSE 1	Department Specific Elective 1	Choose any one from list of DSE Courses	4	1	0	5
MAT 180	Core Practical	Numerical Analysis Lab - I	0	0	4	2
Total			16	4	4	22

M.Sc. MATHEMATICS SCHEME EFFECTIVE FROM 2018-19						
SEMESTER III						
Course Code	University Course Type	Course Name	Teaching Scheme			
			L	T	P	C
MAT 168	Core Theory	Advanced Linear Algebra	4	1	0	5
MAT 169	Core Theory	Operations Research	4	1	0	5
MAT 170	Core Theory	Advanced Graph Theory-I	4	1	0	5
DSE 2	Department Specific Elective 2	Choose any one from list of DSE Courses	4	1	0	5
MAT 181	Core Practical	Numerical Analysis Lab - II	0	0	4	2
Total			16	4	4	22

M.Sc. MATHEMATICS SCHEME EFFECTIVE FROM 2018-19						
SEMESTER IV						
Course Code	University Course Type	Course Name	Teaching Scheme			
			L	T	P	C
DSE 3	Department Specific Elective 3	Choose any one from list of DSE Courses	4	1	0	5
DSE 4	Department Specific Elective 4	Choose any one from list of DSE Courses	4	1	0	5
MAT 182	Core Practical	MATLAB Lab	0	0	4	2
MAT 193	Core Practical	Seminar	0	0	4	2
MAT 184	Core Practical	Project	0	0	16	8
Total			8	2	24	22

Theory – 2 Midterm Exams and Course Work* (40%) End Term Exam (60%)

Practical- 2 Midterm Exams and Course Work* (60%) End Term Exam (40%)

*Class work shall include: Quiz, Assignment, Seminars, Presentations, Attendance, Case study, Surprise class test, Lab. record, Viva, Projects, and Observation

LIST OF SKILL ENHANCEMENT COURSES

Course Code	Skill Enhancement Courses
ENG 109	Communicative English

LIST OF DEPARTMENT SPECIFIC ELECTIVE COURSES

Course Code	Department Specific Elective
MAT 165	Integral Equations
MAT 167	Calculus of Variations & Special Functions
MAT 171	Fluid Mechanics
MAT 172	Mathematics in Multimedia
MAT 173	Mathematical Modeling
MAT 174	Wavelet Analysis
MAT 175	Fuzzy Sets and Applications
MAT 176	Cryptography
MAT 178	Algorithm Design Techniques
MAT 179	Mathematical Statistics
MAT 202	Tensor Analysis & Number Theory
MAT 203	Differential Equation and Finite Element Analysis
MAT 204	Advanced Numerical Analysis