



AKAL UNIVERSITY

TALWANDI SABO

(Estb. under Punjab State Act No. 25 of 2015)

FACULTY OF MATHEMATICS AND COMPUTATIONAL SCIENCE

DEPARTMENT OF MATHEMATICS

Syllabi Scheme

For

Master in Mathematics (Hons.)

2019-21

SYLLABI AND COURSES OF READING FOR MASTER IN MATHEMATICS (Hons.), 2019 – 21

SEMESTER: I

SCHEME OF TEACHING & EXAMINATION

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING (HRS. PER WEEK)			CREDITS	MARKS		
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL	MULTIPLE CHOICE EXAMINATION	END SEMESTER EXAMINATION
Core	MTM06C101	LINEAR PROGRAMMING AND GAME THEORY	5	-	-	5	20	20	60
Core	MTM06C102	TOPICS IN ALGEBRA-I	5	-	-	5	20	20	60
Core	MTM06C103	COMPLEX ANALYSIS-I	5	-	-	5	20	20	60
Core	MTM06C104	REAL ANALYSIS	5	-	-	5	20	20	60
Core	MTM06C105	DIFFERENTIAL EQUATIONS	5	-	-	5	20	20	60
		TOTAL	25			25	100	100	300

1. “Core” indicates Core course; A core course is that knowledge which is deemed to be essential for students registered for a particular Programme.

SEMESTER: II**SCHEME OF TEACHING & EXAMINATION**

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING (HRS. PER WEEK)			CREDITS	MARKS		
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL	MULTIPLE CHOICE EXAMINATION	END SEMESTER EXAMINATION
Core	MTM06C201	MECHANICS-I	5	-	-	5	20	20	60
Core	MTM06C202	TOPICS IN ALGEBRA-II	5	-	-	5	20	20	60
Core	MTM06C203	MEASURE AND INTEGRATION	5	-	-	5	20	20	60
Core	MTM06C204	FUNCTIONAL ANALYSIS	5	-	-	5	20	20	60
Core	MTM06C205	ANALYTIC NUMBER THEORY	5	-	-	5	20	20	60
		TOTAL	25			25	100	100	300

SEMESTER: III

SCHEME OF TEACHING & EXAMINATION

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING (HRS. PER WEEK)			CREDITS	MARKS		
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL	MULTIPLE CHOICE EXAMINATION	END SEMESTER EXAMINATION
Core	MTM06C301	TOPOLOGY-I	5	-	-	5	20	20	60
Core	MTM06C302	MECHANICS-II	5	-	-	5	20	20	60
DSE		*Choose any three	5	-	-	5	20	20	60
			5	-	-	5	20	20	60
			5	-	-	5	20	20	60
TOTAL			25			25	100	100	300

***DSE (Discipline Specific Elective Course): (Choose any three):**

1. MTM06E301 PROBABILITY AND MATHEMATICAL STATISTICS
2. MTM06E302 FLUID MECHANICS-I
3. MTM06E303 CATEGORY THEORY-I
4. MTM06E304 FUZZY SETS AND APPLICATIONS
5. MTM06E305 DIFFERENTIAL GEOMETRY
6. MTM06E306 NUMERICAL METHODS FOR ORDINARY DIFFERENTIAL EQUATION
7. MTM06E307 COMPLEX ANALYSIS-II
8. MTM06E308 NON-LINEAR PROGRAMMING
9. MTM06D301 DISSERTATION

SEMESTER: IV
SCHEME OF TEACHING & EXAMINATION

NATURE OF COURSE	COURSE CODE	COURSE NAME/TITLE	SCHEDULE OF TEACHING (HRS. PER WEEK)			CREDITS	MARKS		
			LECTURE	TUTORIAL	PRACTICAL		INTERNAL/ VIVA-VOCE	MULTIPLE CHOICE EXAMINATION	END SEMESTER EXAMINATION/ DISSERTATION
Core	MTM06C401	TOPOLOGY-II	5	-	-	5	20	20	60
Core	MTM06C402	COMMUTATIVE ALGEBRA	5	-	-	5	20	20	60
DSE		*Choose any three	5	-	-	5	20	20	60
			5	-	-	5	20	20	60
			5	-	-	5	20	20	60
TOTAL			25			25	100	100	300

***DSE (Discipline Specific Elective Course): (Choose any three):**

1. MTM06E401 ALGEBRAIC CODING THEORY
2. MTM06E402 FLUID MECHANICS-II
3. MTM06E403 ALGEBRAIC NUMBER THEORY
4. MTM06E404 DIFFERENTIABLE MANIFOLDS
5. MTM06E405 CATEGORY THEORY-II
6. MTM06E406 STOCHASTIC PROCESSES
7. MTM06E407 OPTIMIZATION TECHNIQUES
8. MTM06E408 METHODS IN APPLIED MATHEMATICS
9. MTM06D401 DISSERTATION