## **DEPARTMENT OF MATHEMATICS,**

## UNIVERSITY OF KARACHI,

## Year / Semester wise Scheme of Studies of PhD Program

1st Year (Semester I)	<b>Course Code</b>	<b>Course Title</b>	
S. No			
1	Optional I		
2	Optional II		
3	Optional III		
1st Year (Semester II)	Course Code	Course Title	
1st Year (Semester II) S. No	Course Code	Course Title	
•	Course Code Optional I	Course Title	
S. No		Course Title	

## **List of PhD Optional courses**

SR. #.	MATH	CR. #.	COURSE TITLES
01.	MATH	801	COMPUTATIONAL METHODS FOR FLUID FLOW – I
02.	MATH	802	COMPUTATIONAL METHODS FOR FLUID FLOW – II
03.	MATH	803	MODELING AND SIMNULATION OF BIOLOGICAL SYSTEMS – I
04.	MATH	804	MODELING AND SIMNULATION OF BIOLOGICAL SYSTEMS – II
05.	MATH	805	SPECIAL CLASSES OF RINGS – I
06.	MATH	806	SPECIAL CLASSES OF RINGS – II
07.	MATH	807	STOCHASTIC PROCESSES
08.	MATH	808	RENEWAL PROCESSES AND QUENING THEORY
09.	MATH	809	THEORY OF MATHEMATICAL INQUALITIES AND APPLICATIONS – I
10.	MATH	810	THEORY OF MATHEMATICAL INQUALITIES AND APPLICATIONS – II
11.	MATH	813	THEORY OF MATRIX RINGS AND MATRIX NEAR RINGS – I
12.	MATH	814	THEORY OF MATRIX RINGS AND MATRIX NEAR RINGS – II