

Ambedkar University Delhi

Course Outline

Monsoon Semester (July-December 2018)

School:	Undergraduate Studies			
Programme with title:	BA (Honours)			
Semester to which offered: (I/ III/ V)	I semester			
Course Title:	Introduction to Mathematical thinking			
Credits:	4 Credits			
Course Code (new):	SUS1MA501			
Course Code (old):	M01			
Type of Course:	Compulsory	yes	Cohort	BA (H) Mathematics
	Elective	yes	Cohort	BA (H) other than Mathematics

For SUS only (Mark an X for as many as appropriate):

1. Foundation (Compulsory)
2. Foundation (Elective)
3. Discipline (Compulsory) X
4. Discipline (Elective) X
5. Elective

Course Coordinator and Team: Geetha Venkataraman (CC) and Maths X (Visiting Faculty)

Email of course coordinator: geetha@aud.ac.in

Pre-requisites: Mathematics of the 10 + 2 level

Aim: This course has been designed with the aim of introducing students towards reading and writing Mathematics. A certain exposure to abstract mathematics is also an aim of the course. There will be due emphasis on an intuitive understanding of topics as well as the rigour required to do mathematics. Writing proofs is an essential part of this course.

Brief description of modules/ Main modules:

1. Discrete Elements
2. Linear Algebra
3. Real Analysis

References:

1. R. G. Bartle and D. R. Sherbert, *Introduction to Real Analysis* (3rd Edition), John Wiley and Sons (Asia) Pte. Ltd., Singapore, 2002.
2. David C. Lay, *Linear Algebra and its Applications* (3rd Edition), Pearson Education Asia, Indian Reprint, 2007.
3. Joseph A. Gallian, *Contemporary Abstract Algebra* (4th Edition), Narosa Publishing House, New Delhi, 1999.
4. Edgar G. Goodaire and Michael M. Parmenter, *Discrete Mathematics with Graph Theory* (2nd Edition), Pearson Education (Singapore) Pte. Ltd., Indian Reprint 2003.
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Tentative Assessment schedule with details of weightage:

S.No	Assessment	Date/period in which Assessment will take place	Weightage
1	Class test	End August	10%
2	Mid Semester Exam	End September/ early October	25%
3	Tut/ Home Assignments	Throughout the semester	15%
4	Presentation/ Viva	End October/ early November	15%
5	End Semester Exam	As per AUD Academic Calendar	35%