

Semester	JAN 2022
Open to semester	8,12
Course code	MTH423
Course title	Commutative Algebra
Credits	4 /
Course Coordinator & participating faculty (if any)	Amit Hogadi
Nature of Course	Lectures
Pre-requisites	Courses on : 1. Group Theory 2. Vector Spaces Rings and Modules
Objectives (goals, type of students for whom useful, outcome etc)	The goal is to cover first few chapters of the book by Atiyah McDonald on Commutative Algebra.
Course contents (details of topics /sections with no. of lectures for each)	1. Localization of rings and modules. 2. Local rings Nakayama Lemma, Prime avoidance, 3. Noetherian conditions, Krull dimension 4. Integral extensions, 5. Tensor products, 6. Hilbert Nullstellensatz, Noether normalization 7. DVR and dedekind domains. Lectures will be split equally (roughly) among above mentioned topics.
Evaluation /assessment	End-Sem Examination-60% Mid-Sem Examination-40% Others-%
Suggested readings (with full list of authors, publisher, year, edn etc.)	Commutative Algebra by Atiyah McDonald