MTH302, Integers, Polynomials & Matrices

Monsoon 2020

Schedule: 9:00AM- 9:55AM, ABII-2A on M., Tu., Th., and Fr.

Instructor: Varadharaj R. Srinivasan
Office: AB-II, 2F3
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Office Visit: by appointment only

Grading policy:

Periodic Assessment:	70
Final Exam:	30
Total:	100

In order to a letter grade 'D' or above, a student must receive a total ≥ 35.

Attendance policy: All the lectures will be recorded and thus your attendance will be marked. You are expected to attend all the lectures.

Periodic Assessment: Evaluation will be based on a viva examination, homework assignments and quizzes.

Final Examination: There will be an online/in-class final examination towards the end of the semester.

Homework assignments: Homework assignments will be provided on occasional basis. Few homework assignments may be collected, graded and counted towards the coursework grade. I expect each one of you to solve all the assigned problems. Without solving homework problems you will not understand the course material.

Quizzes: I will conduct quizzes periodically. Solutions to quizzes must be uploaded on moodle by 6:00PM on the same day of the quiz. Solutions must be worked out without seeking external help.

Course outline: We will closely follow the book *R*ings and Modules by C. Musili.

Rings: Notion of a ring, polynomial and matrix rings, ideals, quotient rings, local rings, homomorphisms, Euclidean and principal ideal domains.

Modules: Notion of a module, direct sums, free modules and vector spaces, simple modules, modules over principal ideal domains, theory of Noetherian and Artinian rings, Artin-Wedderburn theory.

References:

(1) *R*ings and Modules, C. Musili.
(2) *U*niversity Algebra, N. S. Gopalakrishnan.
(3) *A*lgebra, T. Hungerford.
(4) *A*lgebra, S. Lang.