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## Mathematical Theory of Interest

MATH-384\*

A study of interest and discount: simple, compound and varying. Accumulation functions and factors, discount functions and factors. Ordinary annuities, annuities due, deferred annuities, perpetuities, general annuities, amortization, sinking fund, bonds and yield rate, varying annuities. Capital budgeting and depreciation.

**Textbook:** *The Theory of Interest*, 2nd Edition  
by Stephen G. Kellison (McGraw-Hill Ryerson)

**Prerequisite:** A course in differential *and* integral calculus, *and* an introductory course in probability *and/or* statistics, *or* permission of the instructor.

**Instructor:** A. Ordine

**Evaluation:** Six biweekly tests 42%  
Final examination 58%

### Outline:

#### Chapter

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|---|---|
| 1 | Measurement of Interest                             |
| 2 | Annuities   |
| 3 | Yield Rates   |
| 4 | Amortization, Sinking funds                         |
| 5 | Bonds   |
| 6 | Depreciation schemes, capitalized cost, short sales |

The course is given essentially as a reading course. There are six survey lectures, which, along with the six biweekly tests and six tutorials, are the only scheduled class meetings.