COURSE SYLLABUS

YEAR COURSE OFFERED:

SEMESTER COURSE OFFERED:

DEPARTMENT: Mathematics

COURSE NUMBER: 3325

NAME OF COURSE: Transitions to Advanced Mathematics

NAME OF INSTRUCTOR: Matthew O’Malley

Learning Objectives

To understand more thoroughly several basic concepts of mathematics and begin to develop the ability to understand and give mathematical proofs.

Major Assignments/Exams

2 or 3 in class tests -- each worth 100 points.
Several turn-in homework assignments -- 200 points.
Final exam – 200 points.

The Instructor reserves the right to give additional tests(100 points each) and/or pop quizzes(10 points each). Attendance and effort matter!

Required Reading

Required Text:
A Transition to Advanced Mathematics, 7th edition
By
Douglas Smith, Maurice Eggen and Richard St. Andre
Cengage Learning, 2013.

(List of discussion/lecture topics

Ch. 1 Logic and Proofs.)
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Ch. 2 Sets and Induction.
Ch. 3 Relations and Partitions.
Ch. 4 Functions.
Ch. 5 Cardinality.
Ch. 6 Concepts of Algebra.
Ch. 7 Concepts of Analysis.

We will cover most, if not all, of chapters 1-5 and additional topics as time permits.