Course Overview and Outline: The course connects concepts from the core subject matter present in various courses encountered in a standard program of study that an undergraduate mathematics major might encounter: basic abstract algebra, geometry, elementary real analysis, linear algebra, and number theory.

Due to the “open forum” and discovery method of course delivery, the pace and coverage of course topics will depend largely on the progress and student efforts in the class.

Course Prerequisite: A grade of at least a C in two proof-based mathematics courses beyond Calculus or consent of instructor.

Course Text: Prepared handouts from the text Constructing Numbers will be provided.

Material to be covered: Handout STATEMENTS and booklet

Grading: Your grade will be based on four (4) items:
(a) In class participation 30%
(b) Final Report in lieu of Final Exam 30%
(c) Two short exams (15% each) 30%
   Exam dates: Thursday, October 8, Tuesday, November 17
(d) Periodic Homework assignments 10%
The standard university A, B, C, D, F grading system will be employed. in order to assign final grades.

(a) You will be expected to participate in and contribute to discussion in each class session. The course will be taught in an open forum inquiry-based method. Therefore ATTENDANCE will be a major factor in determination of this portion of the grade. However, attendance by itself alone will not ensure any credit. The quality of participation will also be a major factor; that is, participating in a discussion without contributing any insight will be insufficient. Finally, the instructor will be the sole arbiters of this portion of the grade and will not negotiate with you in any manner.

(b) Periodically, you will be expected to prepare in good grammatical form written work which may include a discussion of the material provided in the handouts. The handouts will be the basis for class discussion; you will be expected to summarize in your own words the agreed upon items to be included in the written work.
(c) We will have two exams covering the material included in the handouts. There will be no final exam; instead, the final will consist of a written report. The contents of the report will be determined during the final two weeks of class.

(d) Homework assignments will be made as needed with deadline for submission clearly indicated. NO LATE PAPERS OR ELECTRONIC SUBMISSIONS WILL BE ACCEPTED.

IBL Course Designation – Independent Inquiry Flag: This course section has been designated as an IBL course in mathematics and fulfills the requirements for earning an independent inquiry flag on your transcript. An essential goal of the course is to help all students develop analytical, critical reasoning, problem-solving, and communication skills as well as acquiring mathematical habits of mind. You are expected to do, think about, create, and present mathematics, and one-third of your course grade (or more) will be based on your independent investigation and presentation of work. You must demonstrate mastery and integration of concepts important to mathematics as a result of your independent work. This will be accomplished through a sustained inquiry-based approach to teaching and learning in the course.

For Students with Disabilities:
The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the office of the Dean of Students at 471-6259, 471-4641.