

Math 482 - 500 Spring Semester 2006

“Research Seminar in Math”

TTh 5:30 - 6:45PM Blocker 156

Professor: Dr. David R. Larson

Email: larson@math.tamu.edu

Office: 620A Blocker

Office Hours: TTh 4:00 -5:15P

Course Description [3 credits]: Topics in one or more area of mathematics including: algebra, analysis, applied math, geometry, topology, and teaching. Introduction to creative mathematical activities. Instruction on writing reports, and preparing and giving oral presentations. For students with no prior math research experience, this course will provide pre-REU mentoring, possibly leading to student participation in a formal summer REU (research experience for undergraduates) program. For students with prior math research experience, this course will provide post-REU mentoring, which may include preparation of research talks to be given at student and professional conferences, and preparation of student articles to be submitted for publication in undergraduate research journals. An advanced student will be given the opportunity to start a new direction of creative activity, or to continue work on an existing research project.

Texts: *Notes will be provided as needed, and books will be loaned as needed.*

Prerequisites: Math 222 and Either Math 409 or Math 415 (may be taken concurrently); Permission of instructor.

Preparation: Any student who has taken part in an REU or VIGRE experience will be very well prepared for this course. Students who are not yet ready for such an experience, but who want some preparation for it, and who are willing to do some work on either a project or a presentation of a suggested mathematical topic, are encouraged to take this course.

Homework: Each student is required to complete a written project and an oral presentation. The project and presentation may be on an individual or a team basis. Additional homework will be assigned when a new topic is introduced. However, most student work in the course will be project-oriented.

Grading: Grades will be based on individual or team oral and/or written presentations, individual or team projects, homework, quizzes, class participation, and attendance. The basis for grading will be: Project 25%; Oral and Written Presentations 25%; Homework and Quizzes 35%; Class Participation and Attendance 15%. Scale: A = 90%, B = 80%, C = 70%, D = 60%.

Credit: This course may be taken at most twice for credit: normally once as a pre-REU student and once as a post-REU student.