I. Course Title: Senior Assessment

II. Course Prefix/Number: MATH 403

III. Credit Hours: 2.0

IV. Prerequisite(s):
Senior standing for BA or BS in mathematics or mathematics-computer science and department approval of senior project proposal early in the previous semester.

V. Catalog Description:
Students must find a project advisor, submit a project proposal to the department chair, and begin work on their project no later than October 15 during the fall semester prior to enrolling in this course. Students may enroll in MATH 436 during the fall semester if they wish to receive academic credit for their research work. Each student takes a comprehensive capstone examination that includes a nationally-normed test over the subject area.

VI. Curricular Relationships:
Required of all department majors.

VII. Student Learning Outcomes:

- Students will demonstrate an ability to read technical material appropriate to the mathematics and computer science disciplines.
- Students will be able to effectively communicate topics in the mathematical sciences (both written and orally).
- Students will be able to design and complete an appropriate research project.

VIII. Content Outline:

- Read technical articles and present the material, in both oral and written form, to the class at an appropriate level.
- Review material and strategies of preparing for standardized examinations.
- Provide constructive criticism for instructor and classmates on presentations of technical material and on projects.
- Practice oral presentations.
- Write a project paper on a topic of his/her choice that is approved by the department. Note that a senior project is a project that develops material new to the student.
- Present the result of the project to the class and the public.
- Take a comprehensive nationally-normed senior assessment examination over coursework (currently the MFAT).
- Evaluate the department to help it do its job better.
IX. Course Procedures/Policies/Grading Scale:

- Project Progress Report 10%
- Reviews of Articles 20%
- Oral Article Presentation 10%
- Project Paper 20%
- Project Presentation 20%
- Capstone Examination 20%

Notes:

- The department predetermines the grading scale used to translate the score on the nationally normed exam into a class grade.
- To earn a grade of C or better in this course, a student’s project paper and presentation must both achieve a grade of C or higher.

X. Required/Recommended Readings:

No required textbook, although students will be required to read and understand selected journal articles.

XI. Issues Unique to Course:

1. A senior project is a project that develops material new to the student

2. Students may wish to enroll in Math 436 or CSCI 436 if they need additional credit for their project

3. At the start of each fall semester, a faculty senior project committee is picked by the department. It is the responsibility of this committee to approve all senior project proposals and to read and evaluate project papers prior to the end of the course

XII. Additional Departmental Issues: None