Carthage Mathematics Department Course Summary for Math 4300 Senior Research

- 1. Credits: 4 cr.
- 2. Semesters Offered: Fall
- 3. Text(s): None
- 4. Topics Covered:
 - a. Reading mathematics
 - b. Presenting technical material
 - c. Explaining and Fulfilling Requirements for Senior Thesis in Mathematics
- 5. Skills Enhanced:
 - a. Public Speaking
- 6. Sample Syllabus:
 - a. Students read an article from a journal and give a presentation based on that article.
 - b. Students research their senior thesis in mathematics.
 - c. Students write their senior thesis in mathematics.
 - d. Students present their senior thesis talk.
- 7. Miscellanea
 - a. With instructor approval, students could be permitted to present their senior theses in the spring if necessary.
- 8. Course Goals: By the end of the course, students should be able to do the following.
 - a. Present a mathematical talk using acceptable conventions and methods.
 - i. Assessment: Students will present a talk which the instructor will evaluate on content and style.
 - ii. Assessment: Students will present their senior thesis talk which a panel of representatives from the Mathematics Department Faculty will evaluate on content and style.
 - b. Research and write a mathematical paper using acceptable conventions and methods.
 - i. Assessment: Students will write and submit a senior thesis, which the instructor will evaluate on content and style.
 - c. Develop and sharpen listening skills.
 - i. Assessment: Students will listen to talks given by other students, and all students are required to ask questions of the speaker throughout the semester.