

## Math 499 – Senior Assignment

All degree-seeking students are required to complete a senior assignment that demonstrates academic breadth attained through general education courses and proficiency in their academic majors. In the Department of Mathematics and Statistics, this requirement is satisfied by successfully completing Math 499 (Senior Project), which carries two credit hours and a grade of S(satisfactory) or U (unsatisfactory). The requirements of Math 499 are:

1. An in-depth study of a topic in senior level mathematics, statistics, or operations research.
2. Documentation of that in-depth study.
3. An oral presentation of the in-depth study to members of the Department of Mathematics and Statistics faculty.

To start on a senior project, the student will consult with a member of the Department of Mathematics and Statistics faculty, referred to herein as project director, to prepare a proposal for the senior project. The project will vary with the student's interest and declared options. For example, in the Applied Mathematics Option and the Statistics Option, it might take the form of a computer program for the solution of an appropriate problem. In this case, the documentation might include a statement or history of the problem, a thorough discussion of the theory behind the solution of the problem, the computer program, the results, and a discussion and/or interpretation of the results. In both the Mathematics and Mathematics Education Options, one possibility would be an expository paper on the history of a theorem or problem in mathematics, describing the various efforts to prove the theorem or resolve the problem along with a detailed presentation and analysis of the ultimately successful proof or resolution.

Procedure:

1. The student will complete and submit to the Department of Mathematics and Statistics the departmental Senior Assignment Project Form, which requires a brief but clear description of the proposed project.
2. The proposal is considered APPROVED if it is approved by the project director and by a majority of the members of the departmental Senior Assignment Committee (SAC). Otherwise, the student will confer with the chair of the SAC for future action.
3. Upon completion of the project, the student will submit documentation of his/her study to the chair of the SAC who will then appoint a Project Evaluation Committee (PEC) consisting of the project director and at least two other faculty members. The documentation portion of the project is

considered APPROVED if it is approved by a majority of the members of the PEC. Otherwise, the student will confer with the PEC members for future action.

4. Upon approval of the documentation portion of the project, the chair of the SAC will schedule and publish to the Department of Mathematics and Statistics faculty a time and place for the presentation portion of the project. This presentation is open to all members of the Department.
5. Upon completion of the oral presentation, the members of the PEC will vote for approval or disapproval of the presentation. The oral presentation is considered APPROVED if it is approved by a majority of the members of the PEC. Otherwise, the student will confer with the PEC members for future action.
6. The student's Senior Project is considered complete and the grade S (satisfactory) is issued for Math 499 when both the documentation and the oral presentation portions are approved.
7. Students who do not complete Math 499 during the semester of registration will be given the grade of I for that course.
8. Any appeals related to the above procedure or to any component of the senior assignment should be directed to the SAC. Additional appeals, if necessary, should be directed to the Policy Committee.

#### Important Dates:

1. The first complete draft of the documentation part of the project must be submitted to the Project Director no later than six weeks before the end of the semester in which the student intends to present his/her project.
2. The final draft of the documentation part of the project must be submitted to the Project Director no later than 3 weeks before the end of the semester in which the student intends to present his/her project. It is the responsibility of the Project Director to make sure that the student's work meets the standards for the Department of Mathematics and Statistics senior project. An approved proposal does not imply that the Department standards have been met.
3. Members of the PEC must be furnished a copy of the documentation part of the project no later than one week prior to the oral presentation part of the project.

Math 499  
SENIOR ASSIGNMENT  
PROJECT FORM

Name \_\_\_\_\_ SSN \_\_\_\_\_

Project Director \_\_\_\_\_

Attach a brief, but comprehensive, description of the project you plan to pursue to satisfy the Senior Assignment requirement.

Approved \_\_\_\_\_ Disapproved \_\_\_\_\_  
Project Director Date

Approved \_\_\_\_\_ Disapproved \_\_\_\_\_  
Member, SAC Date

Approved \_\_\_\_\_ Disapproved \_\_\_\_\_  
Member, SAC Date

Approved \_\_\_\_\_ Disapproved \_\_\_\_\_  
Chair, SAC Date