**MATH 4080/4090 GUIDELINES AND INFORMATION**

**Course Description**

MATH 4080 Senior Project I (2 credit hours) The first of a two-course sequence of faculty-directed independent research culminating in the writing of a senior thesis and its presentation.

MATH 4090 Senior Project II (2 credit hours) The second of a two-course sequence of faculty-directed independent research culminating in the writing of a senior thesis and its presentation.

MATH 4080 Senior Project I (2 hours) and MATH 4090 Senior Project II (2 hours) are required for the BS in Discrete Mathematics.

**Registration Information**
1.  The student identifies a professor and ideally a topic - possibly general, possibly more specific - that the student would like to research with guidance from the professor.
2.  The student meets with the professor to determine if the professor is willing to work with the student on the MATH 4080 Senior Project I during a specific term and to determine a general area of investigation for the project.
3.  If the professor agrees, the professor sends a message to academics@math.gatech.edu stating that he/she will work with the student on MATH 4080 Senior Project I in a specified term and stating the general area of the project. (For example: This email is to confirm that I will be working with student BBB for MATH 4080 Spring 2015. We will study issues relating to XXX.)
4.  The student sends a message to academics@math.gatech.edu giving a brief description (less than a page) of what the student will be researching and with whom. The student copies the professor on the email.
5.  Assuming that the project is reasonable, the student will then be issued a permit to sign up for MATH 4080 with that professor as the instructor of the course.
6.  The topic, meeting times, and expectations, are negotiated between the student and the professor.

7. Students continuing with the same MATH 4080 instructor for MATH 4090 must send a request to academics@math.gatech.edu. The professor also sends a message to academics@math.gatech.edu stating that he/she will work with the student on MATH 4090 in a specified term. (For example: This email is to confirm that I will be working with student BBB for MATH 4090 Summer 2015.)

8. MATH 4080 Senior Project I culminates in the writing of a report regarding the student's work and findings to date. The student submits the report to the professor before the end of the term.

9. MATH 4090 Senior Project II culminates in the writing of a thesis and its presentation. The student submits the thesis to the professor AND submits the document to the School of Mathematics Academic Office (Skiles 125) before the end of the term. The document for the School of Mathematics Academic Office Office can be sent as an email attachment to undergrad-advisor@math.gatech.edu before the end of the term.

**FAQs:**

1. Can I work with a professor from a unit other than the School of Mathematics?

Yes, provided the scope of the research is mathematical in nature. As noted above, the student provides a description of the research project.

2. Can I work with a graduate student?

No.

3. Do I need to work with the same professor for both MATH 4080 and MATH 4090?

No. Usually, a student chooses to continue his/her MATH 4080 research for MATH 4090 with the same professor. Sometimes, the student does not continue to work with the MATH 4080 professor for MATH 4090. This fact alone does not preclude the student from working with the professor for MATH 4080.

4. I tried to register for MATH 4080 with professor AAA, but it says I need a permit. Will you help me out with this?

See item 3 in the guidelines above.

5. How do I submit the MATH 4090 Senior Project II thesis (report) to the School of Mathematics Academic Office?

You can send the thesis as an email attachment to undergrad-advisor@math.gatech.edu or you can supply a paper copy to the School of Mathematics Academic Program Office in Skiles 125.

6. When do I register for MATH 4080 or MATH 4090?

After a you have been issued a permit, you may register for the course during Phase I or Phase II registration. Because approvals from several people are involved, you are encouraged to make arrangements early in the registration period or before.

7. Can I take this course pass/fail?

No. T his course must be taken for a letter grade.

8. Can only DMTH majors take this course?

No. In theory, this class is open to all. However, students who are not DMTH majors and who are interested in earning course credit for undergraduate research in mathematics usually register for MATH 4699 Undergraduate Research. The process for MATH 4699 Undergraduate Research is similar to the process for MATH 4080/4090.

Contact undergrad-advisor@math.gatech.edu if you have questions. Please include MATH 4080/4090 in the subject line.