

MATH 491, Senior Seminar, 2 credits, Fall 2009

MW 3:00–3:50 PM, Minard Hall 209 (classroom) and 303 (Mathematics Computer Lab)

INSTRUCTOR: Sean Sather-Wagstaff

OFFICE: Minard Hall 310D

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PHONE: 231-8105

OFFICE HOURS: MW 2:00-2:50, F 1:00-1:50, or by appointment

PREREQUISITE: MATH 270

REQUIRED TEXT: none

USEFUL WEBPAGES:

Course webpage: <http://math.ndsu.nodak.edu/faculty/ssatherw/fa09/491/>

Instructor webpage: <http://math.ndsu.nodak.edu/faculty/ssatherw/>

Anonymous evaluation form: <http://math.ndsu.nodak.edu/faculty/ssatherw/ssw-eval.html>

Math department webpage: <http://math.ndsu.nodak.edu/>

NDSU webpage: <http://www.ndsu.edu>

NDSU blackboard site: <https://bb.ndsu.nodak.edu/>

NDSU webpage on academic responsibility/conduct: <http://www.ndsu.nodak.edu/policy/335.htm>

COURSE DESCRIPTION: Under the guidance of an approved mathematics faculty advisor, students will conduct a research project in mathematics. Students will write a short paper (11–16 pages, 11 pt. font) and will give a 15-minute presentation describing the research conducted.

COURSE GRADES: Student grades are based on the following rubric:

submit valid research proposal	2 pts.	
submit first draft paper	2 pts.	
participate in peer-review of draft papers	2 pts.	A 90–100%
submit second draft paper	2 pts.	B 80–89.9%
give practice presentation	2 pts.	C 70–79.9%
participate in peer-review of practice presentations	2 pts.	D 60–69.9%
give final presentation	2 pts.	F 0–59.9%
submit of final paper	2 pts.	
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total	16 pts.	

Your grades will be updated periodically at the NDSU Blackboard site.

RESEARCH PROPOSAL: Submit the following information to me either by email or hard copy: name of advisor, research project topic, title and author of book(s) to be used for project.

Make sure that your advisor has agreed to work with you. Your advisor should be a mathematics professor at NDSU, preferably one from whom you have taken a 400-level course. The topic should involve a problem of mathematics that was not directly part of a course that you took at NDSU.

Proposal Rubric:

2 pts.: proposal submitted on time with advisor’s approval, acceptable topic, and bibliography

1pt.: proposal submitted late or without advisor’s approval, acceptable topic, or bibliography

0 pts.: no proposal submitted

DRAFT PAPERS: You are expected to make progress on writing your paper throughout the semester, not just at the end. You will be required to submit two (2) drafts of your paper during the semester. The first draft must be submitted in duplicate hard copy or by email to instructor and to peer reviewer; it must demonstrate adequate progress on the project. The second draft be submitted in hard copy or by email to instructor; it should be a version of the paper that is nearly complete; with the second draft, students will submit the first draft with any feedback from the instructor or from peers.

First Draft Rubric:

2 pts.: draft submitted on time and demonstrating reasonable progress on project

1pt.: draft submitted late or not demonstrating reasonable progress on project

0 pts.: no draft submitted

Second Draft Rubric:

2 pts.: draft submitted on time, demonstrating reasonable progress on project and appropriate revision

1pt.: draft submitted late or not demonstrating reasonable progress on project or appropriate revision

0 pts.: no draft submitted

PEER REVIEW OF DRAFTS: Students will exchange draft papers and read them critically. Students will provide thoughtful feedback on each others papers.

Peer Review Rubric:

2 pts.: feedback is relevant, thoughtful, and thorough, and is submitted on time

1pt.: feedback is not relevant, thoughtful, and thorough, or is submitted late

0 pts.: no feedback submitted

PRESENTATIONS: Each student will give a final presentation. Each student will give a practice presentation before the final presentation.

Practice Presentation Rubric:

2 pts.: presentation is organized, covers the relevant material, and is given on time

1pt.: presentation is disorganized, covers irrelevant material, or is given late

0 pts.: no presentation is given

Final Presentation Rubric:

2 pts.: presentation organized and appropriately revised, covers relevant material, and given on time

1pt.: presentation disorganized, inappropriately revised, not revised, covers irrelevant material, or late

0 pts.: no presentation is given

PEER-REVIEW OF PRACTICE PRESENTATIONS: Students will provide written and possibly oral feedback on at least two practice presentations other than their own.

Peer-Review of Practice Presentations Rubric:

2 pts.: appropriate and timely feedback given on at least two presentations

1pt.: feedback is inappropriate, late, or only given on one presentation

0 pts.: no feedback is given

ATTENDANCE: Attendance is not compulsory for most days of class.

WORKLOAD: You should plan to spend 8–10 hours per week working on this course outside of class.

ANNOUNCEMENTS: Course announcements will be sent to your ndsu.edu email account. It is your responsibility to check this email account regularly.

INSTRUCTOR FEEDBACK: At the course webpage, there is a link to an anonymous evaluation form where you can submit comments or suggestions for me at any time during the semester.

COURTESY: Cellular telephones, pagers, and other similar devices are not to be used and are to be turned off or set to vibrate-mode during class-time. Students violating this policy will receive one warning per semester. After the warning, violations will result in loss of credit.

ADA STATEMENT: The Americans with Disabilities Act requires that reasonable accommodations be provided for students with physical, cognitive, systemic, learning and psychiatric disabilities in order to ensure their equal access to course content. If you have a documented disability and require accom-

modations, please let your instructor know as soon as possible. For more information, please contact Disability Services at 231-7671 or go to <http://www.ndsu.edu/counseling/disability.shtml>.

ACADEMIC HONESTY: All work in this course must be completed in a manner consistent with NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct. Violations of this policy in this course will result in a 0 for the quiz or exam on which academic misconduct occurred. You can read the Senate Policy at <http://www.ndsu.nodak.edu/policy/335.htm>.

TENTATIVE SCHEDULE: I reserve the right to make reasonable changes to the schedule.

Course policies and research proposals	Wed 26 Aug, 3:00 PM	Minard Hall 209
Using L ^A T _E X, pt. 1	Wed 02 Sep, 3:00 PM	Minard Hall 209
Last day for No Record Drop of classes	Wed 02 Sep, 11:59 PM	
Labor Day holiday	Mon 07 Sep	
Using L ^A T _E X, pt. 2	Wed 09 Sep, 3:00 PM	Minard Hall 209
Research Proposals due	Wed 16 Sep, 3:00 PM	Minard Hall 209 or by email
Using L ^A T _E X, pt. 3	Wed 16 Sep, 3:00 PM	Minard Hall 209
Using L ^A T _E X, pt. 4	Mon 21 Sep, 3:00 PM	Minard Hall 209
Using L ^A T _E X, pt. 5	Wed 23 Sep, 3:00 PM	Minard Hall 209
One-on-one meetings	Wed 30 Sep, 3:00 PM	Minard Hall 310D
One-on-one meetings	Fri 02 Oct, 3:00 PM	Minard Hall 310D
Using L ^A T _E X, pt. 6	Mon 05 Oct, 3:00 PM	Minard Hall 209
One-on-one meetings	Wed 21 Oct, 3:00 PM	Minard Hall 310D
One-on-one meetings	Wed 28 Oct, 3:00 PM	Minard Hall 310D
First draft papers due	Mon 02 Nov, 3:00 PM	Minard Hall 310D or by email
Peer-reviews of first draft papers due	Wed 04 Nov, 3:00 PM	Minard Hall 209
Veteran's Day holiday	Wed 11 Nov	
Preparing presentations, using Beamer	Mon 16 Nov, 3:00 PM	Minard Hall 303
Preparing presentations, using Beamer	Wed 18 Nov, 3:00 PM	Minard Hall 303 (if necessary)
Second draft papers due	Fri 20 Nov, 3:00 PM	Minard Hall 310D or by email
One-on-one meetings	Mon 23 Nov, 3:00 PM	Minard Hall 310D
One-on-one meetings	Wed 25 Nov, 3:00 PM	Minard Hall 310D
Thanksgiving holiday	Thu 26 Nov–Fri 27 Nov	
Practice presentations	Wed 25 Nov, 3:00 PM	Minard Hall 334
Practice presentations	Wed 02 Dec, 3:00 PM	Minard Hall 334
Practice presentations	Fri 04 Dec, 3:00 PM	Minard Hall 334
Final presentations	Mon 07 Dec, 3:00 PM	Minard Hall 334
Final presentations	Wed 09 Dec, 3:00 PM	Minard Hall 334
Final presentations	Fri 11 Dec, 3:00 PM	Minard Hall 334
Classes end	Fri 11 Dec	
Final papers due	Mon 14 Dec, 3:00 PM	Minard Hall 310D or by email