

INSTRUCTOR: Logan Axon

OFFICE: 221 Herak

OFFICE HOURS: MWF 9-10, Th 3-4, F 1-2 in the Math Lab, or by appointment

EMAIL: axon@gonzaga.edu

COURSE WEB PAGE: <http://web02.gonzaga.edu/faculty/axon/499>

DESCRIPTION/GOALS: Math 499 is designed to build students' abilities to communicate mathematics as well as to prepare students to take the ETS Major Field Test (MFT) in Mathematics. To prepare for class students will solve problems from the GRE Subject Test in Mathematics. During each class randomly selected students will present their solutions. These presentations will be graded based on the accuracy of the mathematics and clarity of the presentation. Students will also be responsible for writing clear solutions of the problems presented. These solutions will be collected and posted on-line for use in studying for the MFT. A final presentation will be assessed by the entire mathematics department. This presentation will receive extra weight in the final grade.

GRADES: Grades will be based on presentations, written solutions, a practice exam, and scores on the Major Field Test (which will be administered at the end of the semester).

ATTENDANCE AND OTHER CLASS BUSINESS: Students are expected to attend all classes. Absences should be excused in advance or by a written, signed note from an authority. Excessive absences may result in the student receiving a grade of V. Students with disabilities should work with the DREAM office to make sure that all necessary accommodations are made. Any changes to these policies will be announced in class.

GUIDELINES FOR PRESENTATIONS: Make sure the problem is shown on the projector. For all but the simplest problems you should explain the problem to the class: what do you actually need to do in order to solve the problem? Next briefly explain how you will accomplish this. Then write your complete solution, being sure that each step is clearly connected to the problem and/or earlier steps. Too little and too much detail are both bad. It may be helpful to plan stopping points when you can check to make sure that everyone is still following you. It may also be helpful to plan out how you will use the dry-erase boards.

RUBRIC FOR GRADING PRESENTATIONS: Presentations will receive scores in two areas: accuracy and clarity. Each score will be a number between 1 and 5 (inclusive).

Accuracy is the correctness of the mathematics, including the mathematical argument being made. A score of 5 indicates that all mathematics are correct including the final solution. A score of 3 or 4 usually indicates a correct approach but an incorrect solution due to minor mathematical errors. Scores of 1 or 2 indicate serious misunderstandings of the mathematics involved.

Clarity is the students' ability to communicate with the class, including their use of the dry-erase board. A score of 5 indicates a well-organized presentation with good pacing and good interaction with the class (looking at the class, checking for and answering questions, etc.). Scores of 3 or 4 indicate minor organizational problems, minor problems with the pace of the presentation, failing to notice questions, and/or other minor communication issues. A score of 1 or 2 will usually be the result of serious organizational problems.