

**GENERAL EDUCATION PROGRAM
REQUEST FOR SPEAKING INTENSIVE MARKER: EXPLANATIONS**

A. What types of public, interpersonal, and/or group communication assignments and activities will you use?

We will follow a seminar format, consisting mainly of oral presentations by the students.

Class Discussion: We will have several informal class discussions where we talk about how to give a good presentation, including strategies for effectively presenting mathematics. Examples of good math talks are shown, drawing from the many resources at the Mathematical Association of America's Mathematical Communication resources page (mathcomm.org).

Oral Presentations: Each student prepares and delivers three oral presentations on an approved topic or problem in advanced mathematics. The first two presentations are relatively short; 10–20 minutes long, depending on class size. After receiving critique on the first talk, the student will revise the talk and present again on the same topic. The final presentation is 20–45 minutes long, depending on class size. The topic is must be approved and should different from the articles that have already been presented.

Prior to each talk, the student submits 1–3 questions that anyone who attended the talk should be able to answer. The questions are evaluated for clarity, precision, and appropriateness. The questions should get at the main point that speaker hopes the audience will take away from the talk. The questions should be straightforward and not involve too much notation. The effectiveness of the speaker in teaching these main points is addressed in review and critique. See attached *Peer Review for Mathematical Presentations*.

B. How will these assignments and activities help students improve their oral communication competency?

These assignments help students improve their oral communication skills through multiple opportunities to speak in front of their professor and peers. Students receive guidance before and feedback after each presentation. By writing test questions themselves, the student think deeply about the best way to effectively convey the mathematical ideas in their talk.

C. How will these assignments and activities promote learning of class material?

Throughout this process, students are studying topics in advanced mathematics. The articles are chosen at a level to encourage the student to learn to read and understand mathematics independently. In these assignments, students are expected to explain mathematical reasoning as opposed to simply providing answers. They must also respond clearly to challenges and questions clearly. In order to articulate mathematical concepts precisely, the student must understand the concept deeply.

D. How will you provide public, interpersonal and/or group communication instruction?

The professor leads informal class discussions about how to give a good presentation, including strategies for effectively presenting mathematics. This discussion follows the attached *Guidelines and Expectations for Presentations*, focusing on audience awareness,

organization, and clarity. This discussion occurs initially in the first lecture. At that time, examples of good math talks are shown. e.g.,

mathcomm.org/teaching-presentations/examples-of-good-math-presentations/

The talks are evaluated using the attached *Rubric for Mathematical Presentations*, and the class discusses the rationale the scores.

The class revisits these topics in Week 5, after the students have given their first short presentation and received feedback, using their presentations and evaluations to stimulate discussion.

In Week 14 after the final presentations, we discuss the final presentations and evaluations comparing them to the first and second presentations, noting the improvement in the students' speaking skills.

E. How will you provide constructive feedback, and opportunities for improvement?

Each student receive a written evaluation after each presentation as well as an anonymized version of the peer reviews. They can incorporate this feedback in their next talk. The second presentation on the same topic as the first specifically so that the student can focus on this feedback.

F. How will you assess oral communication competency?

The instructor will assess oral communication competency based on the use of language and vocabulary appropriate to the audience, organization, and clarity of presentation. There are several aspects to of communication competency that are addressed in the rubric. See attached *Rubric for Mathematical Presentations*. Four aspects dealing with clarity of communication are further described here.

The most basic is marked as *Oral Communication* on the syllabus. It deals with more mechanical aspects of speaking clearly—grammar, enunciation, volume, and pacing with appropriate pauses. The other aspects are more specific to the discipline. Mathematics is a language, and the terms must be used correctly. This is assessed in the rubric as *Mathematical Communication* and *Mathematical Concepts*. The students must understand and precisely articulate mathematical concepts. Oftentimes, students falter here due to overusing of pronouns (or omitting the subject of a sentence completely) because they are unsure of the correct term to use. The clarity and with which the student explains the steps involved in a computation or derivation is assessed in *Mathematical Procedures*. The steps should follow logically and not contain gaps.

G. Because of the personal attention and guidance that students will receive, class size should not exceed 25.

Enrollment for this class has historically been quite small (5–15 students), so it is anticipated that the class size will be well within the guidelines. The course enrollment is officially capped at 25 students.

H. If SI credit is sought all times the course is offered as proposed, explain what will be done to ensure appropriate faculty preparation to maintain the integrity of the course.

SI credit is sought all times the course is offered. This course will be taught following the Speaking Intensive Guidelines.

utlc.uncg.edu/genedu/proposals/guidelines-for-a-speaking-intensive-course

Each instructor will be given a copy of this document and will follow the approved syllabus. The list of approved articles may expand but will be centrally maintained at the course homepage.

www.uncg.edu/mat/undergraduate/courses/mat490.html

- I. Syllabus must include the following SLO as typed. *Students will be able to speak in genres appropriate to the disciplines(s) of the primary subject matter of the course.*

See attached syllabus.