# **Calculus 1 Final Exam Instructions**

In-class written exams are the primary form of summative assessment in most math classes. As an instructor you will be responsible for creating these exams. To do this well you must align the exam with the learning goals for the course and ensure that the difficulty level is appropriate.

In coordinated courses, it is common for exams to be written by a team of people. This ensures that no section gets an undue advantage as a result of their instructor writing the exam. It also distributes the workload which can make exam writing easier. However, good communication is required to ensure that the end result is a well rounded assessment.

This assignment asks you to practice working in a team to create an exam. You will work in a group of 3-4 people to produce a final exam for an NYU Calculus 1 course.

## Assignment details

#### Write exam - due Wednesday, March 11

In the team listed in the <u>Teams</u> section below, write a final exam for MATH-UA 121 Calculus 1. Your exam should have a mix of multiple choice and free response questions. It should include topics from the entire course, but may have a slight emphasis on the last third of the material. The questions should have a range of difficulty levels. The <u>Resources</u> section below contains links to syllabi, sample final exams and a LaTeX exam template.

The final exam period is 2 hours, but you should factor in 15 - 20 minutes for seating, exam distribution and exam collection. Because students are typically seated side-by-side, we usually produce at least three versions of the exam. **You only need to produce one version for this assignment.** 

Bring four printed copies of your exam to class. Also, email a copy of the exam to clarkson+homework@nyu.edu.

#### Provide feedback on an exam - due Friday, March 13

In class, your group will exchange exams with another group. **As individuals,** you will each work through the other group's exam and write up feedback for them. You should email your feedback to <u>clarkson+homework@nyu.edu</u>. I will then forward it to the group members.

### Resources

- Links to syllabi for Calculus 1 at NYU
- The course textbook is Stewart's Essential Calculus 2nd Edition. There are copies on reserve in both the Courant library and Bobst.
- <u>Shaw's Instructor's guide</u> includes sample exams for each chapter of Stewart's Calculus.
- Sample Final Exams from NYU
- <u>University of Michigan Problem Bank</u> U of M takes a much more conceptual approach to Calculus than NYU. Many of the questions are not appropriate for an NYU exam, but they are worth looking at to see the difference.
- Exam Template on Overleaf

# Teams

Team 1

Team 2

Team 3

Team 4