

# MATH 5800: Real Analysis

## Fall 2021

**Instructor:** Tony Shaheen

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**Office Hours:** to be announced in class.

**Course Website:** Follow the link from <http://www.calstatela.edu/research/ashahee/>

**Canvas:** All the zoom information and zoom recordings will be put on canvas.

**Lectures:** Monday and Wednesday, 6:00pm—7:15pm on zoom. Zoom link is on the canvas page.

**Optional textbooks:** There are no required textbooks for the course. I used the following three books to make my lecture notes:

- The Lebesgue Integral for Undergraduates, William Johnstom, MAA Press, 2015.
- Lebesgue Integration and Measure, Alan Weir, Cambridge University Press, 1973.
- Real Analysis, Norman Haaser and Joseph Sullivan, Dover Publications, 1991.

**Prerequisite:** In the course catalog it says Math 4660, but this isn't necessary. Math 4650 is sufficient.

**Description:** Lebesgue integral and measure on the real line.

**Student learning outcomes:** Students who successfully complete this course will: understand the definitions, calculations, and theorems presented in the course; be able to prove theorems about the objects presented in the course; be able to make calculations using the objects presented in the course.

**Grading:** Your grade will be based on two tests and a cumulative final. Each exam will be worth 1/3 of your grade.

**Homework:** Homework will be assigned, but not collected. The homework problems and solutions will be posted on the course website.

**Exams:** All tests will be conducted through canvas. There are two tests and a final. The below dates are tentative. The final time/day is scheduled by the school and it may change.

Test 1: Monday, 10/18.

Test 2: Monday, 11/15.

Very Tentative Final Date: Wednesday, 12/15, 5:00pm – 7:00pm.

**ADA statement:** Reasonable accommodation will be provided to any student who is registered with the Office of Students with Disabilities and requests needed accommodation. All tests will be taken at home this semester. If you get time and a half or double time with ODD, then you will be allowed to use the same amount of time as with OSD for your exams at home.

**Academic honesty statement:** Students are expected to do their own work. Copying the work of others, cheating on exams, and similar violations will be reported to the University Discipline Officer, who has the authority to take disciplinary actions against students who violate the standards of academic honesty.

**Student responsibilities:** Students are responsible for being aware of all announcements that are made in class, such as changes in exam dates, due dates of homework and papers, and cancellation of class due to instructor's absence. Students are responsible for announcements made on days that they are absent.

Students must check their CSULA email account regularly for information from the instructor and the Department. Failure to do so may result in missed deadlines or other consequences that might adversely affect students. Note that you can forward this email account to any other account of your choosing.