

Syllabus for Calculus Labs, Fall 2021

Department of Mathematics

Lab Overview

The weekly calculus lab meetings are an integral part of both Calculus I (Math 141) and Calculus II (Math 142). These labs are designed with (at least) two purposes: to provide hands-on activities that will further your understanding of calculus and an introduction to and instruction in the use of modern computer software (SageMath).

Lab Materials

Calculus Text: Thomas' *Calculus, Early Transcendentals*, 13th Edition or Custom Edition for USC, by George B. Thomas and Maurice D. Weir. The calculus lab homepage is

<http://people.math.sc.edu/calclab>

All lab materials can be downloaded and accessed from the course homepage. It is recommended that you bookmark this webpage.

Accessing SageMath 9.2

There are three ways to access SageMath in this course.

1. SageMath 9.2 is installed on each computer in the lab. It can be accessed by double clicking on the application **SageMath 9.2 Notebook**. This is the easiest way to access SageMath; however, you will only be able to use this method while in the computer lab. To access SageMath outside of the computer lab, you will need to use method 2 or method 3 below.
2. SageMath 9.2 is also available via the cloud by using Binder, a cloud-based Jupyter Notebook environment. To use Binder, simply click the Binder link in the lab schedule. This method requires no installation on your computer; however, any changes you make to the files **will not be saved**. In order to save your work for future use, you must download the file with your changes as an IPython Notebook file (.ipynb). To edit the file, you can either open it in an installed version of SageMath or you can upload it into the Binder Workspace. A link to the workspace can be found on the calculus lab homepage.
3. SageMath 9.2 is open source and free to download. Downloading SageMath 9.2 to your personal computer is the preferred method, especially if you plan to use SageMath later in your career. Instructions for downloading SageMath for various operating systems can be found on the [Accessing Sage](#) section of the calculus lab homepage.

Grading

Your lab grade will be based on one lab project, weekly assignments, and attendance.

Attendance	20 points
Weekly Assignments	50 points
Project	30 points
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Total	100 points

Attendance Policy

Attendance at every class meeting is important - and expected. Each lab missed (after the first absence) will lower your attendance grade by two (2) points.

Academic Honesty

Cheating and plagiarism will not be tolerated in the labs. You may discuss lab assignments with others, but do not copy work from another student, from a book, or from the Internet. Violations of this policy will be dealt with according to University guidelines. You can find the University Honor Code at <http://www.sc.edu/academicintegrity>.