

MATHEMATICS UN1101  
CALCULUS I  
FALL 2021

Section 004

1. CLASSES

All classes are are planned to be in-person throughout the semester. This syllabus is designed for the in-person modality. Possible changes will be announced as the situation evolves.

**Course:** UN1101.

**Section:** 004

**Days and Times:** Monday and Wednesday, 4:10pm-5:25pm.

**Location:** 203 Mathematics Building.

**Class dates:** Sep 13 - Dec 13, 2021.

**Instructor:** Akash Sengupta.

**Instructor's email:** aks2259@columbia.edu

2. COURSE INFORMATION

All course related information including this Syllabus, announcements, assignments etc will be available on the course webpage in [Courseworks](#). Please make sure to check it regularly.

**Prerequisites:** No formal pre-requisites; an understanding of pre-calculus will be assumed.

**Textbook:** James Stewart, Calculus: Early Transcendentals, 9th edition.

You are free to obtain the textbook from any source that is suitable for you. You can find more information on how to obtain the textbook on the [Mathematics department webpage](#) or Vergil.

**Course content:** This course is designed to be a first course in Calculus. The course will covers topics in Differential and Integral Calculus, in particular functions, limits, continuity, differentiation, integration and applications to solving problems in natural and social sciences.

For more information regarding placement in the Calculus sequence or othe calculus courses please visit [Mathematics Department Calculus classes](#) webpage.

### 3. COURSE DELIVERY AND SUPPORT

**Classes:** Lectures in the class sessions along with problem solving in class and discussions in class are intended to be the primary medium for delivery of the course content.

**Office Hours:** Office hours are a great place to get help or discuss any questions about the course material or related topics or problem solving or to review the topics learnt in class. There will be in-person and Zoom office hours weekly.

**In-person Office hours:** Tuesday, 11 am-12:30 pm

**Zoom Office hours:** Monday, 7-8:30 pm.

**Help Room:** The Mathematics department organizes two help rooms as places for students to seek assistance with material that comes up in their mathematics courses. These rooms are staffed by graduate students and undergraduate teaching assistants. Please check out the [Help room webpage](#) for more information.

**Review sessions on pre-calculus:** During the first two weeks of classes there will be three Zoom sessions to review some topics in pre-calculus: algebraic preliminaries, basic analytic geometry and trigonometry. More details will be provided in Courseworks soon.

**Ed discussions:** We will be using the online platform Ed discussions for course related Q&A. This is a great place to discuss course related topics, HW problems and get help from classmates, TAs and the instructor. Ed discussions will be available through Courseworks.

#### 4. COURSE ASSESSMENT

The measures for assessment in this course will be through HW assignments, two midterm exams and a cumulative final exam.

**Homework assignments:** Homework assignments will be due on Wednesdays at 11:59pm (Eastern Time). The first Homework will be due on 09/22/2021. All HWs should be submitted through Gradescope.

There will be 12 Homework assignments, out of which 10 will contribute towards your final score. Your two lowest HW scores will be dropped.

**Midterm exams:** There will be two in-class midterm exams. The tentative schedule for the midterms is as follows:

Midterm 1 : **Oct 6**

Midterm 2 : **Nov 15.**

**Final exam:** There will be a cumulative final exam covering all the topics discussed in the course. The final exam is provisionally scheduled by the University to be on **Monday, Dec 20, 4:10-7pm**. Note that this date is tentative. Please check the University webpage (SSOL) for updated information on final exam schedule.

**Extra credit assignment:** There will be an extra credit assignment available towards the end of the semester. This assignment will consist of a problem set with problems of a slightly higher difficulty level than the HW assignments. The extra credit assignment can contribute towards 5% of your final score.

**Grades:** The final grading scheme will be the higher of the following two:

Grading scheme A: Homework Assignments: 20%, Midterm 1: 25%, Midterm 2: 25%, Final exam 30%.

Grading scheme B: Homework Assignments: 20%, Midterm (best of two): 30%, Final exam 50%.

Please note that everyone must take the exams at the scheduled time, unless in an exceptional case documented by the dean. In such an exceptional situation please inform the instructor as soon as possible. The instructor and university reserve the right to change parts of the grading policy for the course, under special circumstances. Any such modification will be applied to all students equally. Reasonable notice for any modification, if necessary, will be given with explanation and the opportunity to comment on the changes.

## 5. EQUITY, INCLUSION, ACADEMIC INTEGRITY AND WELL-BEING

Columbia University is committed to providing a learning, living, and working environment free from prohibited discrimination and harassment and to fostering a nurturing and vibrant community founded upon the fundamental dignity and worth of all of its members. Each individual has the right to work and learn in a professional atmosphere that promotes equal opportunities and prohibits discrimination and harassment. These principles are applicable in the classroom as well as outside of the classroom including online discussion forums and online meetings. Please refer to the [Office of Equal Opportunity and Affirmative Action \(EOAA\)](#) for more details. The University strongly encourages those who have experienced, witnessed, or become aware of conduct that violates EOAA Policies & Procedures to report such incidents promptly. For more information please visit [the Office of University Life](#) and [Student conduct and Community standards](#) webpages.

Disability Services facilitates equal access for students with disabilities by coordinating accommodations and support services, and cultivating a campus culture that is sensitive and responsive to the needs of students. Any student in this course who is registered with Disability Services will be provided with the accommodations as approved by the Disability Services Office. Students seeking accommodations or support services from Disability Services are required to register with the DS Office. More information is available on the [Barnard](#) and [Columbia](#) webpages.

Academic integrity is a founding principle of the institution of Columbia University. Any form of plagiarism, use unauthorized materials, or giving or receiving illegitimate help on assignments, papers, or examinations will be a violation of Academic integrity. Violation of Academic integrity is a serious offense and disciplinary actions will be taken in such cases. More information is available

on the webpages of [Barnard College](#), [Columbia College](#) and [Columbia School of General Studies](#).

Well-being outside of the classroom is as important as academic success. There are several resources and programs available on campus to provide students with advise and assistance regarding mental health and well-being. Students are strongly encouraged to reach out to these campus resources such as [Office of University life](#), [Counseling and Psychological services](#).