Calculus I (MATH 101)
Sabancı University, Spring 2020-2021

Section A Lecturer and Coordinator: Şirin Kaya
e-mail: sirin.kaya@sabanciuniv.edu
Office Hours: Mon 17:40-18:30

Section B Lecturer: Kağan Kurşungöz
e-mail: kagan.kursungoz@sabanciuniv.edu
Office Hours: Wed 16:40-17:30 or by appointment

Coordinator: Gamze Kuruk
e-mail: gamze.kuruk@sabanciuniv.edu

Class Hours and Lecture Format: Lectures will be live-streamed and Tophat integrated lectures (Monday and Tuesday). You will be sent a link to access them before the lecture time. Please check your e-mails. In order to have access to them, you must be logged in to Zoom with your Sabancı account.

The online lectures will be made available afterwards, so that you can also watch them at a later time. They are going to be published on SUCourse+ via Google Drive. You will find a tentative breakdown of material at the end of the syllabus.

Lecture Hours: Section A: Mondays 15:40-17:30 and Tuesdays 11:40-12:30.
Section B: Mondays 15:40-17:30 and Tuesdays 12:40-13:30.

Recitation Hours: Fridays 08:40-10:30, 10:40-12:30 and 13:40-15:30.

You are responsible for every announcement made in the online lecture or in SUCourse+. Not attending the online lecture or not following SUCourse+ regularly is not an excuse, in case you miss something.

Aim of the Course: We hope to gain an understanding of:

- Functions and graphs,
- Limits and the derivative, differentiation rules,
- Applications of derivatives such as graph sketching, optimization, relative rates,
- The area problem and the definite integral,
- Computing definite or indefinite integrals,
- Applications of single-variable integrals as time allows.

For the entire course, we will work on single-variable functions.

Learning Outcomes: On completion of this course the student should be able to:

1. Understand and use basic properties of elementary functions
2. Understand the idea of limit analytically/graphically, and evaluate limits
3. Understand the definition of derivative and its geometric meaning
4. Compute derivatives using standard differentiation techniques
5. Apply the notion of derivative graphing and optimization problems
6. Understand the definition of definite integral and its geometric meaning
7. Compute integrals using standard integration techniques
8. Understand the idea of integration over unbounded intervals and compute them.

Textbook: Calculus Early Transcendentals 2nd Edition (Global Edition), Briggs, Cochran & Gillett.

Recitations: Recitations will consist of three parts: TA/LAs solving problems, discussing the worksheet with the TA and LA and the quiz.

- **Problem Solving**: The TA/LA will solve a few questions from the textbook at the beginning of the recitation.
- **Worksheets**: The worksheet problems will be published on SUCourse+ after the Tuesday lectures. You are supposed to work on the problems before the recitations, discuss your solutions with your peers and assistants during the recitation and then upload your own solutions on Gradescope. We will review your solutions and provide feedback individually.
- **Quizzes**: There will be short quizzes at the end of each recitation.

Grading: Your grade exclusively depends on the following listed items. The details of each item are below.

Midterm (date TBD)	30%
Final Exam (date TBD)	35%
Lecture Attendance	5%
Recitation Attendance	5%
Recitation Worksheets	10%
Recitation Quizzes	15%
Online Homework (requires Pearson MyLab account)	5% (bonus)

There will be no other extra-credit opportunities.

IMPORTANT:

Every document that requires a student submission, needs to be in *pdf* format, hand-written and to have name, surname, student ID, and signature on the top left corner of the document, on each page submitted (note: if you write on the two sides of a piece of paper, write the information on both sides).
Any page missing any of these information will be completely ignored.

Midterm: The midterm exam will be given online. The date will be announced later. More details will be announced on SUCourse+ in due time.

Final Exam: The final exam will be given online, during the finals period. The date and time of the final exam is determined by Student Resources and the instructors cannot change it. More details will be announced on SUCourse+ in due time.

Both exams will be online proctored and recorded. For proctored exams, your webcam and microphone should be on during the exam. In the case of non-compliance with this and other declared exam procedures, your exam will be void. Make sure to check that your webcam and microphone function properly before the exam.

If you miss the midterm or the final and have a valid excuse, **and** contact us immediately explaining your situation, we will arrange for an oral makeup exam.

Lecture Attendance: Attendance during the lectures will be taken via *Zoom* registration with SU email account.

Recitation Attendance: Attendance during the recitations will be taken via the quiz uploads. In order to be counted as present in the recitations, students must upload their handwritten solution to the quiz question on SUCourse+ before the deadline.

You must attend the synchronous Zoom lectures, recitations, etc. and real-time online exams with your SU email account.

Recitation Worksheets: The worksheets of the week will be published on SUCourse+ after the Tuesday lectures. Students who submit a complete solution of the assigned worksheet questions will receive 1 point for that week. In order to get points, at least half of the solution must be correct. Solutions are to be submitted on *Gradescope*. The best 10 of your worksheet scores will determine the Worksheet grade. More details will be announced on SUCourse+.

Recitation Quizzes: During the recitation time, we will assign a quiz on SUCourse+. Students are required to write down their solution and upload a picture of it on SUCourse+ in *pdf* format before the deadline. Other filetypes will be disregarded. Emailed submissions will also be disregarded. There will be absolutely no make-up for missed quizzes. The best 8 of your quiz scores will determine the quiz grade. More details will be announced on SUCourse+.

NA Policy: During these extraordinary times, we will not be assigning NA grades upon recitation attendance. However, if you miss both the midterm and the final without valid excuses, you may get NA.

Online Homework: Detailed instructions on how to register to Pearson MyLab will be given on SUCourse+. The online homework will be assigned on the weekend and will be due on Thursday at 23:45. To do the homework, after logging into their personal MyLab account, each student will receive a random set of questions. There will be no make-up for any online homeworks if you miss the deadline.

Academic Integrity: All university policies on academic integrity apply to our course, and they will be enforced. (more information on `http://www.sabanciuniv.edu/en/academic-integrity-statement`).

In particular, no form of cheating is welcome in the exams or quizzes, such as copying whole or part of each other's answers. Students are not allowed to give or receive outside help. The action against such violations could range from getting a zero on the particular quiz/exam to explaining the case in front of the Disciplinary Committee.

In quizzes or exams, if we suspect any breach of academic integrity, we may ask for an oral validation of the quiz/exam. In this case the student will be invited to an oral interview and will be given the opportunity to explain their solution. If the student cannot provide sufficient explanations, or does not show up to the interview, their quiz/exam grade will be replaced with zero (0).

Class Discipline: It is our responsibility to provide students with excellent teaching and learning environments. We are therefore asking you to respect both our responsibility to teach and the right of other students to learn. Any action that disturbs your classmates or disrupts the online activities is unacceptable. Repeated violations of the above common sense rules may cause a student to be counted as absent for a lecture or a recitation.

Suggestions:

- Feel free to ask us and your assistants questions via e-mail.
- *Always* attend the lectures and recitations with a notebook and a pen.
- Remember that you do not have to be a math genius to be successful in this course (although it wouldn't hurt!). Regular study habits are sufficient to get a decent grade.
- Studying out of class for this course should become a routine. Key to success in mathematics is practice.
- Scientific WorkPlace / NoteBook (SWP / SNB) is a math software package available at Information Technology website for download. You are welcome to use it for your self-study.

Below is a tentative breakdown of topics. The order in the tentative schedule might be altered. It is your responsibility to follow the lecture notes posted on SUCourse+.

Lecture	Date	Topic (Sections from the textbook)
Week 1	Feb 22-23	1.1 - 1.3
Week 2	Mar 1-2	1.4, 2.1, 2.2
Week 3	Mar 8-9	2.3 - 2.5
Week 4	Mar 15-16	2.6, 3.1, 3.2
Week 5	Mar 22-23	3.3 - 3.6
Week 6	Mar 29-30	3.7 - 3.10
Week 7	Apr 5-6	3.11, 4.1
Week 8	Apr 12-13	4.2 - 4.4
Week 9	Apr 19-20	4.5 - 4.7
Week 10	Apr 26-27	4.9, 5.1 - 5.3
Week 11	May 3-4	5.4, 5.5, 7.1
Week 12	May 10-11	HOLIDAY
Week 13	May 17-18	7.2 - 7.4
Week 14	May 24-25	7.5, 6.2, 6.3