

King Fahd University of Petroleum & Minerals

Department of Mathematics

Math 101 Lab Syllabus, Semester 252

Coordinator: Yaqoub Shehadeh (shehadeh@kfupm.edu.sa)

Course Code and Title: Math 101, Calculus I

Textbook: Larson, R. & Edwards, B., Calculus: Early Transcendental Functions, Metric Version, 7th edition, Cengage Learning, Inc., 2019.

Lab Manual: Math 101 Lab Manual, Department of Mathematics, KFUPM, 2025.

Lab Objective:

1. Familiarize students with MATLAB within the context of differential Calculus.
2. Apply techniques of differential Calculus in real-life projects.

Grading Policy:

	Date	Time and Place	Material	Points
Midterm (MCQ)	Week 8	The same regularly scheduled lab section	Lab#1 to Lab#6	10 points
Final Exam (MCQ)	Week 15		All Labs	20 points
Total				30 points

Other Exam Issues:

- **Identification:** Students must present KFUPM, National/Iqama ID, or Driver's License Card for exam room entry. No student will be allowed to take the exam without these forms of identification.
- **Exam Room Protocol:** No mobile phones, smartwatches, or any electronic devices are allowed. Violations will be considered attempted cheating.

During lab examinations, students are permitted to use only the following:

- Blackboard (restricted to the exam page only), used to access and submit the exam, and
- MATLAB

Opening any additional Blackboard pages, browser tabs, windows, AI tools, files, or software applications is strictly prohibited. Any student found in violation of this policy will have their exam immediately terminated, and the incident will be treated as a case of cheating.

Missing an Exam: In case a student misses an exam for a legitimate reason (such as medical emergencies), he/she must bring an official excuse from Students Affairs. Otherwise, he/she will get a score of zero in the missed exam. A makeup exam will be decided later.

Attendance: Students must strictly adhere to the university's attendance policy. If a student misses a lab, he/she is responsible for any announcement made in that lab.

The Usage of Smart Phones in Lab: Students are not allowed to use smart phones for any purpose during the lab time. Students who wish to use electronic devices to take notes must seek permission from the instructor. Violations of these rules will result in a penalty decided by the instructor.

Academic Integrity: All KFUPM policies regarding ethics apply to this course.

Coverage Plan (**Tentative**)

Week	Lab #	Topics
1	1	Introduction
2	2	Matrices and Arrays
3	3	Visualization
4	4	Limits
5	5	Loops and Conditional Statements
6	6	Differentiation
7	7	Project I: Building a Better Roller Coaster
8	Midterm Exam	
9	8	Project I: Continued
10	9	Project I: Continued
11	10	Project II: Vertical Distance Traversed by a Zipline Rider
12	11	Project II: Continued
13	12	Project II: Continued
14	13	Project III: Optimizing Business and Economic Functions with Derivatives
15	Final Exam	