



MATH 23 (Elementary Analysis III)
Midyear Term, A.Y. 2023-2024
COURSE GUIDE

COURSE DESCRIPTION

This course deals with limits and continuity of functions of several variables, partial derivatives and the total differential, directional derivatives, relative and absolute extrema of functions of several variables, double and triple integrals and their applications, vector fields, line integrals, and surface integrals.

Prerequisite: Math 22/equivalent

Credit: 4 units

COURSE LEARNING OUTCOMES

At the end of the course, the student should be able to:

1. evaluate limits and analyze the continuity of functions of several variables;
2. find partial derivatives and directional derivatives of functions of several variables;
3. solve problems involving total differential;
4. find relative and absolute extrema of functions of several variables;
5. evaluate double and triple integrals;
6. solve problems involving applications of double and triple integrals
7. evaluate line integrals and surface integrals; and
8. solve problems involving applications of line and surface integrals.

COURSE MATERIALS

The course materials include

- Institute of Mathematics, lecture videos for Math 23
- Institute of Mathematics, *Mathematics 23 Course Module*, and
- Institute of Mathematics, *Mathematics 23 Lecture Slides*.

The course module and lecture slides are available to the students via the UVLê course page for Math 23.

UVLê Course Name: Math 23 (Elementary Analysis III)
Enrolment Key: math23s3ay23-24

Other suggested references are

- L. Leithold. *The Calculus* 7. Harper Collins College Div., 1995
- J. Stewart. *The Calculus: Early Transcendentals*, 6th ed. Brooks/Cole, 2008
- H. Anton, I. Bivens, S. Davis. *Calculus: Early Transcendentals*, 7th ed. J. Wiley & Sons, 2002

MODE OF DELIVERY

The course is a combination of mostly face-to-face lecture and discussion class meetings and several asynchronous review and consultation days. Students are expected to have a reliable internet connection for remote asynchronous learning mode. The schedule and mode of course activities can be found in the paced syllabus.

Attendance in face-to-face classes is required. As per university rule, a student must not absent him/herself more than 20% of the total number of face-to-face class meetings. If most of his/her absences are excused, the student must officially drop the course. Otherwise, the student shall be given a grade of 5.0. Failure to submit an excuse letter/slip for an absence will make the absence unexcused.

COURSE REQUIREMENTS

Quizzes/Homework Assignment/Seatwork/etc.

Instructor may give homework assignment, quizzes, seatwork, board work or other types of assessment to students. There shall be no make-up for these requirements during an absence, whether excused or unexcused.

Four Long Exams

Each long exam is answerable in 80 minutes and will be administered face-to-face. Exam schedule and timeslots are shown below.

First Long Exam	July 10 (Wednesday)
Second Long Exam	July 19 (Friday)
Third Long Exam	July 29 (Monday)
Fourth Long Exam	August 05 (Monday)

CLASS TIME SLOT	EXAMINATION TIME
12:10 PM – 2:45 PM	1:20 PM- 2:40 PM
2:45 PM – 5:20 PM	2:50 PM – 4:10 PM

A student who will not be able to take an exam due to a valid reason (e.g., medical) must explain in writing the reason for missing the exam (and provide proof) the soonest possible. If the reason is deemed valid by the instructor, the student shall be given a make-up exam. A student who fails to communicate after the missed exam or whose reason is not valid shall automatically be given a score of 0.

Final Exam

The final exam schedule is to be announced. In the event that the student misses the final exam for a valid reason, a grade of INC shall be given provided that the class standing is passing (at least 60%). Otherwise, the student shall be given a grade of 0 for the final exam.

GRADING SYSTEM

The final grade of the student will be based on the following:

Long Exams	60%
Final Exam	30%
Quizzes/Seatwork/etc.	10%

Students shall be given a final grade according to the transmutation table below.

1.00	[93,100]	2.50	[70,75)
1.25	[90,93)	2.75	[65,70)
1.50	[87,90)	3.00	[60,65)
1.75	[84,87)	4.00	[55,60)
2.00	[80,84)	5.00	[0,55)
2.25	[75,80)		

DROPPING / INC / 4.0

A student is officially dropped from the course if he/she completes filing via CRS.

A student who gets a grade of 4.0 or INC (missed final exam with valid excuse and passing standing) may take a removal or completion exam within three regular removal/completion periods. Retaking the course does not remove the 4.0 nor complete the INC.

ACADEMIC INTEGRITY

By enrolling in this course, students are expected to adhere to the highest standards of honor and academic integrity and be bound by the following pledge.

As a student of the University of the Philippines, I pledge to act ethically and uphold the value of honor and excellence. I understand that suspected misconduct on given homework assignments and exams will be reported to the appropriate office and if established, will result in disciplinary action in accordance with University rules, policies and procedure.