

**THE CHINESE UNIVERSITY OF HONG KONG**  
**Department of Mathematics**  
**MATH2020B (Spring Term, 2023)**  
**Advanced Calculus II**

LECTURES W4, LHC 104; F45, LHC 103 ; TUTORIALS W5, LHC 104, F1, LSB LT5

## Introduction

This is a continuation of MATH2010. In MATH2010 differentiation of functions of several variables is covered and now it comes to integration. We will go through double and triple integrals in rectangular and other coordinates, formulas of change of variables, vector analysis, line and surface integrals, Green's, Stokes' and divergence theorems.

This course will cover chapters 15 and 16 in the text book (see below). Notes summarizing the lectures will be posted.

The best way to learn this course is to drill on problems. There are plenty exercises in the text book which you should try as many as you can.

In addition to weekly assignments and exams, there are three quizzes to be held in tutorial classes.

Announcements and assignments will be posted in the course webpage usually on Wednesday after 4pm. Make regular checking of the webpage.

The first two homework will be graded but not be counted in the final grades.

Make-up for midterm and final examinations will be approved only by the presence of a valid medical document.

## Instructor

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## Teaching Assistant

- Mr Po Chai WONG
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  - Office: LSB 222C

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## References

- Thomas' Calculus, 13th Ed., Global Edition, Pearson. (Text)
- Anton's Calculus - Early Transcendentals, Global Edition, Wiley.

## Grade

- 15% Assignments and quizzes
- 40% Midterm Examination (March F4,5)
- 45% Final Examination (centralized)

## Assignment Policy

Problem sets will be assigned and deadline for submission will be posted. You must attend the tutorial classes where you work out and hand in additional exercises given by the tutors in class.

## Honesty in Academic Work

The Chinese University of Hong Kong places very high importance on honesty in academic work submitted by students, and adopts a policy of zero tolerance on cheating and plagiarism. Any related offence will lead to disciplinary action including termination of studies at the University.

Although cases of cheating or plagiarism are rare at the University, everyone should make himself/herself familiar with the content of the following website:

<http://www.cuhk.edu.hk/policy/academichonesty/>

and thereby help avoid any practice that would not be acceptable.