

Calculus II (IBPE) 微積分二(能源學程)

Instructors Info

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TA Info

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Course Info

- **Class Schedule:** Wednesday 10:10~12:00 (Period 3,4) and Friday 9:10~10:00 (Period 2).
- **Class Location:** DAA Eng. 5825.
- **Class Webpage:**
http://www.math.ncku.edu.tw/~cliu/Calculus_II_Spring_2015.htm
- **Course Description:** Standard, but somewhat concentrated, second semester course of single variable calculus as well as elementary multi-variable calculus. Topics include sequences and series, 3-D geometry, multi-variable limit and differentiations, iterated integrals, and line/surface integrals. The last two topics will only be discussed with introductory level.
- **Prerequisite:** High school math. In particular, knowledge in basic algebra, trigonometry, logarithms and exponentials, and basic geometry is necessary. In addition, materials taught in Calculus 1 will be assumed.
- **Textbook:** *Calculus: One and Several Variable* by Salas, Etgen, and Hille, 10th edition, Wiley.
- **Office Hours:** Monday 16:00~17:00 (Chia-Jung), Tuesday 13:00~14:00 (Chih-Chung), and (Lynn).

Course Policies

- **Grading Scheme:** The final average score will be chosen from the maximum of the following two schemes:

Scheme A: Homework 10%, Two Highest Scores from Two Midterm Exams and Calculus Competition $2 \times 30\% = 60\%$, and Final Exam 30%.

Scheme B: Homework 10%, Better Midterm Exam 30%, and Final Exam 60%.

- **Homework:** Homework assignments are generally assigned on or before Wednesday and collected next Wednesday. Please treat the assignments as practice problems for exams. They are worth much more than they seem as most exam problems are drawn from, or are disguises, of homework problems. Two lowest scores will be dropped at the end and therefore NO late assignment will be accepted under ANY circumstance. Group discussions on homework problems are highly encouraged.
- **Exams:** Two midterm exams are tentatively scheduled (i.e. subject to change) on Friday, April 17 and Friday, June 5 (both at regular class meeting times).
- **Makeup Exam:** Due to the possibility of dropping one midterm exam, makeup exam will NOT be given. The only possible exception will be participation in official competition (athletic, academic, governmental) representing the university. An official note from relevant authority must be present.
- **Academic Dishonesty:** All exams are proctored very carefully and there is no tolerance for cheating. A score of zero will be automatic on the exam when proven guilty, and students will be further sent to relevant student discipline units for further investigations.
- **Calculators:** Due to inconsistency in technological resources, calculators or other electronic devices will never be allowed on exams. However, exam problems will never require calculators.
- **Regrade:** Students may appeal on the grading of returned assignments/exams on the spot. However, no regrade is possible once the returned work is brought out of my sight.

- **Score Reviewing:** Students may review their recorded scores during office hours. Correction to the record will be made only when the graded assignments are shown. Please make sure to confirm your scores before final average scores are submitted. Grades and scores will *ONLY* be notified in person. No grade related information will be transmitted in any other mean, including email or telephones.
- **Expected Class Conduct/Behaviors:** All students are responsible for the lecture to be conducted orderly so that students' rights to learn and my ability to teach are not compromised in any way. Attendance is assumed. When missing a class, it is students' responsibilities to catch up on materials presented or announcements made. Missing an assignment or exam because of failure to hear the announcement in class is not a valid excuse. Course related conversations should be in English when non-native Chinese/Taiwanese speakers are present.

Outline of Planned Topics

Topics	Planned Number of Lectures	Approximated Location in Textbook
Sequences and series	12	Chapters 11 and 12.
Conic sections parametric equations.	4	10.1, 10.5, 10.6, and 10.7.
Vectors and plane geometry	5	13.1~13.6.
Multi-variable limits	4	14.4~14.4.
Multi-variable differentiations and applications	11	15.1~15.4, 15.6, and Chapter 16.
Iterated integrals and changes of coordinates	8	17.1~17.6, 10.2, 17.8, 17.10.
*Line and Surface Integrals – survey.	4	Chapter 18 – survey.

*skipped for insufficient time.