Calculus I (IBDPE)

Instructors Info
- **Name:** Chih-Chung Liu
- **Email:** cliu@mail.ncku.edu.tw
- **Office:** 203 Math Building
- **Office Phone:** 06-2757575 ext. 65125

TA Info
- **Name:** I-Hsing Liang
- **Email:** L16021137@mail.ncku.edu.tw
- **Office:** 414 Math Building
- **Office Phone:** 06-2757575 ext. 65156-414

Course Info
- **Meeting Times: Lecture:** Wednesday 10:10~12:00 (Period 3,4) and Friday 9:10~10:00 (Period 2), Discussion: Wednesday 13:10~14:00 (Period 5).
- **Location:** DAA Eng. 5825.
- **Class Webpage:**
  http://www.math.ncku.edu.tw/~cliu/Calculus_I_Fall_2015.htm
  and Moodle.
- **Course Description:** Standard first semester course of single variable calculus. Topics include the concept of limit, differentiation and its applications, integration and its applications, transcendental functions and their properties, sequences and series (if schedule permits).
- **Prerequisite:** High school math. In particular, knowledge in basic algebra, trigonometry, logarithms and exponentials, and basic geometry is necessary.
- **Textbook:** *Calculus: One and Several Variable* by Salas, Etgen, and Hille, 10th edition, Wiley.
- **Office Hours:** Tuesday 14:00~15:00 (I-Hsing) and Monday 15:00~16:00 (Chih-Chung).

Course Policies

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

    Scheme A: Quiz/In Class Assignment 10%, Midterm Exams 2x30%=60%, and Final Exam 30%.
    Scheme B: Quiz/In Class Assignment 10%, Better Midterm Exam 30%, and Final Exam 60%.

- **Homework:** Homework assignments are generally assigned on Wednesday. They will not be collected, but are essential practices for quizzes and exams. Please utilize them for your benefit.

- **Quiz/In Class Assignment:** A 10-minuite quiz or in class assignment is given during each discussion section. The quiz consists of 1 or 2 problems drawn straight from homework problems. In class assignment consists of problems to be discussed in groups. Two lowest scores from this category will be dropped at the end of the semester.

- **Exams:** Two midterm exams are tentatively scheduled (i.e. subject to change) on Friday, October 30 and Friday, December 18. Final exam is scheduled on January 13, 2016. All exams are scheduled on regular lecture meeting times, but possibly at different locations. Please keep yourself updated and informed.

- **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 and quizzes 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 proper procedures.

- **Calculators:** Due to inconsistency on technological resources, calculators or other electronic devices will never be allowed on exams. However, exam problems will be designed so that calculators will not be helpful.

- **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.

- **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 attend a class or discussion is not a valid excuse. Course related conversations should be in English when non-native Chinese/Taiwanese speakers are present.

- **Pleading:** The adjustment of any rule or announcement must be applicable to the entire class, not any individual. Moreover, any request to adjust rule/deadlines must be made before the event, not after. There will be *no* extra assignment or extra credit. Please do not waste your time asking for those.

- **Policy for Adding Class:** There are two policies for adding this class:
  1. This class is *NOT* intended to be an easy-pass calculus. Those of you expecting to "get by" calculus are not recommended to attend this class.
  2. You must add this course *WITH* the discussion session.

Outline of Planned Topics

Topics	Approximated Location in Textbook
Review of pre-calculus.	Chapter 1
Limits and continuity.	2.1-2.5.
Differentiation, properties, and applications.	Chapter 3, and 4.1-4.9.
Integration, properties, and applications.	Chapter 5, and 6.1-6.5.
Exponential, logarithmic functions, and inverse functions.	7.1-7.7.
Techniques of integration.	8.1-8.5.
*Indeterminate forms and improper integrals.	11.4-11.7.
Sequences and series.	11.2-11.3 ; 12.1-12.2.

*skipped for insufficient time.