

# MAC0084 : Topics in Convex Analysis

## Fall 2022

### Contact Information

Instructor: Jein-Shan Chen  
Classroom: M212  
Time: Tuesdays, 13:20 - 16:20 pm  
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### Office Hours

You are welcomed to drop by my office whenever I am in or please feel free to make an appointment with me.

### Textbook

No textbook required. Students who enroll in this course will take turns presenting research papers or materials that focus on convex analysis.

Four references are recommended.

- Convex Analysis, by R.T. Rockafellar, Princeton Landmarks in Mathematics, 1997.
- Convex Analysis in General Vector Spaces, by C. Zalinescu, World Scientific Publishing, 2002.
- Convex Analysis and Global Optimization, by Hoang Tuy, Springer Optimization and Its Applications 110, 2nd edition, Springer, 2016.

- Convex Analysis for Optimization, by Jan Brinkhuis, Graduate Texts in Operations Research, Springer Nature, Switzerland, 2020.

## Homework and Exams

The good news is that there are no homework and exams for this course. However, this is a graduate course, so you are highly expected to show your ability for independent study. Instead of assigning weekly homework or taking exams, I will arrange everyone who enrolls in this course to take turns presenting course materials. Hopefully, you will learn more through this training.

## Grades

Since there are no homework and exams for this course, participation and joining discussion are very crucial. Therefore, your final grade for this course will be determined by these two factors shown as below:

Attendance	50 %
Presentation and Discussion	50 %

Sometimes you will be asked to attend conferences or workshops related to this course, and attendance of such cases is also counted.