

MAC0086 : Topics in Complementarity Problems

Spring 2025

Contact Information

Instructor: Jein-Shan Chen
Classroom: M212
Time: Mondays, 13:20 - 16:20 pm
Office: M321, Mathematics Building
Email: jschen@math.ntnu.edu.tw
Web-site: <http://math.ntnu.edu.tw/~jschen>

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 complementarity problems.

Four references are recommended.

- Finite-Dimensional Variational Inequalities and Complementarity Problems, by F. Facchinei and J-S Pang, volume I, II, Springer, 2003.
- The Linear Complementarity Problem, by Richard W. Cottle, Jong-Shi Pang, and Richard E. Stone, Classics in Applied Mathematics, SIAM, 1992.
- Complementarity Problems, by George Isac, Springer-Verlag, 1992.

- Topological Methods in Complementarity Theory, by George Isac, Springer-Verlag, 2000.
- Complementarity Functions in Optimization, by Jein-Shan Chen, 2025.

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.