

2013 Fall PHYS535 “Introduction to Plasma Physics” (3 credits)

Instructor: Tsun-Hsu Chang

**Textbook :**

Dwight R. Nicholson, “Introduction to Plasma Theory” Chaps. 1, 2, 6, and 7.

It is supplemented by two Special Topics.

**References :**

Krall and Trivelpiece, "Principles of Plasma Physics".

Erwin Kreyszig, "Advanced Engineering Mathematics".

**Conduct of Class :**

Every Thursdays R7R8R9 15:30 - 18:20, total 150 minutes, Physics building R501.

The course is offered in English, but important physical concepts will be reiterated in Chinese.

Students have to go through the algebra in the lecture notes before attending classes.

Questions are strongly encouraged.

**Grading Policy :** Midterm oral report 50%; Final oral report 50%; Attendance 10% (extra).

The overall score will be normalized to reflect an average consistency with other courses.

**Schedule :** See the table below.

Week	Date	Content
1	09/19	Mid-Autumn Festival
2	09/26	Introduction & Chap.1 <b>Introduction</b>
3	10/03	Chap.1 TA Hsin-Yu Yao will give you a talk on PowerPoint guideline.
4	10/10	Double Tenth Day
5	10/17	Chap.2 <b>Single Particle Motion</b>
6	10/24	Chap.2
7	10/31	Chap.6 <b>Vlasov Equation</b>
8	11/07	<b>Oral presentation I</b>
9	11/14	<b>Oral presentation II</b>
10	11/21	Chap.6
11	11/28	Chap.6
12	12/05	Chap.6
13	12/12	Chap.6
14	12/19	Chap.6
15	12/26	<b>Oral presentation I</b>
16	01/02	<b>Oral presentation II</b>
17	01/09	Special Topic: Gain and Bandwidth...
18	01/16	Make-up if needed

\* This table is for your reference only.

\* The practical schedule will depend on the students' learning condition.