

Level Eight

Special Topics in Applied Physics (1)

Course Code	Course Num.	Course Name	Credit Hours	Lec	Lab	Tut	Prerequisites
PHY	471	Special Topics in Applied Physics (1)	3	4	0	0	Consent of the department

An advanced course in Applied Physics of current interest proposed by a faculty member and whose topic may change from semester to semester.

Present Syllabus is **Physics-471**

Introduction to Plasma Physics and spectroscopy

Credits:	3(3,0,14)
Prerequisite:	
E-Mail:	
Office:	
Office Hours	
Class Times	

Course Materials

Textbook :

1. Introduction to plasma physics and controlled fusion, Volume 1, F. F. Chen, Springer
2. Physical Chemistry, Atkins, sixth edition

Objectives:

- To introduce plasma physics phenomena.
- To show importance of the interaction of plasma with magnetic fields.
- To introduce the concept of adsorption and emission spectroscopy



Course Contents

<u>Chapter I</u>	: Introduction to plasma physics	2 weeks
<u>Chapter II</u>	: Motion of Charged Particles in Fields	3 weeks
<u>Chapter III</u>	: Plasma as fluids	2 weeks
<u>Chapter IV</u>	: Spectroscopy 1: Rotational and vibrational spectra	2 weeks
<u>Chapter V</u>	: Spectroscopy 2: Atomic emission spectroscopy	3 weeks

Exams

<u>Midterm 1</u>	:	6-th week
<u>Midterm 2</u>	:	10-th week
<u>Final</u>	:	16-th week

GRADING :

Midterm 1:	20 %
Midterm 2:	20 %
Quiz & h.w. :	20 %
Final Exam:	40 %

