

Year	Second semester 2026
Course	Lecture on Basic Solid State Spectroscopy
Day/Period	Thu.2Period
Credit(s)	2Credits
Instructor	FUMIHIRO KANEDA
Eligible Participants	Master 1st grade／Master 2nd grade
Course code/number	SPH-PHY509B
Main Subjects	
Course of Media Class	
Practical business	
Language Used in Course	English
Course Title	Basic Solid State Spectroscopy
Purpose/Abstract	The purpose of this program is to understand the various methods of optical spectroscopy of solids and physical concepts developed through theories and experiments.
Goal	The goal of this program is to learn a basic knowledge of solid state spectroscopy as an experimental method.
Contents and progress schedule of the class	1. Basics of light 2. Dielectric function and optical constants 3. Laser and detectors 4. Spectroscopy in visible region 5. Nonlinear optics and spectroscopy 6. Spectroscopy with photons
Grading	Evaluation will be based on examinations, submitted reports and attendance.
Books required/referenced	Related reading materials are introduced in the classroom.
Contents of preparation and review	Students are required to review.
Study time for preparation and review	Standard Hours for Preparation/Review per class: *Lectures 4 hour *Seminar 2-4 hour *Experiment, Laboratory Work, and Skill Test 2 hours
How to contact and Google Classroom Code	Communication is made via Google Classroom. Code of Classroom: ncfqgxjd
Remarks	
Last Update	

One-credit courses require 45 hours of study. In lecture and exercise-based classes, one credit consists of 15-30 hours of class time and 30-15 hours of preparation and review outside of class. In laboratory, practical skill classes, one credit consists of 30-45 hours of class time and 15-0 hours of preparation and review outside of class.