

Course Name	Physics II		
Semester, Year	Second Semester, 2018	Number of Credits	2 credits
Course level	1000	Course Number	27089
Instructor(s) (Institution)	Eun-Kyung PARK (大学院理学研究院)		
Course Objectives	In Physics II, students will study matter and energy, their properties and the relation between them. This course covers electricity, magnetism, optics and quantum mechanics.		
Course Goals	The goal of this course is to provide students with understanding of principles and methods of physics by solving problems in physics and mathematics. Students will work on various interactive examples through the course.		
Course Schedule	<p>Week 1: Course syllabus introduction and how to read a science article</p> <p>Week 2: Thermodynamics: temperature and heat</p> <p>Week 3: Thermodynamics: the first law of thermodynamics</p> <p>Week 4: Thermodynamics: the second law of thermodynamics</p> <p>Week 5: Electromagnetism: electric charge, force and field</p> <p>Week 6: Electromagnetism: Gauss' Law for electric fields</p> <p>Week 7: Electromagnetism: electric potential difference</p> <p>Week 8: Electromagnetism: magnetic Fields I</p> <p>Week 9: Electromagnetism: magnetic Fields II: Ampere's law</p> <p>Week 10: Electromagnetism: electromagnetic induction</p> <p>Week 11: Electromagnetism: Maxwell's equations</p> <p>Week 12: Modern Physics: waves and particles</p> <p>Week 13: Modern Physics: quantum mechanics</p> <p>Week 14: Modern Physics: particle physics</p> <p>week 15 Final exam</p>		
Homework	Homework will be given every week in class and is due the following week before class. There will be one exam on the final day of the course.		
Grading System	Grades will be based on participation (20%), homework (40%), final exam (40%). Distribution of grades will be approximately 20% Excellent, 30% Very good, 40% Good, Pass 10%.		
Textbooks / Reading List	<p>Fundamentals of Physics: Mechanics, Relativity, and Thermodynamics (The Open Yale Courses Series) R. Shankar Yale University Press</p> <p>Fundamentals of Physics II: Electromagnetism, Optics, and Quantum Mechanics (The Open Yale Courses Series) R. Shankar Yale University Press</p>		
Websites			
Website of Laboratory			
Additional Information	Lectures and quizzes are given using an audience response system (clickers).		