

<b>Fundamentals of Physics IV</b>			
<b>Registration Code</b>	0051222	<b>Credits</b>	2.0
<b>Course Category</b>	Sciences Basic		
<b>Term (Semester) / Day / Period</b>	G-II (1st year, Spring Quarter 2) / Mon., Wed. / 2 (10:30~12:00)		
<b>Instructor</b>	GELLOZ Bernard Jacques		
<b>Target Schools (Programs)</b>	Sc(P·C·B)·En(P·C·Au)·Ag(B)		
<p><b>●Objective of the course</b>  This is the last of a series of four courses that cover the fundamentals of physics. It focuses on mechanical and electromagnetic waves, as well as optics. Both conceptual understanding and problem solving will be emphasized. Some applications will also be discussed. Understanding waves and optics is important as preparation for more advanced subjects, for example in quantum mechanics, chemistry, and engineering.</p> <p><b>●Course Prerequisites</b>  Fundamentals of Physics I &amp; II. Concurrent registration for <i>Fundamentals of Physics III</i> is required. Registration for <i>Fundamentals of Physics Tutorial IIb</i> is recommended as it serves as tutorial for this course.</p> <p><b>●Course content</b>  - Review of mechanical oscillations (part of chapter 15)  - Short introduction to electromagnetic oscillations (part of chapter 30)  - Fundamentals of waves and mechanical waves (chapter 15)  - Introduction to Maxwell's equations (part of chapter 32)  - Electromagnetic waves (chapter 33)  - Images (geometrical optics) (part of chapter 34)  - Optical interference (chapter 35)  - Introduction to optical diffraction (part of chapter 36)</p> <p><b>●Evaluation methods</b>  Need to submit a Course Withdrawal Request Form when students have no intention of finishing a course during the semester. Deadline for submitting this request is just before the final examination.  Weightage of course components : Class attendance: 10%; Intermediate tests: 40%; Final test: 50%</p> <p><b>●Notice for students</b>  With two lectures and a tutorial (if you register for it) per week, it is important to work regularly and immediately clear any misunderstanding in order to do well in the course and tutorial.</p>			
<b>Textbook</b>	Fundamentals of Physics Extended 10th Edition International Student Version with WileyPLUS Set (John Wiley & Sons, 2010 ISBN-13: 978-1118230725)		
<b>Reference Book</b>	Feynman Lectures On Physics (Vol. 2) by Richard Phillips Feynman (Pearson P T R)		