

Course Title	Fundamentals of Modern Optics	Course Code	ELEC989001	Credits	3.0
Department	전자공학부	Semester	20171	Course Categories	전공
Instructor	Lee Seung Yeol	Hours	화 8B9A9B 목 7A7B8A	Location	IT 대학 1 호관(공 대 10 호관)916 IT 대학 1 호관(공 대 10 호관)916
Phone/E-mail	** 통합정보시스템 로그인- 수업/성적- 수업- "강의담당교수조회"에서 확인 가능함.				
Office Hours	will be announced	language	영어		

### [ Syllabus ]

Course	Goals and Objectives
	<p>◆ Basic Light wave analysis with the viewpoint of ray, scalar wave, and vector electromagnetic wave will be introduced.</p> <p>◆ Basic phenomena of lightwave such as diffraction, refraction, interference, and dispersion will be introduced.</p> <p>◆ Light propagation through waveguides and fibers will be introduced.</p>
Textbook and other references	
	<p>◆ Textbook:</p> <p>Fundamentals of photonics (second edition)</p> <p>-B. E. A. Saleh and M. C. Teich</p> <p>◆ References:</p> <p>Optical Waves in crystals Amnon Yariv and Pochi Yeh</p> <p>Principle of Optics by Max born and Emil Wolf</p>
Course Description, Methods, and Materials	
	<p>◆ Lecture will be given through the lecture note (ppt) and chalk-board.</p> <p>◆ Depending on the case, additional PDF files will be provided.</p> <p>◆ Interactive lectures are preferred.</p>
Assignments, Grading Criteria, Prerequisite Subject	
	<p>◆ Midterm Exam, Final Exam, assignment, attendance and participation:</p>

- They will be announced through the first lecture.

◆ Prerequisite Subject: Electromagnetics I, II

Notice To Students

◆ Evaluation and Lecture plan might be changed.

◆ Feedbacks and questions will be welcomed.

Notice To Students with Disabilities

A. Hearing Impaired : first row priority seating, Class transcripts may also be provided.

B. Developmentally Challenged : Extended Test Period

C. Brain lesions : Extended Test Period, Class transcripts may also be provided

D. Visually Impaired : Larger Font test will be provided

Other : Aid offered dependant on specific disabilities

[ Course Lesson Plan ]

no	Course Goals and Objectives	Assignment	Text & Materials	Etc.
1	Introduction			
2	Ray optics			Ch. 1
3	Ray optics			Ch. 1
4	Wave optics			Ch. 2
5	Wave optics			Ch. 2
6	Beam optics			Ch. 3
7	Midterm Exam			
8	Fourier optics			Ch. 4
9	Fourier optics			Ch. 4
10	Electromagnetic optics			Ch. 5
11	Electromagnetic optics			Ch. 5
12	Polarization optics			Ch. 6
13	Waveguide optics			Ch. 8

14	Waveguide optics			Ch. 8
15	Final Exam			

Cheating, plagiarism, and other dishonest practices will be punished as harshly as Kyungpook National University policies allow. The University specifies that cheating is grounds for dismissal. Penalties less severe may be imposed instead. A list of possible disciplinary actions is given below. Actions by the university:

- Failure in course
- Suspension from university for a designated period
- Expulsion from university