COURSE DETAIL

OPTICAL SYSTEM DESIGN
Country Taiwan
Host Institution National Taiwan University
Program(s) National Taiwan University
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Electrical Engineering Computer Science
UCEAP Course Number 131
UCEAP Course Suffix
UCEAP Official Title OPTICAL SYSTEM DESIGN
UCEAP Transcript Title OPTICAL SYST DESIGN
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This course provides the basic tools and knowledge needed to design optical systems. At the end of the course, students will be able to take system requirements, select possible components and approaches, create candidate designs, and analyze and optimize their performance. Students learn and utilize standard optical design tools, particularly ray-tracing, as well as learning how to create custom system models with wave, polarization, or Gaussian-beam optical modeling. The course objectives include basic design techniques for ray optics; wave optics in isotopic media; design concepts for optical instruments (microscope, telescope, camera lenses); aberration in optical system (real world problems); how to select optical components (lenses, fibers, optical source and detectors); and optical CAD tools discussion (ZEMAX education version).

Language(s) of Instruction
English

Host Institution Course Number
OE5031

Host Institution Course Title
OPTICAL SYSTEM DESIGN

Host Institution Course Details
https://nol.ntu.edu.tw/nol/coursesearch/print_table.php?course_id=941%20U0400&c...

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Electrical Engineering

Course Last Reviewed

2022-2023

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