

# COURSE DETAIL

## PRINCIPLES OF OPTICS

**Country**

Brazil

**Host Institution**

Pontifical Catholic University of Rio de Janeiro

**Program(s)**

Pontifical Catholic University of Rio de Janeiro

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Physics

**UCEAP Course Number**

112

**UCEAP Course Suffix****UCEAP Official Title**

PRINCIPLES OF OPTICS

**UCEAP Transcript Title**

PRINCIPLES OPTICS

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course covers reflection and refraction, polarization, plane and spherical mirrors, thin lenses, and optical instruments. It also examines interference phenomena—including Young’s experiment, thin films, and interferometers—as well as diffraction from single slits, circular apertures, double and multiple slits, and diffraction gratings. Additional topics include lasers and optical fibers. Prerequisites: Electromagnetism and Physics III.

## Language(s) of Instruction

Portuguese

## Host Institution Course Number

FIS4004

## Host Institution Course Title

PRINCÍPIOS DE ÓPTICA

## Host Institution Course Details

<https://www.puc-rio.br/ferramentas/ementas/ementa.aspx?cd=FIS4004>

## Host Institution Campus

PUC-Rio

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Physics

## Course Last Reviewed

2025-2026

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