

EF6 | Visual optical measurements



Nouvelle formation

NIVEAU : DÉBUTANT

Publics : Engineers or technicians required to perform optical visual measurements

Prérequis : Basic knowledge corresponding to EF1-Optics without calculation will be useful

Responsable(s) pédagogique(s) : Lionel Jacobowicz - Chargé de cours à l'Institut d'Optique

Langue de la formation : Français

Capacité maximum : 12

Prix : 1010€ HT - **Durée :** 2 days - 14 h

Objectifs

- Master the principles, methods and instruments associated with visual measurements

Prochaines sessions

- 18 mars 2019 au 19 mars 2019 - Palaiseau

Thèmes abordés

Optical instruments

Ophthalmic optics

Experiments on benches, microscopes and glasses



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Le programme

Classroom lessons

- ▶ Reminders about geometric optics and aberrations
- ▶ Optical properties of the eye: performance, limitations
- ▶ The various visual instruments: eyepieces, telescopes, microscopes (objectives)
- ▶ Choice and implementation of a visual instrument, optimization of resolution and depth of field
- ▶ Study of measurement uncertainties

Labwork

- ▶ Implementation of a goniometer (angle and index measurements)
- ▶ Measurements of focal distances and radii of curvatures. Implementation of a microscope and an afocal telescope

Méthodologie et évaluation

Lectures and exercises with many examples

Demonstrations on laboratory equipment, according to the wishes of the trainees

Labwork on instruments