

Ophthalmological Instrumentation in Diagnosis and Research

Syllabus:

- Lasers (Argon, Nd:YAG)
- Excimer laser
- Diode laser
- Femtosecond laser
- Intraocular lenses
- Confocal microscope (imaging the cornea)
- Pupillometry
- Biological electricity
- Visual electrophysiology (ERGs, EOGs, VEPs, EMGs)
- Ophthalmic Ultrasonography
- Visual Reaction Time
- Wavefront aberrometers
- Adaptive Optics
- Eye movements (fixational, saccadic,)
- Nd:YAG for Posterior Capsular Cataract
- Photodynamic therapy
- Visual Ergonomics (Driving, Sports, Aviation, Natural scenes)

The subject is supported by seven lab projects (Argon laser, excimer laser, femtosecond laser, pupillometry, visual reaction time, wavefront aberrometry and eye movements). It also includes clinical demonstration of Nd:Yag laser, ERGs, Ophthalmic Ultrasonography and photodynamic therapy.