

**Title of module: Advanced Methods in Contact Lens Research**  
**Seminar slots: 13 x 2 = 26 hours (0.5 Module) (to choose from 15 lectures)**  
**Person in charge: Sotiris Plainis**

1. Refractive error: demographics, aetiology, optics and progression (S. Plainis)
2. Cornea: anatomy, physiology and disease (C. Siganos)
3. Cornea: optics - advanced corneal topography (S Panagopoulou)
4. Tear film assessment – dry eyes (P Kallinikos)
5. Contact lens materials (I Tranoudis)
6. Optics of contact lenses (S Plainis)
7. Soft contact lenses (S Plainis)
8. GP / semi-scleral, scleral contact lenses (S Plainis)
9. Fitting the irregular cornea: keratoconus etc (S Plainis)
10. Advanced CL designs (orthoK - myopia control) (S Plainis)
11. CL complications / management
12. CLs for the correction of presbyopia (S Plainis)
13. Contact Lens Care Products (P Kallinikos)
14. Therapeutic CLs (S Plainis)
15. Student mini-project presentations (20 minutes each) (S Plainis)

Assessment method: 3 hr written examination at the end of semester + mini-projects.

The module will cover best practice contact lenses, advances in contact lens materials, contact lens complications and their management (including issues of compliance and how to minimise contact lens drop-outs), modern RGP and semi-scleral/scleral fitting, advances in understanding of soft contact lens fit (including toric lens stability and multifocal designs), contact lenses for presbyopia, myopia control and fitting children, orthokeratology, therapeutic contact lens use, drug delivery and other uses of contact lenses. The different approaches to management of patients will be examined along with how they might be implemented in practice. The most common conditions requiring advanced contact lens practice will be discussed, including methods that help to differently diagnose common and unusual problems. cornea anatomy, physiology and disease will also be implemented.