

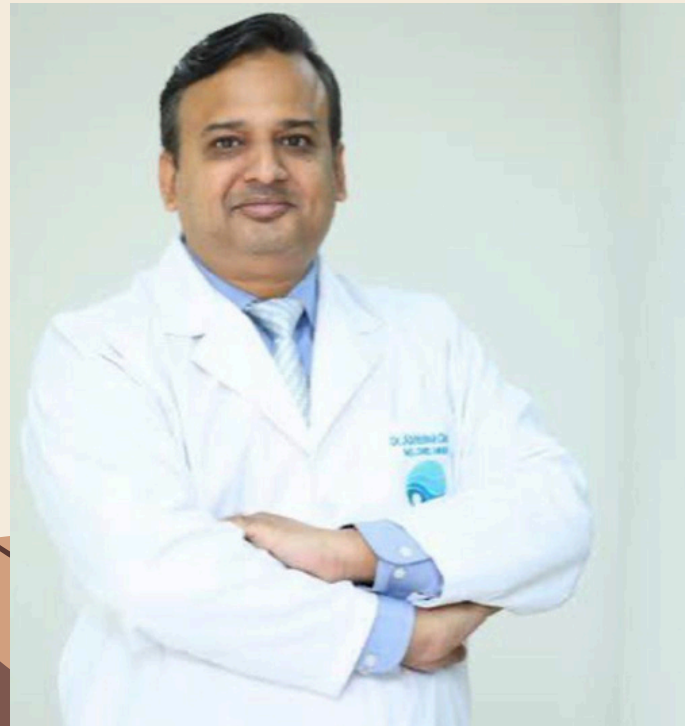
AIOC 2026- JAIPUR INSTRUCTION COURSE (IC 493)

**SURFACE ABLATION AND PHAKIC
IOLS: a perfect pair in the
refractive armamentarium**



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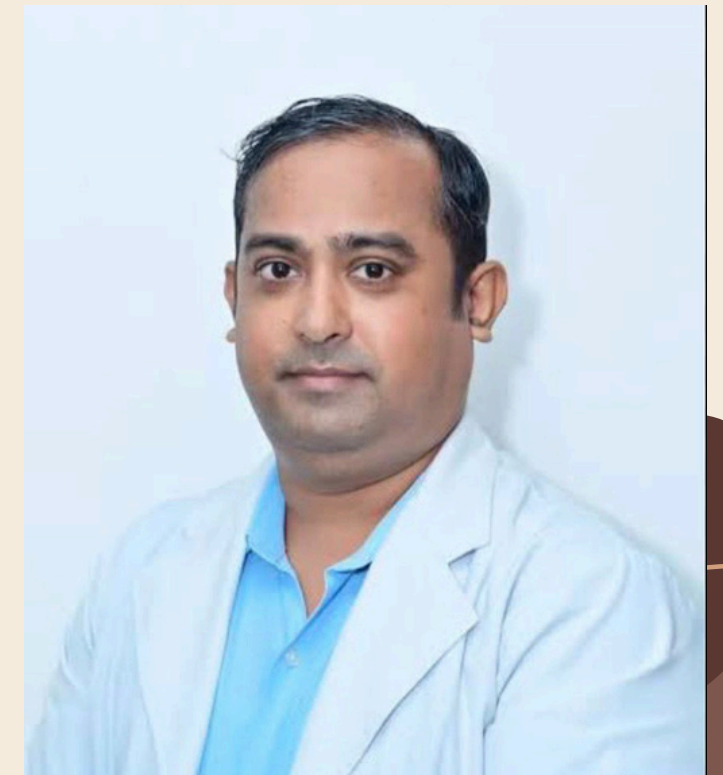


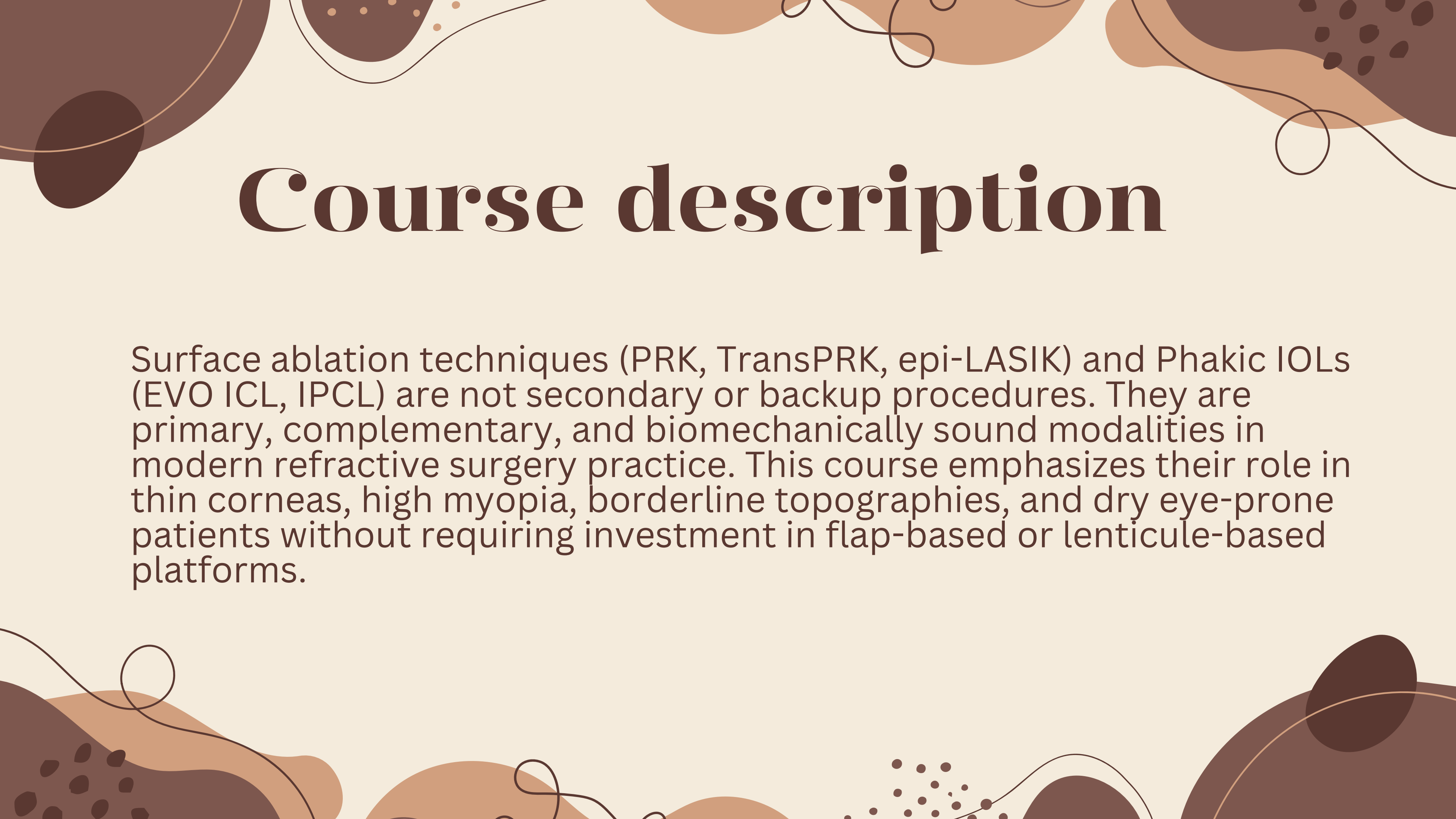
**CHIEF INSTRUCTOR: DR. ANIL
SRIVASTAVA**

Date: 12/03/26

Hall: Trade room 1

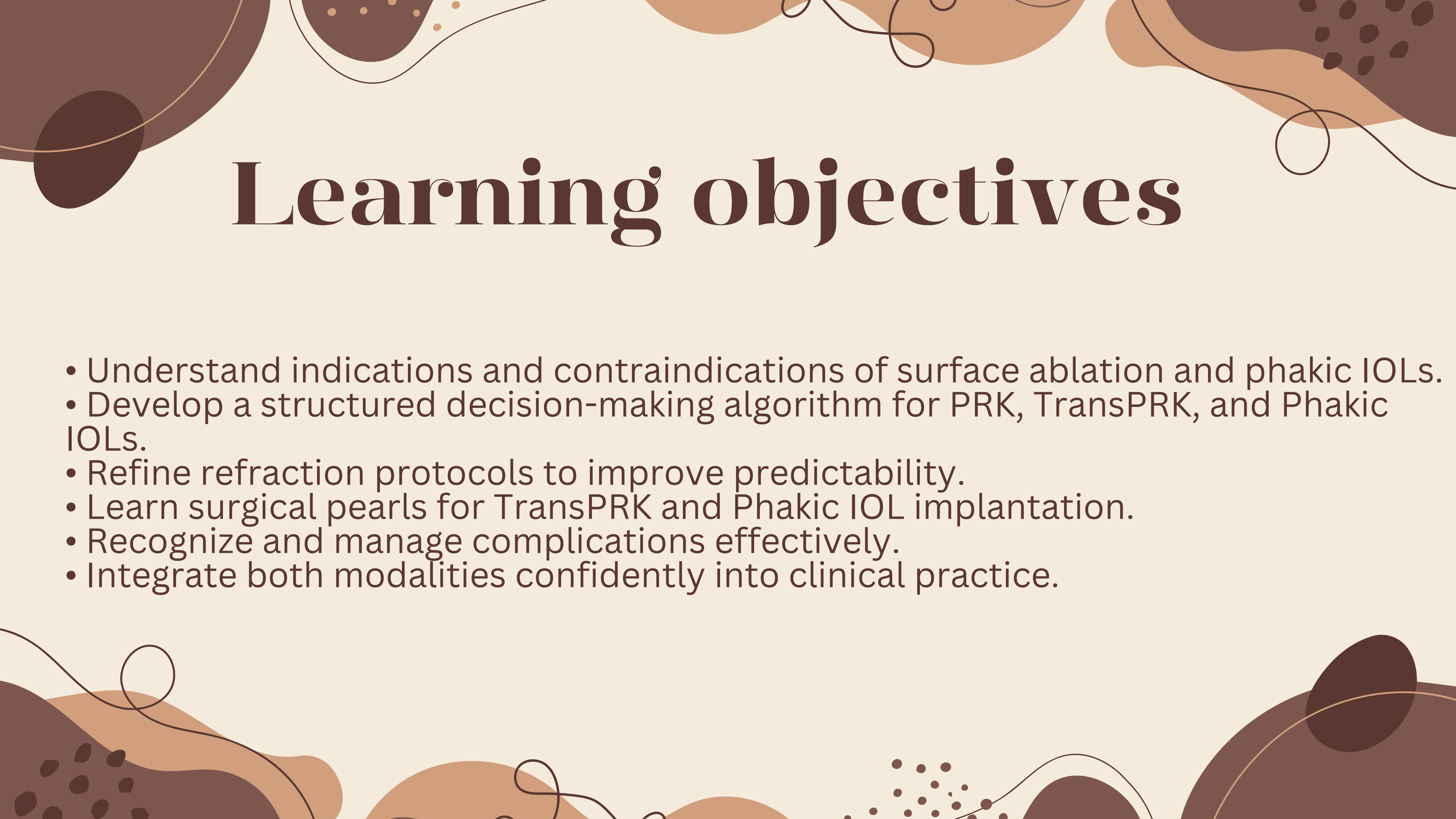
Time: 11:30 am to 12:40 pm





Course description

Surface ablation techniques (PRK, TransPRK, epi-LASIK) and Phakic IOLs (EVO ICL, IPCL) are not secondary or backup procedures. They are primary, complementary, and biomechanically sound modalities in modern refractive surgery practice. This course emphasizes their role in thin corneas, high myopia, borderline topographies, and dry eye-prone patients without requiring investment in flap-based or lenticule-based platforms.



Learning objectives

- Understand indications and contraindications of surface ablation and phakic IOLs.
- Develop a structured decision-making algorithm for PRK, TransPRK, and Phakic IOLs.
- Refine refraction protocols to improve predictability.
- Learn surgical pearls for TransPRK and Phakic IOL implantation.
- Recognize and manage complications effectively.
- Integrate both modalities confidently into clinical practice.

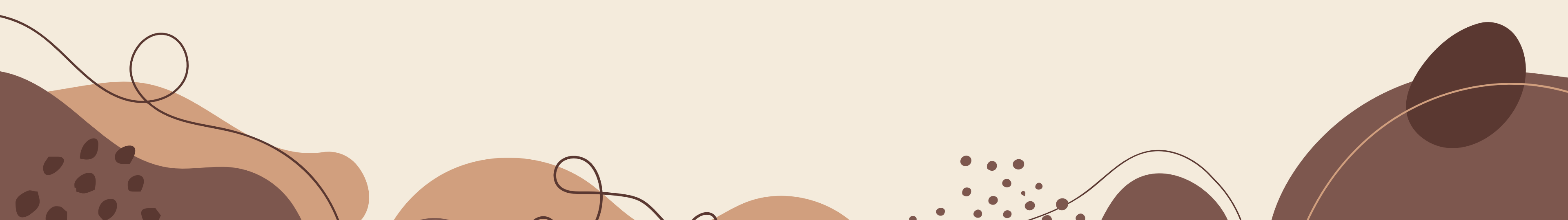
Introduction: Do we need anything else if we have TransPRK and Phakic IOL?



TransPRK effectively addresses low to moderate refractive errors with excellent biomechanical safety. Phakic IOLs extend treatment to high myopia and thin corneas while preserving corneal integrity. Together, they cover the majority of refractive cases safely without flap-related or lenticule-related risks.



Preoperative eye examination including retina evaluation

- Detailed corneal topography and tomography screening.
 - Pachymetry and epithelial thickness profile assessment.
 - Ocular surface and tear film evaluation.
 - Anterior chamber depth measurement.
 - Endothelial cell count assessment.
 - Dilated peripheral retinal examination and prophylactic treatment when indicated.
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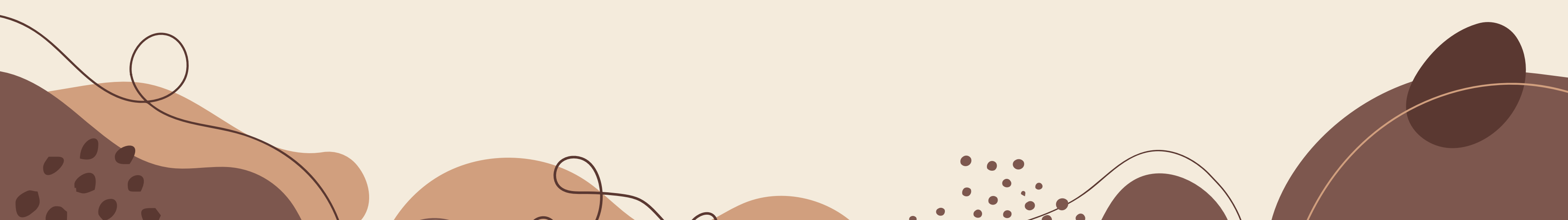
Refinement of refraction- the backbone of refractive success



- Refraction is the foundation of refractive surgery
- How to extract reliable data from autorefractometer and retinoscopy
- How to use JCC, Fogging, Duochrome, Binocular balancing
- Find and utilize ocular dominance
- Cycloplegic refraction to reaffirm the subjective refraction
- In some cases, if refraction is doubtful, don't hesitate to reschedule for repeat refraction



Surgical pearls in trans PRK

- Accurate epithelial profile planning.
 - Use of Mitomycin C for surface ablations.
 - Smooth ablation zone centration.
 - Appropriate bandage contact lens placement.
 - Structured steroid taper protocol.
 - Proactive haze prevention strategies.
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Phakic IOLs (ICL/IPCL): planning, sizing and vault management



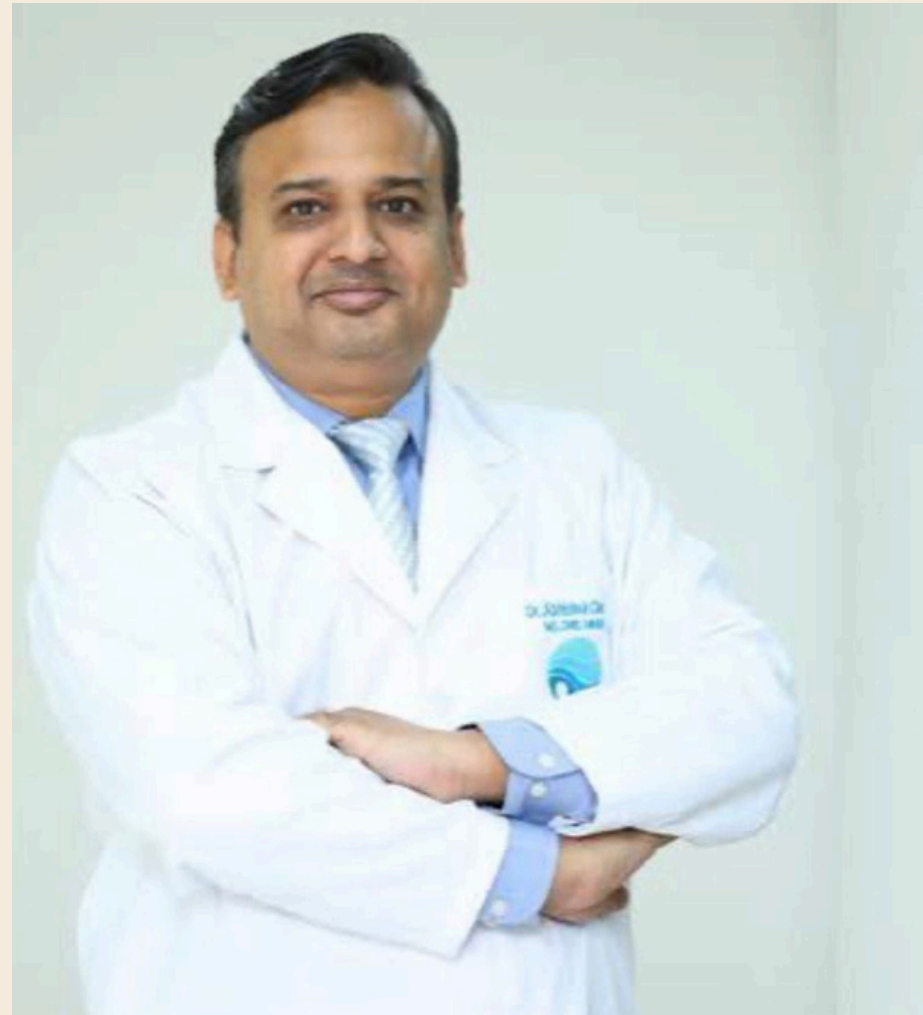
- Anterior chamber depth > 2.8 mm (endothelium to anterior lens surface).
- Age-adjusted endothelial cell count.
- White-to-white and/or sulcus-to-sulcus sizing methods.
- Ideal vault range: 250–750 microns.
- Low vault increases cataract risk.
- High vault may cause angle closure or raised IOP.
- Meticulous viscoelastic removal.

Complications and enhancements in both modalities



- Surface ablation: Haze, regression, delayed epithelial healing.
- Phakic IOL: Vault abnormalities, raised IOP, cataract formation.
- Enhancement options: PRK over ICL for residual refractive error.
- IOL exchange for vault issues.
- Lens extraction if cataract develops.

Audience interaction and case based discussion



- Minus 6 diopters refractive error, CCT 575 microns, K1 40.5, K2 41.00
- Borderline topography cases.
- Young athlete requiring high refractive correction minus 10 diopters
- Trans-PRK post op 1 month -0.5 after 6 months -4.00
- Phakic contact lens, post op vault lesser than 250 micron or more than 1000 micron

Selected references

- Long-term outcomes of surface ablation techniques in refractive surgery.
- Clinical outcomes and safety profile of posterior chamber phakic IOLs.
- Corneal biomechanics and ectasia risk assessment guidelines.
- Vault prediction and sizing strategies in phakic IOL implantation.

Financial Disclosure

All faculty members declare that they have no financial interest related to the subject matter of this course or disclose relevant associations as per AIOC 2026 guidelines.

