

# OPT-2982: OPTICAL FIELD EXPERIENCE SEMINAR II

---

## Cuyahoga Community College

**Viewing: OPT-2982 : Optical Field Experience Seminar II**

**Board of Trustees:**

May 2024

**Academic Term:**

Fall 2024

**Subject Code**

OPT - Optical Technology

**Course Number:**

2982

**Title:**

Optical Field Experience Seminar II

**Catalog Description:**

Capstone course in Optical Technology. Integrates advanced concepts and knowledge gained from field experience into total learning process. Focus on organization of health care delivery system. Discussions of current issues included.

**Credit Hour(s):**

2

**Other Hour(s):**

2

**Other Hour Details:**

Seminar: 2 hours per week

## Requisites

**Prerequisite and Corequisite**

Concurrent enrollment in OPT-2950 Optical Field Experience II.

## Outcomes

**Course Outcome(s):**

Demonstrate critical thinking, problem-solving, and patient management skills as applies to an ophthalmic care setting.

**Objective(s):**

1. Solve hypothetical and real patient problems.
2. Perform web based reviews of ophthalmic literature.
3. Discuss clinical experiences, concerns, ideas, etc., with other optical professionals in open and roundtable discussions and as case presentations.
4. Discuss contact lens fitting techniques.
5. Analyze professional case studies pertaining to contact lens fitting.

---

**Course Outcome(s):**

Demonstrate effective verbal and non-verbal communication within an ophthalmic setting.

**Essential Learning Outcome Mapping:**

Oral Communication: Demonstrate effective verbal and nonverbal communication for an intended audience that is clear, organized, and delivered effectively following the standard conventions of that language.

Information Literacy: Acquire, evaluate, and use information from credible sources in order to meet information needs for a specific research purpose.

**Objective(s):**

1. Solve hypothetical and real patient problems.
2. Perform web based reviews of ophthalmic literature.
3. Discuss clinical experiences, concerns, ideas, etc., with other optical professionals in open and roundtable discussions and as case presentations.

---

**Course Outcome(s):**

Prepare for Contact Lens Registry Examination.

**Objective(s):**

1. Perform web based reviews of ophthalmic literature.
2. Discuss contact lens fitting techniques.
3. Analyze professional case studies pertaining to contact lens fitting.
4. Discuss the regulatory agencies that govern contact lens dispensing.

---

**Methods of Evaluation:**

1. Case studies
2. Round table discussion
3. Oral Presentation
4. Essay

**Course Content Outline:**

1. Contact lens related anatomy and physiology review
  - a. Cornea
    - i. Epithelium
    - ii. Bowman's
    - iii. Stroma
    - iv. Descemet's membrane
    - v. Endothelium
      1. Endothelial mosaic
      2. Endothelial pump
  - b. Adnexa
    - i. Palpebrae
    - ii. Conjunctiva
      1. Bulbar
      2. Fornix
      3. Palpebral
    - iii. Nasolacrimal system
      1. Tear film
        - a. Lipid
        - b. Aqueous
        - c. Mucous
      2. Lacrimal process
        - a. Tear secretion
        - b. Tear distribution
        - c. Tear drainage
  2. Clinical problem solving/patient management
    - a. Patient selection
      - i. Medical history
      - ii. History of contact lens wear
      - iii. Hydration of the adnexa
    - b. Troubleshooting
      - i. Single vision scenarios
        1. Prism
        2. Adjustment

3. Vertex Distance
    4. Pantoscopic angle
  - ii. Bifocal scenarios
    1. Prism
    2. Adjustment
    3. Vertex distance
    4. Pantoscopic angle
    5. Seg too high
    6. Seg too low
  - iii. Progressive lens scenarios
    1. Prism
    2. Adjustment
    3. Vertex distance
    4. Pantoscopic angle
    5. Seg too high
    6. Seg too low
    7. Progressive channel errors
3. Communication/writing skill
  - a. Verbal
    - i. Optician/patient communication
    - ii. Professional verbal communication
  - b. Written communication
    - i. Professional written communication
    - ii. Accurate documentation
4. Preparing for the Contact Lens Registry Examination
  - a. History
  - b. Nomenclature
  - c. Optics
  - d. Patient selection
    - i. Contraindications
      1. Allergies
      2. Dry eye
      3. Giant papillary conjunctivitis
  - e. Keratometry
    - i. Calibration
    - ii. Extending Range
  - f. Biomicroscopy
    - i. Illuminations
      1. Direct
      2. Diffuse
      3. Indirect
      4. Retro
      5. Sclerotic Scatter
    - ii. Evaluation of fluorescein patterns
      1. Ideal pattern
      2. Steep pattern
      3. Flat pattern
      4. With-the-rule astigmatism
      5. Against-the-rule astigmatism
  - g. RGP Fitting
    - i. Evaluation of fit
    - ii. Patient selection
    - iii. Handling procedures
    - iv. Follow up
  - h. Soft lens fitting
    - i. Patient selection
    - ii. Evaluation of fit
    - iii. Lens ordering
    - iv. Follow up

- i. Contact lens delivery
- j. Extended wear
  - i. Materials
  - ii. Handling
- 5. Regulatory agencies
  - a. Ohio Vision Professionals Board
  - b. National Contact Lens Examiners
  - c. American National Standards Institute
  - d. Food and Drug Administration

## Resources

Contact Lens Society of America. (2016) *Contact lens manual: Volume 1*, Contact Lens Society of America.

---

Contact Lens Society of America. (2003) *Test review for contact lens technicians*, Contact Lens Society of America.

---

Contact Lens Society of America. (2006) *Test review 2 for contact lens technicians*, Contact Lens Society of America.

---

CLRE Exam Secrets Test Prep Team. (2013) *CLRE secrets study guide: CLRE exam review for the contact lens registry examination*, Mometrix Media LLC.

---

Drake, D. (2014) *Beginning your life as a contact lens technician*, National Academy of Opticianry.

---

Drake, Diane. (2020) *Contact Lens Review Book*, Landover, MD: National Academy of Opticianry.

---

Ledford, J. & Pineda R. (2008) *The little eye book*, Thorofare, NJ: Slack.

---

Remington, L. A. & Goodwin, D. (2021) *Clinical anatomy of the visual system*, Elsevier.

---

White, P. (ed). (2018) *Contact lens solutions summary*, The New England College of Optometry. <https://www.clspectrum.com/CLASS>

---

## Resources Other

1. 20/20 <https://www.2020mag.com/>
2. American Optometric Association. <https://www.aoa.org/patients-and-public/caring-for-your-vision/contact-lenses?sso=y> (<https://www.aoa.org/patients-and-public/caring-for-your-vision/contact-lenses/?sso=y>)
3. Centers for Disease Control and Prevention. "Healthy Contact Lens Wear and Care." <https://www.cdc.gov/contactlenses/index.html> (<https://www.cdc.gov/contactlenses/>)
4. Eyecare Business <https://www.eyecarebusiness.com/>
5. Invision <https://invisionmag.com/>
6. Khan Academy. <https://www.khanacademy.org/>
7. Ophthobook <https://timroot.com/ophthobook/>
8. OptiBoard Forums. <http://www.optiboard.com/forums/>
9. Quantum Optical. <http://www.quantumoptical.com/> (<https://www.2020mag.com/>)
10. Review of Optometry. <https://www.reviewofoptometry.com/>
11. Vision Professionals Board <https://vision.ohio.gov/vision-professionals/optician/3-optician> (<https://vision.ohio.gov/vision-professionals/optician/3-optician/>)

Top of page  
Key: 5032