

# OPT-2660: LICENSE REVIEW CONTACT LENS

---

## Cuyahoga Community College

**Viewing: OPT-2660 : License Review Contact Lens**

**Board of Trustees:**

January 2022

**Academic Term:**

Fall 2022

**Subject Code**

OPT - Optical Technology

**Course Number:**

2660

**Title:**

License Review Contact Lens

**Catalog Description:**

Focus on key optical concepts as they relate to contact lenses with in-depth look at theory, optical nomenclature, and test domains outlined by National Contact Lens Exam.

**Credit Hour(s):**

1

**Lecture Hour(s):**

1

## Requisites

**Prerequisite and Corequisite**

Departmental approval.

## Outcomes

**Course Outcome(s):**

Consider and apply all aspects of contact lens design.

**Objective(s):**

1. Convert spectacle prescriptions in order to determine appropriate contact lens fit and design.
2. Describe how ophthalmic equipment is used to fit and dispense contact lenses.
3. Design a well-fitting contact lens that adhere to federal standards.
4. Explain how discussing lens care and wearing schedule with patients leads to increased patient compliance.

---

**Course Outcome(s):**

Evaluate ocular physiology and pathology to determine the fit of a contact lens.

**Objective(s):**

1. Convert spectacle prescriptions in order to determine appropriate contact lens fit and design.
2. Describe how ophthalmic equipment is used to fit and dispense contact lenses.
3. Design a well-fitting contact lens that adhere to federal standards.
4. Design a follow-up plan for individual patients taking into consideration ocular physiology and contact lens modality.

---

**Course Outcome(s):**

Analyze contact lens fit in order to determine if any parameters require modification.

**Objective(s):**

1. Describe how ophthalmic equipment is used to fit and dispense contact lenses.
  2. Design a well-fitting contact lens that adhere to federal standards.
  3. Apply American National Standards Institute Z80 standards to determine if the contact lens in question requires modification.
- 

**Course Outcome(s):**

Develop an appropriate follow-up plan for successful contact lens wear.

**Objective(s):**

1. Explain how discussing lens care and wearing schedule with patients leads to increased patient compliance.
  2. Design a follow-up plan for individual patients taking into consideration ocular physiology and contact lens modality.
- 

**Course Outcome(s):**

Apply the laws and regulations that govern opticianry.

**Objective(s):**

1. Design a well-fitting contact lens that adhere to federal standards.
  2. Apply American National Standards Institute Z80 standards to determine if the contact lens in question requires modification.
  3. Design a follow-up plan for individual patients taking into consideration ocular physiology and contact lens modality.
- 

**Methods of Evaluation:**

1. Weekly tests or quizzes
2. Final exam

**Course Content Outline:**

1. Ocular anatomy, physiology and pathology
  - a. Adnexa, anterior and posterior segments
  - b. Drugs and diseases/viruses affecting contact lens wear
  - c. Contact lens related conditions and pathology
2. Refractive errors
  - a. Ametropias and optical conditions related to contact lenses
  - b. Terminology and principles of optics related to contact lenses
3. Instrumentation for measurement and observation
  - a. Selecting and using appropriate instruments and tests for evaluation and modification procedures
  - b. Interpreting data collected through use of instruments, tests and evaluation procedures
4. Prefitting
  - a. Collecting and analyzing the data obtained by using instrumentation and diagnostic aids
  - b. Converting spectacle data into contact lens data including vertex compensation and spherical equivalent
  - c. Evaluating the relationship between the corneal readings and the refractive error to identify the possible need for specialty materials/designs
  - d. Selecting the optimum lens materials and designs
5. Diagnostic fitting
  - a. Selecting initial diagnostic lens
  - b. Identifying defects of contact lens material or design
  - c. Inserting, removing, manipulating, and caring for diagnostic contact lenses
  - d. Identifying the fitting characteristics and visual performance of the contact lens and refining lens parameters to obtain an optimal fit
  - e. Evaluation of patient subjective responses
6. Dispensing
  - a. Wearing schedules
  - b. Care systems
  - c. Patient handling
7. Follow-up
  - a. Subjective findings
  - b. Objective findings

- c. Assessment: Assessing or verifying patient's subjective responses and objective findings to determine if desired results have been attained
  - d. Plan: Establishing follow-up protocol
  - e. Identifying normal and abnormal symptoms
  - f. Maintaining patient records
8. Regulatory
- a. Administrative
  - b. Standards
  - c. Legal

## Resources

Benjamin, William J. and Irvin M. Borish, eds. *Borish's Clinical Refraction*. Philadelphia: W.B. Saunders, 1998.

---

CLRE Prep Team. *CLRE Secrets Study Guide: CLRE Exam Review for the Contact Lens Registry Examination*. Beaumont, TX: Mometrix Media LLC, 2013.

---

Contact Lens Society of America. *Contact Lens Manual Vol I*. 1st Edition. St. Paul, MN: Contact Lens Society of America, 2016.

---

Drake, Diane. *Contact Lens Review Book*. National Academy of Opticianry, 2020.

---

Efron, Nathan. *Contact Lens Practice*. 3rd Edition. Philadelphia, PA: Elsevier, 2017.

---

Stein, Harold A. et al. *The Ophthalmic Assistant: A Text for Allied and Associated Ophthalmic Personnel*. 10th Edition. Philadelphia, PA: Elsevier Mosby, 2017.

---

National Academy of Opticianry. *Beginning Your Life as a Contact Lens Technician*. Landover, MD: National Academy of Opticianry, 2014.

---

White, Paul, OD., (ed). *Contact Lens Solutions Summary*. Boston, MA: The New England College of Optometry, 2018. <https://www.clspectrum.com/CLASS>

## Resources Other

1. 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>) 2019.
2. <https://www.myalcon.com/tools-resources/patient-education/index.shtml> (<https://www.myalcon.com/tools-resources/patient-education/index.shtml/>)
3. Centers for Disease Control and Prevention. "Healthy Contact Lens Wear and Care." <https://www.cdc.gov/contactlenses/index.html> 2019.
4. Contact Lens Spectrum. <https://www.clspectrum.com/> Pentavision, Inc, 2019.
5. GP Lens Institute, The Educational Resource for Custom Manufactured Contact Lenses. <http://www.gpli.info/online-curriculum/> Contact Lens Manufacturers Association, 2020.
6. Khan Academy. <https://www.khanacademy.org/> 2019.
7. OptiBoard Forums. <http://www.optiboard.com/forums/> 2019
8. Quantum Optical. <http://www.quantumoptical.com/> 2019.
9. Review of Optometry. <https://www.reviewofoptometry.com/> Jobson Medical, Inc. 2019
10. <https://timroot.com/videos/>
11. <https://www.visioncareproducts.com/>

Top of page

Key: 3353