OCULAR ANATOMY & PHYSIOLOGY
Course Syllabus

Course Number: HLTH-0031
OHLAP Credit: No
OCAS Code: None
Course Length: 45 Hours
Career Cluster: Health Science
Career Pathway: Therapeutic Services
Career Major(s): Vision Care Technician, Vision Care Assistant

Pre-requisite(s): None
Course Description: In this course students will be presented an overview of the major body systems with emphasis placed on the interaction between these systems and ocular anatomy and physiology as well as incorporating basic medical terminology.

Textbooks:
The Ophthalmic Assistant 8th Ed. Harold A. Stein, Raymond M. Stein, Melvin I. Freeman 2006 Elsevier
The Ophthalmic Medical Assistant An independent study course. 4th Ed., Newmark (2006)

Course Objectives:
A. Demonstrate Knowledge of Ocular Surface Anatomy
   1. Identify the major landmarks of the ocular system surface anatomy.
   2. Describe the functions of these structures.
   3. Identify the muscles in this region.
   4. Describe blood supply to the surface structures.
B. Demonstrate Knowledge of the Anterior Segment
   1. Identify the composition and function of the tear film.
   2. Identify the five layers of the cornea.
   3. Describe the composition of each layer.
   4. Describe the function of the cornea.
   5. Identify the structures of the uveal tract.
   6. Describe functions of each structure.
   7. Describe the anterior chamber and its associated function.
   8. Identify the crystalline lens.
   9. Describe the composition and function of the lens.
  10. Describe the concept of intraocular pressure.
C. Demonstrate Knowledge of the Posterior Segment
   1. Identify the composition and function of the vitreous.
   2. Identify the structure and function of the retina.
   3. Identify the structure and function of the optic nerve.
   4. Identify the structure and function of the visual pathway.
   5. Identify the concept of accommodation.
   6. Describe the concept of color vision.
D. Demonstrate Knowledge of the Extraocular Muscles
   1. Identify the six extraocular muscles.
   2. Identify the primary action of each muscle.
3. Describe the concept of fixation.
4. Describe the coordination of both eyes teaming together.
5. Describe binocular vision.
6. Describe the visual field of the eyes.
7. Describe fusion.
8. Identify and describe types of eye movements.
9. Identify ocular alignment disorders.
10. Describe stereopsis and depth perception.

1 ODCTE Objective
All unmarked objectives are TTC instructor developed.

Teaching Methods: The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.

Grading Procedures: 1. Students are graded on theory and lab practice and performance.
2. Each course must be passed with seventy (70%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=50-59%.
4. Career Major grades established during coursework are a major criteria in successfully obtaining certification.

Description of Classroom, Laboratories, and Equipment: Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

Available Certifications/College Credit The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

College Credit Eligibility: The student must maintain a grade point average of 2.0 or better.