Catalog Entry:

EDSP 653 Medical and Educational Implications of Visual Impairments  
(3) credit hours

Co/Prerequisites: EDSP 650: Characteristics of Students with Visual Impairments

(Abbreviation: MED & EDUC IMPLIC VI)

Catalogue Description of course:

Provides an introduction to anatomy and physiology of the visual system and the educational implications of visual pathology. Topics include anatomy of the human eye, normal visual development, pathology of the eye, examination procedures for the identification of visual pathology, and the effects of pathology on visual learning and development.

A. Detailed Description of Content of Course

This course as described above will include the following topics:

- Anatomy and physiology:
  - structure and function of the eye
  - functional implications of eye conditions
  - medical implications of eye conditions
  - clinical assessment
  - interpretation of eye reports and use of terminology
  - principles of optics

- Assessment of low vision:
  - clinical (ophthalmologist, low vision clinical evaluation)
  - educational (informal/formal, vision screening, functional vision assessment, multidisciplinary approach)
  - role of optical aids in assessment process

- Development of visual system:
  - normal growth and development
  - theories of visual perception
  - effects of vision stimulation
  - effects of visual disorders on other areas of development

- Training and instruction:
  - instructional programs
  - accommodations and adaptations to learning environments
  - approaches to training near and distance vision
  - resources including curricula and materials
B. Detailed Description of Conduct of Course

Learning activities in this class will include the following:
1. Class lecture, discussion, and participation via synchronous face to face, web-conferences or videoconferences
2. Video and other relevant interactive media presentations
3. Study and independent research
4. Application activities, including regular assignments
5. Written responses to discussion questions posted on Blackboard
6. Hands-on lab for dissection of cow eye

C. Goals and Objectives of the Course

This course is part of the Virginia Department of Education approved licensure program in Visual Impairment and is offered through the Statewide Training Consortium in Visual Impairment.

Goals, objectives, and assignments in this class address NCATE Standard 1b Pedagogical Content Knowledge and Skills, 1c Professional and Pedagogical Knowledge and Skills, and Standard 1d Student Learning for Teacher Candidates. The following CEC and VDOE standard areas area also addressed:

- CEC Knowledge and Skill Base for All Entry-Level Special Education Teachers of Students with Visual Impairment (VI) Standard #2: Development and Characteristics of Learners
- Virginia Department of Education Teacher [VDOE]Licensure Standards
  - Professional studies requirements in Human Growth and Development
  - Visual Impairments PreK-12 requirements in Understanding of Anatomy, Physiology, and Diseases of the Eye and the Educational Implications

Upon successful completion of this course, the student will be able to:

1. Demonstrate knowledge of the properties of the human visual system:
   a. demonstrate knowledge of the structure, function, and typical development of the human visual system.
   b. demonstrate knowledge of basic terminology, manifestations, and educational implications of diseases and disorders of the visual system.
   c. demonstrate knowledge of the effects of medication(s) on the function(s) of the visual system.
   d. demonstrate knowledge of visual disorders and their impact on learning.

2. Demonstrate knowledge of the impact of visual impairments and deaf-blindness on development, formal and incidental learning experiences, and literacy:
   a. explain the characteristics of visual disorders to families and to other educational service providers.
   b. provide families and related service providers information regarding the needs of students with visual impairments in various areas of development.
c. recommend adaptations within instructional environments, to identify and accommodate individual sensory needs.
d. identify strategies to increase visual access and efficiency to and within learning environments as related to instruction in the use of print adaptations and optical and non-optical devices.

3. Interpret reports, assess visual conditions, and determine visual effectiveness:
   a. use specific assessments that measure functional vision.
   b. conduct, interpret and apply the results of formal and informal assessments of functional vision.
   c. interpret eye reports and other information related to visual impairments including low-vision evaluation reports for students with visual impairments, families, and educational and related service providers.
   d. use information from functional vision evaluations to develop recommendations for the student’s learning environment and educational materials.

D. Assessment measures

1. Participation in weekly online discussions.
2. Participation in at least three chat sessions with guest speakers.
3. Completion of weekly written assignments related to anatomy and physiology of the human eye.
4. A mid-term and/or final examination.
5. Complete of a series of 5-6 progressively more complicated case studies that demonstrate the student’s ability to interpret information, analyze functional abilities, and make recommendations for environmental and educational adaptations.

E. Other Course Information:

None