A. Catalog Entry
EDET/EDSP 454: Educational Technology for Diverse Populations
[Abbreviation: ED TECH DIVERSE POP]

Three (3) hours - combination lecture and demonstration/lab/web-based learning modules.

Prerequisites: EDSP 360 or EDSP 361, and 2.5 GPA

Course Description: Students will develop critical awareness of educational and assistive technologies that support students with disabilities, and other learners with diverse needs. The course begins with an overview of the latest research and evidence-based practice in educational technology applications for instruction. Participants will explore a wide range of these technology applications with a focus on assistive or adaptive technologies. The course focuses on the historical and legal mandates that guide the integration of assistive technologies into the educational programs of students with disabilities.

B. Detailed Description of Content of Course
Exploration of these technologies emphasizes their use as effective instructional tools that enhance, improve and support success of students with disabilities within the educational setting.
Specific technologies and topics include:
- Current technological trends shaping education
- The legal aspects of providing AT devices and services with public school settings
- Models for selection of AT devices and services
- Universal Design for Learning principles
- Development and evaluation of scaffolds that address technology-supported instructional technologies
- Identification of possible funding solutions for AT
- Exploration of The AT spectrum – from no to high tech solutions
- Exploration of AT categories such as technologies which address challenges arising from cognitive/learning needs, physical/sensory needs, communication/social needs, and multiple complex needs
- Applications and integration of educational and assistive technologies in order to support and improve student success

C. Detailed Description of Conduct of Course
This course utilizes a combination of web-based learning modules, lectures, and hands-on activities within a lab setting. This course stresses hands-on experience with a variety of assistive and adaptive tools and software.

D. Goals and Objectives of the Course
Goals, objectives, and assignments in this class address:
NCATE Standard 1c Professional and Pedagogical Knowledge and Skills
Virginia Department of Education Teacher [VDOE] Licensure standards in Professional Studies requirements in Curriculum and Instructional Procedures for Prek-12, special education, and secondary education and Early/primary prek-3 education, elementary education, prek-6, and middle education: Demonstrated proficiency in the use of educational technology for instruction.
The codes included below refer to the International Society for Technology in Education (ISTE) National Educational Technology Standards (NETS•T); Performance Indicators for Teachers and the Virginia Department of Education Technology Standards for Instructional Personnel (TSIPS); Code for Council for Exceptional Children [CEC] Standards: CC = Common Core, GC = General Curriculum, and Professional Technology Standards (CTE).

Upon completion of this course the student will demonstrate understanding of/ability to apply knowledge related to:

1. How technology can impact learning
   - Current technological trends shaping education (CTE1S2)
   - Universal design for learning
   - Cognitive science and research-based attributes of effective learning environments
   - Practical classroom realities of the integration of technology
   - Investigation of student characteristics, the collaborative role of educators, and strategies for differentiating instruction for students with learning disabilities within the general education environment
   - Facilitation of full participation and access to the general curriculum of individuals with disabilities by adaptations and assistive technology (CTE1K1)

2. Legal and Social Aspects of Assistive Technology
   - Philosophy and history of assistive and adaptive technology
   - Equity issues related to use of technology in the classroom & assistive technologies (CTE9K1)
   - Ethical practices and cultural/familial considerations in applying these technologies(CTE9K1)
   - Legal definition of AT devices and services (CTE9K1)
   - Legal requirements for implementation of assistive technology assessment and services in the IEP (CTE1S3) (CTE9S2)

3. Selecting and Evaluating AT
   - Processes that can be used by AT team members to plan, analyze, select, and assess AT devices and services for a student (CTE10K2)
   - Collaborative steps involved in planning and implementing assistive technology services (CTE10K1)
   - Identification of sources of and funding solutions for AT (CTE7K2) (PH4K2)

4. The Spectrum of AT Devices
   - Identify possible AT solutions along a continuum of options based on students’ cognitive, physical/sensory, and/or social/communication needs:
     - Identify technology tools for students with cognitive disabilities, ranging from no tech to high tech, in core content areas: Reading, Writing, Math
     - Identify technology tools for students with physical/sensory disabilities from no tech to high tech
     - Identify technology tools for students with multiple complex needs, as demonstrated by children with pervasive developmental disorders such as autism.
     - Identify augmentative communication tools for students with limited verbal communication (GC7S4)
5. Fitting AT Into My Instructional Program
   - Design student learning activities which incorporate AT that fosters equitable access and promotes enhances, improves the success of students with disabilities within the educational setting (CC7S9)
   - Utilize computer based instructional tools to develop classroom materials (CC7K4)
   - Evaluate computer software and applications for their potential application for use with students with disabilities (GC7S4)

E. Assessment Measures
   The students are specifically assessed on the following items:
   1. Class participation (real and online) & professional behavior
   2. Completion of web-based learning modules
   3. Class presentations
   4. Observation of assistive technology evaluation and service delivery
   5. In collaboration with a team of students, development of assistive technology plan for case study student.

F. Other information
   None