A. Course Number and Title
EDU 700 Educational and Assistive Technology

B. Number of Credits
Three (3) credit hours

C. Course Description
This course provides an overview of ways technology can be used to facilitate the education of learners with disabilities. It also offers advance study of various technological devices that assist individuals with disabilities in performing functional tasks and achieving independence. The course emphasizes the integration of assistive technology into the home, community, school, and workplace. The course also provides opportunities in the use of software such as word processing, database management, graphics, and electronic spreadsheet to enhance the personal productivity of special educators.

D. Method of Teaching
This course is framed within a constructivist perspective that embraces the belief that knowledge is socially constructed. Learning is viewed as a developmental process that is enhanced when students learn to view problems and issues from multiple perspectives, constructing knowledge from their own interpretations of numerous pieces of evidence. Teaching approaches are directed toward open-ended inquiry, critical thinking and reflection, and social interaction. Instructional methods will include whole class and small group discussion, individual and cooperative activities, presentations by instructors and classmates, internet and library searches, observations of instructional videos, field experiences, and research.

E. Course Objectives
Practicing teachers will:
1. describe terms, concepts, and trends in the use of technology in special education programs;
2. identify and use microcomputer hardware, peripherals, and operating systems;
3. evaluate and select microcomputer software for its potential usefulness in special education programs;
4. use terminology related to computers and technology appropriately in written and verbal communication;
5. apply research-based instructional strategies that use computer and other technology;
6. discuss the potential of robotics, virtual reality, expert systems, and artificial intelligence for special education;
7. describe a trans-disciplinary team approach for identifying, obtaining, and implementing assistive technology;
8. identify and use a variety of assistive technology devices and provide examples of their functional applications for persons with cognitive, motor, and/or sensory impairments;
9. use an electronic database to access information about assistive technology;
10. demonstrate basic installation, troubleshooting, care, and maintenance of selected assistive
technology devices;
11. practice ethical and legal use of computers and technology in professional activities; and
12. facilitate the lifelong learning of self and others through the use of technology.

F. Outline of Course Content
Use of Technology in Teaching & Learning
  Concepts & Terms
  Operating Systems
Technology Integration: Instructional Design
  Stages of Learning
Types of Instructional Software
  Exploratory
  Drill and Practice
  Problem Solving
  Simulations
  Multimedia
Curriculum Applications
  Technology Assisted Writing
  Reading & Spelling
  Grammar and Punctuation
  Math, Science and Social Studies
  Cognitive Skill Development
  Productivity Tools
  Word Processing
  Database
  Graphics
  Spreadsheets
  Research Tools
  Telecommunications
Classroom Utilities
  Assistive Technology
  Hyper ABLEDATA, ABLEDATA, & ADLS Database
Low Tech Adaptations
  Assistive Technology for Seating, Positioning, & Mobility
  Assistive Technology for Transportation & Vehicles
Augmentative and Alternative Communication
  Sensory Aids for Visual Impairments
  Sensory Aids for Hearing Impairments
  Environmental Accommodations
  Environmental Controls.
Issues in the Use of Technology
  Technology in the IEP
G. Course Requirements

Required Textbooks
Students need to purchase a one year subscription to *Closing the Gap Solutions*. Students may register at: [http://www.closingthegap.com/](http://www.closingthegap.com/) for $50.00. There will be a site orientation during the first class.

There will be several assignments due in the class. They are designed to increase students’ knowledge and skills in Assistive and Instructional Technology.

1. **Assistive Device Presentation (40% of grade)**
   Borrow an Assistive Technology Device from your local technology center. Learn how to use the device and become an expert at it. Present the device to the class, highlighting its features, advantages and disadvantages.

2. **Conduct an Electronic Database Search (20% of grade)**
   Familiarize yourself with Hyper ABLEDATA or ADLS database. Describe one fictitious person with a disability who is unable to perform one or more functions. Based on this fictitious individual’s needs, search each database for potential assistive devices that address his/her needs. Print out the results of your search and share them with class members.

3. **Case Study (40% of grade)**
   Interview a school media specialist and a special education teacher and describe the assistive and educational technology available in the school district. Explain how this technology is utilized and what changes might be made to improve the use of technology in the district.

**Attendance:**
Attendance is considered an indicator of professional commitment and responsibility. Candidates are expected to attend all classes. Absences are permitted only for illness or serious personal matters. Excessive absences may jeopardize a student’s course grade. A phone call, e-mail message, or not delivered to the instructor is required if you expect to miss a class.
**Student Disclosure:**
Candidates in this class with disabilities who may need additional academic accommodations are encouraged to discuss options with the professor during the first two weeks of class to ensure that appropriate modifications are made. Candidates needing additional accommodations should also have their records on file with the Office of Academic Support/Disability Services.

**Academic Integrity:**
“The integrity of an academic community necessitates the full and correct citation of ideas, methodologies, and research findings to the appropriate source. This is necessary to protect the original work, whether it is found in reference material, other published matter, or unpublished communication from faculty, other scholars, and fellow students. In addition, each student can promote academic honesty by protecting his or her work from inappropriate use. Academic honesty is essential to ensure the validity of the grading system and to maintain a high standard of academic excellence.” Cheating, plagiarism, or other acts of academic dishonesty will not be tolerated in this class. Candidates are strongly advised to appropriately cite references using APA formatting, including those taken from the internet.

Please refer to the information on Academic Integrity listed in the University Catalogue and online, for complete information regarding this policy.