DEPARTMENT OF REHABILITATION AND DISABILITY STUDIES

REHB 575: Applications of Assistive Technology in Vocational Rehabilitation

Catalog Description

This Internet-based course reviews the applications of assistive technology as applied to the needs of individuals with disabilities. The course covers various types of assistive technology (AT) including: computer access, augmentative communication, electronic devices for activities of daily living, wheelchairs and seating, and vehicle modifications. The course includes the application of clinically-based strategies for determining an individual's need for and acceptance of assistive technology to improve functional outcomes.

Prerequisites

Coursework or experience in the following: Foundations of Vocational Rehabilitation Practice and Medical Aspects of Disabilities. Permission of Instructor (after determining the adequacy of the student's computer resources).

Instructor

Dr. Frank D. Puckett, CRC, ATP Coordinator of Distance Education Office: Room 248, Blanks Hall Office: Phones: 771-0046 (Office), 771-2293 (Fax) Email: frank_puckett@subr.edu

Conceptual Framework

The field of vocational rehabilitation has been significantly altered by the 1998 Amendments to the Rehabilitation Act. These alterations include an expanded emphasis on the role of assistive technology throughout the rehabilitation process. This course will provide an opportunity for students to gain skills in the application of assistive technology resources to address the individual needs of persons with disabilities.

Instructional Strategies

Instructional methods will include web-lecture materials and materials prepared by AT clinicians and other experts. Students will also gain experience in searching web resources for information on assistive technology.

<u>Online Class Discussions</u>: Live, Internet class discussions will be scheduled during the course. Each online discussion will focus on specific instructional lessons. Course

instructors as well as other clinical experts in AT will lead the online discussions. Each student is expected to devote time to reviewing and researching information related to the discussion topics.

Student Learning Outcomes:

Upon completion of the course, students will be able to:

1. Apply a conceptual framework for the application of assistive technology to meet the needs of individuals with disabilities.

2. Prepare an appropriate intervention strategy for individuals with disabilities using specific clinical information on the functional aspects of disability and applying this knowledge to determine appropriate assistive technology devices. (Case Study Group Assignment)

3. Analyze and describe AT assessment strategies which are used by clinicians, such as occupational therapists, physical therapists, speech pathologists and rehabilitation engineers.

4. Describe the rehabilitation counselor's role in serving on the AT assessment team and demonstrate the ability to apply an assistive technology clinical protocol to evaluate an individual's need for and acceptance of specific types of assistive technology.

5. Utilize the world-wide web and other resources (to include the RESNA Conference) to locate information on current assistive technology products and services for specific disabilities, such as cerebral palsy, spinal cord injury, sensory impairment, and traumatic brain injury.

Empirical Basis and Rationale

This course is designed to provide rehabilitation counseling students with an overview of assistive technology to increase their knowledge of the vital role AT can play in achieving vocational rehabilitation outcomes. It is important for rehabilitation counselors to recognize their role as consumers of AT services as they plan and procure assistive technologies for their rehabilitation services consumers (clients). This course is also responsive to pending new accreditation standards by the Council on Rehabilitation Education, which increases the expected knowledge and skills in assistive technology for student graduates in rehabilitation counseling.

Course Resources (Print Media)

Textbook:

Cook, A., & Polgar, J. (2008). Cook & Hussey's Assistive technologies: Principles and

practice (3rd ed.). St. Louis, MO: Mosby/Elsevier. ISBN 978-0-323-03907-9.

Course Requirements

- 1. Students will read web-lecture material and other print documents on assistive technology services and devices. This information will be used to develop a case study describing AT recommendations for a specific consumer.
- 2. Students will select a topic on assistive technology approved by the Instructor and prepare a report based on information gained at the RESNA Conference and/or other online resources. Report will be 8-10 pages and include journal and web references.
- 3. Students will participate in web-based, online, class discussions, hosted by the Instructor, which will synthesize the material studied for each instructional unit and present clinical problems/issues in the provision of AT services and devices.
- 4. Students will interact with various AT clinical experts and discuss current approaches to matching appropriate technology for individuals with disabilities. This will be achieved at the RESNA Conference or by locating AT Vendors in one's local area.
- 5. Students will interview consumers and complete a clinical report which identifies the person's need for various types of technologies. Each report will include a description of an appropriate strategy to address these needs for AT, including training on the AT.

Class participation is a critical component of this class. Class grade points will be assigned for participation in the online discussion sessions.

Short course examinations will be scheduled during the course. These examinations will be taken online and submitted through the course web page.

Accommodations for Students with Disabilities

The Office of Students with Disabilities located in Room 239 Blanks Hall. Please contact Ms. Patricia Hebert, Director for accommodation needs; Phone: 771-3950; Fax: 771-2959; and email: <u>patricia hebert@subr.edu</u>.

LiveText Subscription

Southern University and A&M College-Baton Rouge has entered into partnership with LiveText, Inc. to provide online academic resources for student collaboration and learning outcomes assessment. Therefore, all students enrolled in this course are required to purchase a subscription from LiveText, Inc. through the Southern University Bookstore. LiveText, Inc. provides students with the electronic tools and services needed to serve them in their courses and in their career or academic pursuits beyond graduation.

LiveText is a dynamic tool that will enable you to:

- Create Electronic Portfolios for storing and displaying coursework for use anytime and anyplace;
- Share your résumés, professional portfolios and virtually any projects that can be photographed, video recorded, and uploaded to prospective employers and others who need or want to know about your accomplishments;
- Engage in discussion boards with other students, exchange feedback, and create study groups and other types of social networks.
- Complete assignments in key/required courses where LiveText has been embedded (without LiveText, you will not be able to complete these assignments).
- Create a complete record of your academic career that is malleable and easily accessible.
- Engage in developing a results driven culture of assessment at Southern University.
- Participate in a process that will allow for data-driven curricular improvements that foster improved student learning and performance.

Brief Course Schedule: List of Instructional Activities

Week 1 Activities

Online session reviewing the course requirements and describing the course web pages.

Live, Internet session to introduce the Internet classroom software - Wimba Check-in with all students to confirm their email addresses and readiness to begin the course.

Week 2 Activities (Cancelled due to time conflict in Puerto Rico)

Week 3 Activities

Introduction to Assistive Technology (AT) Definition of terms in AT practice Current U.S. public policy on the applications of AT The counselor's role in AT services Instructions for students attending the RESNA conference

Assignments:

Reading Assignment: Chapters 1, 2 and 3. Online Quiz 1, June 17th. Live, Internet Class Discussion Session. Room = Rehabilitation 2, June 17th. Review Course Assignments: Requirements for Group Case Study Assignment.

Week 4 Activities

Reading Assignment: Chapters 6-9. Online Quiz 2, June 24^{th} .

Review Course Assignments: Each student selects a topic for the 8-10 page written report on AT (RESNA paper or otherwise) RESNA topics include: Wheelchairs and Seating Systems. Computer Access Technologies Environmental and other Control Technologies Augmentative Communication Sensory Aids for Persons with Visual Impairment Sensory Aids for Persons with Hearing Impairment Aids for Persons with Cognitive Impairments.

Final Decision on the RESNA topics can be made once you receive your full conference program at the RESNA conference. Prepare a written report on

observations and information gained at the RESNA Conference, to include supplemental web and electronic sources. Additional Notes: Read Chapter 4 before the trip to RESNA Students not attending RESNA will forward their paper topics to me directly for review and feedback.

Week 5 Activities

Class cancelled due to return trip from RESNA

Week 6 Activities

Reading Assignments: Chapters 10 - 14. Online Quiz 3, July 8th .Case Study Report is due on July 11th.

Week 7 Activities

Jobsite modifications for individuals with disabilities. Reading Assignment, Chapter 16. <u>AT Topic papers is due on July 18th</u>.

Week 8 Activities (July 22nd.)

Final Examination (Optional, bonus points, as applicable)

Evaluation of Students

Course Quizzes on Reading Assignments = 60 Points, (3 exams) Class Participation = 30 Points. Six online class sessions, 5 pts each. Case Study Presentation = 50 points AT Topic Paper, 60 points. Final Examination = Up to 10 bonus points for graduate students.

Grading

The grading scale is: 180 - 200 points = A 160 - 179 points = B 140 - 159 points = C Below 140 = F