

**Applications of Rehabilitation Technology**  
**San Diego State University**

**Format: Web-Based Course**

**Course Dates: March 29 - June 16, 2004**

**Instructor: Dr. Caren Sax email: [csax@mail.sdsu.edu](mailto:csax@mail.sdsu.edu)**

If you are interested in taking the course contact the instructor or Melody Beltran at [melodyb@interwork.sdsu.edu](mailto:melodyb@interwork.sdsu.edu)

**Course Description**

The purpose of this class is to equip rehabilitation professionals with the knowledge and skills to:

- 1) help an individual with disabilities assess his or her potential need for assistive technology;
- 2) to assist in matching those needs with appropriate recommendations for adaptations, equipment, and/or services to expand vocational opportunities; and
- 3) to access information about assistive technology resources appropriate for work, home, and other community environments.

Class participants will have access to AT experts in order to brainstorm ideas for modifications and adaptations. Students will complete individual or group projects in which they must first identify an individual who may benefit from assistive technology, and then make recommendations based on a person centered assessment. Students will be responsible for collaborating with professionals and families (or significant others) as part of a Tech Team in order to complete this process.

Course content will include background information on assistive technology research and legislation, examples of assistive technology equipment and services, person centered assessment and planning strategies, and sources for assistive technology.

**Objectives of the Course:**

- \* To become knowledgeable and skilled about the application of assistive technologies;
- \* To develop competencies in conducting person centered assessments in order to identify potential assistive technology applications;
- \* To apply the use of assistive technology to enhance vocational opportunities, to improve performance in vocational settings, and to familiarize employers and other community members with universal design, reasonable accommodations, and other accessibility issues;
- \* To become familiar with the following areas of assistive

technology applications:

- \* adaptations for daily living (ADL's)
- \* augmentative/alternative communication
- \* alternative computer access
- \* environmental control units
- \* ergonomics
- \* universal design
- \* mobility & transportation
- \* recreational devices
- \* seating & positioning, switch use
- \* To research available assistive technologies using the World Wide Web, professional listservs, books, journals, periodicals, as well as information acquired through assistive technology suppliers;
- \* To collaborate with other professionals (e.g., OT/PT, Speech/Language professionals, rehabilitation engineers) in conducting person centered assessments and to become familiar with community resources that may provide access to technical expertise;
- \* To increase awareness and understanding about the most current and significant issues impacting the access and use of assistive technologies, including legislation, funding, advocacy, and family involvement;
- \* To help organize and participate on a transdisciplinary Tech Team to identify an individual's specific assistive technology needs and provide appropriate recommendations to meet those needs.

## **CORE Educational Outcomes**

E.2.5 Facilitate an individual's independent decision-making and personal responsibility.

E.3.2 Integrate cultural, social, economic, disability-related, and environmental factors in planning.

E.3.3 Plan a comprehensive individual assessment (e.g., personality, interest, interpersonal skills, intelligence, and related functional capabilities, educational achievements, work experiences, vocational aptitudes, personal and social adjustment, transferrable skills, and employment opportunities).

E.3.12 Identify and plan for the appropriate use of assistive technology including computer-related resources.

E.5.10 Assess an individual's need for rehabilitation engineering/technology services throughout the rehabilitation process.

E.6.4 Modify and restructure jobs and use assistive devices, where appropriate.

E.6.5 Consult with experts to increase the functioning of individuals.

E.6.6 Educate prospective employers about the benefits of hiring persons with disabilities including providing technical assistance with regard to reasonable accommodations in conformance with disability-related legislation.

E.6.7 Assist employers to identify, modify, and/or eliminate architectural, procedural, and/or attitudinal barriers.

### **Texts and Materials**

Text and Materials:

1. Scherer, M. J. (2000 - 2nd printing). Living in the state of stuck (3rd ed.). Cambridge, MA: Brookline Books.
2. Scherer, M. J. (1998). Matching Person and Technology (MPT) Model Manual and Accompanying Assessment Instruments, Third Edition. Webster, NY: The Institute for Matching Person & Technology.

Videos:

1. Introduction to Applications of Rehabilitation Technology, with Caren Sax and Michelle Warn
2. Meet Marcia Scherer: Overview of Living in the State of Stuck and MPT Survey
3. Matching Person and Technology - An Interview with Marcia Scherer

1. Video Set (Set of 3)

1. Tech Connections Satellite Broadcast: Accessibility in the Workplace

2. Nobody's Burning Wheelchairs

Enable: People with Disabilities and Computers

Tech Connections Satellite Broadcast: Accessibility in the Workplace

This video provides a wealth of information on office and computer-related jobs. Produced by Tech Connections (link to <http://www.techconnections.org>), the AT experts offer job market opportunities in a number of fields: banking and sales, travel industry, medical field, informational technology, and other professional positions. Within each of these areas, examples are provided about specific jobs and job tasks and a wide range of assistive technology that can help individuals perform those activities. Case studies are included that highlight low tech and high tech accommodations for individuals with physical, sensory, and cognitive disabilities.

Additional information about consumer-based approaches, employer perspectives, and funding is included.

Nobody's Burning Wheelchairs

Geared toward employers and produced by Easter Seals, this video describes ways in which assistive technology can help businesses hire and reasonably accommodate individuals with disabilities. Stories about people in a variety of job settings are shared and related specifically to requirements in the ADA.

Enable: People with Disabilities and Computers

Produced by Microsoft (link to <http://www.microsoft.com/enable/>), this video begins with a number of discussions by individuals who use assistive technology and how they have integrated it into their lives. The stories featured include a

variety of ways to use the computer through accessibility features that are now considered standard as well as through assistive technology hardware and software. Rather than being assigned specific chapters for each week, please begin reading the entire book as soon as possible. Many of the stories in the book will be helpful for you as you identify your focus individual and also as you begin the Tech Team process. The background for the development of the Matching Person and Technology (MPT) assessment approach is provided in the book as well as examples of how to interpret the information that you learn when implementing the MPT. You'll learn how to consider incentives and disincentives for individuals using assistive technology by reading about the experiences of others