

**EDMX: 632 Wednesdays 6:00 p.m. – 8:45 p.m.**  
**Technology and Communication**  
**For Special Populations**  
Spring Semester, 2003, UH 271

**PROFESSORS:**

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**College of Education Mission Statement:**

**The mission of the College of Education Community is to transform public education by preparing thoughtful educators and advancing professional practice. We are committed to the democratic principles of educational equity and social justice for all learners, exemplified through reflective teaching learning and service. We value diversity, collaboration, professionalism and shared governance.**

**CATALOG DESCRIPTION:**

Terms, trends, history, and current information bases on applications of technology and assistive and adaptive devices for working with children. Use of technologies for learners with mild, moderate, and severe disabilities for education programs in schools and agencies. Identification of interventions for effective learner communication and needed augmentative communication devices. Knowledge of system components and configuration of special and adaptive devices. Competency-based, requiring laboratory work. *Prerequisite: EDUC 500 or equivalent*

**COURSE DESCRIPTION:**

Participants study and use technologies with learners with mild, moderate, and severe disabilities for education programs and agencies. Competencies developed are in ability to use computer-based technologies and system components and to configure special and adaptive devices. Information is presented on terms, trends, history, and current information bases, applications of technology and assistive and adaptive devices for work with children. This course is competency-based and require laboratory work in addition to lecture and practice during scheduled class time.

**Prerequisites:** Admission to the Preliminary Level I Mild/Moderate & Moderate/Severe Disabilities Education Specialist Program with or without Multiple Subjects/BCLAD. Successful completion of EDUC 500 or equivalent. Demonstration of a basic understanding and practical use of representative programs for instruction and teacher productivity including word processing, data bases, spread sheets, graphics, telecommunications, networking, and multi-media presentations is absolutely required.

**Readings/Materials Required:**

Alliance for Technology Access; (2000). *Computer and web resources for people with disabilities, (third edition)*. Hunter House Publishers, Alameda, CA. ISBN # 0-89793-300-1.

Maltby, Parsons, Tate, (2003). EDMX 632: *Technology and communication for special populations*. Bound Reader, available at CSUSM Book Store.

- **Readings as assigned and researched on the internet, daily news, and professional journals.**
- **Class handouts (bring all handouts with you to class)**
- **Manuals to equipment and software (provided, to be used in class)**

**Supplies Required:**

CD-RW or zip disk. You MUST have these to save lab work done in class.

University print card. You will be required to submit hard print copies of lab assignments printed in the lab. This is a requirement.

One 4" X 6" photo album to use in the Mouse House lab.

We suggest you get together in teams to gather or purchase these materials to share.

- Velcro tabs or strips
- Glue sticks (small or large)
- Hot glue gun (bring to share, not required to purchase)
- 3 soft sponges
- ¼ yard of felt
- Double-sided foam tape (small amount)
- Scissors

**COURSE OBJECTIVES:**

Upon completion of this course, students will have acquired the knowledge and skills to:

1. Identify for selection and use various resource agencies at national, state, and local levels for improving the use of technology in the classroom to effect needed modification and adaptation of the learning environment for large and small group instruction.
2. Evaluate microcomputer software and other technological media for its potential usefulness including possible adaptations and modification to the educational environment and/or devices for improving education programs.
3. Plan for the practical application for instructional use of computers; select, evaluate, and use educational hardware and software, and design classrooms for the use of computer assisted instruction for various groups of learners.
4. Be familiar with and be able to utilize telecommunication and utility programs to access information bases in general and special education and adaptive technologies.
5. Plan the use of technology that can be used to assist/enable persons with physical disabilities in approaching the learning process and environment.
6. Explain how to evaluate the effectiveness of technology applications and devices in special education program and for individual learners in the schools.

7. Acquire skills in the use of (administration, scoring, and interpretation) formal measures. using Compuscore software programs.
8. Acquire skill in designing and managing education environment for a diverse group of learners in the through use of technology in the classroom
9. Acquire skills in adapting curriculum and instruction for students with mild, moderate, and severe disabilities through use of technology and communications.
10. Applying knowledge base in family systems and collaboration with parents in designing curriculum, IEPs and ITPs and classroom management plans using appropriate specialized software programs.
11. General information and practical application of various specialized assistive and adaptive devices useful for mobility, motor and sensory functioning including resources, repairs, and updating devises.
12. Demonstrate skills in sharing information with parents, children, and support staff about the use of assistive and adaptive devices for sensory, movement and mobility.
13. Acquire competencies in configuring and using adaptive devices including
  - IntelliKeys™,
  - switch access and switch interface,
  - overview of other hardware including
    - Key Largo™ alternative keyboard,
    - TASH™ mini keyboard,
14. Acquire competencies in using specialized software such as:
  - Overlay Maker©: standard and custom overlays for social interaction and communications skills,
  - Write out Loud© (Speaking word processing program),
  - Co-Writer©: (Word prediction program for individuals with oral and written language disabilities (Ke:nx setups, alternative keyboards).

## **ADMINISTRATIVE REQUIREMENTS OF STUDENTS**

**COE ATTENDANCE POLICY:** A good student is one who adheres to standards of dependability and promptness. This course is comprised of 16 class sessions across a 16-week period. Students who miss three or more of the 16 class sessions of this course; or who are late for, or leave early from three or more sessions of this 16 class session course, will be unable to receive a passing grade for this course (C+ or better).

**ASSIGNMENT POLICY:** Each assignment is due on the date indicated on the syllabus. Students are required to keep a copy of all work (including lab assignments requiring papers and responses) in case any work becomes lost. Burden of proof of assignment completion is upon the student. Late assignments will be penalized.

**MISSED LABS:** Students may (with consent of the professor) make up the lab work and submit the lab sheet. However, less than full points will be awarded as the student has missed the professor's instruction and supervised in-class group work with peers. No labs will be accepted later than two weeks after the class session in which the information was covered.

**Note:** If you have extraordinary circumstances in your life which will impact upon your attendance or assignments, please let us know. If you have any questions or concerns, please contact the instructor.

Plagiarism of any type will result in a failing grade. Students making unauthorized copies of copyrighted microcomputer software will receive a failing grade.

**All proof of work accomplished is the responsibility of the student.**

It is strongly advised that students keep up with the assignments from week to week.

### **LAB ETIQUETTE:**

**ABSOLUTELY NOT FOOD, DRINK, WATER, ETC. IN THE LAB AT ANY TIME!!!!** Students with food or drink in the lab will be **penalized participation and lab points**. Thank You.

A collaborative professional considers his/her colleagues at all times. Much of the adaptive and assistive devices must be shared. Be sure to have each member of the group have hands-on with the devices and software in order to complete lab work.

Much work for this course is collaborative. In real life, all team members must collaborate and participate in order to accomplish any completed project. Team members are expected to be considerate and group minded in scheduling working sessions to complete course assignments.

Please wash your hands before using any adaptive equipment, the keyboard membranes and switches are very sensitive. Also, do not write on top of the keyboard membranes.

**Note: the one principle of adaptive tech:** if it is going to malfunction, it will do so when you are in front of a group! Please be patient!

### **PROFESSIONAL AND ADMINISTRATIVE REQUIREMENTS**

1. Attend all class sessions. Please call the instructor when you are unable to attend class or if you must be late. It is the policy of the CSUSM College of Education that any student who misses 20% or more of class time, field experiences, or class sessions may not receive a passing grade for the course.
2. Use "Person-first" language (e.g., "Student with Down Syndrome" rather than "Down Syndrome student") must be used throughout all written and oral assignments and discussions.
3. Word-process all written documents. **Keep a copy of all of your work.** Proof of completion of all assignments is the responsibility of the student. Keep these records until you have received your grade. Also, you will want these copies for your records and for potential future use as professional portfolio entries.

4. Complete and hand in all assignments on the due dates for full credit. If you have extraordinary circumstances that impact completion of your assignments, please inform the instructor(s). Any time that you have questions or concerns, please contact the instructor(s) immediately.
5. Participate in class discussions and group activities and demonstrate positive interpersonal skills with classmates and guests. Participation points are assigned on the basis of participation, collegiality, collaborative effort, and professionalism in interactions with fellow students and the instructors and guest lecturers.
6. Responsibility for obtaining handouts is that of the student. If you are to miss class, be sure to select a class "buddy" to ensure that you receive handouts and information when you must miss class. You may wish to have the following:  
Buddy: Telephone, e-mail address, Fax number.

### **SCHOLASTIC REQUIREMENTS**

**Please note the College of Education Attendance policy stated on the third page of this syllabus.** The CSUSM College of Education, which has an attendance policy that mandates a minimum attendance of 80% of class sessions, requires these guidelines. Please inform your instructors in advance of any extenuating attendance circumstances.

#### **Participation (5 point maximum/class 5 X 16 classes = 80 points maximum)**

Regular, punctual attendance is critical and expected in the teaching profession. Because this class is participatory in nature, the experiences and discussions are difficult to recreate. Additionally, it is important that each class member have the opportunity to exhibit collaborative teaming and participatory behavior. To reinforce our commitment to developing interpersonal skills, students are expected to arrive on time; return from break on time; stay for all of the class; and fully participate and cooperate with classmates, instructors, and guests. A class participant who arrives late, departs early, or engages a "non-collaborative" behavior will receive less than the maximum **five** points for that given class

### **ACADEMIC REQUIREMENTS**

#### **ASSIGNMENTS AND POINTS FOR MEETING COURSE OBJECTIVES:**

Lab Assignments (10 points each)	60	(be sure to turn in your lab sheet for lab points)
Collaboration/Participation	80	(be sure to sign in each class session)
Customized Overlay and presentation	50	(Pairs)
SWERL Assignment (individual)	95	(submits complete SWERL with paper)
Website Review	50	
Reading Reflections (20 points each)	100	(Activities will be provided)
Vendor Research Paper and Presentation	100	

**TOTAL POINTS: 535**

**Lab Assignments:** (6 sessions @ 10 points each = 60 points)

There is an in-class application lab assignment for each class meeting. Be sure to turn in your lab sheet. The following are examples of labs for class, you will be given an individual lab sheet to turn in the night the lab is done in class.

**Examples of Labs:**

Switch Software Lab  
Software Evaluation Lab  
Mouse House/Page Fluffers  
Isolation Mitt  
Inspiration Lab  
Low Tech Device Lab

**Collaboration/Participation (16 sessions @ 5 points each = 80 points)**

be sure to read both the attendance and missed labs policies stated above under administrative requirements.

**Criteria for Grading Participation:**

Participation points will be assigned on the following criteria: collaborative cooperation in all labs, classes, and group assignments; enthusiasm for the content and activities; respect for the speakers; patience and flexibility with the materials, assignments and technology; appropriate use of the lab, hardware and software. Respect for the lab environment and equipment, e.g. absolutely no food or drink in the lab, store all equipment and clean up lab before leaving class.

**Presentation of Software and Customized Overlay (Pairs, 50 points)**

Pair's evaluation and presentation of a software program, with Custom Overlay for interface. Format included in bound reader.

**SWERL paper and presentation of SWERL (Individual, 95 points)**

Students will use the SWERL and complete the student evaluation and software analysis. These will be shared in class through a group process.

**Website Review (Individual, 50 points)** Each student will be required to review a web site using a review rubric provided in class, and to submit a paper based upon this review. (Format for this paper will be provided in class).

**Reading Reflections: (Individual, five @ 20 each = 100 points total)**

Reading reflections will be based on text readings. Formats/prompts will be provided in class.

**Vendor/Product Review Research Paper (Individual, 100 points)**

Students will select and sign up for an area of AT to research and then find five vendors who sell products that support that area of interest. Students will request 32 catalogs from the vendors to share with class along with one/two page summary of your findings. Before contacting vendors, students will need to sign up on the Vendor Contact sheet in class as you may not duplicate vendors within the class.

\* it is recommended that you sign an area of research and begin early in order to receive materials needed for this assignment in a timely manner.

## CALCULATION OF COURSE GRADE

Points will be totaled for all assignments and percentages will be calculated. Grades are then computed according to the following

### GRADING SCALE: (represents percentages of total points)

A	93-100	A-	90-92
B+	87-89	B	83-86
B-	80-82	C+	77-79
C	74-76	C-	70-73

### Criteria for Course Grading: (CSUSM General Catalog for 1996-97, page G-3)

A (Excellent): Performance of the student has been at the highest level, showing sustained excellence in meeting all course requirements and exhibiting an unusual degree of intellectual initiative.

B(Good): Performance of the student has been at a high level, showing consistent and effective achievement in meeting course requirements.

C (Satisfactory): Performance of the student has been at an adequate level, meeting the basic requirements of the course.

**NOTE: The minimum acceptable grade for courses in the professional education sequence is C+, but a B average must be maintained.**

D (Passing): Performance of the student has been less than adequate, meeting only the minimum course requirements.

F (Failing): Performance has been such that minimal course requirements have not been met.

### Suggested References and Readings:

Male, M. (1997). Technology for inclusion: Meeting the special needs of all students (3rd ed.). Boston: Allyn and Bacon.

Roblyer, M.; Edwards, J.; & Havriluk, M. (1997). Integrating Educational Technology into Teaching. Columbus, OH: Merrill.

Scherer, M. (1993). Living in the state of stuck: How technology impacts the lives of people with disabilities. Cambridge, MA: Brookline Books

Norman, D. (1993). Things that make us smart: Defending human attributes in the age of the machine. Reading, MA: Addison-Wesley.

**CTC Level 1 Standards And Levels Of Competence:**

The following table indicates the CTC Level I standards and level of competence addressed by EDMX 632 and the level (i.e., knowledge, application) at which each standard is demonstrated.

**Table of CTC Level I Standards and Levels of Competence**

M/M/S	M/M/S	M/M/S	M/M/S	M/M/S	M/M/S	M/M/S	M/M/S	M/M/S	M/M/S
10	12	15	17	22	23	24	25	26	27
K/A	K/A	K/A	K/A	K/A	K/A	A	K/A	K/A	K/A

Key to Table Standards and Areas of Certification:

- 10 Professional, legal and ethical practices
- 12 Educating diverse learners with disabilities
- 15 Managing learning environments
- 17 Assessment, curriculum, and instruction
- 22 Assessment and evaluation of students
- 23 Planning and implementing curriculum and instruction
- 24 Positive behavior support
- 25M/M Characteristics and needs of individuals with mild to moderate disabilities
- 26 Curriculum
- 27 Movement, mobility, sensory and specialized health care
- M/M/S** = Common Mild/ Moderate and Moderate/Severe Education Specialist Competency
- M/M=** = Mild/Moderate Education Specialist Competency
- M/S** = Moderate/Severe Education Specialist Competency
- K** = Competence at **knowledge** level
- A** = Competence at **application** level



**EDMX: 632 COURSE SCHEDULE**  
**Spring Semester, 2003 Wednesday Evenings**

#	Date	Reading	Topics	Labs/Materials/Due Today
1	1/22	Get Book	Course Overview Introduction to Assistive Tech. Microcomputer Hardware and Peripherals	Tech history, survey, self- evaluation
2	1/29	Pg. 8-26	Computer Basics & Ethics Review SWERL & Vendor Research Project	Lab #1 - AT Websites
3	2/5	Pg. 27-42	IntelliTools: IntelliKeys Standard Overlays	<i>Reading Activity #1</i> Print Basic Overlay
4	2/12	Pg. 43-62	IntelliTools: Overlay Maker Custom Overlays (and printing)	<i>Reading Activity #2</i> <i>Website Evaluation (R.4)</i> Lab #2 - Overlay Maker
5	2/19	Pg. 74-81	Physical Adaptations (Low Tech) Continue Custom Overlays	Physical Adaptation Activity and web search
6	2/26	Pg. 173-209	Alternate Input and Access	<i>Bring materials for "No Tech/Low Tech" activities (back of reader)</i> Lab #4 - Low Tech/No Tech
7	3/05	Pg. 228-245	Alternate Output Presentation of overlay & software	<i>Reading Activity #3</i> <i>Overlay and Software</i>
8	3/12	Pg. 246-262	Specialized Products SWERL	Specialized Products Activity
9	3/19		Augmentative & Alternative Communication	Lab #5 - Boardmaker
10	3/26	Pg.63-74	Laws and Assessment	Reading Activity #4
---	<b>4/2</b>	-----	<b>Spring Break</b>	-----
11	4/9	Pg. 210-227	Processing Aids and Computers SWERL Activity (Questions?)	Reading Activity #5
12	4/16		SWERL Presentations	SWERL Presentations
13	4/23		AT in the K-12 Classroom	Lab #5 - Inspiration Lab
14	4/30	Pg. 93-118	IEPs and ITPs Software	IEP/ITP Activity Lab #6 - Software Review
15	5/7		Vendor Research Projects	<i>Vendor Research Projects</i>
16	5/14		Final night of the course	Wrap up and Reflection