

EDUC 478/6980:

Assistive Technology/Universal Design for the General Classroom Setting

Syllabus

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Office Hours: By appointment  
Credits: 3 credits  
Time: Spring Semester

**Catalogue Description:**

This course is designed to be an introductory survey course for educators in the application of assistive technology/universal design in the **general classroom** setting. Students will be introduced to various assistive technologies and strategies.

**Course Description:**

COMAR regulations have changed to ensure that all students have equivalent access to computer-based instructional technology. Revisions align with Section 508 of the Federal Rehabilitation Act, "Electronic and Information Technology Accessibility Standards", and impact educators at all levels. The new Maryland teacher and administrator technology standards require ALL educators to have a more fluent understanding of assistive technology (AT) options and possibilities. This course is designed to be an introductory survey course for educators in the application of assistive technology/universal design in the **general classroom setting** to help schools comply with the new requirements. Students will learn about the continuum of AT devices, universal design for learning, curriculum adaptation and integration strategies, and assessment and evaluation protocols. Additional discussions will include action plan development related to systemic implementation strategies for supporting the use and integration of assistive technologies in the school setting.

**Course Rationale:**

The Individuals with Disabilities Education Act (IDEA), as reauthorized, promotes and serves to insure that all students with disabilities will be provided access to an appropriate curriculum in the least restrictive environment (LRE). This mandate necessitates that **regular and special educators** become familiar with multiple solutions necessary for educating students regardless of disability. The state of technology as we enter the new millennium allows for "easy access" in a "user-friendly" environment. This course is specifically designed to support the goal of preparing thoughtful and responsive educators who can take on the unique challenges inherent in the diversity of today's classrooms. To ensure a free and appropriate education for all students, teachers must enter the classroom equipped with the content knowledge, diverse instructional strategies, technology integration skills, and knowledge of assessment and evaluation protocols. **This course will help amplify a teacher's skills in these areas by adding the additional knowledge of**

**AT devices, Universal Design, curriculum adaptation and integration strategies, and assessment and evaluation protocols for ALL students in the general classroom setting.**

**Goal:**

Introduce educators to a wide range of applications and strategies of assistive technology/universal design in the **general classroom** setting to help educators meet the Maryland Teacher Technology Standards and to help schools comply with the new requirements.

**Objectives:**

**At the completion of this module, students will:**

1. Review legislative policies and mandates that led to all educators becoming familiar with AT options,
2. Review research on effective AT-enhanced instruction in the **general classroom**,
3. Become familiar with different technologies and strategies available to meet the mandates designed by IDEA (The Individuals with Disabilities Education Act-IDEA '97, Section 504 of the Rehabilitation Act of 1973, Americans with Disabilities Act (ADA) and Maryland COMAR regulations that support student access to and progress in the **general curriculum**. To include:
  - o discuss the use of "no tech" and "low tech" accommodations to address the needs of students with disabilities;
  - o demonstrate how a computerized graphic organizer can assist students with learning disabilities;
  - o use software to develop an IEP (Individualized Education Plan) and exchange information with another professional so that appropriate assistive technology is identified;
  - o use a modified keyboard;
  - o explore the use of portable keyboards and word processors as assistive technology devices;
  - o demonstrate the use of Personal Communication Symbols (PCS) in a variety of instructional situations;
  - o explore the use of various software to develop an IEP (Individualized Education Plan) that includes modifications which are based on the student's strength's and needs;
  - o explore the use of adaptive keyboards to interact with instructionally appropriate multimedia software;
  - o review augmentative and alternative communication (AAC) through the development of multi-level environments;
  - o utilize auditory and visual scanning in choice making with the use of (an) adaptive switch(s);
4. Identify national and local organizations and services associated with assistive technology.
5. Utilize state and national content and technology standards in designing technology-enhanced instruction and school technology plans,
6. Evaluate AT software applications for enhancing instruction and school administration,
7. Discuss **universal design principles** in the context of general education environments and curriculum materials,
8. Explore the process for finding the right technology and the right applications, and determine how to pay for it,
9. Explore and discuss how to establish a technology team with an assistive technology representative, perform a school wide assessment of all student needs and develop a school and/or classroom tech plan,
10. Review and discuss assistive technology-enhanced options and materials for culturally diverse populations,
11. Review and discuss equity, ethical and legal issues in using technology in schools,
12. Share knowledge of important issues and trends related to assistive technology-enhanced content through online collaborative group discussions and reflect upon student experiences in a Web enhanced/Web-based course.

## Readings:

Recommended readings are included in this syllabus. Others can be found at [www.edtechoutreach.umd.edu](http://www.edtechoutreach.umd.edu) and within a WebCT supplement.

## Texts:

### Not Required to Purchase:

- Full Text Found Online
  - David H. Rose & Anne Meyer. Teaching Every Student in the Digital Age: Universal Design for Learning. ASCD, 2002. Full text online at: <http://www.cast.org/teachingeverystudent/ideas/tes/>
  - How People Learn: Brain, Mind, Experience and School.  
<http://www.nap.edu/books/0309070368/html/>
- Additional recommended readings are included in this syllabus. Others can be found at: <http://www.edtechoutreach.umd.edu/>

## Methodology:

This course will utilize a combination of on-line lecture (and if needed face-to-face lecture) and reading materials, hands-on experiences, discussions, virtual guest speakers, case study analyses, group work and projects to help participants understand effective strategies for integrating assistive technology into their classroom (when and where appropriate). Detailed information about topics for each class is included in Course Content section of the WebCT course.

## Student Expectations and Procedures:

1. Students are expected to obtain and actively use a computer account with access to the Internet and WebCT discussion site (the University provides such accounts free to enrolled students.) Students are expected to use **anti-virus software and backup all work**. Since the course will primarily meet on-line it is of importance that you assure that your computer access can easily support the WebCT environment. WebCT Student Manual - <http://www.courses.umd.edu/studentmanual/>
2. Completion of assigned tasks and readings **prior to each class** (the preset catalog time) is required in order to facilitate student learning.
  - Take the Online Self-Assessment Survey - <http://www.vto.vt.edu/survey.php>
3. It is expected that students will initiate, participate in and facilitate on-line discussions on course topics, issues and readings.
4. **If you have a documented disability and wish to discuss academic accommodations please contact me as soon as possible.**
5. Students missing the deadline for an assignment must make immediate arrangements with the instructor to fulfill that requirement before the next class session.
6. Please carefully edit all written assignments. A lack of care in proofreading or composition can negatively effect your final grade.
7. The citation style employed should be accurate, acceptable, and recognizable (MLA, Chicago or APA) practice. **The American Psychological Association (APA: <http://www.apa.org>) style of citation is preferred.** For quick basics, visit:
  - UMCP reference site [http://www.lib.umd.edu/UES/library\\_guides.html](http://www.lib.umd.edu/UES/library_guides.html)
  - Purdue Owl Lab <http://owl.english.purdue.edu/workshops/hypertext/APA/index.html>
  - Columbia University Press - [http://www.columbia.edu/cu/cup/cgos/idx\\_basic.html](http://www.columbia.edu/cu/cup/cgos/idx_basic.html)
  - Columbia Guide to Online Style/ACW style "help sheets"-  
<http://www.cas.usf.edu/english/walker/mla.html>

8. The University of Maryland has developed a policy describing appropriate academic conduct. Turning in assignments that use substantial portions of the work of others without attribution is considered plagiarizing and is specifically prohibited. Please review information regarding the [Honor Code](#) and other academic integrity policies at: <http://www.jpo.umd.edu/conduct/conduct.html>.
9. Should you find it necessary to take an Incomplete (I) in this class, please complete the standard UMCP Incomplete Contract form available in the College of Education Access Center, 1210 Benjamin Building, two weeks before the end of the semester.
10. No part of any lecture or course content may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or any informational storage and retrieval system, without permission in writing from the instructor.

### Instructor Responsibilities

Just as we have high expectations for students, we also have high expectations for ourselves. Students should expect that the instructor for this course will:

1. Be prepared for class, read and return students' work in a timely manner, and be interested and engaged in students' work;
2. Remember that each student brings different background knowledge about both content and online experiences to this course, as well as help students develop their personal interests whenever possible;
3. Help students identify sources of additional substantive and methodological expertise, as needed;
4. Meet with students individually or in groups upon request and be available in person, by telephone, and by email to answer questions; and
5. Work hard, have fun and empower students to plan and engage in high quality discussions and experiences.
6. Email with students is not always a low threshold technology. Students sometimes feel that faculty/instructors should be available to answer questions 24/7 or whenever the student is online. This expectation of an immediate response can occasionally create a negative communication environment. Students' emails can also add significantly to faculty/instructor workload. While my past performance has indicated that I return emails promptly (sometimes to students surprise within minutes), in order to eliminate the possibility of problems due to assumptions, the following is the course minimal guideline: All emails will be answered within 24 hours of receipt except on weekends (begins after 4:00 on Friday)-which may take longer. I do however; HIGHLY recommend that you send emails whenever a question arises, while the above is only a statement of minimal expectations on my part.

### Grading Policy and Rubrics:

Grades will be based on the on-time completion of course requirements and on the scope, quality and creativity of the papers/projects. Consideration will also be given to the content, clarity of writing and creativity of work in assignments completed for this course. The **extent and quality** of participation in course discussions (face to face and virtual) will also be evaluated in determining the final grade. The relative portion of the grade assigned to each course component will include:

1. **Participation** in face to face/on-line discussion threads and scheduled chat sessions (~3-5 chats will be scheduled throughout the semester. Dates and times are determined by the group—chats are mandatory/worth double points/200 instead of 100 points) and follow up replies (25%)
2. **Mini-assignments and activities** (i.e., consultant case studies, **one field trip** is scheduled to the on campus AT lab) and evaluation, critiquing, and discussion of peer work (25%)
3. **IEP Exercise/Lesson Plan** (20%)
4. **Paper/Project (20%) OR MICCA OPTION** [Description - [Word ... PDF](#)]
5. **Final Reflection** -- reflecting on your own ideas and practices as well as on those introduced in this course - informal discussion thread (10%) [Description - [Word ... PDF](#)]

The evaluation criteria for this course are described in more detail in the [grading rubric](#).

The grading rubric describes participant performance expectations and efforts most valued. Professionalism, completeness, timeliness and quality are all considered in the evaluation process.

Chat Times are periodically scheduled to support group work, bring in a guest speaker or just to get class feed back. The times and days will be a collaborative decision-we will try to pick a set time and day when we can all attend. We can communicate this via email or discussion thread.

### Tentative Course Outline

- Session 1: 1/31 Introduction and Connection to the General Classroom (F2F)
- Session 2: 2/7 AT Connection and Impact in the General Classroom
- Session 3: 2/14 Definitions and Laws
- Session 4: 2/21 Federal Mandates NCLB-COMAR . Possible chat week
- Session 5: 2/28 Categories of AT, SETT and QIAT
- Session 6: 3/7 Access to Print: Learning and Visual Organizers (e.g., Kidspiration/Inspiration)
- Session 7: 3/14 What's available: Devices, Services and Strategies
- 3/21 Spring Break
- Session 8: 3/28 What's available: Devices, Services and Strategies IEP Group exercise will be given out
- Session 9: 3/30 Software and Web-based Applications AT Tour
- Session 10: 4/4 Connection to General Curriculum and State Standards/adds to IEP (Individual Educational Plan)
- Session 11: 4/11 Universal Design-history and Impact
- Session 12: 4/18 Universal Design and Technology Integration Paper Due
- Session 13: 4/25 Diverse students: Equity & Gender Issues Possible Chat week
- Session 14: 5/2 Funding, Resources and Organizations IEP (Individual Educational Plan Due)  
MICCA Conference
- Session 15: 5/9 Closure Possible Chat

Final Reflection and all work due by May 18<sup>th</sup>, 2006