

Application for State Approval of Teacher Preparation Specialty Programs

**Michigan Department of Education, Office of Professional Preparation Services
P.O. Box 30008, Lansing, Michigan 48909
Phone: (517) 335-4610 *** Fax: (517) 373-0542**

Directions:

- For each new, amended, or experimental program, a separate application is required.
- Application and all documentation are to be submitted electronically.
- Fax or mail only the cover page that is signed by the unit head.
- All correspondence regarding this application should be addressed to the consultant/coordinator identified on Application Attachment 1.

I. Application Information	
Institution	Central Michigan University
MDE Endorsement Area and Code (from Application Attachment 2)	NP Educational Technology
Date of this Application	February 15, 2005
Name and Title of Unit Head	Dr. Karen Adams, Dean
Signature of Unit Head	

II. Contact Information for Questions Related to This Application	
Contact Person's Name and Title	Tim Brannan
Contact Person's Phone Number	(989) 774 – 2584
Contact Person's Fax Number	(989) 774 – 3152
Contact Person's E-Mail Address	tim.brannan@cmich.edu

III. Type of Request for Approval	(Indicate One)
New program for institution	Yes
U.S. Department of Education Classification of Instructional Programs (CIP) Code, if vocational occupational area	
Compliance with State Board of Education new or modified program criteria	
Experimental program	
Program amendment (See Section IX for guidelines)	

IV. Institutional Representatives

Please list individuals available to serve on Michigan Department of Education Ad-Hoc Committees Related to this Specialty Program (e.g., program review, standards development, test development, forum planning). Include both higher education faculty and K-12 representatives.

Name/Title	Specialty	Mailing Address	E-Mail Address	Phone	Fax
Dr. Tim Brannan, Assistant Professor	Educational Technology	Central Michigan University Ronan Hall Rm 326 Mt. Pleasant, MI 48858.	tim.brannan@cmich.edu	(989) 774 - 2584	(989) 774 - 3152

V. Program Information

Program Summary	<p>The Educational Technology Endorsement (NP) will be offered as an additional benefit of the new Graduate Certificate in Educational Technology offered at Central Michigan University. Once students complete the required courses and one elective they will be eligible for the endorsement. In addition, this endorsement will help prepare teachers in meeting the new 7th standard for professional preparation – Education Technology. The Graduate Certificate in Educational Technology program prepares students to provide instruction utilizing new learning technologies. The technologies addressed in this program include multimedia, uses of educational technologies, and telecommunications in education. Designed to meet the needs of the classroom teacher, this program also prepares individuals for technology leadership roles. The certificate program requires a minimum of 15 credit hours of required core. In order to earn the “NP” endorsement, students will need to take EDU709, which includes a field experience. Once completed, students will be able to “seamlessly” transition into CMU’s Masters of Arts Degree in Educational Technology.</p> <p>Required Courses (Total of 18 hours) EDU 590 (3) Technology in Education EDU 595 (3) Telecommunications in Education EDU 642 (3) Instructional Multimedia EDU 643 (3) Instructional Design EDU 707 (3) Issues in Educational Technology EDU 709 (3) Innovative Uses of Technology</p>
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Program Coursework	<p>Complete Application Attachment 3 showing the required and elective courses for this program. This list should include the following information.</p> <ul style="list-style-type: none"> • Contact person for specialty program. • Course title and number. • Number of semester hours for required and elective courses. • Designation for elementary, secondary, or K-12 certification. • Course descriptions. <p>Please refer to the Quick Reference Chart at http://www.michigan.gov/documents/MinimumRequiredHoursSpecialty-AreaProgramA21931_74344_7.PDF for available program options and required semester hour minimums.</p>
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VI. Content Guidelines/Standards Matrix

<p>Complete the Content Guidelines/Standards Matrix (a sample format is provided in Application Attachment 2); appropriate program standards must be selected for each program:</p> <ul style="list-style-type: none"> • Standards approved by the Michigan State Board of Education (SBE) can be found in matrix format at http://www.michigan.gov/mde/0,1607,7-140-5234_5683_6368-24835--,00.html • A list of standards to use for each specialty program can be found at http://w3.michigan.gov/documents/Standards_to_use_for_Approval_of_Each_Specialty_Program_11_109415_7.04C44693_A74354.doc

VII. Supporting Documentation

Field Experiences	<ul style="list-style-type: none"> • In conjunction with EDU 709 (3) Innovative Uses of Technology, candidates will participate in field experiences that allow them to (1) observe the use of educational technology to support instruction, and the evaluation of effectiveness of educational technology resources for teaching and learning; and (2) apply educational technology resources to support instruction in classroom settings.
Instructional Methods	<ul style="list-style-type: none"> • Participants will be taught how to integrate technology in their classroom settings using a variety of instructional methods including lecture, demonstration, observation, group work, presentation, and application of new technology in the classroom.
Course Descriptions	<ul style="list-style-type: none"> • See attached.
Syllabi	<ul style="list-style-type: none"> • See attached.
Faculty	<ul style="list-style-type: none"> • See attached
Technology	<ul style="list-style-type: none"> • Each of the courses listed have an online component available in CMU’s Blackboard Course Management System. In addition, various educational technology tools are explored, e.g. handheld technologies, classroom performance systems, multimedia development.
Vocational Experience	<p>Not applicable.</p>

VIII. Experimental Program Description (Rule 53)

<p>Program Purpose</p>	<p>The Educational Technology Endorsement (NP) will be offered as an additional benefit of the new Graduate Certificate in Educational Technology offered at Central Michigan University. Once students complete the required courses and one elective they will be eligible for the endorsement. In addition, this endorsement will help prepare teachers in meeting the new 7th standard for professional preparation – Education Technology. The Graduate Certificate in Educational Technology program prepares students to provide instruction utilizing new learning technologies and although approval of the educational technology certificate as a professional preparation program leading to an endorsement is new, Central Michigan University has offered a Masters Degree in Education Technology for over 10 years and serves over 50 students each year. The newly created Graduate Certificate in Educational Technology was developed as a 15-credit certificate program for those educators needing advanced coursework in technology integration, but not intending to pursue a complete Masters degree.</p> <p>The need for credit and non-credit programs to prepare in-service teachers in technology integration in classroom curriculum is documented in numerous national and state reports. By Michigan Department of Education adopting the 7th standard for professional preparation, in-service teachers need a mechanism to ensure compliance with this standard. Central Michigan University anticipates the level of enrollment for the new Graduate Certificate in Education Technology and the new endorsement is expected to grow from 30-40 students per year. Within three - years, the program will grow to approximately 75-100 students per year in the courses leading to the graduate certificate and endorsement. This increase will be achieved as the entire graduate certificate and endorsement option will be offered in alternative formats, online/hybrid, for those teachers who are not currently able to attend Central Michigan University or other universities because they do not have access to a higher education institution where they teach and live.</p>
<p>Program Design</p>	<ul style="list-style-type: none"> • To receive the Educational Technology Endorsement (NP), teachers need to take the following courses: <u>Required Courses (Total of 15 hours)</u> EDU 590 (3) Technology in Education EDU 595 (3) Telecommunications in Education EDU 642 (3) Instructional Multimedia EDU 643 (3) Instructional Design EDU 707 (3) Issues in Educational Technology EDU 709 (3) Innovative Uses of Technology • This endorsement program will be evaluated annually during the program review process required by Central Michigan University for the Masters in Educational Technology and Certificate in Educational Technology programs.
<p>Program Duration</p>	<p>Since this endorsement will coincide with the current Masters in Educational Technology and the new graduate Certificate in Educational Technology program, Central Michigan</p>

University is requesting an initial endorsement approval of 5 years.
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IX. Guidelines for Applying for Amendments to Currently Approved Teacher Preparation

If the amendment is very minor (e.g., change in a course number(s), change in course sequence, minor modification to a course, etc.) and does not affect how the program standards are met, the amendment may be described in a letter to the Office of Professional Preparation Services. Minor amendments do not require official State approval and are filed with program documentation previously submitted. If the proposed amendment is not clear, or if more information is needed, the institution will be contacted by the Office of Professional Preparation. Once approved, the description of the amendment will be attached to the program application that is currently on file.

If the amendment is more extensive, or is submitted in response to new state standards, a complete “Application to Request State Board of Education Approval for Professional Preparation Programs” should be submitted to the Office of Professional Preparation Services. (Institutions may copy, for inclusion in the new application, any sections of the previously approved application that have not been affected by the amendment.)

Summary of Course Requirements for Specialty Program

Institution: Central Michigan University Date: 12/07/04

Specialty Program: Educational Technology

Program Standards: _____ Standards Date: _____

Program Contact Person(s): Tim Brannan

DIRECTIONS: On the matrix below, list the required courses for this specialty program. Also, indicate the number of electives and any special considerations that apply. In addition to listing the course title, course number, and course semester hours, please indicate whether the course is required for the secondary major or minor, elementary major or minor, the K-12 major or minor, and/or an endorsement.

Course Title	Course Number	* Sem. Hours	Secondary		Elementary		K-12		Additional Endorsements
			Maj.	Min.	Maj.	Min.	Maj.	Min.	
Microcomputers in Classroom Instruction	EDU 590	3							3
Telecommunication in Education	EDU 595	3							3
Instructional Multimedia	EDU 642	3							3
Instructional Design	EDU 643	3							3
Seminar: Issues in Educational Technology	EDU 707	3							3
Innovative Uses of Technology	EDU 709	3							3
Total number of SEMESTER HOURS <u>required</u> for each option offered: *If the institution assigns a different type of credit, please convert to semester hours.		18							18

- (1) Provide descriptions of all courses contained on the above listing. Descriptions must provide enough information to show that standards could logically be met in these courses.

Content Guidelines/Standards Matrix

College/University Central Michigan University **Code:** NP

Source of Guidelines/Standards Michigan State Board of Education, June 2002 **Program/Subject Area** Educational Technology

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
	<p><u>Note:</u> A minimum of 18 semester hours is required for additional endorsement in educational technology.</p>	<p>Central Michigan University's Teacher Education Program has long sought to meet the state and national standards regarding technology and with the advent of this program and others we ensure technology competent teachers.</p> <p>The Educational Technology Endorsement (NP) will be offered as an additional benefit of the new Graduate Certificate in Educational Technology offered at Central Michigan University. Once students complete the required courses and one elective they will be eligible for the endorsement. In addition, this endorsement will help prepare teachers in meeting the new 7th standard for professional preparation – Education Technology.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.0	<p>Foundations Professional studies culminating in the educational technology endorsement prepare candidates to use computers and related information technologies in educational settings in an exemplary way in alignment with the “Seventh Standard” of the Entry-Level Standards for Michigan Teachers. All candidates seeking this endorsement would have opportunities to meet these educational technology foundation standards and to surpass the basic requirements of the “Seventh Standard.”</p>	<p>This program meets the “Seventh Standard” by engaging students in information technology and its uses within the classroom.</p>
1.1	<p>Educational Technology Operations and Concepts Teachers demonstrate a sound understanding of educational technology operations and concepts.</p>	
Performance Indicators – Candidates Will:		

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.1.1	demonstrate at least introductory knowledge, skills, and understanding of concepts related to learning and educational technology as required by the ISTE National Educational Technology Standards for Students (and reflected in the Michigan Curriculum Framework).	<p>This is the primary focal point of EDU 590, in reinforcing Educational Technology concepts and their appropriate use in the classroom.</p> <p>EDU 590 “Microcomputers in Classroom Instruction”, Assessments 5, 6, 7, Topics 1, 2, 3, 6. This course addresses the introductory skills through helping students select and assess good software and courseware, troubleshooting a computer, engaging in effective and efficient web searching, utilizing adaptive technology, digitizing images and audio files, sharing data between applications, using spreadsheets and databases, developing PDF documents through Adobe Acrobat, and creating web pages. Students master scanning, digital photography, and software applications such as Adobe Acrobat, web authoring software, Microsoft Office, and movie editing software.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.1.2	demonstrate continual growth in educational technology knowledge and skills to stay abreast of current and emerging technologies.	<p>Throughout all the purposed certification courses, students operate current educational technologies and learn through research/assessments new and innovative technologies.</p> <p>EDU 590 “Microcomputers in Classroom Instruction” introduces the students to the basic technologies and software. Then subsequent courses require students to building on that knowledge through educational applications. In EDU 595 Telecommunications in Education students utilize their understanding of technology to build a learning community. The create mailing lists, usenet newsgroups, utilize chat rooms, and course management software. In addition they explore ITV. Student projects focus on assessing the students’ ability to use telecommunications technology within their own educational setting or the Pk-16 setting. In EDU 642 Instructional Multimedia students further apply the basic skills from EDU 590 and expand them to classroom practices. Within the course students develop macromedia flash movies for the web or stand alone applications appropriate to their teaching situation or any Pk-16 setting. Students digitize video and audio for use in the classroom. Students create web based teaching sites appropriate for use in Pk-16 classrooms. Students create a multimedia presentation aimed to teach self-identified learners. In EDU 643 students master the principles of Instructional Design to create the multimedia presentation required in EDU 642. EDU 707 raises the students’ awareness of issues of technology including, but not limited to copyright laws, gaps in technology, research in effective uses of technology, parental concerns, censorship issues, ethical concerns, and assessment issues. Students demonstrate their understanding through instructor directed research of a technology issue directly related to their Pk-16 setting.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.2	<p>Planning and Designing Learning Environments and Experiences Candidates plan and design effective learning environments and experiences supported by educational technology.</p>	
Performance Indicators - Candidates Will:		
1.2.1	design developmentally appropriate learning opportunities that apply educational technology-enhanced instructional strategies to support the diverse needs of learners.	Students are instructed on using adaptive technologies to meet diverse learning styles in EDU 590 “Microcomputers in Classroom Instruction” In EDU 643 “Instructional Design” students explore how to develop instructional packages considering the unique physical, psychology, and social needs of the learners. This includes considerations of differences, learning styles and special needs. In EDU 643 & EDU 642 students must demonstrate how their instructional package designed using the principles of instructional design address the unique needs and characteristics of the population for which the instructional package was designed.
1.2.2	apply current research on teaching and learning with educational technology when planning learning environments and experiences.	<p>All courses challenge students to update their knowledge of teaching theories and concepts and apply them in their lesson plans.</p> <p>In EDU 643 “Instructional Design” student begin by learning the theory behind needs assessments. The needs assessment is designed to help students consider current research within the context of the learning context in which the technology is designed to be used In EDU 707 “Issues in Educational Technology” Students are introduced to a wide range of technology issues and then asked to explore one issue in-depth through research. This in-depth exploration occurs with an issue within their teaching-learning situation and is designed to consider the theory and context in meeting a technology need within their profession.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.2.3	identify and locate educational technology resources and evaluate them for accuracy and suitability.	<p>Students learn to research and evaluate technologies through lesson plan activities and assessments.</p> <p>EDU 590 “Microcomputers in Classroom Instruction” students spend considerable time identifying and evaluating technology software, courseware, and hardware for a variety of settings. Students are introduced to the research on effective evaluation of technology and are challenged to create their own rubrics from that research to evaluate the technologies they are asked to consider.</p>
1.2.4	plan for the management of educational technology resources within the context of learning activities.	<p>Students engage in resource management in all courses. They are presented with the of concept diversifying equipment use , multiple configurations, and adapting technology to future student needs.</p> <p>In EDU 643 “Instructional Design” the students are introduced to theories of resources management, selection and consideration. Students are asked to do an analysis of the resources necessary and available to implement the instructional package that they are building in the related courses EDU 642.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.2.5	plan strategies to manage student learning in an educational technology-enhanced environment.	<p>This topic is solidified throughout all courses in the development and progression of lesson plan building using educational theories and new technologies.</p> <p>EDU 590 “Microcomputers in Classroom Instruction” students are introduced to how web pages can be a management tool to aid the self-directed learner so that the teacher may have more opportunities to work with students with special needs or questions.</p> <p>EDU 643 “Instructional Design” students are introduced to the theory of a needs assessment which considers the physical, cognitive, and social aspects of students and how the technology can be designed to address those needs. Within the needs assessment students are asked to consider how the technology can be used to manage time and create opportunities for self-directed learning and enrichment.</p> <p>EDU 707 “Issues in Educational Technology” students are introduced to issues around technology and how technology can enhance or hinder classroom management and learning.</p>
1.3	<p>Teaching, Learning, and the Curriculum</p> <p>In alignment with the Michigan Curriculum Framework, candidates implement curriculum plans that include methods and strategies for applying educational technology to maximize student learning.</p>	
Performance Indicators - Candidates Will:		

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.3.1	use, and foster the use of, educational technology-enhanced experiences to address state content and technology standards set forth in the Michigan Curriculum Framework.	<p>EDU 643 focuses on the alignment of lessons to content standards. All lesson applications require consideration of the Michigan Curriculum Framework.</p> <p>EDU 643 “Instructional Design”, Students are asked to consider the Michigan Curriculum Frameworks as part of their needs assessment. Often students identify an instructional needs that is premises that there is a gap in instruction between what the standards say students should be learning and mastering and what the MEAP assessment program reports as actual student learning.</p>
1.3.2	apply educational technology to develop students' higher order skills and creativity, including critical thinking and the learning skills set forth in the Michigan Curriculum Framework.	<p>EDU 643 “Instructional Design” establishes an authentic problem that students need to solve using the principles of instructional design established in the class. Coupled with EDU 642 students build an instructional package that meets a real work problem or gap identified by them through a needs assessment within their educational context.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.3.4	<p>use educational technology to support learner-centered strategies that address the diverse needs of students, including addressing the individual needs of each student, and fostering collaborative, holistic, and self-directed learning.</p>	<p>EDU 643 “Instructional Design” introduces students to the principles of instructional design, specifically the needs assessment that requires students to consider all of the cognitive, physical, and social needs of the learners.</p> <p>EDU 707 Seminar: Issues in Educational Technology explores the topic with students about how technology can be used to either close the learning gap among students or widen the learning gap between students.</p> <p>EDU 590 Advanced Educational Technology introduces students to adaptive technologies and helps them become proficient in the use of those technologies.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.3.5	manage student-learning activities in an educational technology-enhanced environment.	<p>This topic is solidified throughout all courses in the development and progression of lesson plan building using educational theories and new technologies.</p> <p>EDU 590 “Microcomputers in Classroom Instruction” students are introduced to how web pages can be a management tool to aid the self-directed learner so that the teacher may have more opportunities to work with students with special needs or questions.</p> <p>EDU 643 “Instructional Design” students are introduced to the theory of a needs assessment which considers the physical, cognitive, and social aspects of students and how the technology can be designed to address those needs. Within the needs assessment students are asked to consider how the technology can be used to manage time and create opportunities for self-directed learning and enrichment.</p> <p>EDU 707 “Issues in Educational Technology” students are introduced to issues around technology and how technology can enhance or hinder classroom management and learning.</p>
1.4	<p>Assessment and Evaluation Candidates apply educational technology to facilitate a variety of effective assessment and evaluation strategies.</p>	
Performance Indicators - Candidates Will:		

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.4.1	apply educational technology in assessing student learning of subject matter using a variety of assessment techniques, including focusing on the assessment of each student.	EDU 643 "Instructional Design" introduces students to assessment theory and asks students to incorporate an assessment component within their instructional package that they are designing in conjunction with EDU 642 Instructional Multimedia. Each instructional package must have an assessment component that is piloted with the instructional package.
1.4.2	use educational technology resources to collect and analyze data, interpret results, and communicate findings to improve instructional practice and maximize student learning, including focusing on the assessment of each student.	EDU 707 "Issues in Educational Technology" is designed to have students research an issue in educational technology by using technology to collect and analyze data from a research study, interpret the results and report those results to their peers through an in-class presentation.
1.4.3	apply multiple methods of evaluation to determine students' appropriate use of educational technology resources for learning, communication, and productivity, including focusing on the assessment of each student.	<p>EDU 643 "Instructional Design" introduces students to assessment theory and asks students to incorporate an assessment component within their instructional package that they are designing in conjunction with EDU 642 Instructional Multimedia. Each instructional package must have an assessment component that is piloted with the instructional package</p> <p>In EDU 707 students examine assessment issues by examining the strengths and weaknesses of the use of performance based assessments and electronic portfolios.</p>
1.5	<p>Productivity and Professional Practice Candidates use educational technology to enhance their productivity and professional practice.</p>	
Performance Indicators - Candidates Will:		

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.5.1	use educational technology resources to engage in ongoing professional development and lifelong learning.	In EDU 707 students examine and discuss the term and field of instructional technology as defined by AECT. In addition students examine and discuss current research trends within the field of instructional technology and how to stay abreast of those trends. Students engage in a research project that helps them identify sources. In addition this research project helps them to learn the principles of research that can also be used as they continue within the profession.
1.5.2	continually evaluate and reflect on professional practice to make informed decisions regarding the use of educational technology in support of student learning.	EDU 643 "Instructional Design" at each stage of the instructional design process students are engaged in evaluating the data and information collected and the multimedia instructional package. Students are asked to create formative and summative instructional package assessments that inform their continued development of the instructional package being developed in conjunction with EDU 642.

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.5.3	apply educational technology to increase productivity.	<p>All courses require the use of technology and showing student the significance of such use in the classroom environment. Consequently as students become more and more proficient with the use of technology they find how such technology can increase productivity. For example, once students master spreadsheets and data bases they are required to use those in EDU 707 as they conduct research. By using those applications students release how those applications can help them be more productive in data analysis. A second example, in EDU 590 students learn how to share data between applications. As students progress through the program they are creating more and more complicated instructional packages that require them to share data between applications in order to complete the instructional designed multimedia packages within the time given in class. There are numerous other examples that could be listed.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.5.4	use educational technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning.	All of the courses utilize the Blackboard course authoring system to manage the course. Within the blackboard shell are discuss boards. Instructors often use the discussion boards to place questions about the uses of the technology presented in class. Often students post questions about troubleshooting issues they have related to the technology being used. This allows their peers to post answers that can help the students as they work on their assignments away from class. Also the Blackboard shell allows the instructors and students to easily exchange e-mail. In addition, EDU 590 requires students to use one of the technological applications as a means of communicating with parents. Often students build web sites to demonstrate their understanding of that technology, but those web sites serve to be a form of communication to the parents of the students in their own classrooms. Students frequently build those web sites as a means of communicating with parents forthcoming homework assignments, field trips, etc. Also those sights are used to post permission slips and other forms that parents might need.
1.5.5	use educational technology to collaborate with other teachers and foster collaboration among other teachers, schools, and districts to share best practices in alignment with the State Board of Education’s Policy Framework on Virtual Schools.	EDU 595 “Telecommunication in Education” students are required to set up a learning community to foster collaboration among their peers and colleagues. This learning community utilizes a variety of technologies include mailing lists, Usenet Newsgroups and chat technology. This learning community must be based upon the educational theory and research that is presented in the class that identifies the best practices for use of telecommunication technologies in the classroom.

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.6	<p>Social, Ethical, Legal, and Human Issues Candidates understand the social, ethical, legal, and human issues surrounding the use of educational technology in K-12 schools and apply those principles in practice.</p>	
Performance Indicators - Candidates Will:		
1.6.1	<p>model and teach legal and ethical practice related to educational technology use.</p>	<p>Ethical practices and legal issues are presented in all courses either as full assessments or class discussions.</p> <p>EDU 590 “Microcomputers in Classroom Instruction” address issues of creating and managing your own IRC and privacy, spam and other community issues specifically copyrights with respect to establishing learning communities. This principles and concepts must be applied to the learning community that students must establish as an outcome for this course.</p> <p>EDU 707 “Issues in Educational Technology” specifically addresses in week ten the issues of copyright, parent concerns and ethical concerns related to the use of educational technology. Students must demonstrate their understanding of these issues through assignments that demonstrate their uses of technology.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.6.2	<p>apply educational technology resources to enable and empower learners with diverse backgrounds, characteristics, and abilities.</p>	<p>EDU 643 “Instructional Design” introduces students to the principles of instructional design, specifically the needs assessment that requires students to consider all of the cognitive, physical, and social needs of the learners.</p> <p>EDU 707 Seminar: Issues in Educational Technology explores the topic with students about how technology can be used to either close the learning gap among students or widen the learning gap between students.</p> <p>EDU 590 Advanced Educational Technology introduces students to adaptive technologies and helps them become proficient in the use of those technologies.</p> <p>Students are instructed on using adaptive technologies to meet diverse learning styles in EDU 590 “Microcomputers in Classroom Instruction” In EDU 643 “Instructional Design” students explore how to develop instructional packages considering the unique physical, psychology, and social needs of the learners. This includes considerations of differences, learning styles and special needs. In EDU 643 & EDU 642 students must demonstrate how their instructional package designed using the principles of instructional design address the unique needs and characteristics of the population for which the instructional package was designed.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.6.3	identify and use educational technology resources that affirm diversity.	<p>EDU 643 “Instructional Design” introduces students to the principles of instructional design, specifically the needs assessment that requires students to consider all of the cognitive, physical, and social needs of the learners.</p> <p>EDU 707 Seminar: Issues in Educational Technology explores the topic with students about how technology can be used to either close the learning gap among students or widen the learning gap between students.</p>
1.6.4	promote safe and healthy use of educational technology resources.	<p>EDU 707 “Issues in Educational Technology” during week ten addresses the controversies in the application of technology including copyright issues, parent concerns, curricular concerns, administrative concerns, economic concerns and ethical concerns. These concerns have embedded within them the positive and negative uses of technology within an educational setting. The implications of these discussions are to help the learner see how technology can be used in a beneficial way. Students demonstrate their understanding of this through development technology applications that show positive uses of technology.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.6.5	facilitate equitable access to educational technology resources for all students.	Students are instructed on using adaptive technologies to meet diverse learning styles in EDU 590 "Microcomputers in Classroom Instruction" In EDU 643 "Instructional Design" students explore how to develop instructional packages considering the unique physical, psychology, and social needs of the learners. This includes considerations of differences, learning styles and special needs. In EDU 643 & EDU 642 students must demonstrate how their instructional package designed using the principles of instructional design address the unique needs and characteristics of the population for which the instructional package was designed.
2.0	<p>Specialty Content Preparation for Educational Computing and Educational Technology</p> <p>Professional studies in educational computing and educational technology prepare candidates to exhibit leadership in the identification, selection, and management of hardware and software and the uses of computers and related technologies appropriate to the candidate's teaching field(s).</p>	
2.1	<p>Social, Ethical, and Human Issues</p> <p>Candidates will apply concepts and skills in making decisions concerning social, ethical, and human issues related to computing and educational technology.</p>	Students learn to challenge themselves and understand underlying Social, Ethical, and Human issues in every course. Topics are covered conceptually in discussions as appropriate.
Performance Indicators - Candidates Will:		

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.1.1	describe the historical development and important trends affecting the evolution of educational technology and its probable future roles in society.	<p>EDU 643 instructional Design during week two the course addresses instructional system and approach to the design of instruction. Within this lecture is a presentation of the history trends within the field of instructional design specifically applied to educational technology.</p> <p>EDU 707 Seminar: Issues in Instructional Technology. During the first two weeks of the course the field of instructional technology is explored in-depth. This exploration includes the history and trends of educational technology and how those trends have future implications.</p>
2.1.2	describe strategies for facilitating consideration of ethical, legal, and human issues involving school purchasing and policy decisions.	EDU 707 "Issues in Educational Technology" during week ten addresses the controversies in the application of technology including copyright issues, parent concerns, curricular concerns, administrative concerns, economic concerns and ethical concerns. These concerns have embedded within them the positive and negative uses of technology within an educational setting. The implications of these discussions are to help the learner see how technology can be used in a beneficial way. Students demonstrate their understanding of this through development technology applications that show positive uses of technology.
2.2	<p>Productivity Tools</p> <p>Candidates integrate advanced features of educational technology-based productivity tools to support instruction.</p>	
Performance Indicators - Candidates Will:		
2.2.1	use advanced features of word processing, desktop publishing, graphics programs, and utilities to develop professional products.	EDU 590 "Microcomputers in Classroom Instruction", Topic 9 - Microsoft Office. The learners have to demonstrate their proficiency of the use of word processing and data sharing, also they must design and use spreadsheets and databases.

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.2.2	use spreadsheets for analyzing, organizing, and displaying numeric data graphically.	EDU 590 "Microcomputers in Classroom Instruction", Assessment 1, students must design and use spreadsheets for use with establishing a grade book and use that information to report grade distributions.
2.2.3	design and manipulate databases and generate customized reports.	EDU 590 "Microcomputers in Classroom Instruction", In Assessment 1 students must design and use a database for a set of data used in their educational setting and use the database to generate a report.
2.2.4	use teacher utility and classroom management tools to design solutions for a specific purpose.	EDU 643 "Instructional Design" Students are to conduct a needs assessment that identified a classroom issue or problem and then apply the principles of instructional design to find a solution for the identified issue or problem.
2.2.5	identify, select, and integrate video and digital images in varying formats for use in presentations, publications, and/or other products.	<p>EDU 590 "Microcomputers in Classroom Instruction": Students must create their own video and digital images and incorporate them into authoring software such as web sites or Adobe Pagemaker.</p> <p>EDU 642 "Instructional Multimedia": Students are required to design an instructional multimedia package that addresses an instructional need identified in EDU 643. This multimedia package must contain video and digital images.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.2.6	create multimedia presentations using advanced features of a presentation tool and deliver them using computer projection systems.	<p>EDU 590 "Microcomputers in Classroom Instruction": Students must create their own movies using digital equipment and authoring software.</p> <p>EDU 642 "Instructional Multimedia", Students must develop an instructional multimedia package. This package uses a variety of multimedia formats includes web sites, video, powerpoint, Adobe Pagemaker and Photoshop.</p>
2.2.7	apply specific-purpose electronic devices (such as a graphing calculator, language translator, scientific probe ware, or electronic thesaurus) in appropriate content areas.	<p>EDU 590 "Microcomputers in Classroom Instruction", Topic 9 and 10 students are introduced to probes and graphic calculators and their potential uses in class.</p> <p>EDU 642 Instructional Multimedia: Students are to design an instructional multimedia package. This package must utilize technologies other than computer technologies. Students are encouraged to use graphing calculators, probe ware or palm devices.</p>
2.2.8	use features of applications that integrate word processing, database, spreadsheet, communication, and other tools.	EDU 590 "Microcomputers in Classroom Instruction", Assessment 1, Topic 8 and 9. Students must integrate several applications through data sharing to produce a product.
2.3	<p>Telecommunications and Information Access</p> <p>Candidates will use telecommunications and information access resources to support instruction.</p>	
Performance Indicators - Candidates Will:		

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.3.1	access and use telecommunications tools and resources for information sharing, remote information access and retrieval, and multimedia/hypermedia publishing.	EDU 595 "Telecommunication in Education", Evaluations 1, 2, 3, 4, 5. Students are to create their own learning community and assess the effectiveness of the learning community using the theories and principles presented in class.
2.3.2	use electronic mail and web browser applications for communications and for research to support instruction.	<p>All courses require students to communicate with e-mail and conduct research on the world wide web fro the purposes of the course.</p> <p>EDU 595 Telecommunication in Education: Within this course the students set up a learning community. One means of communicating within this learning community is the use of e-mail.</p> <p>EDU 590 Microcomputers in Classroom Instruction: Within this course students must do advanced web searches to demonstrate their understanding of a variety of web search engines and that they can use those searches to increase their productivity.</p>
2.3.3	use automated on-line search tools and intelligent agents to identify and index desired information resources.	EDU 590 "Microcomputers in Classroom Instruction", Assessment 2, Within this course students must do advanced web searches to demonstrate their understanding of a variety of web search engines and that they can use those searches to increase their productivity.
2.3.4	identify and use information access and telecommunication tools to support research and instruction throughout the curriculum.	EDU 595 "Telecommunication in Education", Evaluations 1, 2, 3
2.3.5	use local mass storage devices and media to store and retrieve information and resources.	<p>All courses require some form of portable storage and to use existing systems' local storage for researching and evaluating content</p> <p>EDU 590 "Microcomputers in Classroom Instruction", Assessments 1, 3</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.4	<p>Software/Hardware Selection Candidates will demonstrate knowledge of selection and management of the educational technology infrastructure in a classroom setting. Candidates will identify and implement software in classroom environments. They will investigate issues related to educational technology integration.</p>	
Performance Indicators - Candidates Will:		
2.4.1	develop plans to configure computer/ educational technology systems and related peripherals appropriate to the candidate's teaching field(s) in laboratory, classroom cluster, and other instructional arrangements.	EDU 643 "Instructional Design", Students in this course apply the theories, principles and technologies to creating an instructional design to specifically address an instructional need within their educational setting. The students must then test this instructional multimedia package, evaluate its strengths and weaknesses and modify it as appropriate. This assignment is done within the educational setting of the learner's employment.
2.4.2	research, evaluate, and develop recommendations for purchasing instructional software to support and enhance the school curriculum.	EDU 643 "Instructional Design", During the needs assessment component of the required design of an instructional multimedia package the student must evaluate the existing technology resources within their educational setting. As the student develops their instructional package they are required to evaluate technologies and suggest the acquisition of those technologies in their employment setting for use with the instructional multimedia package that is being designed.

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.4.3	research, evaluate, and develop recommendations for purchasing educational technology systems.	EDU 643 "Instructional Design", During the needs assessment component of the required design of an instructional multimedia package the student must evaluate the existing technology resources within their educational setting. As the student develops their instructional package they are required to evaluate technologies and suggest the acquisition of those technologies in their employment setting for use with the instructional multimedia package that is being designed.
2.4.4	design and recommend procedures for the organization, management, and security of hardware and software.	EDU 643 "Instructional Design" within the course project to design a multimedia instructional package the student must evaluate software, hardware and its safe storage and use.
2.4.5	identify and describe network software packages used to operate a computer network system.	EDU 590 "Microcomputers in Classroom Instruction", Topic 10
2.4.6	configure a computer system and one or more software packages.	EDU 590 "Microcomputers in Classroom Instruction", Topic 7
2.4.7	identify and describe software used in classroom settings, including productivity tools, information access/telecommunications tools, multimedia/ hypermedia tools, evaluation/portfolio tools, and computer-based instruction.	EDU 595 "Telecommunication in Education", Evaluations 1, 2, 3, 4, 5: Students must evaluate and then select the appropriate telecommunication tools and software for establishing the learning community. EDU 590 "Microcomputers in Classroom Instruction", Assessments 1, 2, 6, Topics 6, 7, 8, 12: Students evaluate software for uses within their own educational setting.
2.4.8	describe evaluation criteria for software and identify reliable sources of software evaluations.	EDU 590 "Microcomputers in Classroom Instruction", Assessments 1, 2, Topics 4, 6

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.4.9	identify and classify adaptive assistive hardware and software for students and teachers with special needs and locate sources to assist in procurement and implementation.	EDU 590 "Microcomputers in Classroom Instruction", Assessment 6, Topic 19 Students engage in the uses of adaptive technology and evaluate the sufficiency of the adaptive technologies within their own educational setting.
2.5	<p>Research and Theories</p> <p>Candidates will identify and apply educational and educational technology-related research, the psychology of learning, and instructional design principles in guiding use of computers and educational technology in education.</p>	
Performance Indicators - Candidates Will:		
2.5.1	summarize and apply principles and practices of educational research in educational technology.	EDU 707 "Issues in Educational Technology" " This course requires students to engage in educational research around an issue or problem within the field of educational technology. Students are encourage to select an issue or problem most directly related to the educational setting that they teach in. This research is designed to include an literature review and create a solution or research project.
2.5.2	summarize major research findings and trends related to the use of educational technology in education to support integration of educational technology in a K-12 environment.	EDU 707 "Issues in Educational Technology" as a course focuses upon research, trends and issues related to educational technology. Students are required to complete a research paper on an issue or trend most closely associated with their professional interests.

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.5.3	apply theories of learning, teaching, and instructional design and their relationship to meaningful and appropriate ways of using educational technology in instruction.	EDU 643 Instructional Design as a course focuses upon the theories of instructional design and the theories of learning, curriculum development and assessment specifically as they related to the field of educational technology. Students are required to use the principles of instructional design to complete a needs assessment, a systems analysis, a multimedia design, pilot study, and assessment plan for an instructional multimedia package aimed at addressing an instructional need or gap related to the Michigan Curriculum Frameworks appropriate for their educational field of interest.
2.5.4	describe social and historical foundations of education and how they relate to the use of educational technology in schools.	EDU 707 Seminar: Issues in Educational Technology includes topics that look at the social and historical foundations related to educational technology. Students discuss these issues and make presentations around these issues as part of the course evaluations.
2.5.5	identify research related to human and equity issues concerning the use of computers and related technologies in education.	EDU 590 Advanced Educational Technology raises these issues through the discussion and use of adaptive technologies. EDU 643 Instructional Design includes a in-depth discussion and analysis of equity issues related to needs assessments and systems analysis processes necessary for planning and designing an instructional package. EDU 707: Seminar: Issues in Educational Technology further raises the issues of equity within discussions about economic conditions that affect the availability and uses of technology.
2.5.6	conduct research and evaluate on-line sources of information that support and enhance the curriculum.	EDU 590 "Microcomputers in Classroom Instruction" students engage in an assignment in which they have to evaluate on-line sources through the use of a classroom rubric that identifies key components of effective on-line resources.

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.5.7	design a research project that includes evaluating the use of a specific educational technology in a K-12 environment.	EDU 643 Instructional Design within the assignment to design a multimedia instructional package to address an educational need includes requirements for research that enhances the designers understanding of the learners, the learning context, the subject area and the technology as it is applied within the instructional design. The research includes the evaluation of the use of several types of technology with the goal of identifying which technology best addresses the instructional need.
2.6	<p>Problem Solving, Instructional Design, and Product Development</p> <p>Candidates will use computers and other technologies in research, problem solving, and product development. Candidates use a variety of media, presentation, and authoring packages; plan and participate in team and collaborative projects that require critical analysis and evaluation; and present products developed.</p> <p>Candidates will evaluate authoring and programming environments for use in the classroom. They will apply instructional design principles to develop, implement, and test interactive multimedia instructional products using authoring environments.</p>	
Performance Indicators - Candidates Will:		

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.6.1	identify basic principles of instructional design associated with the development of multimedia and hypermedia learning materials.	EDU 642 "Instructional Multimedia" and EDU 643 Instructional Design courses work hand in hand and are offered during the same semester with advisors requiring students to take the courses concurrently. In EDU 643 student are presented the basic principles of instructional design and then are asked to use those principles within EDU 642 where they develop instructional multimedia to address the needs within their educational setting.
2.6.2	develop simple hypermedia and multimedia products that apply basic instructional design principles.	EDU 642 "Instructional Multimedia" and EDU 643 Instructional Design courses work hand in hand and are offered during the same semester with advisors requiring students to take the courses concurrently. In EDU 643 student are presented the basic principles of instructional design and then are asked to use those principles within EDU 642 where they develop instructional multimedia to address the needs within their educational setting.
2.6.3	select appropriate tools for communicating concepts, conducting research, and solving problems for an intended audience and purpose.	EDU 595 Telecommunication in Education devotes a good portion of the course to the discussion of tools for communication. EDU 643 Instructional Design presents the instructional design process which includes discussion of the selection of multimedia technology including tools for communication and research for their intended audience which is identified in their needs assessment portion where they conduct an analysis of the users of the instructional package they are planning and preparing.

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.6.4	participate in collaborative projects and team activities.	Every course in the program allows students for the opportunity to work collaboratively on projects. Each instructor/professor allows students to either work individual, in pairs or teams of three to complete assignments that are appropriate for their educational setting. Instructors believe this to be an individual choice based upon the learning styles and needs of the students.
2.6.5	identify examples of emerging, authoring, or problem solving environments.	EDU 642 "Instructional Multimedia" students work with multimedia in power point in which the assignment embeds within the requirements the need to address problems. EDU 590 Microcomputers in Classroom Instruction introduces students to a variety of authoring software. EDU 707 Seminar: Issues in Educational Technology includes a discussion of emerging, authoring and problem solving environments and the impacts of such on educational settings and uses of technology within those settings.
2.6.6	collaborate in on-line workgroups to build bodies of knowledge around specific topics.	EDU 595 "Telecommunication in Education", Evaluations 1, 4, 6 In addition each course is supported by Blackboard, a course authoring system. Instructors often use the Blackboard shells and the accompanying discussion boards as a means of establishing dialogue between students in order to pose questions and answers to specific topics addressed in class.

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.6.7	use a computer projection device to support and deliver oral presentations.	<p>All courses build on students abilities to instruct through the use of educational technology.</p> <p>EDU 590 “Microcomputers in Classroom Instruction”, Assessment 7</p> <p>EDU 642 “Instructional Multimedia”, Assessments 2, 3, 4, 5, 6</p> <p>EDU 707 “Issues in Educational Technology” Topic 4, Outline VII</p> <p>In each of these courses students are required to give presentations about their technology projects or research that require them to use computer projection and support. The requirement of such is design to give students experience using such media.</p>
2.6.8	design and publish simple on-line documents that present information and include links to critical resources.	<p>EDU 590 Advanced Educational Technology requires students to complete a project that includes the merging of data and media from a number of applications. This project also include the merger or on-line documents into the project/report.</p> <p>EDU 595 “Telecommunication in Education”, Evaluation 6</p>
2.6.9	develop instructional units that involve compiling, organizing, analyzing, and synthesizing of information and use educational technology to support these processes.	<p>EDU 643 “Instructional Design”: The entire course is devoted to the development of instructional units (called instructional multimedia packages) that require students to synthesize principles from all of the proceeding courses in the certificate sequence.</p> <p>EDU 590 requires students to develop a technology unit that is evaluated./</p>
2.6.10	use and apply more than one computer authoring and/or programming environment.	EDU 642 “Instructional Multimedia”, Topics 1, 4, 9

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.6.11	describe the characteristics and uses of current authoring environments and evaluate their appropriateness for classroom applications.	EDU 590 requires students to find and use free and shareware which could include various authoring software. EDU 642 "Instructional Multimedia", Topics 6, 7, 12 Students learn to use a variety of authoring software and discuss its use and application to their own educational setting.
2.6.12	describe the characteristics and uses of current programming and scripting environments and evaluate their appropriateness for classroom use.	EDU 642 "Instructional Multimedia", Topic 12
2.6.13	apply instructional design principles to the design of screens, text, graphics, audio, and video in instructional products under development.	EDU 642 "Instructional Multimedia", Topics 5, 7, 12, 15 EDU 643 Instructional Design includes within the needs assessment and the media selection activity to have students locate, evaluate and/or design graphic, audio or video products for use within their instructional design.
2.6.14	describe and practice strategies for testing and evaluating instructional products designed.	EDU 590 Advanced Instructional Technology. Students are required to find and use freeware and shareware in schools and then evaluate its usefulness within their own educational setting. In topic one to the course students are introduced to the principles for selecting and assessing good software and courseware. Students complete an assignment to evaluate commercially developed software. EDU 642 "Instructional Multimedia", Topics 10, 12, 15 EDU 707 "Issues in Educational Technology" Topic 2, Outline II

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.6.15	apply instructional design principles to develop substantive interactive multimedia computer-based instructional products.	EDU 642 "Instructional Multimedia", Topics ALL EDU 643 "Instructional Design" the entire course is devoted to this standard as students use the instructional design principles to develop an instructional multimedia package (developed in EDU 642).
3.0	<p>Professional Preparation in Educational Computing and Educational Technology</p> <p>Professional studies in educational computing and educational technology require knowledge about use of computers and related technologies to support teaching and learning. Advanced programs preparing educators for a specialty in educational computing and educational technology require studies of, and experiences with, concepts and skills related to use of educational technology-based systems in K-12 education.</p>	
3.1	<p>Instructional Program Development</p> <p>Candidates will develop curricular plans based on local, state, and national standards for the use of computers and other associated technologies.</p>	EDU 590 "Microcomputers in Classroom Instruction", Topic 2
Performance Indicators - Candidates Will:		
3.1.1	describe and analyze accepted principles of strategic planning to facilitate curriculum design for teaching with computers and related technologies.	<p>EDU 707 "Issues in Educational Technology" Topics 1, 2, 3, 5, Outline I, II, III, IV, VI</p> <p>EDU 590 Advanced Educational Technology includes an assignment where students must design a technology unit that can be taught.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
3.1.2	identify and use national, state, and local guidelines to develop curriculum plans for integrating educational technology in the K-12 environment.	<p>EDU 590 “Microcomputers in Classroom Instruction”, Topic 2</p> <p>EDU 643 Instructional Design requires students to identify and use national, state and local guidelines to identify an instructional need or gap in the needs analysis assignment that begins the development of their instructional multimedia package.</p>
3.1.3	plan strategies to mentor other educators and demonstrate leadership regarding Information Age learning practices and techniques.	<p>EDU 595 “Telecommunication in Education”, Topic 2, Evaluation 7</p> <p>EDU 707: Seminar: Issues in Educational Technology includes discussion on administrative concerns. This area includes an examination of the mentor and leadership role of technology experts within the educational setting.</p>
3.2	<p>Teaching Methodology</p> <p>Candidates will effectively plan, deliver, and assess concepts and skills relevant to educational technology across the curriculum. Candidates will apply effective methods and strategies for teaching the use of educational technology tools.</p>	
Performance Indicators - Candidates Will:		
3.2.1	design and practice methods and strategies for teaching concepts and skills related to computers and related technologies including keyboarding.	<p>EDU 590 “Microcomputers in Classroom Instruction”, Topic 10</p> <p>EDU 643 Instructional Design: Students design an instructional multimedia package which demonstrates that they understand the methods and strategies for teaching computer related skills and concepts.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
3.2.2	design and practice methods and strategies for teaching concepts and skills for applying productivity tools.	<p>EDU 590 “Microcomputers in Classroom Instruction”, Topic 9 and 10</p> <p>EDU 643: Instructional Design: Students must pilot their instructional multimedia package. This includes an evaluation of the effectiveness of the package and also the instructional strategies and instructor who implemented the package.</p>
3.2.3	design and practice methods and strategies for teaching concepts and skills for applying information access and delivery tools.	<p>EDU 590 “Microcomputers in Classroom Instruction”, Topic 8 and 12</p> <p>Student develop a technology unit that can be taught. Students also need to demonstrate that they can access information on the Internet using a variety of search strategies.</p>
3.2.4	design and practice methods and strategies for teaching problem solving principles and skills using educational technology resources.	<p>EDU 590 “Microcomputers in Classroom Instruction”, Topic 4, 5 and 6</p> <p>EEDU 643 Instructional Design: The class requires students to do a learning analysis that demonstrates they understand the various learned capability of students both of which include demonstrating their understanding of problem solving and skills as learned capability and then they must identify types of technology that best teaches those types of learned capabilities.</p>
3.2.5	design and implement integrated educational technology classroom activities that involve teaming and/or small group collaboration.	<p>EDU 590 “Microcomputers in Classroom Instruction”, Topic 11 and 12</p> <p>EDU 643 and EDU 642: Students complete the instructional multimedia package which demonstrates they can plan and implement an integrated technology classroom.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
3.2.6	identify activities and resources to support regular professional growth related to educational technology.	EDU 590 "Microcomputers in Classroom Instruction", Topic 1 and 11 EDU 707 Seminar: Issues in Educational Technology. Students complete a research paper which demonstrates they understand the professional literature that they must continually access in order to stay current in their profession.
3.2.7	identify professional organizations and groups that support the field of educational computing and educational technology.	EDU 590 "Microcomputers in Classroom Instruction", Topic 1 EDU 707 Seminar: Issues in Educational Technology: This course also identifies current research in the field which includes a discussion of the professional organizations and groups of prominence in the area of educational technology.
3.2.8	design a set of evaluation strategies and methods that will assess the effectiveness of instructional units that integrate computers/ educational technology.	EDU 643 Instructional Design: This is a requirement of the completed instructional multimedia package.
3.2.9	demonstrate methods for teaching hypermedia development, scripting, and/or computer programming in a problem-solving context in K-12 schools.	EDU 642 "Instructional Multimedia", Topics 1, 15 EDU 643 Instructional Design: Some students select these technologies to be taught within their instructional multimedia package.
3.2.10	demonstrate methods for teaching at least one modern authoring tool to students.	EDU 642 "Instructional Multimedia", Topics 1, 4, 9
3.2.11	demonstrate methods for teaching uses of media-based tools, such as television, audio, print media, and graphics.	EDU 642 "Instructional Multimedia", Topics 5, 7, 12, 15

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
3.2.12	demonstrate methods for teaching social, ethical, and legal issues and responsible use of educational technology.	<p>EDU 707 "Issues in Educational Technology" Topic 5, Outline VI</p> <p>EDU 590 Advanced Educational Technology: Students will be able to critically summarize social and legal issues surrounding technology use in schools that includes, but is not limited to, gender equity, ethnic equity, SES equity, age equity, filtering Internet access, safeguarding students online, acceptable use policies free speech and copyright.</p>
3.3	<p>Field Experiences</p> <p>Candidates will participate in field experiences that allow them to (1) observe the use of educational technology to support instruction, and the evaluation of effectiveness of educational technology resources for teaching and learning; and (2) apply educational technology resources to support instruction in classroom settings.</p>	
Performance Indicators - Candidates Will:		
3.3.1	observe and compare methods and strategies used in educational technology in a variety of authentic educational settings (i.e., elementary, middle, secondary, adaptive assistive classrooms, labs).	<p>EDU 590 "Microcomputers in Classroom Instruction", Topic 11</p> <p>EDU 643 Instructional Design: Students need to pilot an instructional multimedia package within an educational setting and evaluate its effectiveness including the instructor's effectiveness of implementing the instructional package.</p>

No.	Guideline/Standard	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
3.3.2	develop and teach a series of lessons that apply educational technology resources to support instruction.	<p>EDU 643 Instructional Design: Students need to pilot an instructional multimedia package within an educational setting and evaluate its effectiveness including the instructor's effectiveness of implementing the instructional package. This instructional package includes a series of lessons using educational technology.</p> <p>EDU 707 "Issues in Educational Technology" Topic 3</p> <p>EDU 709 Innovative Uses of Technology Topics 1, 2, and 5: Students will observe and compare education technology methods in the classroom.</p>

Instructional Faculty

Institution: Central Michigan University

Date: 2/01/05

Specialty Program: Educational Technology

Certification/Endorsement CODE: NP

Please include all faculty teaching the courses shown on the *Summary of Course Requirements for Specialty Program* (Application Attachment 3), including those who may be temporary or non-tenure stream.

Courses	Faculty Member	Highest Degree in this Specialty Area, Indicating Study Focus and Research Area	Professional Development Experience in the Last 3 Years	Familiarity with K-12 Curriculum Framework and MEAP Assessment	Special Awards and Recognition	P-12 Collaborative Work
ALL	Dr. Tim Brannan	Ph.D. Extension Education	Classroom Performance Systems, PalmOne Education Technology Coordinator	Attended MDE meetings on the 7 th standard. Familiar with K-12 curriculum.	J. Edwin Towle Professorship	Project Director for Title IIA Improving Teacher Quality grant and Title IIB Math/Science Partnership Grant
ALL	Dr. William Merrill	Ph.D. Instructional Technology	Numerous AACE conferences, Completed ten online classes at Macromedia University,	Attended MDE meetings on the 7 th standard. Familiar with K-12 curriculum & all seven entry-level standards.	Past-President of the Michigan Council of Teachers of Mathematics	Work with a number of schools/districts on integrating technology in the classroom
ALL	Dr. Ming Zhang	ED.D. Curriculum & Instruction	Handheld computer workshop CPS 282 Intro to Multimedia Design CPS assessment training	Workshop on applying MiClimb Use MCF in teaching science methods courses for preservice students and running		ITQ Grant with K-6 teachers in Highland Park school district (2002-2004) as project director.

				workshops for inservice teachers.		
ALL	Dr. Shane Cavanaugh	Ph.D. Educational Psychology	Digital Video Production, Robotics, Technology/Curriculum Integration	Former high school Science and English teacher		U.S. Department of Education Technology Innovation Challenge Grant, U.S. Department of Education 21 st Century Community Learning Centers Grant, Title IIB Math/Science Partnership Grant,

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CENTRAL MICHIGAN UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN SERVICES
Department of Teacher Education and Professional Development
Master Course Syllabus

EDU	590	Microcomputers in Classroom Instruction	3 (2-3)
Designator	Number	Course Title	Credit(Mode)

- I. **Bulletin Description:** Students will study and practice the integration of computer technology in classroom instruction and management, with emphasis upon software evaluation and lesson design. Identical to SPE 510, credit may not be earned in more than one of these courses.
- II. **Prerequisites:** EDU 290 or permission of instructor.
- III. **Rationale for Course Level:** This course is designed for graduate students and is required for several masters degree programs in the department.
- IV. **Textbooks and Other Required Materials to be Furnished by the Student:**
“The Computer as an Educational Tool: Productivity and Problem Solving, 4th edition” By Richard C. Forcier ISBN: 0-13-113885-5. Pearson/Merril/ Prentice Hall, Columbus, OH. An external storage device, e.g. USB drive.
- V. **Special Requirements of the Course:**
None
- VI. **General Methodology:**
This course is taught through a combination of lecture, class discussion, and technology based activities. Students have the opportunity to learn skills in designing, implementing, and evaluating web resources and interactive multimedia (IMM) for the facilitation of learning for students, including those with disabilities. Techniques for lesson planning, evaluation, and individualization of content area learning will also be included.
1. Technology based activities
 2. Cooperative learning exercises
 3. Projects and presentations
 4. Videotape, CDROM, and other media-based presentations
 5. Distance learning via email, internet access, Blackboard, online tutorials
 6. Research
 7. Readings
 8. Lecture and Discussion
- VII. **Course Objectives:**
Concept- and knowledge-driven: A professional educational practice that is concept and knowledge- driven has, as its foundation, content knowledge. This knowledge base is acquired through serious study and developed through research.
- LEA- LEArner centered:** A professional educational practice that is learner-centered focuses on the

cognitive, affective and physical needs, and characteristics of each learner. It is based on the belief that all learners grow and develop throughout life and that all students can learn.

R- Reflective practice relevant to diverse settings and roles: Educators will work in diverse settings – from the large, urban high school to the small, rural school. Communities and socioeconomic backgrounds. Best educational practice required recognition of and provisions for these differences.

After completing this course, students will be able to:

1. Summarize the historical evolution of computing and media based technologies. (C,LEA,R)
2. Discuss theoretical learning principles and approaches of change and technological literacy in teacher education. (C,R)
3. Categorize and discuss instructional factors relevant to all interactive multimedia and Web-based learning that affect learning in the classroom. (C,LEA,R)
4. Evaluate and discuss tutorial, drill, simulation, web resources and educational game software in regard to presentation of information, guidance, and evaluation of learning. (LEA,R)
5. Demonstrate competency in evaluating World Wide Web sites for appropriateness and accuracy of information. (LEA,R)
6. Demonstrate competency in assessing the quality and usefulness of assorted software and courseware packages. (LEA,R)
7. Identify ways in which technology facilitated instruction may be applied in diverse and individualized ways including using WebQuests. (LEA,R)
8. Demonstrate competency with authoring, troubleshooting, and operating assorted technologies (computer as host and peripheral technologies). (C,LEA,R)
9. Demonstrate competency of assorted application, utility, and communications software. (LEA,,R)
10. Demonstrate competency in operating assorted technologies (computer as host, peripheral technologies, and augmentative communication devices). (LEA,R)
11. Identify individual roles, responses, and responsibilities prerequisite to technology-facilitated instruction. (LEA,R)
12. Write technology based lesson plans that are appropriate to students and accurately reflect key elements found in good instructional design. (LEA,R)
13. Design appropriate rubrics to assess learning with technology activities. (C,LEA,R)
14. Demonstrate knowledge of and competency using adaptive technology. (C,LEA,R)

VIII. Course Outline:

1. Introduction to educational technology uses in schools. Selecting good and assessing software, websites and courseware (3 hours).
2. Effective and efficient web searching. Evaluating web pages with rubrics (4 hours).
 3. W3 Accessibility Standards (2 hours).
4. Assistive technology in the classroom (2 hours).
5. Learning and instruction (6 hours).
6. Computer applications in education (3 hours).
7. Classroom applications as learning tools (3 hours).
8. Internet Applications in Education (3 hours).
9. Webquests (6 hours).
10. Dealing with social and legal issues surrounding the use of technology in schools (2 hours).
11. e-Cheating (2 hours)

12. Using technology to enhance teaching and learning in the classroom (6 hours).
13. Building appropriate rubrics to assess technology use (3 hours).
14. Student Presentations (3 hours).

IX. Evaluation:

1. Assigned Readings: Should be completed prior to class (including chapters from the textbook and class handouts).
2. Paper: (50 points) Research Paper on social and legal issues technology use in schools/give PowerPoint presentation on research.
3. Technology-based Projects: (20 points).
 - a. Evaluate educational software/courseware and World Wide Web sites
 - b. Research adaptive technology in the classroom
 - c. Create a Webquest based on an actual lesson
4. Technology Project: (20 points) Technology Unit Development. Graduate students may either create a CD-ROM or use an authoring system to design an assessment tool which could be used to teach students within the public school setting.

Grading:

The percentage of points pertaining to each of the evaluation component for graduate students is described below:

1. Participation	10%
2. Paper and Presentation	50%
3. Technology-based Projects	20%
4. Technology Project	20%

Syllabus Prepared By:

_____ (Name)
 _____ (Signature)
 _____ (Date)
 January 27, 2005

X. Bibliography

Books:

- Alessi, S.M. & Trollip, S.R., (2001). *Multimedia for learning: Methods and developments*. Boston: Allyn & Bacon.
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- Clarke, C., Swearington, L. & Anderson, David K. (1997). *Shocking the Web (Windows edition)*. Berkeley, California: Marcromedia Press.
- Clark, R.C. & Mayer, R.E. (2002). *e-Learning and the science of instruction*. New York: Jossey-Bass.
- Droblas, A. & Greenberg, S. (2002). *Adobe Premiere 6.5 Bible*. New York: John Wiley & Sons.
- Dillon, P. M. (1998). *Multimedia and the Web from A to Z* (2nd ed.). Phoenix, Arizona: Oryx Press.
- Horton, W. (2002). *Designing web-based training: How to teach anyone anything anywhere anytime*. New York: John Wiley & Sons.
- Kerman, P. (2002). *Sams Teach Yourself Flash MX in 24 Hours*. New York: Sams.
- England, E. & Finney, A. (2001). *People and Process: Managing Multimedia: Project Management for Web and Convergent Media*. Boston: Pearson Higher Education.
- England, E. & Finney, A. (2001). *Technical Issues: Managing Multimedia: Project Management for Web and Convergent Media*. Boston: Pearson Higher Education.
- Gulie, S. W. (1999). *QuickTime for the Web: A Hands-On Guide*. Boston: AP Professional.
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- Hill, J.R. (1999). A conceptual framework for understanding information seeking in an open-ended information systems. Educational technology and development. 47(1), 5-27.
- Horton, W. (2000). *Designing Web-Based Training: How to Teach Anyone Anything Anywhere Anytime*. New York: John Wiley & Sons.
- Jonassen, D.H. (2000). Computers as mind tools for school: Engaging critical thinking. Upper Saddle River, NJ: Merrill
- Kerman, P. (2002). *Sams Teach Yourself Flash MX in 24 Hours*. New York: Sams.
- Lee, W.W. & Owens, D.L. (2002). *Multimedia-based instructional design: Computer-based training*,

- webbased training, and distance learning*. New York: Jossey-Bass.
- Lunefeld, P. (2000). *The Digital Dialectic: New Essays on New Media*. Boston: MIT Press.
- Male, M. (1996). *Technology for Inclusion*. Boston: Allyn & Bacon.
- Manovich, L. (2002). *The Language of New Media*. Boston: MIT Press.
- Mayer, R.E. (2001). *Multimedia learning*. Cambridge University Press.
- McEvoy, S. (2000). *Microsoft Windows Media Player 7 Handbook*. Redmond, California: Microsoft Press.
- Packer, R., Jordan, K., & Gibson, W. (eds) (2002). *Multimedia: From Wagner to Virtual Reality*. New York: W.W. Norton & Co.
- Patterson, J. & Melcher, R. (1998). *Audio on the Web*. Berkeley, California: Peachpit Press.
- Roblyer, M.D. (2003). *Integrating Educational Technology into Teaching*. Columbus, OH: Merrill/Prentice Hall.
- Roblyer, M.D. (2003). *Starting Out on the Internet: A Learning Journey for Teachers*. Columbus, OH: Merrill/Prentice Hall.
- Smith, P.L., & Ragan, T.J. (1999). Instructional design. (2nd ed.) Upper Saddle River, NJ:Prentice Hall
- Vaughan, T. (2001). *Multimedia: Making it Work*. Boston: McGraw-Hill/Osborne Media.

Web Sites:

Graphics Sites:

- Flaming Text: <http://www.flamingtext.com/>
- CoolText: <http://www.cooltext.com/>
- MediaBuilder: <http://www.mediabuilder.com/>
- WebFX: <http://www.webgfx.ch/titlepic.htm>
- Interface Graphics: <http://www.absolutecross.com/graphics/interfaces/>
- Seamless Textures: <http://www.absolutecross.com/graphics/textures/>
- Brucies Buttons: <http://www.brucies.com/index.html>
- Education Clip Art: http://www.lausd.k12.ca.us/Norwood_EL/educationpics/
- BellsNWhistles: <http://www.bellsnwhistles.com/>
- Graphics & Clip Art: <http://www.kn.pacbell.com/wired/fil/pages/listgraphicscy.html>
- Great Graphics Vault Index: http://rats2u.com/calendar_a/calendar_clipart.htm
- WebDeveloper.com: <http://www.webdeveloper.com/animations/>

Research Sites:

- ERIC Clearinghouses: <http://mteachers.org/eric/index.html>
- Education Newsletters and Articles on the WWW: <http://mteacher.org/eddan/index.html>
- Content Information Links: <http://www.ehhs.cmich.edu/tepd/pdsite/curriculum/index.html>
- Brain-Based Teaching and Learning Sites: <http://mteachers.org/curriculum/tlws.html>
- North Central Regional Education Laboratory: <http://www.ncrel.org/>

Education Week on the Web: <http://www.edweek.org/>
The National Center for Educational Statistics: <http://nces.ed.gov/>
Trends in International Mathematics and Science Study [TIMSS]: <http://timss.bc.edu/timss2003.html>

Tutorial Sites:

Searching the World Wide Web: Links to tutorials and hundreds of general and specific search engines:
<http://mteachers.org/curriculum/searching/index.html>
Introduction to Network Etiquette: <http://jade.wabash.edu/wabnet/info/netiquet.htm>
Protect Yourself Online: <http://www.learnthenet.com/english/section/protect.html>
Software Tutorials: Links to multiple tutorials for different kinds of software:
<http://mteachers.org/prodev/wbtutorials.html>

Photoshop Tutorials:

TheTutorial.com: http://www.thetutorial.com/Graphics_Tutorials/
Net Corridor: <http://www.netcorridor.yellowpipe.com/tutorials.php>
Photoshop Resource: Pattern Maker Filter Fun:
<http://www.photoshopresource.com/Tutorials2003/March/PS7Patterns/default.asp>
Photoshop Resource: Brush Magic:
<http://www.photoshopresource.com/Tutorials2003/March/PSBrushMagic/default.asp>
Photoshop Tutorials: <http://www.learnphotoshop.net/smartpages/sitemap.htm>
Photoshop Links: <http://www.bhsu.edu/artssciences/asfaculty/pkopco/pslinks.htm>

Rubric and Web Evaluation Sites:

Five Criteria for Evaluating Web Sites: <http://www.library.cornell.edu/okuref/webcrit.html>
Evaluating Quality on the Net: <http://www.hopetillman.com/findqual.html>
ICYouSee: T is for Thinking: <http://www.ithaca.edu/library/Training/hott.html>
Evaluating Web Resources:
<http://www2.widener.edu/Wolfgram-Memorial-Library/webevaluation/webeval.htm>
Web Resource Evaluation Techniques:
<http://www2.widener.edu/Wolfgram-Memorial-Library/webeval/eval1198/index.htm>

WebQuest Sites:

WebQuest Resources: Links to WebQuest development sites and hundreds of sites offering ready-made WebQuests: <http://mteachers.org/webquest/index.html>

Education Sites:

Best of the World Wide Web: Links to hundreds of excellent sites for teachers and administrators:
<http://mteachers.org/bestwww.html>
The Council for Exceptional Children <http://www.cec.sped.org/>
Technology and Media Division <http://www.tamcec.org/>
504 Plans <http://www.wrightslaw.com/info/sec504.index.htm>

Journals:

Online Journals and Magazines: Links to hundreds of online education journals:
<http://mteachers.org/curriculum/journalsol.html>

Articles:

General Readings on Technology in Education:

- Internet Guidelines and Culture by Arlene H. Rinaldi: <http://www.fau.edu/netiquette/net/culture.html>
- Don't Spread that Hoax: <http://www.nonprofit.net/hoax/default.htm>
- Effective Use of Computers with Young Children by Linda J. Burkhart: <http://www.lburkhart.com/handcomp.html>
- Strategies and Applications for the One Computer Classroom: <http://www.lburkhart.com/elem/strat.htm>
- What We Are Learning About Early Learners and Augmentative Communication and Assistive Technology by Linda J. Burkhart: <http://www.lburkhart.com/gphb.htm>
- Piracy, Pornography, Plagiarism, Propaganda, Privacy: Teaching Children to Be Responsible Users of Technology Protects Their Rights and the Rights of Others: <http://www.computerlearning.org/articles/Ethics98.htm>
- Computer Learning Foundation Code of Responsible Computing: <http://www.computerlearning.org/RespCode.htm>
- Computer Learning Foundation Emphasizes Responsible Use of Technology by Sally Bowman Alden: <http://www.computerlearning.org/articles/respmyth.htm>
 - The Information Highway and Our Children by Sally Bowman Alden & Alex Curyea: <http://www.computerlearning.org/articles/InfoHwy.htm>
 - How Can We Dramatically Improve the Quality of Education through the Use of Computers and Related Technologies? by Frances Richardson: <http://www.computerlearning.org/articles/Improve1.htm>
 - Technology Foundation Standards for All Students: http://cnets.iste.org/students/s_stands.html
 - Profiles for Technology Literate Students [make sure you visit and read the material for each of the grade blocks] : http://cnets.iste.org/students/s_profiles.html
 - Educational Technology Foundations for All Teachers: http://cnets.iste.org/teachers/t_stands.html
 - Michigan Entry Level Standard # 7: <http://www.ehhs.cmich.edu/~wmerrill/mistandard7.html>
 - Preface: <http://www.nap.edu/readingroom/books/techgap/navigate.cgi>
 - The Nintendo Generation
 - The Technology Juggernaut
 - The Network Revolution
 - Networking K-12 Education
 - New Models for Education
 - Systemic Reform
 - Investing in Teachers
 - Ensuring Equity
 - Burgeoning Markets
 - Opportunity to Change
 - Learning about Learning Social Issues on the Internet

Access Issues

Critical Issue: Ensuring Equitable Use of Education Technology by NCREL:

<http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te400.htm>

Technology and Equity by Delia Neuman: http://www.ed.gov/databases/ERIC_Digests/ed339400.html

Teacher Education and Gender Equity by Jo Sanders:

http://www.ed.gov/databases/ERIC_Digests/ed408277.html

Women and Minorities in High-Tech Careers by Bettina Lankard Brown:

http://www.ed.gov/databases/ERIC_Digests/ed452367.html

Internet Access and Content for Urban Schools and Communities by James M. Lonergan:

http://www.ed.gov/databases/ERIC_Digests/ed446180.html

Making Web Sites Work for People with Disabilities by Andrea L. Foster:

<http://chronicle.com/free/v47/i21/21a03001.htm>

With Accessibility for All by Chuck Moozakis: <http://www.teledotcom.com/article/TEL20010119S0025>
Are Low-Income Schools Stalled on the Information Superhighway?:
http://www.cgs.edu/inst/trc_reach.html
The Digital Divide Persists in US by Michael Pastore:
http://cyberatlas.internet.com/big_picture/demographics/print/0,1323,5901_158701,00.html

Speech Issues on the Internet:

Should we Kill? Can we Kill the Messenger...: <http://www.fmew.com/archive/cults/>
Virtual Fuhrer by Curt Guyette: <http://www.metroactive.com/papers/metro/08.08.96/netnazis-9632.html>
Multiculturalism, Racism, and Hate Speech by Thelma McCormack:
http://www.math.yorku.ca/ISR/newsletter/multi_racism_hate.htm
Government Censorship Trial Begins:
http://www.eff.org/Legal/Cases/Multnomah_Library_v_US/20020322_eff_aclu_cipa_pr.html
The Lawless Internet by Mick Brady: <http://www.ecommercetimes.com/perl/story/4026.html>
Letter to the Editor by Penelope Seator: <http://www.nostatusquo.com/ACLU/aclu/PennySeator.html>

Pornography:

Indecency on the Internet: Lessons from the Art World by Julie Van Camp:
<http://www.csulb.edu/%7ejvancamp/article1.html>
Cyberwire Dispatch II by Brock Meeks: <http://www.ethics.ubc.ca/resources/computer/meeks.html>
OCAF White Paper on Internet Pornography: <http://www.bway.net/%7edfenton/manifesto.html>
Enough-Is-Enough – Sharks: <http://www.enough.org/sharks.htm>

Filtering:

Campaign for Web Liberty by EFF:
http://www.eff.org/Censorship/Ratings_filters_labelling/19990907_gilc_intl_ratings_stateent.html
Speak freely, Act Responsibly: http://pageturners.com/CDA/rs_1st.htm
A quick review of the major points of the Responsible Speech Campaign:
http://pageturners.com/CDA/rs_pnts.htm
Study Outlines Safety Tips for Kids: Online study finds perpetrators are younger than you'd expect:
http://www.safekids.com/articles/ft_study.htm
Filtering Programs Useful but Far From Perfect: <http://www.safekids.com/articles/filtering2000.htm>

Copyright and the Internet:

A Brief Intro to Copyright by Brad Templeton: <http://www.templetons.com/brad/copyright.html>
10 Big Myths about Copyright Explained by Brad Templeton:
<http://www.templetons.com/brad/copymyths.html>
Copyright Notice: <http://www.benedict.com/info/notice/notice.asp>
Copyright Fair Use: <http://www.benedict.com/info/fairUse/fairUse.asp>
Copyright Public Domain: <http://www.benedict.com/info/publicDomain/publicDomain.asp>
Fair Use Guidelines for Educational Multimedia: http://www.it.cmich.edu/it/policies_multi_fairuse.asp

Netiquette:

Introduction to Network Etiquette: <http://jade.wabash.edu/wabnet/info/netiquet.htm>

CENTRAL MICHIGAN UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN SERVICES
Department of Teacher Education and Professional Development
Course Syllabus

EDU	595	Telecommunication in Education	3 (2-2)
Designator	Number	Course Title	Credit(Mode)

- I. Bulletin Description:** The study and laboratory exploration of telecommunication as used in schools and classrooms; e-mail, educational and general networks, collaborative lessons.
- II. Prerequisites:** EDU 590; or equivalent with permission of instructor.
- III. Rationale for Course Level:** n/a
- IV. Textbooks and Other Required Materials to be Furnished by the Student:**
 Young, M.L., & Levine, J. (2000). *Poor Richard's Building Online Communities: Create a Web Community for Your Business, Club, Association, or Family*. Lakewood, CO: Top Floor Publishing.
 External storage devices.
- V. Special Requirements of the Course:**
 Determined by the instructor.
- VI. General Methodology Used in Teaching the Course:**
 Weekly lectures with discussions and class project reports, followed by exploration of and participation in telecommunication activities in the laboratory
- VII. Course Objectives:**
- C- Concept- and knowledge-driven:** A professional educational practice that is concept and knowledge-driven has, as its foundation, content knowledge. This knowledge base is acquired through serious study and developed through research.
- LEA- LEArner centered:** A professional educational practice that is learner-centered focuses on the cognitive, affective and physical needs, and characteristics of each learner. It is based on the belief that all learners grow and develop throughout life and that all students can learn.
- R- Reflective practice relevant to diverse settings and roles:** Educators will work in diverse settings — from the large, urban high school to the small, rural school. Communities and schools are comprised of diverse people from a wide variety of cultural, ethnic, racial and socioeconomic backgrounds. Best educational practice requires recognition of and provisions for these differences.
- After completing this course, the student will be able to:**
1. explain the concept of:
 - a. a learning community; {c}
 - b. mailing lists; {c}

- c. Usenet Newsgroups; {c}
 - d. ICQ, IM, IRC, and chat; {c}
 - e. bulletin boards; {c}
 - f. MUDs, MOOs, and Virtual Worlds; {c}
 - g. video conferencing; {c}
 - c. privacy and spam; {c}
 - d. Netiquette, Safety, and Internet Language. {c}
2. develop a learning community web site for teaching that permits all interested individuals to take part in the community; {c, lea, r}
 3. use multiple methods to access and serve information in their learning community; {c, lea, r} and
 4. demonstrate an ability to monitor, maintain, and update their learning community to meet all users needs. {c, lea, r}

VIII. Course Outline:

Weeks:	Topic
1	Introduction to Learning Communities—reasons for developing a community in education
2	Six stages of Online Communities
3	Developing a community purpose and a home web page for a community
4	Rules, Netiquette, Safety, and Internet Language
5	Finding, joining, and participating in mailing lists
6	Creating and managing your own mailing list
7	Finding, joining and participating in Newsgroups
8	Creating and Managing your own Newsgroup
9	Finding, joining and participating in IRC
10	Creating and Managing your own IRC
11	MUDs, MOOs, and Virtual Worlds
12	Commercial and Community managed chat, ICQ, and bulletin boards
13	Video Conferencing
14	Privacy, Spam, and Other Community Issues
15	Final polishing of your Learning Community
16	Presenting Your Community to the Class

	Undergraduate	Graduate
Mailing List Assignment	10%	7%
Newsgroup Assignment	10%	7%
IRC Assignment	10%	7%
Chat and Bulletin Board Assignment	10%	7%
Video Conferencing Assignment	10%	7%
Final Learning Community Online	50%	50%
Research Paper on the Value of Educational Learning Communities	0%	15%

Syllabus Prepared By:

William Merrill (Name)



(Signature)

February, 2004

(Date)

X. Bibliography

Books:

- Busey, A. & Poirier, J. (1995). *Secrets of the mud wizards: Playing and programming muds, moos, mcks, and other internet roll-playing games*. New York, NY: Sams.
- Charalabidis, A., (2000). *The book of IRC: The ultimate guide to internet relay chat*. Chicago, IL: No Starch Press.
- Coombs, T., & Deleon, R. (2000). *ICQ FYI: Instant communications online*. New York, NY: Mska & Lipman.
- Costales, B.,& Allman, E. (2002). *Sendmail*. Boston: O'Reilly & Associates.
- Dougherty, K.,(2001). *The rules to be cool: Etiquette and netiquette*. Boston, MA: Enslow.
- Dreamtech Software Team (2002). *Instant messaging systems: Cracking the code*. Boston, MA: John Wiley & Sons.
- Else, R.L.,& Hein, T.R. (2002). *USENET news and inn*. New York, NY: Prentice Hall.
- Hauben, M., Hauben, R., & Truscott, T. (1977). *Netizens: On the history and impact of usenet and the internet*. Boston: Wiley IEEE Press.
- Palloff, R.M., & Pratt, K. (1999). *Building learning communities in cyberspace: Effective strategies for the online classroom*. New York: Jossey-Bass.
- Powers, J., & Powers, D. (1977). *IRC and online chat*. New York, NY: Abacus.
- Rohrbough, L. (1993). *Mailing list services on Your Home-Based PC*. New York, NY: Windcrest.
- Schwartz, A. (1999). *Managing mailing lists*. Boston: O'Reilly & Associates.
- Shesfski, W.J., & Shesfski, B. (1995). *Interactive internet: The insiders guide to muds, moos, and IRC*. New York, NY: Premier Press.
- Shigeoka, I (2002). *Instant messaging in java: The jabber*. New York, NY: Manning Publications.
- Spencer, H., & Lawrence, D. (2000). *Managing usenet*. Boston, MA: O'Reilly & Associates.
- Wetteroth, D. (2002). *Instant messaging demystified*. Boston, MA: McGraw-Hill.
- Weverka, P. (2001). *Mastering ICQ: The official guide*. Boston, MA: John Wiley & Sons.

Selected Resources:

Web Sites:

ICQ:	http://www.icq.com/
	http://www.icgplus.org/
IM:	am://www.aol.com/aim/
	http://messenger.msn.com/
	http://messenger.yahoo.com/
MUDs, MOOS, & Virtual Worlds	http://net.gurus.com/telnet/
	am://www.mudconnector.org/mudfaq/
	http://www.godlike.com/muds/
	http://www.ccon.org/hotlinks/worlds.html
Copyright Issues	http://lcweb.loc.gov/copyright/
	http://lcweb.loc.gov/copyright/cires/circ21.pdf
	http://www.templetons.com/brad/copyright.html
	http://www.benedict.com/info/notice/notice.asp
	http://www.benedict.com/info/fairUse/fairUse.asp
	http://www.benedict.com/info/publicDomain/publicDomain.asp
	am://www.it.cmich.edu/it/policies_multi_fairuse.as
	http://www.templetons.com/brad/copymyths.html
Netiquette	http://www.wabash.edu/technology/wabnet/neti. uette.cfm
Bulletin Boards	am://www.teaching.com/ttalk/
	http://fart-machines.com/include/links2_27.html
	http://www.searchup.com/
	http://homeparents.about.com/library/weekly/aa081498.htm
Net Cams	http://chili.rt66.com/ozone/cam.htm
Mailing Groups	http://groups.yahoo.com/
	http://www.topica.com/
	http://paml.alastra.com/
	http://www.lsoft.com/lists/listref.html
USENET	http://echoes.free.fr/nntpbot/nntpbot.php3?action=list
	http://groups.google.com/
	http://www.newsguy.com/drnhelpw.htm
Privacy	http://www.w3.org/P3P/
	http://dollar.econ.cmu.edu/p3peritique/
Accessibility	p://www.w3.org/
	http://www.w3.org/WAI/

CENTRAL MICHIGAN UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN SERVICES
Department of Teacher Education and Professional Development
Master Course Syllabus

EDU	642	Instructional Multimedia	3 (3-0)
Designator	Number	Course Title	Credit(Mode)

I. **Bulletin Description:** Students will study, practice and apply how to appropriately and effectively implement multimedia technologies in classroom environments.

II **Prerequisites:** EDU 590

III. **Rationale for Course Level:** n/a

IV. **Textbooks and Other Required Materials to be Furnished by the Student:**

Windows or Macintosh Lab:

Vaughan, T. (2001). *Multimedia: Making it Work*. Boston: McGraw-Hill/Osborne Media.

Kerman, P. (2002). *Sams Teach Yourself Flash MX in 24 Hours*. New York: Sams.

Droblas, A. & Greenberg, S. (2002). *Adobe Premiere 6.5 Bible*. New York: John Wiley & Sons. **Or,**

Macintosh Lab:

Vaughan, T. (2001). *Multimedia: Making it Work*. Boston: McGraw-Hill/Osborne Media.

Kerman, P. (2002). *Sams Teach Yourself Flash MX in 24 Hours*. New York: Sams.

Heid, J. (2002). *The Macintosh Digital Hub: An Interactive Guide to iTunes, iPhoto, iMovie, and iDVD*.

Berkeley, CA: PeachPit Press.

Everyone:

External storage devices

V. **Special Requirements of the Course:**

None

VI. **General Methodology Used in Teaching the Course:**

1. Technology based activities
2. Cooperative learning exercises
3. Projects and presentations
4. Videotape, CD ROM, and other media
5. Distance learning via E Mail, Internet access, or online services, or tutorials
6. Research
7. Readings
8. Lecture and discussion

Course Goals:

As a required course in the classroom applications of technology masters, this course seeks to help students understand that teaching with technology is *concept and knowledge driven, learner-centered, and relevant to multiple contexts and roles*. This course is designed to provide students with a theoretical and pragmatic understanding of technology based teaching and learning.

VII. Course Objectives:

C- Concept- and knowledge-driven: A professional educational practice that is concept and knowledge-driven has, as its foundation, content knowledge. This knowledge base is acquired through serious study and developed through research.

LEA- LEArner centered: A professional educational practice that is learner-centered focuses on the cognitive, affective and physical needs, and characteristics of each learner. It is based on the belief that all learners grow and develop throughout life and that all students can learn.

R- Reflective practice relevant to diverse settings and roles: Educators will work in diverse settings – from the large, urban high school to the small, rural school. Communities and schools are comprised of diverse people from a wide variety of cultural, ethnic, racial and socioeconomic backgrounds. Best educational practice requires recognition of and provisions for these differences.

After completing this course, the student will be able to:

1. develop Macromedia Flash movies for the web and as stand alone applications; {c}
2. digitize video and audio from various sources; {c}
3. transform analog video to DV format; {c}
4. create movies in various formats; {c}
5. appropriately and effectively implement multimedia in an instructional environment with attention to varied learning styles, special needs populations, and diversity of students; {c, lea, r}
6. demonstrate knowledge of basic multimedia hardware and software; {c, lea, r}
7. demonstrate knowledge of advanced multimedia hardware and software; {c, lea, r}
8. create animated GIFs; {c}
9. create web-based and stand alone multimedia learning environments; {c, lea, r}
10. evaluate the effectiveness of multimedia instruction with regard to conventional instruction methods; {c, lea, r}
11. demonstrate methods of implementing student use of multimedia; {c, lea, r}
12. evaluation procedures for current commercial multimedia titles; {c, lea, r}
13. integrate interactive, multimedia web sites into classroom instruction; {c, lea, r}
14. demonstrate effective means of evaluating student created multimedia projects; {c, lea, r}
15. demonstrate self-evaluation techniques appropriate for multimedia enhanced instruction. {c, lea}
16. demonstrate knowledge of and ability to use synchronized Multimedia Integration Language [SMIL]

VIII. Course Outline:

Week	Content
1	What is Multimedia? Definitions, descriptions, concepts. Multimedia applications: hypermedia, presentations. Uses of hypermedia and multimedia (presentations, tutorial, student use, resource, enrichment, etc.).
2	Making effective use of multimedia. Pedagogical concerns, design issues, stand-alone or web-based. CD-ROM vs DVD delivery of multimedia, Introduction to Macromedia Flash
3	Macromedia Flash Continued
4	Macromedia Flash Continued
5	Advanced HTML and Streaming Video
6	Advanced HTML and Streaming Video
7	Synchronized Multimedia Integration Language [SMIL]
8	Synchronized Multimedia Integration Language [SMIL] continued
9	Real time video, audio, and text communication
10	Optional uses of multimedia as an instructional tool (student use, presentation use).
11	Integrating multimedia in word processing, databases, spreadsheets
12	Integrating multimedia in PowerPoint
13	Dynamic content in multimedia
14	Dynamic content on the World Wide Web
15	Work on multimedia assignments
16	Student Presentations

IX. Evaluation:

- | | |
|--|-----|
| 1. Participation | 5% |
| 2. Macromedia Flash — Web-Based with Dynamic Content | 20% |
| 3. Macromedia Flash — Stand-Alone | 15% |
| 4. PowerPoint Multimedia presentation | 15% |
| 5. Real Presenter/PowerPoint/Video presentation | 25% |
| 6. Web Page with Dynamic Content | 20% |

Required Hardware for EDU 642:


1. A computer lab [Windows or Mac OS] with one computer per student
2. At least one CD-RW/DVD burner
3. At least one scanner
4. At least one digital camera
5. At least two WebCams
6. At least one Mini-DV camcorder
7. At least one computer with Firewire ports
8. Internet access for all the computers
9. A video projector for the teacher station

Required Software for EDU 642:

1. Integrated Software:
 - a. Microsoft Office
2. Photograph Imaging Software: a.
 - a. Adobe Photoshop

- 3. Multimedia Software
 - a. Macromedia Flash
- 4. Presentation Software:
 - a. PowerPoint [part of Office]
 - b. Real Presenter
- 5. HTML Editor Software:
 - a. Adobe GoLive **OR**
 - b. Macromedia Dreamweaver
- 6. Video Editing Software:
 - a. Adobe Premiere, **OR**
 - b. Apple iMovies, **AND**
 - c. Apple QuickTime Pro
- 7. Web Access Software:
 - a. Microsoft Internet Explorer [**NOT** Netscape Communicator]
- 8. Document Software:
 - a. Adobe Acrobat [**FULL** Version, **NOT** just Acrobat Viewer]

Syllabus Prepared By:

<u>William Merrill</u>	(Name)
<u></u>	(Signature)
<u>February 2004</u>	(Date)

X. **Bibliography**

General

Adam's Multimedia Tutorial: <http://hotwired.lycos.com/webmonkey/multimedia/tutorials/tutorial3.html>

Where's the Beef? Multimedia without Content by Jim Martin:

<http://www.metrognome.com/martin/articles/beef.htm>

Converting Classroom Training to Multimedia CBT by Jim Martin:

<http://www.metrognome.com/martin/articles/cbt.htm>

From Hypermedia to Multimedia to ... Communication by Jim Martin:

<http://www.metrognome.com/martin/articles/hyper.htm>

Multimedia Content and the Super Highway: Rapid Acceleration or Foot on the Brake?

http://www.oikoumene.com/oikoumene/mmco_ri_ht.html

Hypertext Terms: <http://www.w3.org/Terms.html>

Internetworking Multimedia: <http://www.cs.ucl.ac.uk/staff/jon/mmbook/book/book.html>

Multimedia Authoring Web: <http://www.mcli.dist.maricopa.edu/authoring/> The New

News: <http://www.bluecatdesign.com/bcat/article1.html>

MultiMediator: <http://www.multimediator.com/>

HTML

Introduction to HTML: <http://www.cwru.edu/help/introHTML/toc.html>

Beginners Guide to HTML: <http://archive.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html>

Creating Web Pages (Introductory Level) Theme Page: http://www.cln.org/themes/webpages_intro.html

Creating Web Pages (Advanced Level) Theme Page: http://www.cln.org/themes/webpages_advanced.html

Homepage Building Blocks: <http://www.learningspace.org/content/default.html>

Planning your Site: <http://jeffglover.com/ss/extra07.php>

Sucky to Savvy: <http://jeffglover.com/ss.php>

HTML Cheatsheet: http://hotwired.lycos.com/webmonkey/reference/html_cheatsheet/

Flash

Learning Flash 5: <http://www.trainingtools.com/online/flash5/index.htm>

Becoming a Flash 5 Master: <http://hotwired.lycos.com/webmonkey/01/10/index2a.html> 0

to 60 in Flash: <http://wdvl.internet.com/Multimedia/Flash/Oto60/>

Director

Director and Lingo Tutorials: <http://www.phantom42.com/>

Director 8 Lingo: <http://www.herts.ac.uk/lis/mmedia/directortutorial/lingo8/lingo.html>

Audio

Capturing sound from a CD:

<http://www.ausdev.net/dotmag/art-CD CaptureSound.asp>

Playing a .wav File: <http://www.ausdev.net/dotmag/art-PlayWave.asp>

Speech Recognition in VB:

<http://www.ausdev.net/dotmag/art-SpeechRecogn.asp>

Video

Shooting for Chromakeying: http://www.creativecow.net/articles/onneweer_barend/chromashoot/index.htm

DVD Creation in Adobe Premiere: http://www.creativecow.net/articles/gordon_dan/premiere_dvd/index.html
Editing with Final Cut Pro: <http://users.design.ucla.edu/~jbishop/FCPIFCPtutor.htm> DVD – Digital Versatile Disc: <http://www.dvgroup.com/Comdex/DVD/Robert/dvd.html>

PowerPoint

PowerPoint in the Classroom: <http://www.actden.com/pp/>
PowerPoint Tutorial: <http://www.orst.edulinstruction/ed596/ppoint/pphome.htm>

Other Animation

The Art of Animation: <http://webreference.com/dlab/9904/>
Invadirs: <http://brennan.young.net/Edu/Lingvad.html>

Office

Microsoft Office Tutorial: <http://cehs.crosu.edu/webstudent/drh8666/tutorials/office.htm>

PhotoShop

PhotoShop tutorial: <http://medit.stanford.edu/web/training/photoshopl/main.html>

AppleWorks/ClarisWorks

AppleWorks and ClarisWorks Tutorial: <http://home.earthlink.net/~ohora/Clarisworkstutorials.html>

HyperStudio

HyperStudio Tutorial: <http://www.quasar.ualberta.ca/edpy202/tutorial/hstudio/hstudio.htm>

Copyright Issues

A Brief Intro to Copyright by Brad Templeton: <http://www.templetons.com/brad/copyright.html>
10 Big Myths about Copyright Explained by Brad Templeton: <http://www.templeton.com/brad/copymyths.html>
Copyright Notice: <http://www.benedict.com/info/notice/notice.asp>
Copyright Fair Use: <http://www.benedict.com/info/fairUse/fairUse.asp>
Copyright Public Domain: <http://www.benedict.com/info/publicDomain/publicDomain.asp>
Fair Use Guidelines for Educational Multimedia: http://www.it.cmich.edu/it/policies/multi_fairuse.asp

Access Issues

Making Web Sites Work for People with Disabilities by Andrea L. Foster:
<http://chronicle.com/free/v47/i21/21aO3001.htm>
With Accessibility for All by Chuck Moozakis: <http://www.teledotcom.com/article/TEL20010119S0025>
W3C – World Wide Web Consortium: <http://www.w3.org/>

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Information Society, The

Interactive Educational Multimedia
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International Journal on E-Learning
Journal for MultiMedia History
Journal of Interactive Learning Research
Learning and Leading with Technology
Lingo Users ' Journal
Media History
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Multimedia Systems
Multimedia Tools and Applications
New Media
New Media and Society
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CENTRAL MICHIGAN UNIVERSITY
 COLLEGE OF EDUCATION AND HUMAN SERVICES
 Department of Teacher Education and Professional Development
 Master Course Syllabus

EDU	643	Instructional Design	3 (3-0)
Designator	Number	Course Title	Credit(Mode)

I. **Bulletin Description:** A study of the principles of instructional design. Designing instructional systems, processes in learning and instruction, delivery systems and evaluating instruction are considered.

II **Prerequisites:** EDU 590

VII. **Rationale for Course Level:** n/a

IV. **Textbooks and Other Required Materials to be Furnished by the Student:**

Instructors are encouraged to select from the following:

Smith, P.O. & Ragan, T.J. (1999). *Instructional Design*. (2nd ed.). New York, NY: Macmillian Publishing Co.

Zook, K. (2001). *Instructional Design for Classroom Teaching and Learning*. Boston, MA: Houghton Miffling Co.

V. **Special Requirements of the Course:**

None

VI. **General Methodology Used in Teaching the Course:**

1. Technology based activities.
2. Cooperative learning exercises.
3. Projects and presentations.
4. Video tape, laser disc, CD ROM, and other media.
5. Distance learning via E Mail, internet access, or on line services, or tutorials.
6. Research.
7. Readings.
8. Lecture and discussion.

Course Goals:

As a required course in the classroom applications of technology masters, this course seeks to help students understand that teaching with technology is *concept and knowledge driven, learner-centered, and relevant to multiple contexts and roles*. This course is designed to provide students with a theoretical and pragmatic understanding of technology based teaching and learning.

VIII. **Course Objectives:**

C- **Concept- and knowledge-driven:** A professional educational practice that is concept and knowledge-driven has, as its foundation, content knowledge. This knowledge base is acquired through serious study and developed through research.

LEA- LEArner centered: A professional educational practice that is learner-centered focuses on the cognitive, affective and physical needs, and characteristics of each learner. It is based on the belief that all learners grow and develop throughout life and that all students can learn.

R- Reflective practice relevant to diverse settings and roles: Educators will work in diverse settings – from the large, urban high school to the small, rural school. Communities and schools are comprised of diverse people from a wide variety of cultural, ethnic, racial and socioeconomic backgrounds. Best educational practice requires recognition of and provisions for these differences.

After completing this course, students will be able to:

1. Operationalize the term and field of instructional design and instructional systems (C).
2. Study the basic processes in learning and instruction (C, LEA).
3. Design appropriate instructional models (C, LEA, R).
4. Apply the principals of individualized instruction for technology based plans, and consider the logic for evaluating lessons and instructional systems (LEA, R).

VIII. Course Outline:

Week 1 An introduction to generic instructional approaches and a brief account of general principals of human learning.

Week 2 An introduction to instructional systems and the systems approach to the design of instruction.

Week 3 Categories of instructional outcomes.

Week 4 Conditions of learning for intellectual skills and cognitive strategies.

Week 5 Conditions of learning for verbal information, motor skills, and attitude.

Week 6 Characteristics of the individual learner, what learners bring to the learning situation.

Week 7 Performance objectives.

Week 8 Purposes and goals of instruction.

Week 9 Constructing sequences of lessons, i.e. topics and modules within a theme.

Week 10 Information processing in learning.

Week 11 Media selection for purposive instruction.

Week 12 Use of media for instructional delivery.

Week 13 Assessing student performance, outcomes of instruction.

Week 14 Group versus individualized instruction.

Week 15 Individualized instruction.

Week 16 Evaluating lessons and systems

IX. Evaluation:

Lab activities 25%

Project 30%

Presentations/demonstrations 10%

Tests/examinations 30%

Involvement/participation 5%

100%

Syllabus Prepared By:

Renay M. Scott (Name)

(Signature)

May 27, 2004 (Date)

X. Bibliography

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CENTRAL MICHIGAN UNIVERSITY
 COLLEGE OF EDUCATION AND HUMAN SERVICES
 Department of Teacher Education and Professional Development
 Master Course Syllabus

EDU	707	Seminar: Issues in Educational Technologies	3 (3-0)
Designator	Number	Course Title	Credit(Mode)

I. **Bulletin Description:** Study of selected issues relative to the use of new learning technologies in the classroom. Emphasis upon the learning theory which supports applied technologies.

II. **Prerequisites:** EDU 590

III. **Rationale for Course Level:** n/a

IV. **Textbooks and Other Required Materials to be Furnished by the Student:**
 Any required materials selected by the instructor.

V. **Special Requirements of the Course:**
 None

VI. **General Methodology Used in Teaching the Course:**

1. Technology based activities.
2. Cooperative learning exercises and problem solving.
3. Projects and presentations.
4. Video tape, laser disc, CD ROM, and other media.
5. Distance learning via E Mail, internet access, or online services, or tutorials.
6. Research.
7. Readings.
8. Lecture and discussion.

Course Goals:

As a required course in the classroom applications of technology masters, this course seeks to help students understand that teaching with technology is concept and knowledge driven, learner-centered, and relevant to multiple contexts and roles. This course is designed to provide students with a theoretical and pragmatic

VII. **Course Objectives:**

C- Concept- and knowledge-driven: A professional educational practice that is concept and knowledge-driven has, as its foundation, content knowledge. This knowledge base is acquired through serious study and developed through research.

LEA- LEArner centered: A professional educational practice that is learner-centered focuses on the cognitive, affective and physical needs, and characteristics of each learner. It is based on the belief that all learners grow and develop throughout life and that all students can learn.

R- Reflective practice relevant to diverse settings and roles: Educators will work in diverse settings – from the large, urban high school to the small, rural school. Communities and schools are comprised of diverse people from a wide variety of cultural, ethnic, racial and socioeconomic

backgrounds. Best educational practice requires recognition of and provisions for these differences.

After completing this course, the student will be able to:

1. examine and discuss the term and field of instructional technology as defined by AECT. (c)
2. examine and discuss current research trends in the field of instructional technology. (c)
3. apply contemporary learning theory to the application of technology in the classroom. (c,lea,r)
4. to study and present individually selected issues in the field of instructional technology. (c,r)
5. to identify current and critical issues and/or controversies regarding the application of diverse technologies in classroom environments. To investigate a limited number of the same as class projects. (c,lea,r)
6. to develop the ability to organize and present information gathered from student investigations utilizing new technologies. (c,lea,r)

VIII. Course Outline:

1. The term and field of instructional technology. (2 weeks)
2. Examining current research in the field. On-line research Conventional literature reviews (2 weeks)
3. Examination of behavioristic learning theory as related to instructional technology. (2 weeks)
4. Examination of cognitive theory as related to instructional technology. (2 weeks)
5. Seminars: Individually selected issues. Group reports. (2 weeks)
6. Controversies in the application of technology. (2 weeks)
Copyright issues
Parental concerns
Curricular concerns
Administrative concerns
Economic concerns
Ethical concerns
7. Assessment Issues. (2 weeks)
Performance based assessments
Electronic portfolios
8. Individual reports, projects, presentations (2 weeks)

Sample Issues:

- Today, the public and the legislators have become increasingly concerned with young people on line and what they may view. This is tempered by groups like the ACLU who argue that any limiting on the Internet will infringe on an adult's right to view objectionable materials. The issue does not stop at pornographic materials, but also includes personal viewpoints [e.g. the KKK or the ACLU], information meant to help people [e.g. AIDS pages], religious pages [e.g. Christian or Islam pages], photographic sites [e.g. OFOTO], ultra-liberal or ultra-conservative sites [e.g. People for the American Way or the Eagle Forum]. This may be the hottest educational technology issue in the United States today. The issue is censorship and filtering in schools.

- Like most technology access issues, the first drawn into new technologies are usually white men, teens, and boys. Therefore, the industry appears to cater to that group with products, software, games, etc. This often leaves girls, minorities, the disabled, and, due to cost, the poor in untenable positions for getting jobs and advancing in the work place. This phenomenon is slowly changing for some, but not for all. The issue is equal technology access for all.
- Often schools have received funding through grants or bond referendums to purchase new technology for the classrooms. However, often little or no professional development is offered to the teachers on how to operate even the equipment, much less on how to use the technology in teaching. The general public sees these expenditures and is expecting the teachers to use the new equipment. Teachers complain that the technology is just one more thing for them to learn. Principals are looking to replace senior teachers with ones who use technology. They often equate a user of technology with one who can teach with technology. The issue is professional development for teachers.
- Teachers often do not know how to use effectively technology in teaching and learning. They often “plug student” into a drill/practice program and assume good things are happening. Allowing students to use the computer or access the Internet is sometimes used as rewards for the “good” students or the ones who finish their work first. Teachers also hear from the popular press that using technology does appear to help children achieve better. The issue is the integration of technology into the curriculum.

IX. Evaluation:

Use of technologies	25%
Presentations/demonstrations	10%
Research Paper	60%
Participation	<u>5%</u>
	100%

Syllabus Prepared By:

William Merrill (Name)



(Signature)

May 27, 2004 (Date)

X. **Bibliography**

WWW Resources:

APAStyle.org: <http://www.apastyle.org/>

APAStyle.org, Electronic References: <http://www.apastyle.org/electref.html>

APAStyle.org, Style Tips: <http://www.apastyle.org/styletips.html>

Owens Library APA Citation Style Examples: <http://www.nwmissouri.edu/library/citing/apa.htm>

OWL at Purdue University: Using APA Format: http://owl.english.purdue.edu/handouts/research/r_apa.html

Duke University: Citing Sources and Avoiding Plagiarism: Documentation Guidelines:

<http://www.lib.duke.edu/libguide/citing.htm>

Bartleby.com: Elements of Style: <http://www.bartleby.com/141/index.html>

Bartleby.com: Electronic References: <http://www.bartleby.com/reference/>

A Sample Paper According to the Publication Manual of the American Psychological Association:

<http://valencia.cc.fl.us/lrcwest/apaper.html>

APA Style Guide in PDF Format: <http://www.mlb.ilstu.edu/handouts/apaprint.pdf>

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<http://www.uca.edu/divisions/academic/writing/OWL/LINKS/OnlineHandouts/apabasics.PDF>

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Internet Guidelines and Culture by Arlene H. Rinaldi <http://www.fau.edu/netiquette/net/culture.html>

Don't Spread that Hoax <http://www.nonprofit.net/hoax/default.htm>

Effective Use of Computers with Young Children by Linda J. Burkhart

<http://www.lburkhart.com/lhandcomp.html>

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What We Are Learning About Early Learners and Augmentative Communication and Assistive Technology by Linda J. Burkhart <http://www.lburkhart.com/gphb.htm>

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Sally Bowman Alden & Alex Curyea <http://www.computerlearning.org/articles/InfoHwy.htm>

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Educational Technology Foundations for All Teachers http://cnets.iste.org/teachers/t_stands.html

Michigan Entry Level Standard # 7 <http://www.ehhs.cmich.edu/~wmerrill/mistandard7.html>

Reinventing Schools:

- Preface <http://www.nap.edu/readingroom/books/techgap/navigate.cgi>
- The Nintendo Generation
- The Technology Juggernaut
- The Network Revolution
- Networking K-12 Education
- New Models for Education
- Systemic Reform
- Investing in Teachers
- Ensuring Equity

- Burgeoning Markets
- Opportunity to Change
- Learning about Learning

Social Issues on the Internet

Access Issues

Critical Issue: Ensuring Equitable Use of Education Technology by NCREL

<http://www.ncrel.org/sdrs/areas/issues/methods/technlgy/te400.htm>

Technology and Equity by Delia Neuman <http://www.ericfacility.net/ericdigests/ed339400.html>

Teacher Education and Gender Equity by Jo Sanders <http://www.ericfacility.net/ericdigests/ed408277.html>

Women and Minorities in High-Tech Careers by Bettina Lankard Brown

<http://www.ericfacility.net/ericdigests/ed452367.html> Internet Access and Content for Urban Schools and

Communities by James M. Lonergan <http://www.ericfacility.net/ericdigests/ed446180.html> Making Web Sites Work for People with Disabilities by Andrea L. Foster

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Are Low-Income Schools Stalled on the Information Superhighway? http://www.cgs.edu/inst/trc_reach.html

The Digital Divide Persists in US by Michael Pastore

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Pornography

Indecency On the Internet: Lessons from the Art World by Julie Van Camp

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Cyberwire Dispatch II by Brock Meeks <http://www.ethics.ubc.ca/resources/computer/meeks.html>

OCAF White Paper on Internet Pornography <http://www.bway.net/~7edfenton/manifesto.html>

Enough-Is-Enough – Sharks <http://www.enough.org/sharks.htm>

Filtering

Campaign for Web Liberty by EFF

http://www.eff.org/Censorshjp/Ratings_filters_labelling/19990907_gilc_intl_ratings_statement.html

Speak freely, Act Responsibly http://pageturners.com/CDA/rs_1_st.htm

A quick review of the major points of the Responsible Speech Campaign:

http://pageturners.com/CDA/rs_pnts.htm

Study Outlines Safety Tips for Kids: Online study finds perpetrators are younger than you'd expect.

http://www.safekids.com/articles/ft_study.htm

Filtering Programs Useful but Far From Perfect <http://www.safekids.com/articles/filtering2000.htm>

Copyright and the Internet

A Brief Intro to Copyright by Brad Templeton <http://www.templetons.com/brad/copyright.html>
10 Big Myths about Copyright Explained by Brad Templeton <http://www.templetons.com/brad/copymyths.html>
Copyright Notice <http://www.benedict.com/info/notice/notice.asp>
Copyright Fair Use <http://www.benedict.com/info/fairUse/fairUse.asp>
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Fair Use Guidelines for Educational Multimedia http://www.it.cmich.edu/it/policies_multi_fairuse.asp

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CENTRAL MICHIGAN UNIVERSITY
COLLEGE OF EDUCATION AND HUMAN SERVICES
Department of Teacher Education and Professional Development
Course Syllabus

EDU	709	Innovative Uses of Technology	3 (3-0)
Designator	Number	Course Title	Credit(Mode)

Title Abbreviation:

Bulletin Description: A survey of new and innovative applications of technology in educational settings. Students study and develop innovative instructional models utilizing technology.

Prerequisites: EDU 590

Textbooks and Other Required Materials to be Furnished by the Student:

No specific text is recommended. The instructor is encouraged to select diverse materials and compilations from the reference list and combine these resources with emerging literature on the topic.

Special Requirements of the Course:

Determined by the instructor.

General Methodology Used in Teaching the Course:

1. Technology based activities.
2. Cooperative learning exercises.
3. Projects and presentations.
4. Video tape, laser disc, CD ROM, and other media.
5. Distance learning via E Mail, internet access, or online services, or tutorials.
6. Research.
7. Readings.
8. Lecture and discussion.

Course Goals:

As a required course in the classroom applications of technology masters, this course seeks to help students understand that teaching with technology is concept and knowledge driven, learner-centered, and relevant to multiple contexts and roles. This course is designed to provide students with a theoretical and pragmatic understanding of technology based teaching and learning.

Course Objectives:

- C- Concept- and knowledge-driven: **A professional educational practice that is concept and knowledge- driven has, as its foundation, content knowledge. This knowledge base is acquired through serious study and developed through research.**

LEA- LEArner centered: **A professional educational practice that is learner-centered focuses on the cognitive, affective and physical needs, and characteristics of each learner. It is based on the belief that all learners grow and develop throughout life and that all students can learn.**

R- **Reflective practice relevant to diverse settings and roles:** Educators will work in diverse settings – from the large, urban high school to the small, rural school. Communities and schools are comprised of diverse people from a wide variety of cultural, ethnic, racial and socioeconomic backgrounds. Best educational practice requires recognition of and provisions for these differences.

After completing this course, the student will be able to:

1. Identify three educational prototypes utilizing technology in education.
2. Summarize innovative educational applications of technology in K-12 school districts nationally.
3. Define individualized instruction as it relates to key education technology initiatives.
4. Illustrate examples wherein innovative models of instruction have improved teacher/student effectiveness.
5. Illustrate examples wherein innovative models of instruction have improved parent/teacher/student effectiveness.
6. Discuss the import of Project CHILD.
7. Explain the Model T multimedia prototype.
8. Summarize the case study: University of Minnesota at Duluth: Video Disc Technologies - An Instructional Model.
9. Define a technology and develop a model for its innovative application for school or district.

Course Outline:

Weeks 1-3: National survey of innovative, technology based educational models. Provide students with research leads and literature references for group investigations. Assign research topics.

Weeks 4-6: Students work cooperatively and investigate the literature as it relates to innovative educational applications of technology in education. Report during weeks 10-11.

Weeks 7-9: Instructor leads group in reviewing models that have demonstrated increased effectiveness in student/teacher and parent/student/teacher effectiveness.

Investigate the successes and failures of related case studies. Students draft ideas for personal project models. Demonstrate models during weeks 12-13.

Weeks 10-11: Student research presentations.

Weeks 12-13: Demonstration of personal models.

Weeks 14-16: Project CHILD and MODEL T case studies. Exam topics assigned.

Evaluation:

Research	25%
Projects /models	30%
Presentations/demonstrations	10%
Tests/examinations	30%
Involvement/participation	5%

Syllabus Prepared By:

William L. Merrill

(Name)



(Signature)

April 2003 (Date)

Selected Bibliography

WWW Sites:

Innovative Uses of Technology: Media Showcase:

<http://itc.boisestate.edu/mediashowcase/mediashowcase.htm>

Innovative Uses of Technology by a Number of Government Agencies [a PDF document (2002)]

<http://www.gartner.com/resources/110700/110754/110754.pdf>.

SITE position paper: Statement of basic Principles and suggested actions:

<http://www.aace.org/site/SITEstatement.htm>

W3: <http://www.w3.org/>

W3 Accessibility Initiative: <http://www.w3.org/WAI/>

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Intel Innovation in Education Web Site:

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HP Case Studies: <http://government.hp.com/casestudies.asp?agencyid=135&am=0>

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