

Summer, 2001
California State University San Marcos
College of Education

EDUC 500 Computer-Based Technology in Education

CRN: 42115 UNITS: 3 DAY: Mondays

CLASS: 6:30pm – 9:15pm Room: UNIV360

Instructor: Mary Meade
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Office Hours: Mondays, by appointment, 5:30 pm – 6:30pm

COURSE DESCRIPTION:

In December of 1998, the CTC adopted a new technology standard for Multiple and Single Subject Teaching Credential candidates. The new technology standard requires credential candidates to 1) demonstrate their effective use of technology at a "basic" level (Level 1) prior to issuance of a preliminary credential; and 2) demonstrate their effective use of technology at an "advanced" level (Level II) prior to issuance of a professional clear credential. The purpose of this class is to prepare credential candidates to meet this new technology standard.

Standard 20.5 - Use of Computer-Based Technology in the Classroom
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Candidates are able to use appropriate computer-based technology to facilitate the teaching and learning process.

This class emphasizes the curricular implications of computer-based technologies in education. It has been designed to work in tandem with other courses in the Teacher Education Program in meeting the California State requirement for computer education course work to obtain a preliminary teaching credential. If you are entering the teacher education program, you will be challenged to use what you have experienced in educational settings, EDUC 350, and what you know about teaching children. If you are already teaching in the classroom you will be encouraged to apply what you are learning in educational settings.

PREREQUISITE : Successful completion of the CSUSM Computer Literacy requirement or approval of instructor. This course is designed to develop decision making skills regarding the use of computers in an educational setting. It does not cover instruction of basic computer competencies.

REQUIRED TEXT AND MATERIALS

- Teachers Discovering Computers: Integrating Technology in the Classroom (Shelly & Cashman)
- EDUC 500 Customized Reader includes articles and handouts.
- Zip Disk (2 – 100mb **only**) (Label with your name and class #, time)
- Pay for Print Card: May be purchased in Academic Hall 202

HIGHLY RECOMMENDED TEXT

NETS for Students: Connecting Curriculum & Technology. (2000). International Society for Technology in Education (ISTE). ISBN 1-56484-150-2

Optional Resources

• Online at <http://www.blackboard.com/courses/CBT>

COE Mission Statement

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

COURSE OBJECTIVES:

This class will help you to:

- gain proficiency in the use of computers
- make informed and critically reflective decisions regarding the choice, use and creation of educational technology applications

The following required competencies for all California teachers have been established by legislation. Commencing January 1, 2000, the minimum requirements for the preliminary multiple or single subject credential include demonstration of the ability to do the following:

(1) Identify issues involved in the access to, use of, and control of computer-based technologies, including, but not limited to:

- (a) The impact of technology upon the learning process;
- (b) The moral, legal, and ethical implications, including copyright infringement;
- (c) The economic and social implications of that access, use, and control, including the need to provide equitable access to technology.

(2) Demonstrate, within appropriate subject areas and grade levels, the application and use of computer-based technology as a tool to enhance the development of problem solving skills, critical thinking skills, or creative processes through course-based projects and demonstration lessons. Demonstrate knowledge of basic operations, terminology, and capabilities of computer-based technology and the use of computer hardware, software, and system components.

(3) Appropriate to the subject area and grade level, demonstrate a basic understanding of and ability to use representative programs from each of the following categories:

- (a) computer applications and electronic tools, such as word processing, data bases, graphics, spreadsheets, telecommunications (including email), portfolio management, page-layout, networking, reference, and authoring software;
- (b) technology-based activities, such as simulations, demonstrations, tutorials, drill and practice, and interactive software;
- (c) utility programs for classroom administration, such as those for record keeping, gradebook, lesson planning, generating instructional materials, and managing instruction.

(4) Demonstrate the application and use of computer-based technologies as tools to enable the development of problem-solving skills, critical thinking skills, and creative processes. Examples of such skills and processes are: gathering and analyzing data, generating and testing hypotheses, classifying, comparing and contrasting, inferring, evaluating and composing and designing.

ADMINISTRATIVE REQUIREMENTS OF STUDENTS

This class will utilize distributed learning instructional strategies. Students must keep up with class

assignments from week to week and will complete the lab assignments in both on-campus or off-campus locations. Plan to spend up to seven hours out of class each week to complete required readings, complete or expand lab assignments and to gain familiarity with educational technology applications.

Students are required to keep a copy of all work. Proof of work completed is the responsibility of the student.

Please be sure to read and understand the CSUSM policy on plagiarism and cheating, as it will be strictly enforced. Academic dishonesty including plagiarism or copyright infringement will be reported to the University and will result in a course grade of F.

Attendance Policy

Due to the dynamic and interactive nature of this course, all students are expected to attend specifically designated classes and communicate regularly with email study groups and instructor to participate in distributed learning activities. Attendance for EDUC500 is measured by the degree of active participation both online and in class, the quality of lab work assignments, and the degree of investment as evidenced by positive interaction with professor and peers. Should the student have extenuating circumstances, s/he should contact the instructor as soon as possible.

GRADING PROCEDURES AND ASSIGNMENTS:

California State University San Marcos has adopted an all-university writing requirement. In each course, students are required to write at least 2500 words in essays, exercises, papers and examinations.

• Lab & Writing Assignments = (50%)

Lab Assignments: #1, #3, #4, #6, #7, #10 = 25, 25, 25, 25, 30, 200 (305 points total)

Writing Assignments: #2, #5, #8, #9, #11 = 15, 15, 15, 50, 100 (195 points total)

Lab Assignments will reflect work done at the computers in class or on your own time. All assignments should be printed out free of spelling and/or grammar mistakes. Writing Assignments will enable you to reflect on various aspects of software and Internet application integration in your classroom curriculum.

• Portfolio Assessment and Final Project

Critical Analysis/Reflection: This class requires that you engage in self-reflection to assess the degree to which you have comprehended and are able to apply the concepts covered in this class. You are required to create a portfolio of a minimum of six samples from your class assignments that you believe best reflect your progress and growth. In addition, you are to include five short reflections (2 – 3 paragraphs) on five of your projects. Your sixth and final project must have an additional in-depth reflection of 2 – 3 pages covering the following: (a) Why you selected this project as your final project, (b) What did you enjoy about completing it? (c) What challenges did you encounter? (d) How did you overcome your obstacles? (e) What did you learn from this assignment about yourself? And, most importantly... (f) How would you change your work now that you have had time to reflect?

Final Project Synthesis: Of the six items in your portfolio, select one application that you would like to investigate further. Develop a project **beyond what the original assignment required**. Expand your skills in the application to a higher degree (instructor approval required). The goal of this assignment is to demonstrate your ability to identify, act on, and achieve goals for self-learning with educational applications of technology. This project will be presented to the class the week prior to the week of finals.

Application: Include in your Final Project the CSUSM Lesson Plan Template. Create a lesson utilizing your chosen final project to teach a particular content. Describe the target population (including age), curriculum standards, instructional objectives, instructional plan for implementation, and methods of evaluation. If you have not previously

taught in the classroom, take your plan to a classroom teacher and get feedback before you present. This lesson plan will coincide with the Final Project Synthesis above.

- **Final Exam: #12 = (30%)**

The final exam will cover all material taught from the textbook.

- **Class Investment (20%)**

Your investment in this class is demonstrated through regular class attendance and participation, through active, constructive and creative contributions - both online and in class. Your experience, teaching, and computer expertise will benefit everyone and provide a valuable resource for the class. Dependability and promptness are expected. Unexcused absences will be penalized. Late assignments will receive 10% reduced points per week. If you find you cannot be in class, please make sure another class member delivers your assignment. You must maintain a B average in your teacher education courses. Grading is calculated on the standard of:

94 - 100 = A	80 - 83 = B-	70 - 73 = C-
90 - 93 = A-	77 - 79 = C+	60 - 69 = D
87 - 89 = B+	74 - 76 = C	below 60 = F
84 - 86 = B		

Statement of CLAD Emphasis

In 1992, the College of Education voted to infuse Cross-cultural, Language and Academic Development (CLAD) competencies across the curriculum. The CLAD competencies are attached to this syllabus and the competencies covered are highlighted.

Definitions

The following definitions are applied from SEC. 2. Section 44259.3 in the Education Code:

- (1) "Educational technology" means the use of computer-based technology in instruction.
- (2) "Computer-based technology" means technologies based on the computer, such as telecommunications, interactive video, and compact disks.
- (3) "System components" means hardware and includes, but is not limited to, printers, monitors, modems, disk drives, scanners, video capture devices, video projection devices, compact disk-read only memory (CD-ROM), and other peripherals that work together in a system.
- (4) "Telecommunications" means the use of computers, modems, and telephone lines to move voice, video information, and data over distances.
- (5) "Networking" means terminals or computers, or both, linked for the purpose of moving information and data over distances.
- (6) "Course-based project" means an end of course or challenge requirement for the purpose of demonstrating technology competency, especially computer centered subject area expertise.
- (7) "Authoring software" means text, graphics, photos, pictures, video, and sound are typically sewn together into a project using authoring software. These software tools are designed to manage multimedia elements and provide user interaction.

ED500 CLASS SCHEDULE

	Content	Goal/Obj	CTC
Week 1 8/27	Review Syllabus LAB: Internet Introduction Worksheet Class Website: http://www.blackboard.com/courses/CBT Email Accounts: http://www.yahoo.com	3a 1c	Email Internet
Week 3 9/10	1. DUE: Blackboard Introduction "Webpage" Online California Teaching Standards: http://www.score.k12.ca.us/ ISTE Technology Standards: http://www.iste.org/ Web Basics: http://itdc.sbcss.k12.ca.us/staffdev/trainingbookmarks.html ONLINE Class Preparation	1c	Standards for technology
Week 4 9/17	ONLINE: LAB: Internet Searches "Seven Steps" worksheets: http://edweb.sdsu.edu/webquest/searching/sevensteps.html http://edweb.sdsu.edu/webquest/searching/sevensteps-worksheet.html Ethics & Copyright: (See worksheet under Assignments in Blackboard.)	3c 3a 3a	Word Processing Issues of access to technology Spreadsheets
Week 5 9/24	2. DUE: Article Review #1 Discuss Chapter One LAB: PowerPoint	4	Presentation Software Multimedia Software
Week 6 10/1	4. DUE: PowerPoint Exercise Discuss Chapter Two LAB: Claris Works Database: http://www2.ncsu.edu/ncsu/cep/clt/workshops/database.html http://www.cs.ndsu.nodak.edu/~ppeterse/cwdb.html http://www.50states.com/	2	Database
Week 7 10/8	Discuss Chapter Three 5. DUE: Database Exercise LAB: Microsoft Drawing Tools, Word Art, HyperStudio	2	New Technologies
Week 8 10/15	Discuss Chapter Four LAB: MS Excel	1b	Copyright Issues Ethical Use Issues
Week 9 10/22	Discuss Chapter Five 3. DUE: Excel Exercise LAB: Online Curriculum Resources WebQuests: http://projects.edtech.sandi.net/projects/ CyberGuides: http://www.sdcoe.k12.ca.us/score/cyberguide.html WebClinic http://www.csusm.edu/ilast/clinic/clinic.html Schrock WebQuest / CyberGuide Evaluation: http://school.discovery.com/schrockguide/chaff.html http://lrs.ed.uiuc.edu/wp/credibility/index.html http://school.discovery.com/schrockguide/eval.html	2 3a	Data Base Evaluate Software

Week 10 10/29	6. DUE: Article Review #2 Discuss Chapter Six LAB: Rubrics / PBL: http://school.discovery.com/schrockguide/assess.html http://www.4teachers.org/projectbased/checklist.shtml LAB: Quia: http://www.quia.com 7. DUE: Schrock WebQuest / CyberGuide Evaluations LAB: Filamentality –see assignment directions http://www.kn.pacbell.com/wired/fil/guide_beginners.html	1 3c 2	Professional Reading Word Processing Effective Uses of Technology Internet
Week 11 11/5	8. DUE: Filamentality LAB: Inspiration 6 http://www.inspiration.com Discuss Chapter Seven Web Site Design Introduction	2	Effective Uses of Technology
Week 12 11/12	9. Due: Inspiration Graphic Organizer Exercise Web Site Design	2 3a	Multimedia Other technologies
Week 13 11/19	Web Site Design Discuss Chapter Eight	2 3a	Use of the web in curriculum Relate technology to content
Week 14 11/26	10. DUE: Article Review #3 11. DUE: Web Site Design ListSers and NewsGroups http://www.dejanews.com http://tile.net	1 3c 4	Professional Reading Word Processing Effective use of technology
Week 15 12/3	12. DUE: Portfolio with Reflections & Final Project - Demo	1c 3a	Management Effective use and application of technology in curriculum
Week 16 12/10	13. DUE: Education Software Evaluation Forms 14. DUE: Final Exam (Textbook)	2	Effective use and application of technology in curriculum

Assignment Descriptions:

1. DUE: Blackboard Introduction "Webpage"

Create your Blackboard account first:

1. Logging into the class website:

Create an account on the Blackboard class site.

Click on "Enroll" then, at the next screen, pick your own password and username. **WRITE THIS DOWN.**

Complete the next screen where there are red asterisks. Make sure you type your first and last name using

Capital first initials. Make sure you use a valid email address – or one that looks like an email address if you don't yet have one).

When you get to the class site browse through the tools on the left side of the screen until your classmates catch up with you. You can also start your homepage introduction assignment as follows:

Under the "Student Tools" link, "Edit Your Homepage", specifically include the following information:

A. Intro Message: Tell us about your school life, both at work and CSUSM.

B. Personal Information: tell us about your life outside of school...

C. Also put in some of your favorite web page links in the boxes at the bottom.

D. Make sure you click on the "update your page" link at the bottom of the page to save your changes – every time you make changes.

2. DUE: Article Review #1

Find online a journal article specifically related to educational technology; use the list of online publications on our class website or search for one of your own. Write (type) a brief summary (one paragraph) of the article, as well as an opinion statement (one paragraph) about it and how you might (or might not) use this information in your own classroom. Use the standard APA citation method to cite your article at the bottom; make sure your name and class time is also on the bottom of the page. Be prepared to share your review with the rest of the class. Include a copy of your article.

3. DUE: Excel Exercise

Use any spreadsheet program you have available, e.g., Excel, Works, Corel...

Place the following elements in your worksheet:

Cell A1: Name

Cell A2: Grade Level

Cell A3: Content Area

Cell A4: CA Content Standard (Just put in the Number.) Include a description of your spreadsheet to clarify its use. Make sure your spreadsheet contains the following components:

Labels (minimum of 4), Values (minimum of 5 values for each label), Formulae (minimum 1), Function (minimum 1)

From this spreadsheet create a quick and simple chart.

Print out the chart and spreadsheet to be turned in as assigned.

4. DUE: PowerPoint Exercise

Create a minimum of 5 PowerPoint slides based on the CA Teaching Standards for your curriculum area.

<<http://www.score.k12.ca.us/>>. Include graphics, animation and slide transitions with sound.

5. DUE: Database Exercise

Create a database that includes the following fields from 5 states of your choosing (use the 50 states resource: <http://www.50states.com/>)

1. Area (sq. mi.)

2. Land (sq. mi.)

3. Water (sq.mi.)

4. Coastline (mi)

5. Highest point (feet)

6. Lowest point (feet)

Print 2 reports with different fields sorted and a header specifying your name and which field is sorted in each

report.

6. DUE: Article Review #2

See details above, Article Review #1

7. DUE: Schrock Evaluations

Step 1:

Review the two links below to learn more about how to evaluate websites.

<http://school.discovery.com/schrockguide/chaff.html>

<http://rs.ed.uiuc.edu/wp/credibility/index.html>

(If the link won't work from your computer you may simply copy and paste these addresses into your location bar).

Step 2: Print three copies of the Kathy Schrock evaluation form that applies to your preferred grade level. The form may be found at: <http://school.discovery.com/schrockguide/eval.html>. (You could also just copy it from the website and paste it into MS Word and then fill in the blanks – your choice).

There are two choices of links for each grade level on the same line – the first is a web page format and the other is the pdf format that requires the Adobe Acrobat Reader add-in. Don't use the PDF one - it just makes the page look prettier but requires you to have Acrobat on your computer.

Step 3: Search on Altavista <<http://www.altavista.com>> for either "cyberguide" or "webquest" to find hundreds of online lessons to choose from.

Step 4: Pick three sites from Step 3 to evaluate with your forms. Complete the form in pen/pencil or on computer and turn these in when we next see each other. Use both your Web Clinic, <<http://school.discovery.com/schrockguide/chaff.html>, critical skills and criteria from the first two sites in Step One above to form your learned opinion about your site. These should be reflected in the paragraph at the bottom of the page, using extra paper if needed.

8. DUE: Filamentality

Handout: <<http://www.csusm.edu/ilast/agendas/fil.html>>

SITE: <<http://www.kn.pacbell.com/wired/fil/>>

Create a Filamentality Page: Sign in: _____

Add required components listed below. Password: _____

Filamentality Web Page Address: _____

BEFORE CLASS: In preparation for the Filamentality exercise...

Go to the filamentality site and start to look over the introduction to filamentality information:

<<http://www.kn.pacbell.com/wired/fil/index.html#intro>>

Then, on the same page, click on "Search The Registry" to see the kinds of filamentalities other teachers have already created in your grade level and content area.

To be prepared to work on your own filamentality please bring to our class a list of a minimum of six websites you like, complete with the url, as well as a brief (one to two sentences) description of each site. You can email the info to yourself or post it in your student dropbox for copying and pasting in class.

Requirements:

- ... Revise introduction including a description and summary of activity for students and standard listed.
- ... spelling and grammar have been proof-read and edited
- ... At least 6 links related to the theme
- ... At least 2 categories or groups of links
- ... Each link has a summary of the link resource and may include a question.
- ... links are all working.

Deliverable: A Print-out of your Filamentality Site as viewed from your browser as a visitor to your link.

9. DUE: Inspiration (Graphic Organizer) Web Site Layout

Create a graphic organizer depicting the elements of your web site.

10. DUE: Article Review #3

See details above, Article Review #1

11. DUE: Web Site Project

We will use MS Word to create your web pages.

Deliverable: Print out three separate web pages containing the following:

A link on each page to the other two pages;

A list of at least three other links from the Internet on one page;

A table of any kind, for any purpose;

A minimum of one graphic on any page;

Contact information, including your name and a working email link, on the first page;

Two or more different font sizes and font families;

The Standard your web site will supplement on the bottom of your first page (in a smaller font); feel free to use the National Technology Teacher Standards if that is more appropriate.

12. Portfolio and Final Project

Develop any class lab project **beyond what the original assignment required**. Expand your skills in the application to a higher degree. The goal of this assignment is to demonstrate your ability to identify, act on, and achieve goals for self-learning with educational applications of technology. This project will be presented to the class the week prior to the week of finals.

Include in your Final Project the CSUSM Lesson Plan Template modified to include a technology component. Create a lesson utilizing your chosen final project to teach a particular content. Describe the target population (including age), curriculum standards, instructional objectives, instructional plan for implementation, and methods of evaluation. If you have not previously taught in the classroom, take your plan to a classroom teacher and get feedback before you present your final project.

13. Education Software Evaluation Forms

Xerox five copies of the form from your handout. Make an appointment sometime during the semester to visit any local school district, or the County Office of Education, technology center to preview and evaluate five K-12 software tutorial packages (**Not** application packages). Complete with pen/pencil one form for each package. Be sure to articulate your reasons for downgrading any grading criterion and provide a critical overall summary.

14. Final Exam

Test on Textbook (Multiple Choice on the readings of all the chapters in the textbook – bring a 50 question per side Scantron). See class website, Assignments, for details.

15. Class Investment

Your investment in this class is demonstrated through regular class attendance and participation, through active, constructive and creative contributions - both online and in class.

Assignments:	Value	You earned:
1. DUE: Blackboard Introduction "Web Page"	15	
2. DUE: Article Review #1	15	
3. DUE: Excel Exercise	20	
4. DUE: Power Point Exercise	20	
5. DUE: Database Exercise	20	
6. DUE: Article Review #2	15	
7. DUE: Schrock Online Evaluations	30	
8. DUE: Filamentality	30	
9. DUE: Inspiration Web Site layout	20	
10. DUE: Article Review #3	15	
11. DUE: Web Site Design	100	
12. DUE: Portfolio with reflections and Final Project Demo	200	
13. DUE: Education Software Evaluation Forms	100	
14. DUE: Final Exam (Textbook)	300	
15. Class Investment	100	
Total:	1000	

Lab & Writing Assignments = 60%

Lab Assignments: 1, 3, 4, 5, 8, 9, 11, 12

Writing Assignments: 2, 6, 7, 10, 12, 13

Final Exam: #12 = 30%

Class Investment: (attendance, class participation) = 10%