



Summer 2003
California State University San Marcos
College of Education

EDUC 500 Computer-Based Technology in Education

CRN 30086 EDUC 500: 3 units

INSTRUCTOR:

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Office Hours: After class or by appointment

Class Location: University Hall 360
Tuesday and Thursday, 6:00 PM – 9:30 PM
Office hours: times above or by appointment

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 I) 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

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 enable decision making regarding the use of computers to an educational setting. It does not cover instruction of basic computer competencies.

REQUIRED TEXT AND MATERIALS

- *Teachers Discovering Computers: Integrating Technology in the Classroom, 2d. Ed.* (Shelly & Cashman)
- Pay for Print Card: May be purchased in Academic Hall 202
- CD-R or CD-RW disks for burning your digital portfolio.
- Optional - floppy disks, Zip disks, USB key, or other storage device

HIGHLY RECOMMENDED TEXT

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

Optional Resources

- Lynch, George and Helen. (1996). *ClarisWorks Step-By-Step*. Gilroy: Computer Literacy Press.
- Bowers, C.A. 1988. *The Cultural Dimensions of Educational Computing*. Teachers College: New York, NY.
- Cummins, Jim & Sayers, Dennis. 1995 *Brave New Schools: Challenging Cultural Literacy Through Global Learning Networks*. St. Martin's Press: NY.

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 diversity, educational equity, and social justice, exemplified through reflective teaching, life-long learning, innovative research, and ongoing service. Our practices demonstrate a commitment to student centered education, 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 during class. Other lab assignments may be completed on or off campus. Plan to spend up to seven hours out of class each week to complete required readings, communicate with email, complete or expand lab assignments, and to gain familiarity with educational technology applications.

Students are **required** to keep a copy of **all** work and are expected to submit examples of best practice for their portfolio evaluation. All proof of work accomplished is the responsibility of the student. Students will burn a disk of the work done over the semester to serve as a professional portfolio and sampling of technology accomplishments and serve as their final.

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 Ed500 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.

REQUIREMENTS AND EVALUATION:

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.

• Quizzes, Labs and Assignments

Quizzes will cover any material taught during class lessons or assigned as homework. Labs will reflect work done at the computers. Assignments will be made to reinforce concepts covered in class and to provide adequate practice. Dependability and promptness are expected. Late assignments will receive reduced points. If you find you cannot be in class, please make sure another class member delivers your assignment. All assignments should be prepared in a digitized format and **free of spelling and/or grammar mistakes**. Back up your work regularly.

•Digital Portfolio and Final Project

Critical Analysis: 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 appropriate samples from your class assignments that you believe best reflect your progress and growth. These may include, but are not limited to, the following: sample of a word-processed document, database or spreadsheet projects, PowerPoint or HyperStudio Stacks, telecommunication assignments. (Your portfolio will be submitted digitally.)

Reflection: From these samples, select two that are most meaningful to you. Using a word processor, compose a critical reflection describing (a) why you selected these two to write about, (b) what did you enjoy about completing them? (c) what challenges did they present? (d) how did you overcome any obstacles? (e) what did you learn from those assignments? And, most importantly... (f) how would you change your work now that you have had time to reflect? (three pages double spaced, 12 point Times Font) (submitted with portfolio)

Synthesis: From the 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. 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. (Final Project). This project will be presented to the class the week of finals.

Application: Using the Lesson Plan Template specified, create a lesson/unit utilizing technology to teach a particular content or skill (developed in the final project). Describe the target population (including age), student goals, 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 Synthesis Project. You will present this project using PowerPoint, Keynote or HyperStudio.

•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, and through participation in cooperative, collaborative learning. The past experience, teaching, and computer expertise of class members will benefit everyone and provide a valuable resource for the class. Please check WebCT often for email, discussion postings, and resources.

•Assignments

10 %-Attendance, Participation, Quizzes, Professional Disposition

20 %-Production Tools

5%-Word Processing Assignment

5%-Spreadsheet Assignment

5%-Database Assignment

5%-Internet Resource Presentation

10%-Discussion Postings (5)

25%-Educational Software Evaluations (5)

35% Integration of Technology in the classroom

20%Final Project and Presentation

15%Digital Portfolio

Week	Date	Activities	Assignments Due	Readings Due
1	July 8	<ul style="list-style-type: none"> •course overview •introductions •pretest •break-change labs to Science2-306 Review text site http://www.scsite.com/tdc2/ <ul style="list-style-type: none"> •CTAP survey •ACD 202 for webCT username and password, print card 		
	July 10	<ul style="list-style-type: none"> •Internet Resources, Standards http://www.score.k12.ca.us/ http://www.cde.ca.gov/board/ •7pm Jennifer Nowotney for WebCT •Search activity, Backflip, http://backflip.com http://webquest.sdsu.edu/searching/fournets.htm http://www.csusm.edu/ilast/clinic/clinic.html •sign up for a resource to share on July 15 •WebQuest Evaluation http://projects.edtech.sandi.net/projects/ http://edweb.sdsu.edu/webquest/searching/sevensteps.html 		Chapters 1-2
2	July 15	Filamentality Hot List http://www.kn.pacbell.com/wired/fil/guide_begginner.html <ul style="list-style-type: none"> •Digital Pac Rat-saving documents for a digital portfolio •Evaluation of Web resources http://lrs.ed.uiuc.edu/wp/credibility/index.html http://school.discovery.com/schrockguide/eval.html •Finding a partner for the final project-discuss final project requirements http://ide.ed.psu.edu/ide/9events.htm 	•Discussion Topic Due by class time	Chapters 3-4

Week	Date	Activities	Assignments Due	Readings Due
	July 17	<ul style="list-style-type: none"> •Share Internet resource •Word Processing-newsletters, etc. •Use of AlphaSmarts in the classroom http://www.techlearning.com/db_a_rea/archives/WCE/archives/herrick.htm	<ul style="list-style-type: none"> •Internet Resource Presentation 	
3	July 22	<ul style="list-style-type: none"> •Spreadsheets •Databases http://www.50states.com/ http://www2.ncsu.edu/ncsu/cep/clt/workshops/database.html	<ul style="list-style-type: none"> •Discussion Topic Due by class time •Word Processing Activity 	Chapters 5-6
	July 24	<ul style="list-style-type: none"> •Fieldtrip to Central School •Student presentations : Crossing the Digital Divide •Educational Software Evaluations 	<ul style="list-style-type: none"> •Spreadsheet Activity •Database Activity 	
4	July 29	<ul style="list-style-type: none"> •Quiz •Copyright and Fair Use Laws http://www.fplc.edu/tfield/copynet.htm http://www.nytimes.com/library/tech/98/08/cyber/education/12education.html <ul style="list-style-type: none"> •Best Practices http://ali.apple.com/ http://ide.ed.psu.edu/idde/9events.htm <ul style="list-style-type: none"> •Assessment and Rubrics http://school.discovery.com/schrockguide/assess.html http://rubistar.4teachers.org/	<ul style="list-style-type: none"> •Discussion Topic Due by class time 	•Chapters 7-8
	July 31	<ul style="list-style-type: none"> Classroom management http://www.stemnet.nf.ca/~jscaplen/integration/english/toceng.html <ul style="list-style-type: none"> •Project-based Learning http://glef.org/ <ul style="list-style-type: none"> •Collaborative Projects http://hale.pepperdine.edu/~kahayden/links2.html	<ul style="list-style-type: none"> •Educational Software Evaluations (5) 	

Week	Date	Activities	Assignments Due	Readings Due
5	August 5	<ul style="list-style-type: none"> •ELD Benefits of technology Resources http://intime.uoregon.edu/1.html http://www.cde.ca.gov/statetests/celdt/index.html 	<ul style="list-style-type: none"> •Discussion Topic Due by class time 	
	August 7	<ul style="list-style-type: none"> •Film making in the classroom 		
6	August 12	<ul style="list-style-type: none"> •Lab time to work with partner on final project, and digital portfolio •CTAP survey 	<ul style="list-style-type: none"> •Discussion Topic Due by class time 	
	August 14	Final Project Presentations	<ul style="list-style-type: none"> •Digital Portfolio 	

GRADING PROCEDURES AND ASSIGNMENTS

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		

You must maintain a B average in your teacher education courses.

Statement of CLAD Emphasis

In 1992, the College of Education voted to infuse Crosscultural, 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.

Assignment Descriptions

Participation, Attendance, Quizzes, Professional Disposition:

Internet Presentation: You will search for and evaluate an Internet site that would be beneficial for teachers to be familiar with. You will share its best aspects with the class. It should take you no longer than 10 minutes to share with the class.

Discussion Postings: Using WebCT you will check for my assignments by Friday night. Then you will have until class time on Tuesday to post your response. It should be well thought out, referencing readings, web sources, or class discussions. Please read others' postings in the class and comment or add to their discussions.

Word Processing Document: You may choose to write a business style letter or create a newsletter for you classroom.

Letter: Using the business format for your letter, provide me with background knowledge of your teaching experiences. Highlight your strengths as a teacher and the areas you wish to work on in the future. Make sure you use these fonts and formats:

- bold**
- underline
- Helvetica or Palatino 12 pt.
- centering
- left justify
- tabs
- a border

Newsletter: Create a newsletter for your classroom. Use the template or wizard supplied by your word processing program. Utilize different fonts, sizes and styles (like **bold** and underline). Include some graphics (photos or clipart). Be creative and make this something you can use in your class.

Spreadsheet Activity: You may choose to make a budget or a class grade book.

Budget: Create a budget for a school club such as Band or ASB. Make sure you include expenses and income. Use formulas to calculate for you. Make a graph from your spreadsheet and save it on the spreadsheet. More instructions will follow.

Grade Book: Make a list of your students and then a list of assignments with formulas to figure out the total points and percentage for each student. Enter fictitious grades and create a graph from the data to show how well students have done on each assignment.

Database Activity: Create a database for keeping track of important information about your students. You should include name, birth date, parent's name, home language, CELDT score, perhaps reading scores as the year progresses, etc. Make it something you can use again in the classroom. More instructions will follow.

Software Evaluations: These should include basic information like name of software, publisher, cost per unit and group pricing, subject area, etc. It should then address these three questions;

What are the software's strengths? What are its shortcomings? How would you use this in the classroom? Each evaluation should be between one and two pages in length.

Discussion Topic Postings: I will post a topic for you to research on line and then respond to in the threaded discussion area of WebCT. These are topics we may not cover in class or are meant to extend the discussion from the classroom. Each discussion should be well written and well thought out. Substance is more important than length.

Final Project: Your final project is to be done with a partner if possible. You will integrate technology throughout a lesson or unit you already use. You will present this lesson to the class using presentation software such as PowerPoint or Keynote. Be sure to include appropriate adaptations for special needs students, assessment and management plans. Your presentation will be no longer than 20 minute.

Digital Portfolio: This will be turned in on a burned CD. The digital portfolio is time for you to reflect on your learning in this class and give yourself direction for continuing to improve your technology skills. You will address specific teaching standards. More detailed instructions will follow soon.