EDUC C103: INTRODUCTION TO COMPUTERS IN EDUCATION: TECHNOLOGY PROFICIENCIES FOR TEACHERS 1

Item	Value
Curriculum Committee Approval Date	03/16/2001
Top Code	086000 - Educational Technology
Units	2 Total Units
Hours	36 Total Hours (Lecture Hours 36)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Grading Policy	Standard Letter (S)

Course Description

This course is based on the Technology Standard for a California K-12 Preliminary Teaching Credential. The focus is on the proficiencies credential candidates are required to master before they can be issued a preliminary Multiple or Single Subject Credential. The curriculum and course are designed by the Coast Community College District's TEACh3 Program faculty. Students enrolled in the class will complete a portfolio in all the state-mandated proficiencies to become a Preliminary (Level 1) Technology Proficient Educator. ADVISORY: EDUC C104 or concurrent enrollment. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Based on the Technology Standard for a California K-12 Preliminary Teaching Credential, use computer skills as a tool to integrate technology into the curriculum and create a portfolio of teacher materials to be used in a classroom.

Course Objectives

- 1. Apply current basic computer hardware and software terminology.
- 2. Discuss and explain the legal and ethical issues concerned with the use of computer-based technology
- 3. Integrate the appropriate use of computer-based technology in teaching and learning.
- 4. Use computer applications to manage records (e.g. gradebook, attendance, assessment records)
- 5. Use computers to communicate through digital media (e.g. newsletters incorporating graphics and charts, course descriptions, student reports)
- 6. Interact with others using e-mail.
- 7. Identify and use a variety of computer-based collaborative tools (discussion groups, newsgroups, list serves, online chat)
- 8. Examine a variety of current educational digital media and use established selection criteria to evaluate materials.
- 9. Select software based on its relevance, effectiveness, and alignment with content standards and value added to student learning.
- 10. Use electronic research tools to assess the authenticity, reliability, and bias of data gathered.
- 11. Analyze best practices for the use of technology and design lessons accordingly.
- 12. Identify and implement copyright issue guidelines (e.g. distribution of copyrighted materials and proper citing of sources)
- 13. Explain and discuss privacy, security, and safety issues (appropriate use of chat; confidentiality records, included graded student work and publishing names and pictures of minors; and acceptable use policies)
- 14. Identify strategies for using technology in multicultural classrooms
- 15. Propose various assistive technologies to support students with special needs.
- 16. Discuss issues associated with educational technology and gender.
- 17. Identify different learning styles/modalities and suggest appropriate technological resources to facilitate learning.
- 18. Express an equitable and multicultural perspective towards educational lesson topics

Lecture Content

General Computer Knowledge and Skills Basic hardware and software terminology Operation and care of hardware, software Basic troubleshooting Integration of student learning and classroom management Applications of technology as an educational tool Technology tools to support teaching and learning Models for classroom management of technology Internet General Knowledge and Skills, use of hardware, software (web browsers) Communication and collaboration: using chat, newsgroups, threaded discussions to communicate with members of a group Research tools- Using advanced search features to locate and validate information Using the Internet as a resource for lesson development Ethics and policies: implementing procedures and management techniques re Internet use for classroom instruction Information Literacy Using a wide variety of sources/ multiple perspectives (international, multicultural) Filtering information for relevancy Incorporating literacy strategies into lesson design Integration, student Learning, and classroom management Using Internet resources for designing lessons Using the Internet as a resource for classroom management E-mail General knowledge and skills Communication and collaboration--Email as a tool to interact with and provide information to students, parents, and other community members Integration, student Learning, and classroom management Email tools to support teaching and learning: e.g. keypals, global classrooms, parallel problem-solving, mentoring, etc. curricular lessons which utilize Email as a part of the activity Classroom management techniques using Email Legal and Ethical Incorporating netiquette in classroom instruction Student safety and security procedures in instruction Word Processing General knowledge and skills (e.g. finding and replacing text, saving in other file formats) Communication through printed media Creating lesson plans, articles, reports Making, using templates Graphics/drawing tools Integration, student learning, and classroom management Creating enhanced word-processed documents for classroom use Lesson design using word processing as part of the activity Publishing General knowledge and appropriate use of hardware, software Communication

through printed media Elements of basic design Saving documents in appropriate formats Integrating various software for desktop publishing graphics, layout) Incorporating digital images from external sources (e.g. cameras, scanners, internet) Integration, student learning, and classroom management Developing student assignments that use effective design Planning for classroom management of available resources Databases General knowledge and appropriate use of hardware, software (e.g. sorting, matching, exporting data from database) Managing records (e.g. merging database information with word processing document to produce a form letter) Communicate through printed media Importing data from other applications Using database for specific productivity related to curricular goals Integration, student learning, classroom management Designing curricular lessons which use databases to enhance/facilitate learning outcomes Developing student assignments that require management and manipulation of a variety of data Spreadsheets General knowledge and appropriate use of hardware, software Managing records (gradebook, attendance, etc.) Communication through printed media (e.g. importing, exporting charts into a word processing application) Integration, student learning, classroom management: Designing lessons requiring use of spreadsheet Creating charts for a content lesson Presentation Software General knowledge and appropriate use of hardware, software Communication through printed media (e.g. printing handouts that enhance instructional objectives) Integration, student learning and classroom management Designing curricular lessons using multimedia to enhance learning outcomes Fair use and copyright law for text, graphics, sound Instructional Technology Analyzing best practices and research findings on the use of technology, designing lessons accordingly Selecting the best technological resources that go with the content to be taught Using evaluation rubrics Selecting appropriate technological resources for use in lesson plans Identifying student learning styles and determining appropriate resources (integrating technology resources, lesson plans, classroom practice with results of learning style inventory) Creating and maintaining effective learning environments using computer-based technology Using technology for whole class, small group, and individual instruction Designing classroom activities that allow for all students to build their technology skills and increase learning Implementing management procedures that support assessment of student involvement and achievement ol> Privacy, security, and safety issues (e.g. policies re plagiarism, copyright; implementing policies for safety, privacy, and security) Communication and Collaboration Using computers to communicate through printed media (newsletters, course descriptions, student reports Interacting with others using E-mail (attachments, electronic correspondence) Using a wide variety of computer-based collaborative tools Privacy and safety Copyright issues Preparation for Planning, Designing, and Implementing Learning Experiences Demonstration (through a product designed by the student) of knowledge of basic computer hardware and software terminology Demonstration of competency in the operation and care of computer-related hardware Implementing basic troubleshooting techniques Legal, ethical, appropriate use of technology in the classroom Choosing software based on its relevance, effectiveness, alignment with content standards and value added to student learning Demonstrating competence in the use of electronic research tools Identifying student learning styles and determining appropriate technological resources to improve learning Assistive technologies for special needs Sample lessons making use of technologies to meet the needs of all students Matching content to be taught with the best technological resources to support and manage learning Creating and maintaining effective learning environments using computer-based technology Connecting appropriate resources, curriculum content and assessments for specific student populations Sample technology-based lessons in a variety of

settings (whole class, small group, individual, computer lab) Evaluation and Assessment Using computer applications to manage records Using ready-made teacher productivity tools Student lists for field trips, labels, certificates Evaluating a variety of educational digital media using established rubrics Awareness of issues concerning authenticity, reliability, bias in gathered data when using literacy strategies Analyzing best practices and research findings on the use of technology and related assessment mechanisms

Method(s) of Instruction

- Lecture (02)
- DE Online Lecture (02X)

Instructional Techniques

Instructional methods will include lectures, hands-on demonstrations, class discussions, and multimedia presentations as well as field trips, guest lecturers, cooperative learning group activities, and projects. In addition to reading books, students may be given projects of gathering materials from the Internet. Textbooks may also include supplementary material; students may be asked to do exercises or projects with these tools to guide them in the development of their project-based portfolio.

Reading Assignments

Complete reading assignments assigned from the textbook, supplemental readings, handouts, Internet resources, and any assignments from the Coastline Library.

Writing Assignments

Writing Assignments* Weekly projects, plans, revisions, discussion topic responses that will demonstrate skills application through authentic projects.

Out-of-class Assignments

Read/View the required materials, conduct appropriate research, prepare documents/plans, complete and revise projects, and prepare for quizzes/exams.

Demonstration of Critical Thinking

Weekly projects, plans, revisions, written reviews/critiques, and discussion topic responses that will demonstrate skills application through authentic projects.

Required Writing, Problem Solving, Skills Demonstration

Create spreadsheet projects, lesson plans, activities and weekly 'Education Issue Debate/Discussion

Eligible Disciplines

Education: Masters degree in education OR the equivalent. Masters degree required.

Textbooks Resources

1. Required Gunter, G.A., Gunter, R.E. Teachers Discovering Computers: Integrating Technology in the Classroom, ISBN: 1423911806 or ISBN-13: 9781423911807, 8th ed. Cengage 9781285845432, 2015 Rationale: - Legacy Textbook Transfer Data: Legacy text

Other Resources

1. Coastline Library