EDUC G103: TECHNOLOGY PROFICIENCIES FOR TEACHERS I

Item	Value
Curriculum Committee Approval Date	02/04/2020
Top Code	080200 - Educational Aide (Teacher Assistant)
Units	2 Total Units
Hours	72 Total Hours (Lecture Hours 18; Lab Hours 54)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

The class focuses on the proficiencies credential candidates are required to master before they can be issued a preliminary Multiple or Single Subject Credential. Students successfully completing a portfolio in technology proficiencies related to K-12 curriculum will receive a Proficiency Training Certificate from the Orange County Department of Education. Most, but not all, technology application skills are transferable between the Macintosh and Windows environment. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Course Outcomes
2. Identify, select, and use appropriate publication tools to produce classroom documents/reports, electronic correspondence, discussion groups, and manage data files/multimedia files on the Internet/Cloud by successfully completing various technology proficiency modules.
3. Plan, design, and implement technology projects, such as word processing documents, spreadsheets, databases, and presentations by successfully utilizing Google Applications for Education.
4. Design a lesson plan that integrates a variety of instructional technologies aligned with State Content Standards and present the lesson to the class.

Course Objectives

- 1. Identify, select, and use appropriate publication tools to produce written reports, electronic correspondence, discussion groups, newsgroups; manage data files on the Internet and on network drives.
- 2. Plan, design, and implement technology projects; solve various problems related to the use of technology in the classroom.
- 3. Perform computer maintenance and troubleshoot problems.
- 4. Identify legal and ethical issues.
- 5. Evaluate and assess appropriate resources for grade level curriculum; design and implement lessons that incorporate a variety of instructional technologies aligned with State Content Standards.
- 6. Use various computer peripherals.

Lecture Content

Communication and Collaboration Identify, select and use appropriate publication tools to produce written reports. Use basic proofing tools Integrate graphics appropriately. Use email tools to communicate and foster relationships both personally and professionally. Use email as a tool to interact with and provide information to others. Select from available collaboration tools for personal/professional development to accomplish tasks. Implement procedures and management techniques concerning Internet use and network access to data files. Ensure that all communications include appropriate application of copyright law as it applies to research, product development and use of resources. Preparation for Planning, Designing and Implementing Learning Experiences Communicate about technology using accurate terminology Use a variety of appropriate input devices. Use accurate vocabulary to set procedures and to describe problems to others. Perform regular maintenance to hardware and operating system. Access and change operating system software to control hardware functions. Share files and printers on a network. Apply strategies for identifying and solving routine hardware and software problems during everyday use. Judge appropriate level of support required to solve problem and then activate them accordingly. Attempt to identify which component or software issue is causing the problem and articulate this information to support personnel. Identify and explain important issues surrounding legal and ethical use of technology tools. Establish classroom policies to address those issues to elicit appropriate student use. Consider the content to be taught and the value of the given activity for student learning and retention. Examine software products for effective pedagogy, appropriate reinforcement of concepts and problem-solving strategies before implementing use. Identify and select electronic research tools for appropriate match to student activity. Identify and select between Internet search tools. Match appropriate technology infused tasks to student learning style. Develop a plan for utilizing all available resources to meet the needs of students and curricular content. Seek out and identify additional technology learning tools to support the specific learning needs of students. Use technology tools and information resources to increase productivity, promote creativity and facilitate academic learning. Seek lessons which allow students to explore higher order thinking and problem solving. Orchestrate activities to maximize student learning by matching the most appropriate technology setting to instructional and learning needs. Collect and analyze data to ensure purposeful student engagement in learning for project management. Identify, manage and organize resources based on the appropriateness to specific tasks and student needs. Evaluation and Assessment Utilize a database to manage and record student and classroom information. Create relationships between two database files. Examine State and local resource pools to discern appropriate resources for grade level/ curriculum. Select and implement evaluation criteria to determine usefulness of media in the classroom. Critically evaluate source of information by examining source, publication date, author, and medium of publication. Design and implement lessons that incorporate a variety of instructional technologies aligned with State Content Standards. Consider the technology tools to be used, level of access, and learning processes involved and match the type of student activity with them. Lab Content: A.

Lab Content

A. General Computer Knowledge and Skills 1. Basic hardware and software terminology 2. Operation and care of hardware, software 3. Basic troubleshooting 4. Integration of student learning and classroom management a. Applications of technology as an educational tool b. Technology tools to support teaching and learning c. Models for classroom management of technology B. Internet 1. General knowledge and skills, use of hardware, software (web browsers) 2. Communication and collaboration: using chat, newsgroups, threaded discussions to communicate with members of a group 3. Research tools a. Using advanced search features to locate and validate information b. Using the Internet as a resource for lesson development 4. Ethics and policies: implementing procedures and management techniques regarding Internet use for classroom instruction 5. Information literacy a. Using a wide variety of sources/ multiple perspectives (international, multicultural) b. Filtering information for relevancy c. Incorporating literacy strategies into lesson design 6. Integration, student learning, and classroom management a. Using Internet resources for designing lessons b. Using the Internet as a resource for classroom management C. E-mail 1. General knowledge and skills 2. Communication and collaboration--email as a tool to interact with and provide information to students, parents, and other community members 3. Integration, student learning, and classroom management a. Email tools to support teaching and learning: e.g. keypals, global classrooms, parallel problem-solving, mentoring, etc. B. Curricular lessons which utilize email as a part of the activity c. Classroom management techniques using Email 4. Legal and ethical a. Incorporating etiquette in classroom instruction b. Implementing student safety and security procedures in instruction D. Word Processing 1. General knowledge and skills (e.g. finding and replacing text, saving in other file formats) 2. Communication through printed media a. Creating lesson plans, articles, reports b. Making, using templates c. Using graphics/drawing tools 3. Integration, student learning, and classroom management a. Creating enhanced word processed documents for classroom use b. Designing lessons using word processing as part of the activity E. Publishing 1. General knowledge and appropriate use of hardware, software 2. Communication through printed media a. Using elements of basic design b. Saving documents in appropriate formats c. Integrating various software for desktop publishing graphics, layout) d. Incorporating digital images from external so urces (e.g. cameras, scanners, WWW) 3. Integration, student learning, and classroom management a. Developing student assignments that use effective design b. Planning for classroom management of available resources F. Databases 1. General knowledge and appropriate use of hardware, software (e.g. sorting, matching, exporting data from database) 2. Management of records (e.g. merging database information with word processing document to produce a form letter) 3. Communication through printed media a. Importing data from other applications b. Using data base for specific productivity related to curricular goals 4. Integration, student learning, classroom management a. Designing curricular lessons which use databases to enhance/facilitate learning outcomes b. Developing student assignments that require management and manipulation of a variety of data G. Spreadsheets 1. General knowledge and appropriate use of hardware, software 2. Management of records (grade book, attendance, etc) 3. Communication through printed media (e.g. importing, exporting charts into a word processing application) 4. Integration, student learning, classroom management: a. Designing lessons requiring use of spreadsheet b. Creating charts for a content lesson H. Presentation Software 1. General knowledge and appropriate use of hardware, software 2. Communication through printed media (e.g. printing handouts that enhance instructional objectives) 3. Integration, student learning and classroom management a. Designing curricular lessons using multimedia to enhance learning outcomes b. Adding fair use and copyright law for text, graphics, sound I. Instructional Technology 1. Analyzing best practices and research findings on the use of technology, and designing lessons accordingly 2. Selecting the best technological resources that go with the content to be taught a. Using evaluation rubrics b. Selecting appropriate technological resources for use in lesson plans 3. Identifying student learning styles and determining appropriate resources (integrating technology resources, lesson plans, classroom practice with results of learning style inventory results) 4. Creating and maintaining effective learning environments using computer based technology a. Using technology for whole class, small group, and individual instruction b. Designing classroom activities that allow for all students to build their technology skills and increase learning c. Implementing management procedures that support assessment of student involvement and achievement 5. Privacy, security, and safety issues (e.g. policies re plagiarism, copyright; implementing polices for safety, privacy, and security) J. Communication and Collaboration 1. Using computers to communicate through printed media (newsletters, course descriptions, student reports 2. Interacting with others using E-mail (attachments, electronic correspondence) 3. Using a wide variety of computer-based collaborative tools 4. Privacy and saf ety 5. Copyright issues K. Preparation for Planning, Designing, and Implementing Learning Experiences 1. Demonstration (through a product designed by the student) of knowledge of basic computer hardware and software terminology 2. Demonstration of competency in the operation and care of computer related hardware 3. Implementation of basic troubleshooting techniques 4. Legal, ethical, appropriate use of technology in the classroom 5. Choice of software based on its relevance, effectiveness, alignment with content standards and value added to student learning 6. Demonstration of competence in the use of electronic research tools 7. Identification of student learning styles and determining appropriate technological resources to improve learning a. Assistive technologies for special needs b. Sample lessons making use of technologies to meet the needs of all students 8. Matching of content to be taught with the best technological resources to support and manage learning 9. Creation and maintenance of effective learning environments using computer-based technology a. Connecting appropriate resources, curriculum content and assessments for specific student populations b. Using sample technology-based lessons in a variety of settings (whole class, small group, individual, computer lab) L. Evaluation and Assessment 1. Using computer applications to manage records a. Using ready made teacher productivity tools b. Generating student lists for field trips, labels, certificates 2. Evaluating a variety of educational digital media using established rubrics 3. Demonstrating awareness of issues concerning authenticity, reliability, bias in gathered data when using literacy strategies 4. Analyzing best practices and research findings on the use of technology and related assessment mechanisms

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- DE Online Lecture (02X)
- Lab (04)
- DE Live Online Lab (04S)
- DE Online Lab (04X)

Reading Assignments

Textbooks Supplemental readings Handouts Internet resources

Writing Assignments

Instructor will follow CTAP's portfolio check-off sheet and portfolio requirements as a guide for required writing, problem solving, and skills demonstration.

Out-of-class Assignments

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Demonstration of Critical Thinking

Apply strategies for identifying and solving routine hardware and software problems during everyday use Orchestrate activities to maximize student learning by matching the most appropriate technology setting to instructional and learning needs Critically evaluate source of information by examining source, publication date, author, and medium of publication

Required Writing, Problem Solving, Skills Demonstration

Develop a plan for utilizing all available resources to meet the needs of students and curricular content Design and implement lessons that incorporate a variety of instructional technologies aligned with State Content Standards

Eligible Disciplines

Business: Master's degree in business, business management, business administration, accountancy, finance, marketing, or business education OR bachelor's degree in any of the above AND master's degree in economics, personnel management, public administration, or Juris Doctorate (J.D.) or Legum Baccalaureus (LL.B.) degree OR bachelor's degree in economics with a business emphasis AND master's degree in personnel management, public administration, or J.D. or LL.B. degree OR the equivalent. Master's degree required. Education: Master's degree in education OR the equivalent. Master's degree required. Office technologies (secretarial skills, office systems, word processing, ...: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Gunter, G.A. Gunter, R.E.. Teachers Discovering Computers: Integrating Technology in the Classroom, 8 ed. Cengage, 2015 2. Required Kopp, K.N.. Integrating Technology into the Curriculum, 2 ed. Shell Education, 2015