I. Course Description:

**ETEC 5320, Strategies for Technology Integration**

A course designed to enable participants to thoughtfully plan for integration of computers and other media in instruction. Considers a rationale for technology integration, learning theory, evaluation of interactive media, strategies for technology integration, and related student assessment.

II. Rationale:

This graduate course provides in-depth coverage of strategies for meaningful integration of technology in educational classrooms.

III. State Adopted Proficiencies

**TEA Recommendation for All Educators:**

All current educators should strive to meet the SBEC standards for all beginning educators. To help meet these educator standards, professional development should support the following SBEC standards.

(Competency 007): The teacher uses effective verbal, nonverbal, and media communication techniques...

Learner-Centered Communication: ...the teacher demonstrates effective professional and interpersonal communication skills.

The teacher... uses media techniques so that learners explore ideas collaboratively, pose questions, and support one another in learning. The teacher and students... give multimedia presentations... and use technology as a resources for building communication skills.

(Competency 009): The teacher uses ... technological resources... to support individual and group learning.

Includes 1) appropriate uses of instructional materials and resources (e.g., computers, CD-ROM, videodiscs, primary documents, and AV equipment; 2) helping students understand the role of technology as a learning tool; 3) evaluating the effectiveness of specific materials and resources for particular situations.

Learner-Centered Knowledge: The teacher possesses and draws on...technology to provide relevant and meaningful learning experiences. . .

The teacher stays abreast of current... technology. The teacher integrates technological resources so that learners consider the central themes of the subject matter from as many viewpoints as possible.

Learner-Centered Instruction: To create a learner-centered community, the teacher collaboratively identifies needs; and plans, implements, and assesses instruction using technology and other resources.

The teacher selects... technology... that is developmentally appropriate and designed to engage interest in learning.

Learner-Centered Professional Development: The teacher demonstrates a commitment to learn, to improve the profession, and to maintain professional ethics and personal integrity.

The teacher uses technological and other resources to facilitate continual professional growth.
TExES Master Technology Teacher Test Framework:
Although this certificate is not offered at this point in time, this professor opts to include such competencies in order to eventually propose such a certificate for TAMU-CC.

Domain II - Technology-Enhanced Teaching and Learning

Competency 005 - The Master Technology Teacher demonstrates knowledge of how to use task appropriate tools to synthesize knowledge, create and modify solutions, and evaluate results to support the work of individuals and groups in problem solving situations. The Master Technology Teacher:
1. Knows how to use and integrate appropriate technology-based productivity tools (e.g., word processor; database; spreadsheet; telecommunications; draw, paint, and utility programs) into teaching and learning.
2. Knows how to facilitate the use of appropriate digital editing tools and design principles for classroom use (e.g., consistency; repetition; alignment; proximity; ratio of text to white space; image file size; color use; font type, size, and style).
4. Applies methods for extending the learning environment beyond the classroom through the creation and sharing of electronically formatted and published documents via electronic networks.
5. Knows how to accomplish tasks through technological collaboration to include participation with electronic communities as learner, initiator, contributor, and teacher/mentor.
6. Knows how to create specifications and instructions (e.g., hardware/software requirements, instructions for use) for technology-based tasks.
7. Knows how to use technology applications to facilitate the evaluation of work, including both process and product.
8. Knows how to create rubrics to evaluate technology-based processes and products against established criteria.

Competency 006 - The Master Technology Teacher demonstrates knowledge of how to communicate in different formats for diverse audiences. The Master Technology Teacher:
1. Knows how to select, format, and present media activities and projects appropriate for the content, purpose, audience, and environment.
3. Knows how to use productivity tools (e.g., spreadsheets, databases, word processors, graphics applications) to communicate effectively.
4. Knows how to select and use various presentation formats (e.g., slide shows, posters, multimedia presentations, newsletters, brochures, reports) to communicate effectively.
6. Knows the characteristics, purposes, and protocols for using a variety of electronic communication tools (e.g., e-mail, Internet browsers, videoconferencing, distance-learning tools, discussion forums).

Competency 007 - The Master Technology Teacher demonstrates knowledge of instructional design, development, and assessment in a technology-enhanced environment. The Master Technology Teacher:
3. Knows how to use formal and informal assessments to evaluate students' technology proficiencies.
4. Knows fundamental characteristics of quantitative and qualitative assessments and understands how to use these assessments appropriately to plan and develop instruction.
8. Knows how to facilitate ongoing student self-assessment in the use of technology, including both process and product.
10. Demonstrates knowledge of effective methods for incorporating technology into various instructional strategies (e.g., direct instruction, cooperative, project-based) to maximize student learning and teacher effectiveness.
12. Demonstrates knowledge of current research on and strategies for planning and designing classroom learning environments that effectively integrate technology, including available assistive technologies and accessible design concepts for electronic media development.
17. Knows how to use technology to develop student collaboration skills to propose, assess, implement, and communicate solutions to real-world problems.

Competency 008 - The Master Technology Teacher knows how to implement and assess technology-enhanced instruction to meet the diverse needs and abilities of all students. The Master Technology Teacher:
4. Demonstrates knowledge of a variety of technology-based tools, including assistive and instructional technologies that promote learning for all students.
9. Knows how to plan and design activities and products that are accessible to learners with diverse needs and abilities.
IV. Student Learning Outcome:
Develop an original plan and instructional materials for integrating educational technologies in an overall instructional strategy.

V. TExES Competencies: Not applicable.

VI. Course Objectives and Outcomes:
Attending and participating in this course should enable you to:
1. provide a rationale for integrating educational technologies into teaching;
2. describe the tenets of major learning theories which are applicable in the technology integration context;
3. identify essential issues to consider when planning for technology integration;
4. describe issues related to successful selection, evaluation, and implementation of instructional software in curriculum;
5. use personal and collaborative productivity, multimedia, Internet, and Web page development tools to obtain or develop instructional materials for lessons addressing technology integration;
6. develop complete plans for integrating technological applications into a K-12 lesson drawn from the Texas Essential Knowledge and Skills;
7. chose to work collaboratively with other course participants on selected projects.

VII. Course Topics:
See attached course schedule. Readings will be posted online and/or handed out the week proceeding in class. Students are to assume that each topic will include readings to be read before class.

VIII. Instructional Methods and Activities:
A variety of methods and activities will be utilized to enable students to achieve targeted course outcomes.
Instructional methods will include technology-based demonstrations and presentations by the instructor. The instructor will also utilize case-based scenarios and discussion questions, among other methods. Student activities will include assigned readings, completing assigned technology-based exercises and projects, writing a formal paper, and developing technology-integrated plans.

IX. Evaluation and Grade Assignment:
Student evaluation will consist of an assessment of the following:
15% Attendance; participation; quizzes.
25% Team presentation on assigned topic with related technology. A rubric is found on the BlackBoard course materials.
20% A research paper devised from professional journals, including copy of articles.
10% Assignments started during class; usually finished on discussion threads.
30% Individual technology integration plan and materials tied to final project. Project is focused with a global, social interaction towards social cause or issue and based on Project-Based Learning.

Grading Scale:
90-100% A
80-89% B
75-79% C
70-74% D
Below 70% F

X. Course Schedule and Policies:
Attendance at designated class sessions is essential. Participants should attend class regularly and consider punctuality as very important. The only allowable excuse for being absent is a written, verifiable note from a doctor. Absences due to illness, with the previous notification of the professor, do entitle the student to make up the work missed. Other absences will be reflected in the student's final grade. Three absences, excused or unexcused, will result in a reduction of one letter grade.

Participants should involve themselves in class discussions, complete assigned readings, assignments, and presentations. Computer technology must be utilized for all assignments. The grade for the course will be based upon the quality of assignments, the extent of attendance and participation, and the caliber of the presentations.

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<tr>
<th>#</th>
<th>Date</th>
<th>Topic</th>
<th>Items Due (before class)</th>
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| 1 | 8/24 | Class introduction; course service project introduction. FACE TO FACE meeting in the Math Science center lab. | 1. Pre-course files completed.  
2. Head/shoulder picture of self (electronic access or have picture taken before class)  
3. Have a web-based email account (google, yahoo, etc.). Help others. |
| 2 | 8/31 | Review of IT-Assisted PBL; Overview of: PBL Lesson Topic Ideas (ch3); The Case for PBL (ch4) | Google Presentation introduction slide peer comments completed; eJournal of Ch1&2 readings |
| 3 | 9/7  | Project Planning (ch5) IT-Assisted Strategies: Inquiry-based methods Intro to DSNs/Web2.0/Open Source | Chs 3&4; quiz; Team 1 materials + plan due to Dr. E |
| 4 | 9/14 | Creating a Plan (ch6) | Chs 5&6 |
| 5 | 9/21 | Sharing your plans; | post plan to appropriate discussion thread; review others’ plans and offer suggestions; Team 2 materials + plan due to Dr. E |
| 6 | 9/28 | Assessment in IT-Assisted PBL (ch7) | Chs 5,6,7 & quiz; article #1 due; post to appropriate discussion thread |
| 7 | 10/6 | The Future of IT-Assisted PBL (ch8); Strategies Team 1 presentation | Teams 1&2 materials + plan due to Dr. E |
| 8 | 10/5 | IT-Assisted Strategies: More DSNs/Web2.0/Open Source; Strategies Team 2 presentation | article #2 due; post to appropriate discussion thread; Team 3 materials + plan due to Dr. E |
| 9 | 10/12 | Individual conferences / needs lab; Strategies Team 3 presentation | Team 4 materials + plan due to Dr. E |
| 10| 10/19 | IT-Assisted Strategies: Jigsaws & WebQuests; Strategies Team 4 | Team 5 materials + plan due to Dr. E |
11 10/26 IT-Assisted Strategies: Concept Attainment; Strategies Team 5  Project FINAL draft 1 (zipped to BlackBoard discussion thread)

12 11/2 Round table paper presentations  Research paper due; post to BlackBoard

13 11/9 Scheduled work session – in lab  Quality responses to three peer papers posted to BlackBoard due

14 11/16 Scheduled individual conferences / needs lab  Project draft 2 (final draft)

15 11/30 Individual Project Presentation  Final project due 11/28 zipped to BlackBoard with your 5-7 minute screencast project presentation.

12/5-9 Finals Week (see schedule)  Peer final project reviews; 3 reviews given and received per person. (If you are reviewer #4, find another peer to review.)

# = Correlating session number from syllabus.

"Article" is to be any peer-reviewed journal article related to class and your research paper. It is strongly suggested, although not required, to find articles related PBL and digital social networks / Web2.0 / Open Source applications: 1) APA format; 2) a paper formatted for a conference proceedings file or call for Web2.0 article [both to be linked late]; and 3) a copy of the article submitted with your paper. Post papers to the appropriate BlackBoard thread. No repeats allowed. (Therefore, post yours early!)

NOTE 1: Any "BlackBoard" class session will require you to be logged in and participating individually. IF you are in the presence of someone else from the class, do NOT discuss course content during BlackBoard class time. You are given credit for your individual work and thought processes and will be given credit accordingly.

NOTE 2: Many of the sessions will have in-class activities not listed above. Due to the nature and design of these activities, one must be present to receive credit. If you do not finish an activity in the time allowed, you are given 24 after class to finish and submit via BlackBoard.

NOTE 3: Relax!:) Ask anyone in the course who has had me for another class about my "process" constructivist approach. Our goal is for everyone to gain content knowledge while having fun expanding their individual technology and educational theory skills.

XI. Text Book:
The textbook adopted for this course is: Moursund, D (2003). Project based learning using information technology. Eugene, OR: International Society for Technology in Education.

XII. Bibliography:

Bibliography:


