

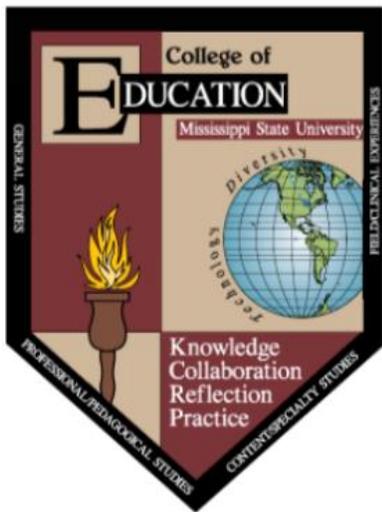
MISSISSIPPI STATE UNIVERSITY COLLEGE OF EDUCATION
DEPARTMENT of INSTRUCTIONAL SYSTEMS and WORKFORCE DEVELOPMENT
Course Syllabus

Course Prefix and Number: TECH 4803/6803
Course Title: Integrating Technology for Meaningful Learning
Credit Hours: 3 credit hours
Method of Instruction: C = Lecture

Catalogue Description

(Prerequisites: TECH 4743/6743 or TKT 4743/6743 or consent of the instructor.) Three Hour Lecture. This course deals with the process of using multimedia applications to present instruction and information.

College of Education Conceptual Framework



The faculty in the College of Education at Mississippi State University are committed to assuring the success of students and graduates by providing superior learning opportunities that are continually improved as society, schools, and technology change. The organizing theme for the conceptual framework for the College of Education at Mississippi State University is educational professionals - dedicated to continual improvement of all students' educational experiences. The beliefs that guide program development are as follows:

1. **KNOWLEDGE** - Educational professionals must have a deep understanding of the organizing concepts, processes, and attitudes that comprise their chosen disciplinary knowledge base, the pedagogical knowledge base, and the pedagogical content knowledge base. They must also know how to complement these knowledge bases with the appropriate use of technology.
2. **COLLABORATION** - Educational professionals must continually seek opportunities to work together, learn from one another, forge partnerships, and assume positions of responsibility.
3. **REFLECTION** - Educational professionals must be willing to assess their own strengths and weaknesses through reflection. They must also possess the skills, behaviors, and attitudes necessary to learn, change, and grow as life-long learners.
4. **PRACTICE** - Educational professionals must have a rich repertoire of research-based strategies for instruction, assessment, and the use of technologies. They must be able to focus that array of skills on promoting authentic learning by all students or clients, while exhibiting an appreciation and commitment to the value and role of diversity.

Course Objectives:

Upon completion of this course, the student will be able to:

1. Identify the availability of technology resources specially designed for use by PK-12 students to meet specific teaching and learning objectives. (CFPO # 7)
2. Plan for the management of electronic instructional resources within a lesson design by identifying potential problems and planning for solutions. (CFPO # 7)
3. Identify technology-based opportunities for professional education and lifelong learning, including the use of distance education. (CFPO # 7)
4. Utilize technology productivity tools to complete required professional tasks. (CFPO #s 7)
5. Identify technology-related legal and ethical issues, including copyright, privacy, and security of technology systems, data, and information. (CFPO # 7)
6. Examine acceptable use policies for the use of technology in schools, including strategies for addressing threats to security of technology systems, data, and information. (CFPO #7)
7. Apply research-based and technology practices that promote reinforcement, acceleration, personalized instruction, adaptive instruction, collaborative learning, and performance-based instruction that allows for multicultural participation, and academic success. (CFPO #s 2, 7)

Detailed Course Outline:

1. Key Themes and Issues for Using Technology in the Classroom (4 hours)
 - a. Themes of technology use in the classroom (0.5 hours)
 - b. Technology in today's classroom (1 hour)
 - c. Technology and school reform (0.5 hours)
 - d. National Standards (0.5 hours)
 - e. Changing the way technology is used in schools (0.5 hours)
 - f. Application of technology (1 hour)
2. Meaningful Learning in an Information Age (4 hours)
 - a. Fundamental properties of mental activity (1 hour)
 - b. Processes: Mental tools (0.5 hours)
 - c. Conceptual models of school learning (1 hour)
 - d. Teaching, learning, and the role of technology (0.5 hours)
 - e. Research about learning with technology (1 hour)
3. Using Tools: Word processors, Databases, Spreadsheets, and Data Probes (5 hours)
 - a. Word Processing (1 hour)
 - b. Spreadsheets (1 hour)
 - c. Databases (1 hour)
 - d. Data collection devices (2 hours)
4. Using Instructional Software and Multimedia for Content-Area Learning (6 hours)
 - a. Categories of instructional software (2 hours)

- b. Multimedia and hypermedia in the delivery of computer-assisted instruction (2 hours)
 - c. Learning from multimedia instructional resources (1 hour)
 - d. Constructivism and cooperative learning with instructional software (1 hour)
5. The Internet as a Tool for Communication (3 hours)
 - a. Roles the Internet can play in instructional practice
 - b. Learning by communicating
 - c. Facilitating online discussion
 6. The Internet as a Tool for Inquiry (5 hours)
 - a. The World Wide Web and Web exploration tools (1 hour)
 - b. Locating information on the Web: Browsing versus searching (1 hour)
 - c. Categories of Web resources (1 hour)
 - d. Strategies for using primary sources on the Web (1 hour)
 - e. Evaluating Web information (0.5 hours)
 - f. Using the Web for active learning (0.5 hours)
 7. Using Multimedia Tools (3 hours)
 - a. Classifying student multimedia projects
 - b. Software tools for creating multimedia projects
 - c. Multimedia authoring environments
 8. Working with Images, Sound, and Video (5 hours)
 - a. Tools for creating and manipulating images (1 hour)
 - b. Tools for capturing still images (1 hour)
 - c. Locating image sources (1 hour)
 - d. Working with video (1 hour)
 - e. Learning with sound and graphic tools (1 hour)
 9. Learning from Student Projects: Knowledge as Design and the Design of Hypermedia (6 hours)
 - a. Knowledge as design (0.5 hours)
 - b. Student-Authored Hypermedia (0.5 hours)
 - c. Principles of hypermedia design: The process of developing software (1 hour)
 - d. Student cooperation: Design teams (1 hour)
 - e. Hypercomposition design model (1 hour)
 - f. The teacher's role in the design process (1 hour)
 - g. Student's projects on the web (1 hour)
 10. Responsible Use of Technology (4 hours)
 - a. Equity of educational opportunity (1 hour)
 - b. Copyright law and respect for intellectual property (1 hour)
 - c. Protecting students from inappropriate material and experiences (2 hours)

Text(s):

Grabe, M., & Grabe, C. (2007). *Integrating technology for meaningful learning* (5th ed.). New York: Houghton Mifflin.

American Psychological Association. (2009). *Publication manual of the American psychological association* (6th ed.). Washington, D.C.: Author.

Description of Instruction:

(Campus 1) Lecture. The course will also be taught through guided, reflective, and small-group discussions. The inquiry method will also be used to engage students' critical thinking skills in order for them to be able to analyze and solve problems in a systematic manner. Students will work individually and may occasionally work in small groups (as assigned by the instructor) to research some assigned topics, participate in online discussions, or other assigned projects. Use of the *Publication Manual of the American Psychological Association* (6th ed.) will not be taught in this class.

Undergraduate and Graduate students are expected to purchase and learn how to use the APA Manual correctly. The use of E-Mail, the Internet, WWW, electronic databases, and the Mississippi State University Library resources will be used throughout the semester. (CFPO #s 7, 8, 9)

Course activities and assignments are designed to help students develop the knowledge, skills, and attitudes needed to become skillful and thoughtful users of instructional technology. Learning experiences revolve around two major themes:

- Participation in technology lessons/experiences as one means of developing mental images of what it means to “integrate technology,” and
- Reflection on, discussion about, and evaluation of classroom lessons that utilize technology.

The goal is to provide resources that related to the course. This means that the role of the student is to review all resources provided and to use online discussion with classmates to make sense of these materials and their inherent similarities, dissimilarities, and contradictions.

This course requires consistent and serious investment of cognitive energy on the part of everyone involved. The course will be most rewarding for those who invest the necessary mental effort and will be least successful for those who do not.

(Campus 5) Lecture. This class will be taught through online discussion with possible small group (cooperative learning) activities as deemed appropriate. The course will also be taught through guided, reflective, and small-group discussions. The inquiry method will also be used to engage students' critical thinking skills in order for them to be able to analyze and solve problems in a systematic manner. Students will work individually and may occasionally work in small groups (as assigned by the instructor) to research some assigned topics, participate in online discussions, or other assigned projects. Use of the *Publication Manual of the American Psychological Association (6th ed.)* will not be taught in this class. Undergraduate and Graduate students are expected to purchase and learn how to use the APA Manual correctly. The use of E-Mail, the Internet, WWW, electronic databases, and the Mississippi State University Library resources will be used throughout the semester. (CFPO #s 7, 8, 9)

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Honor Code:

(Campus 1& 5) Mississippi State University has an approved Honor Code that applies to all students. The honor code states: "As a Mississippi State University student I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do."

Upon accepting admission to Mississippi State University, a student immediately assumes a commitment to uphold the honor code, to accept responsibility for learning, and to follow the philosophy and rules of the honor code. Ignorance of the rules does not exclude any member of the MSU community from the requirements or consequences of the honor code.

For additional information please visit: <http://www.honorcode.msstate.edu>

(Campus 5 specifically) Online tests will be administered with random ordered questions. All written assignments must be submitted through Turnitin.

Technology:

(Campus 1) Students will be required to use Canvas to access course syllabus, class preparation guidelines and handouts, and supplemental course materials, as well as to check their grades. Students may also be required to submit assignments using Canvas.

(Campus 5) Students will be required to use Canvas to access course syllabus, recorded lectures, class preparation guidelines and handouts, and supplemental course materials, as well as to check their grades. Students will also be required to submit assignments using Canvas. In addition to these, students will engage in class discussions by creating or relying to threaded discussion topics on Canvas.

Technical Support: The MSU [Help Desk](#) is a service provided at no charge to all students, staff, and faculty at Mississippi State University. The consultants are there to help you with various computer-related information or problems. Check the Information Technology Services (ITS) Web site at <http://www.its.msstate.edu> for handouts and/or resolutions to common computer problems. If you cannot find an answer to your question on the Web or you do not have access to the Internet, please call ITS at 325-0631 or 888-398-6394 (7:30 a.m. to Midnight Monday through Thursday; 7:30 a.m. to 5:00 p.m. Friday; 1:00 p.m. to Midnight Sundays). You can also e-mail ITS directly for help with technical problems at helpdesk@msstate.edu or go by their office at 108 Allen Hall with walk-in hours from 8:00 a.m. to 10:00 p.m. Monday to Thursday; 8:00 a.m. to 5:00 p.m. Friday; 1:00 p.m.-10:00 p.m. Sunday.

Diversity:

This course will comply with the Mississippi State University diversity policies. Issues in diversity (gender, race, SES, culture) will be noted as concerns with individual differences in the field and will be identified and regularly assessed when discussing topics.

Accommodation for Students with Disabilities:

Students with disabilities in need of accommodations to meet the expectations of this course are encouraged to bring this need to the attention of the instructor and should register with the Office of Student Support Services as soon as possible. The Office of Student & Disability Support Services is located in 01 Montgomery Hall, (662) 325-3335 (phone), and <http://www.sss.msstate.edu> (web address).

University Safety Statement:

Mississippi State University values the safety of all campus community members. Students are encouraged to register for Maroon Alert texts and to download the Everbridge App. Visit the Personal Information section in Banner on your mystate portal to register. To report suspicious activity or to request a courtesy escort via Safe Walk, call University Police at 662-325-2121, or in case of emergency, call 911. For more

information regarding safety and to view available training resources, including helpful videos, visit ready.msstate.edu.

Field Component:

There is no field component in this course.

Evaluation of Student Progress: (Campus 1 and Campus 5)

Student progress will be measured as follows:

1. **Discussion Participation:** Each student will be responsible for participating in all online discussions and responding to discussion questions in CANVAS/CANVAS, reading assigned materials, completing assignments, and mastering course objectives. (CFPO #s 4, 8, 9, 11, 12); (Objectives #s 1, 3 and 5)
2. **Journal Article Critiques:** Each undergraduate student will report on **one** current journal peer reviewed journal articles pertinent to the field of technology. Each graduate student will report on **two** current journal articles pertinent to the field of technology. A format for writing critiques will be provided in Course Content and Related Materials in CANVAS. Do not critique journal articles dated back past three years. *Students must submit a proof of peer reviewed print screen for each reference used. The proof of peer reviewed print screen document must be attached at the end to each critique. Please do not submit the proof of peer reviewed print screens in a separate word document file; submit in the same file as your journal article critique. There must be a match of references used in text with references shown in the reference list. Add the screen prints of your proof of peer reviewed document at the end of your critique. Make sure that Peer Reviewed Yes or No is clearly seen on the document for the journal article that you have used as a reference in your critique before you submit the document. The Publication Manual of the American Psychological Association (6th edition) must be used for writing journal article critiques. No credit will be given for any articles that are dated back past three years. (CFPO #s 7, 13); (Objectives #s 6 and 7)*

Format. You must use the required format that is provided for writing your critiques in CANVAS, Course Content and Related Materials. The summary section should be single-spaced. The analysis section must be double-spaced. This section is very important. It is worth 60 pts. At least two (double-spaced) pages are required for this section. Points will be deducted if the section is short of the minimum number of pages required. Make sure that you include information that is shown in numbers 1-3 listed under the analysis section on the required format handout provided.

3. **Graduate Requirement:** Each graduate student will prepare an in-depth word-processed research paper (using electronic databases from Mississippi State University Library) on a general topic related to technology or career and technical education that is approved in advanced by the instructor. Topics should not be changed once they are approved. A PowerPoint summary presentation of the research paper is required. (CFPO #s 7, 13); (Objectives #s 1-7)

NOTE: A minimum of six double-spaced pages is required for the research paper and must include at least five current refereed (peer reviewed) journal articles that are not dated back past five years; other references should not be dated back past ten years. The *Publication Manual of the American Psychological Association* (6th edition) must be used to develop the research paper. *Remember, this is a research paper and not a journal article critique.* The minimum 6 pages are of content related to the topic; the 6 pages do not include the title page, abstract, or references; these are included on separate pages. You must cite references in text, and all references cited in the text of your paper must be cited in the reference list. There must be a match of references cited in the text and in the reference list. You must provide a proof of peer reviewed document for each reference cited in text and in your reference list. The poof of peer reviewed document must be in the same word doc file as your research paper. Do not submit the proof of peer reviewed documents as a separate file. Please **do not post** the research paper for the class. **Send the research paper directly to me in CANVAS e-mail** as an attachment.

4. **Reflective Journal:** Each student will submit a Reflective Journal related to assigned readings and course projects. A minimum of 10 journal entries are required. Each entry must be numbered, labeled as a side heading, and detailed responses submitted for each entry. Evaluation will be based on the number of journal entries, and the level of reflection and insight indicated in each journal entry. Please do not post the reflective journal for the class. Send the Reflective Journal directly to me through CANVAS e-mail as an attachment. The journal entry requirements are listed below: Also see pages 12-13 in this syllabus for additional information on the Reflective Journal. (CFPO #s 7, 8); (Objectives #s 6 and 7)
- **One entry** should discuss your thoughts and perceptions of the class. (i.e. What went well? What didn't go well? What could make this class better? Etc.) *This journal entry should be done toward the end of the semester.*
 - **One entry** should be a reflection on your contribution to the class. I'm a strong believer that your class experience and your learning are dependent on your effort in the class, so tell me how you think you did. Did you put forth the effort necessary to make this class a meaningful learning experience for you, as well as your peers? *This journal entry should be done toward the end of the semester.*
 - **One entry** should be a reflection on the assignment where you created the chapter module and moderated the online discussion. What went well? What were the challenges? What would you do differently? Etc.
 - **The other journal entries are left up to you.** However, they should describe activities and accomplishments related to the course, as well as express your feelings about those activities and accomplishments. Possible topics for consideration in the reflective journal are:
 - Reflections on the concepts and activities in the course reading assignments.
 - Responses to participation in course activities/discussions.
 - Ideas gained through interactions with peers in the course.

5. **Chap. Moderation/PowerPoint/Peer Eval:** Each student will create a Chapter PowerPoint presentation and moderate a chapter discussion (based on an assigned chapter from the textbook). Discussion questions (2) must be developed by the moderator for the discussion session. The discussion questions and the chapter PowerPoint are to be sent at least two days in advance to the instructor before being posted to the entire class. You must receive approval from the instructor before posting your PowerPoint and Discussion questions the entire class. At the end of the chapter discussion, each chapter moderator will be responsible for evaluating participation of peers. A rubric for evaluating peers is found in the Course Content and Related Materials-Handouts. The peer evaluation is not to be posted to the class. The evaluation is to be sent directly to the instructor through CANVAS e-mail at the end of the chapter discussion. See pages 14-16 of this syllabus for additional directions on developing the Chapter/Content Module and Discussion Moderation. This assignment has three elements:
- Creation of the content module related to the chapter.
 - Moderation of the topic discussion.
 - Evaluation of discussant participation. Please send this to the instructor at the conclusion of the discussion via CANVAS e-mail.
(CFPO #s 2, 7, 9); (Objective #s 1, 3 and 5)
6. **Integrating Office Tools in Classes (Undergraduate):** Each student will complete a series of assignments using word processing tools, spreadsheet tools, database tools, and/or presentation tools. Each student will also participate in a discussion on the topic of integrating these tools in classrooms. See the Discussion Board in CANVAS for specific instructions for completing this assignment. The due date for this assignment will be posted on the CANVAS Calendar. (CFPO #7, 11); (Objective #s 2 and 4)
7. **Educational Technology Resource Collection:** Each student will be asked to research information on educational technology tools from different resources. Each student will identify the official website(s) for the tools, instructions for using the tools, creative ideas of integrating these tools in classrooms, etc. Students will also be asked to review a collection tool such as (livebinder®) to complete this assignment. See the CANVAS Discussion Board for specific directions for completing this assignment. The due date for this assignment will be posted on the CANVAS Calendar. (CFPO #s 7, 11, 13); (Objectives #s 1, 3, 5 and 7)
8. **Each student will create a Home Page:** The purpose of this activity is for students to introduce themselves to the instructor and other classmates. It will also help students become familiar with moving around in CANVAS. Students must use their creativity in designing their WebPages, but use the following as a minimum:
- Upload a clipart or photo that represents you, your personality and how you feel at this time. Upload the clipart/photo to your Web Page and write a paragraph explaining how it represents you, your personality, and how you feel at this time.

Upload the clipart/photo to your Home Page and write a paragraph explaining how it represents you.

- Write two paragraphs about your experience using technology. Describe how your knowledge and experiences using technology has impacted you as a teacher and/or person (Include both positive and negative experiences).

- Read the introductions from your classmates and post a comment to one or more classmates commenting on his/her homepage. (CFPO #s 7, 9); (Objectives #5)

9. **Midterm and Final Exam:** Students will complete a midterm and a final examination. Midterm and final exam will contain questions covering knowledge and understanding of the material, as well as explanation of this knowledge. Questions may be taken from the text, lecture materials, supplementary materials (handouts), and from instructor demonstrations. Students who will not be able to take an exam at a scheduled time are responsible for contacting the instructor and arranging to make up the exam, prior to that scheduled exam. The quizzes and exam will be objective and performance based. (Objectives #s 1-7))

Grading System:

The *grades based on a points* system will be used for scoring assignments in this class.

Undergraduate Students:

Evaluation Factor	Maximum Points
Student Home Page	100
Journal Article Critiques (1)	100
Reflective Journal	100
Mid-Term Exam	100
Final Exam	100
Integrating Office Tools	100
Educational Technology Resources	100
Chap. Moderation/PowerPoint/Peer Eval	200
Discussion Participation	<u>100</u>
Total Possible	1000

Graduate Students:

Evaluation Factor	Maximum Points
Student Home Web page	100
Journal Article Critiques/ Research Paper	200
Reflective Journal	100
Mid-Term Exam	100
Final Exam	100
Educational Technology Resources	100
Chapter Moderation/PowerPoint/Peer Eval	200

Discussion Participation	<u>100</u>
Total Possible	1000

Numerical Grading Scale-Total 1000 points:

Points	Grade
900-1000	A
800-899	B
700-799	C
600-699	D
0-599	F

Attendance Policy:

The class is responsible to read the MSU Attendance Policy AOP 12.09.
<https://www.policies.msstate.edu/policy/1209>.

In accordance with university policy (AOP 12.09), students should attend all classes. When an absence from class is essential, the student must inform the instructor via phone or Email, and provide appropriate documentation.

Attendance in the **online course** is evaluated on a weekly basis. Each student is expected to join the online environment at the scheduled time for a combination of lecture and discussion. Just as in the face-to-face environment, not being logged in for class constitutes a single absence.

Title IX Policy

MSU is committed to complying with Title IX, a federal policy that prohibits discrimination, including violence and harassment, based on sex. This means that MSU's educational programs and activities must be free from sex discrimination, sexual harassment, and other forms of sexual misconduct. If you or someone you know has experienced sex discrimination, sexual violence and/or harassment by any member of the University community, you are encouraged to report the conduct to MSU's Director of Title IX IIEO Programs at 325-8124 or by e-mail to titleix@msstate.edu. Additional resources are available at <http://www.msstate.edu/web/security/title9-12.pdf>, or at <http://students.msstate.edu/sexualmisconduct/>.

Bibliography:

- Alessi, S., & Trollip, S. (2001). *Multimedia for learning: Methods and development* (3rd ed). Boston: Allyn & Bacon.
- Banks, J., & Banks, C. (2009). *Multicultural education: Issues and perspectives*. Hoboken, NJ: Wiley.
- Bebell, D., Russell, M., & O'Dwyer, L. (2004). Measuring teachers' technology uses: Why multiple- measures are more revealing. *Journal of Research on Technology in Education*, 37, 4-63.

- Bennett, N. S., & Matont, K. (2010). Beyond the 'digital natives' debate: Towards a more nuanced understanding of students' technology experiences. *Journal of Computer Assisted Learning*, 26, 321-331.
- Besnoy, K., & Clarke, W. (2009). *High-Tech teaching success! A step-by step guide to using innovative technology in your classroom*. Waco, TX: Prufrock Press.
- Brophy, J. (2010). *Motivating students to learn*. New York, NY: Routledge.
- Crews, K.D. (2002). *New copyright law for distance education: The meaning and importance of TEACH Act* [Online]. Available: <http://www.ala.org/ala/washoff/WOissues/copyrightb/distanced/distanceeducation.htm>
- Fletcher, D. (2010). Facebook: Friends without border. *Time*, 175(2), 16-22.
- Galanes, G., & Adams, K. (2009). *Effective group discussion: Theory and practice*. Boston: McGraw-Hill.
- Hennessy, S. (2011). The role of digital artifacts on the interactive whiteboard in supporting classroom dialogue. *Journal of Computer Assisted Learning*, 27, 463-489.
- International Society for Technology in Education. (1998). *National educational technology standards for students* [Online]. Available: <http://cnets.iste.org>
- North American Council for Online Learning. (2011). *National standards for quality online teaching*. Vienna, VA: Author. Available: http://www.inacol.org/research/nationalstandards/iNACOL_TeachingStandardsv2.pdf
- Roblyer, M. (2005). *Integrating educational into teaching* (4th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.
- Roblyer, M., & Doering, A. H. (2010). *Integrating educational technology into teaching* (5th ed.). New Jersey: Pearson.