MISSISSIPPI STATE UNIVERSITY
COLLEGE OF EDUCATION

DEPARTMENT of INSTRUCTIONAL SYSTEMS and WORKFORCE DEVELOPMENT
COURSE SYLLABUS

Course Prefix and Number: TKT 4763/6763

Course Title: Digital Tools for 21st Century Teaching and Learning

Credit Hours: Three (3) semester hours

Type of Course: Lecture

Catalogue Description: Prerequisites: TKT 1273 or consent of instructor. Methods of using digital tools for effective learning that is aligned with national standards in the 21st century classroom.

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 Conceptual Framework:

This course is designed to help students develop the skill to use digital tools to provide instruction aligned with national technology standards and college and career readiness standards. Students will learn how to adapt instructional materials to accommodate learners with different learning styles and different age groups. This course encourages creativity, critical thinking, and inquiry-learning through research to address the merits and challenges of technology-based instruction.

Course Objectives:

1. To develop an understanding of the foundations of 21st century teaching and learning, including implementation of Common Core standards for college readiness, National Educational Technology Standards, 21st century skills, and programs of study for career readiness. (InTASC # 1, 7; CFPO # 3)

2. To use design elements and principles to create publications and web pages using digital tools for 21st century teaching and learning. (InTASC # 1, 2, 3, 4, 5, 6; CFPO # 2, 5, 6)

3. To develop contemporary and emerging digital tools for 21st century teaching and learning; for example, Google tools, including Google web for web pages; Skype, photography, social network tools (Facebook, tweet), blogs and wikis, free online learning sites, online surveys, video (YouTube and Photostory, iMovie, etc.), voice thread, podcasts, etc. (InTASC # 1, 2, 3, 4, 5, 6; CFPO # 2, 5, 6)

4. To develop proficiency in the use of instructional procedures, media, methods, and techniques used in the 21st century classroom. (InTASC # 1, 2, 4, 5, 6, 7; CFPO # 7, 9, 10)

5. To acquire skills and knowledge to work with students of varying needs, abilities and ages and address these differences with digital media. (InTASC # 2, 3, 5, 6, 7; CFPO # 3, 5, 6, 7, 9, 10)

6. To develop an understanding, appreciation, and desire to keep abreast of innovation, experimentation, and research in 21st century teaching and learning by participating in professional groups online, reading electronic journals, social networking, etc. (InTASC # 9; CFPO 1, 9, 10)

7. To develop an understanding of the problems and possible solutions to problems unique to teaching and learning in the 21st century classroom by participating in professional groups online, reading electronic journals, social networking, etc. (InTASC # 4, 9, 10; CFPO # 1, 8)

8. To acquire skill and knowledge necessary for managing the 21st century classroom including the use of online calendars, task lists, surveys, templates for planning instruction, etc. (InTASC # 7, 10; CFPO # 3, 7, 8, 10)
9. To demonstrate knowledge of appropriate assessment and evaluation in 21st century teaching and learning including online assessments, electronic portfolios, self-assessments, peer assessments, student response systems, etc. \(\text{InTASC}\ #8, \text{CFPO}\ #4, 7\)

10. To demonstrate effective teaching by modeling micro-lessons for 21st century teaching and learning. \(\text{InTASC}\ #1, 2, 3, 4, 5, 6, 7, 8, 9, 10\)

**Topics to be Covered:**

1. Objectives of teaching and learning in the 21st century classroom (Jerald, 2009; Edorigami, 2012) 4 hours
   a. Description and foundation of 21st century teaching and learning
   b. 21st century students
   c. 21st century teachers
   d. 21st century curriculum
   e. Teaching/learning process in 21st century classrooms
   f. Digital media in 21st century teaching/learning
   g. 21st century learning environment
   h. 21st century assessments
   i. Emerging trends

   a. Pathways to Prosperity
   b. Industry Clusters
   c. National Technology Standards
   d. National Common Core Standards
   e. Partnership for the 21st Century Skills

3. Identifying student characteristics of 21st century students (Cool, 2011; Edorigami, 2012; Kentucky, 2012; Moore, 2012) 3 hours
   a. Learning styles
   b. Multiple intelligences
   c. Technology literacy

4. Professionalism (Edorigami, 2012; Kentucky, 2012) 2 hours
   b. Professional development and communication.

5. Constructing performance goals (Ed Tech, 2012; Pitler et al., 2007; Smart, 2008; Tate, 2003; Wiggins et al., 2005) 3 hours
   a. Understanding by Design template
   b. Components of performance goals
c. Examples of performance goals

6. Applying learning principles (Ed Tech, 2012; Pitler et al., 2007; Smart, 2008; Tate, 2003; Wiggins et al., 2005) 3 hours
   a. Principles of learning
   b. Principles of skill building
   c. Understanding by Design template

7. Selecting teaching/learning strategies (Ed Tech, 2012; Edorigami, 2012; Moore, 2012; Pitler et al., 2007; Smart, 2008; Tate, 2003; Wiggins et al., 2005) 3 hours
   a. Patterns of organization
   b. Learning activities and resources
   c. Learning activities to develop
   d. Selection of learning resources

8. Creating digital media for lessons. (Harm, 2010; NHSDesigns, 2008; NOUPE, 2011; R. Williams, 2008) 8 hours
   a. Review of graphic design principles
   b. Identify tasks to be accomplished
   c. Identify best of free digital software/tools
   d. Learn the software
   e. Create the media for the lesson

9. Using digital media for classroom productivity and management. (Discovery, 2012; Educitizenship, 2012; Education World, 2012; Ed Tech, 2012; Smart, 2008) 5 hours
   a. Lesson plans
   b. Email, calendars, task lists
   c. E-newsletters to communicate with parents and community
   d. Bulletin Board materials
   e. Course materials/tutorials
   f. Classroom website, blog or wiki
   g. Online course management
   h. Online assessments
   i. Discipline
   j. Copyright laws
   k. Plagiarism

10. Application of the teaching/learning system to the 21st century classroom
    (Edteacher, 2012; Harm, 2010; Pitler et al., 2007; Smart, 2008; Tate, 2003) 5 hours
    a. Curriculum
    b. Teaching
    b. Assessments
    c. Technology
    d. Learning Management System

11. Evaluations for teaching and learning in the 21st century (Edorigami, 2012; Wiggins
et al., 2008; Williams et al., 2007) 5 hours
a. Forms of evaluation including clickers, electronic portfolios, etc.
b. The evaluation continuum
c. Selecting appropriate evaluation
d. Analyzing competencies to select evaluations
e. Grading plans
f. Understanding by Design template

**Required Text:** None

**Methods of Instruction:**

Instructional methods will include teacher and student active components. Electronic presentation, discussion, demonstration, projects, project-based learning, cooperative learning will all be used. Students will apply learning by planning, teaching, and assessing learning in lesson plans.

**Suggested Student Activities:**

1. Each class member will develop a course management web site to include all class notes and materials. The web site may be a web page, blog, wiki, etc. (Obj. 2).

2. Each student will plan, teach, and assess a lesson in their academic area using digital media. The lesson will need to align with academic standards, Common Core standards, 21st century skills standards, National Technology Standards, and Programs of Study (Obj. 9, 10).

3. Each student will develop a personal productivity plan and a professional productivity plan including digital technology tools (Obj. 7, 8).

4. Each student will create a tutorial on how to use a free digital tool. The step-by-step tutorial will include screen casts, voice, etc., using software like Jing or Camtasia (Obj. 4).

5. Each student will implement design principles in the creation of digital media including Google tools, including Google web for web pages; Skype, photography, social network tools (Facebook, tweet), blogs and wikis, free online learning sites, survey monkey, video (YouTube and Photostory, iMovie, etc.), voice thread, podcasts, etc. (Obj. 3, 6).

7. Each student will complete exams as assigned by instructor (Obj. 1).

8. Each class member will complete daily requirements of the course, quizzes, journal entries, class discussions, and other class assignments (Obj. 1, 5).
Honor Code:
Academic misconduct will be dealt with in accordance with the guidelines and procedures outlined in the Academic Misconduct Policy, which may be accessed on the web at http://www.msstate.edu/dept/audit/PDF/1207.pdf.

“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 the processes of the Honor Code. For additional information about the Honor Code, please visit: http://students.msstate.edu/honorcode/

Technology:

Students use software to teach keyboarding, spreadsheet, database, presentation, desktop publishing, and web design. Instructional technology is used to prepare materials for the course including lesson plans, instructional aids, projects, journals, etc. In delivery the lesson, students learn to use electronic presentation technology, the SmartBoard, the document camera, the Internet. They use electronic databases as well as the Web for research; they post and retrieve information electronically.

Diversity Statement:

Diversity is specifically addressed in Instructional Objective # 5 and specifically in Topic # 3.

Disabilities:

Students with disabilities are encouraged to discuss their needs with the instructor, preferably during the first week of the semester. All reasonable accommodations will be made to see that disabilities do not restrict a student's opportunity to learn. Help is also available from Student Support Services (http://www.sss.msstate.edu/disabilities/, 01 Montgomery Hall, 325-3335).

Field Component:

Not applicable

Evaluation of Student Progress:

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<tr>
<th>Undergraduate Students:</th>
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<tr>
<td>Resource Materials/Reference Website</td>
<td>15%</td>
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<td>Lesson Plan, Teaching and Assessing</td>
<td>10%</td>
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<td>Grading Component</td>
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<td>Learning Management Site</td>
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<td>Exams</td>
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<td>Class Participation and In-class Assignments</td>
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**Graduate Students:**

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**Graduate Assignment:**

With the approval of the instructor, write a scholarly paper for publication in a business or technology education journal or prepare a proposal to present at a meeting of one of the professional associations; for example, Mississippi Business Education Association, Mississippi Association of Career and Technical Education, or Mississippi Educational Computing Association.

**Undergraduate and Graduate Grading Scale**

- 92 - 100 A
- 84 - 91 B
- 76 - 83 C
- 68 - 75 D
- < 68 F

**Bibliography:**


