University of Arkansas, College of Education and Health Professions
Department of Curriculum and Instruction

1. Program Affiliation: Career and Technical Education: Technology and Engineering Education

1.1 Course Number and Title: TEED 2103: Technology & Society

Prerequisites: None

1.2 Instructor:

Vinson Carter, Ph.D.
314 Peabody Hall
vcarter@uark.edu
575-3076

1.3 Required Text:

International Technology and Engineering Educators Association. (2000/2002/2007). *Standards for technological literacy: Content for the study of technology*. Reston, VA: Author.

Available online at: http://www.iteea.org/TAA/Publications/TAA_Publications.html

2. Course Description/Justification

2.1 Catalog Description: An examination of the complex relationships between society, values, and technological development in developed and under-developed nations.

2.2 Relationship to Knowledge Base:

This foundational course supports the "Specialty Studies" component of the Scholar-Practitioner model by providing the technology teacher education candidate with knowledge and tools needed to explore the complex relationships between humans, knowledge and skills, and technological development or proliferation. Few elements in our contemporary society are as pervasive as technology. Technology has often been considered an engine of social change. In this course, students will examine the interface between technology and society. The ability to foresee the social, personal, economic, and environmental consequences of technology development and use will be addressed.

3. Goals and Objectives

3.1 Goals

This course is designed to provide the candidate with a foundational understanding of the complex relationships between technology, societies, politics, economics, and values.

All candidates pursuing degrees in the College of Education and Health Professions are expected to apply the principles of the conceptual framework as *Scholar Practitioners.* The scholar practitioner reflects a professional who is knowledgeable about subject matter and pedagogy; skillful in teaching and managing classrooms and schools; caring about students, families, school staff and the community; and constantly inquiring to better the profession and increase the success of students, schools and the community. The scholar practitioner is **knowledgeable, skillful, caring and inquiring** and is defined by the following tenets:

1. One who accesses, uses, or generates knowledge
2. One who plans, implements, and models best practices
3. One who understands, respects, and values diversity
4. One who is a developing professional and a lifelong learner
5. One who communicates, cooperates, and collaborates with others
6. One who makes decisions based upon ethical standards and professional criteria
7. One who is knowledgeable about teachers and teaching, learners and learning, and schools and schooling

Technology: As with all teacher preparation coursework, candidates are expected to demonstrate technological competence in this course. This technological competence will be demonstrated through the use of the appropriate technological hardware and software as well as other web-based applications. Scholar-practitioners will utilize technology that enhances the instructional process during the completion on this course.

3.2. Objectives

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

3.2.1. Describe the social, cultural, political, economic, geographic, and psychological contexts that impact living in a technological world;

3.2.2. Explain the socio-cultural elements that determine the quality of life in technocratic societies;

3.2.3. Analyze the role of technology in the development, success, and dilemmas of rural and urban societies in this nation and others;

3.2.4. Describe the nature of historical and current social resistance to technological change;

3.2.5. Critique the evolutionary process of technology and its impact on society, culture, politics, and the media;

3.2.6. Explain the socio-psychological dimensions of work and the role of technology in causing major changes in the nature of work;

3.2.7. Explain the complex dynamics that produce and shape social outcomes of technology;

3.2.8. Demonstrate the use of the "sociological imagination" as the organizing device to identify patterns of social organization, social structure, and social institutions that define living in a technological world; and

3.2.8. Demonstrate the ability to complete an “appropriate technological” problem solving scenario that attempts to solve a social problem in an under-developed region of the United States or another nation .

4. Student Activities and Experiences

4.1. Assignments/Tasks

Grades for each student will be based on the following assignments:

4.1.1. Professionalism and Daily Assignments (30 points)
Candidates are required to come to each class prepared and maintain professional decorum during class. Candidates will be evaluated on participation in class discussions and activities from various reading assignments, videos, and lectures throughout the course of the semester.

4.1.2. Design Challenges (30 points)
Throughout the semester, candidates will work in design teams to use tools, techniques, and materials to design within established constraints

4.1.3. Technology Assessment (20 points)
Candidates will research the impacts of a given technological device or system and describe the extent in which society and cultural values have made it possible for the technology to be developed and have shaped the technology. Students will prepare a paper and presentation describing the technology and then identify and discuss the implications for individuals and society.

4.1.4 Midterm and Final Exam (20 points)

5. Content Outline

5.1. Technological Interfaces

a. Rural America
   1. Technology: A natural process
   2. Resistance to change
   3. Creativity and innovation

b. Rural America in transition: social and cultural change issues
   1. Diminishing population and increasing farm size
   2. Economic diversity: rural poor to successful farmers
   3. Rural mentality: collectivism to individualism
   4. The decline of the family farm
   5. Power and control: Independence to increasing dependence
   6. Shifting gender stereotypes/roles?
   7. Environmental issues, such as soil preservation and ground water pollution
   8. Global needs, domestic price stability, and politics (exports, imports, tariffs, and subsidies, etc.)
   9. The social consequences of the demise of the rural community
   10. The concept of progress and agriculture in other cultures

c. Urban and suburban cultures
   1. The cause and effect of technology and society
   2. Historical development: the city and the fabric of society
   3. The importance of resources
   4. Transportation and communication
   5. Diversity of culture; the development of the arts

6. Early city design

d. Technologies crucial to the development of the modern city
    1. Transportation
    2. Communication
    3. Infrastructure and utilities
    4. Systems and the occasion for normal accidents
    5. Skyscrapers
        a. Early barriers to height, solutions
        b. Competition for the sky: monuments to the male ego?

e. Urban issues and trends: developing countries and America
    1. Power and control
    2. Socialization and isolation in the city:
    3. Poverty and distribution of resources
    4. Social stratification
    5. Housing
    6. Crime
    7. Transportation
    8. Environmental issues unique to the urban environment
    9. Strategies for modifying the urban environment; revitalizing the city core

f. The media and society
    1. Historical perspective: the printing press: economic, social, political, religious, psychological, and cultural consequences; precursor of mass communication
    2. 20th century technologies: technology as mediator
        a. Television
            i. Controversial issues: the good, the bad, and the ugly: stimulating violence; accommodating a passive lifestyle
            ii. Shaping world views
            iii. Shaping personal values, beliefs, and self-image
            iv. Influencing the political process
        b. Internet, the Web, and virtual reality
            i. Communication
            ii. Does information equal knowledge?
            iii. Is the Internet the equalizer in society?
            iv. “A chip in every product;” will it change society?
    3. Environmental issues: noise and information overload
    4. The concept of progress
    5. Power and control: who controls the media?

g. Social/technological transformations
    1. Agriculture to manufacturing to service sector
    2. Technology - a major force of change
    3. Increased use of automation
    4. Globalization of business
        a. The technologies
        b. Effect on under-developed and developing countries
        c. The major players
        d. The green revolution
    5. The questions of power and control

h. Technology and the concept of progress
    1. Solving problems with technology
        a. Technological problem solving

b. The design process
    1. problem identification
    2. problem clarification
    3. ideation
    4. Drawing, sketching, and designing solutions
    5. Solution implementation
    6. Testing and evaluation
    7. Communicating results

6. Evaluation Policies

6.1. The following scale will be used to determine the final grade in the course:

A=100-93; B=92-85; C=84-78; D=77-70; F-below 69.

7. Syllabus Change

The Instructor reserves the right to make changes as necessary to this syllabus. If changes are made, advance notification will be given to the class.

8. Academic Policies

8.1 Accommodations

Students with disabilities requesting reasonable accommodations must first register with the Center for Educational Access. The CEA is located in the Arkansas Union, Room 104, and on the web at http://www.uark.edu/ua/csd/applications.htm. The CEA provides documentation to students with disabilities who must then provide this documentation to their course instructors. Students with disabilities should notify their course instructors of their need for reasonable accommodations in a timely manner to ensure sufficient time to arrange reasonable accommodation implementation and effectiveness. A typical time frame for arranging reasonable accommodations for students who are registered with the CEA is approximately one to two weeks.

8.2 Academic Integrity

The application of the University of Arkansas Academic Integrity Policy will be fully adhered to in this course. Grades and degrees earned by dishonest means devalue those earned by all students; therefore, it is important that students are aware of the University of Arkansas Academic Integrity Policy. Academic dishonesty involves acts, which may subvert or compromise the integrity of the educational process.

"As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals though programs of student and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail."

"Each University of Arkansas student is required to be familiar with and abide by the university's Academic Integrity Policy' which may be found one the UA website. Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor." The description of the Academic Integrity Policy is located at: http://provost.uark.edu/245.php

The Academic Integrity Sanction Rubric is located at: http://provost.uark.edu/246.php

All students are to complete their own work during the semester. Although students are allowed to share ideas and learn from one another throughout the semester, students are not allowed to copy another person's work. All assignments must be original and completed individually. All citations must be documented using the 6th edition of the APA manual (http://www.apastyle.org/, http://psychology.vanguard.edu/faculty/douglas-degelman/apa-style/)

8.3 Inclement Weather

For information regarding whether the university is closed or an inclement weather day is declared, use the following sources:

- See the inclement weather web site at: http://emergency.uark.edu/17098.php
- Call 479-575-7000 or 575-2000 for recorded announcements about closings.
- Listen to KUAF Radio, 91.3 FM, or other local radio and television stations. Please check your e-mail.

8.4 Instructor Policies

Attendance

This course is reserved for candidates preparing to become professional teachers. Subsequently, the ethics and responsibilities of professional teachers will be expected of all participants. Candidates must attend class to receive the maximum benefit and to avoid leaving their professional responsibilities in the hands of classmates. Candidates will be allowed two "sick" days regardless if excused or unexcused, if needed. Additional absences will result in the lowering of one letter grade per absence in your final grade. Furthermore, two occasions of coming late to class or leaving early will be counted as one absence.

Candidates are expected to arrive early, stay focused and attentive during the class, and submit all required materials prior to the due date. Late work will not be accepted for full-credit.

Professionalism

All candidates are to complete their own work during the semester. Although candidates are allowed to share ideas and learn from one another throughout the semester, students are not allowed to copy another person's work. All assignments must be original and completed individually. All citations must be documented using the 6th edition of the APA manual (http://www.apastyle.org/, http://psychology.vanguard.edu/faculty/douglas-degelman/apa-style/)

Candidates are required to maintain professional decorum during class. Cell phones and other electronic devices must be turned off and out of sight during class. Inappropriate and disruptive classroom behavior (including the use of cell phones, iPads, laptops, and other electronic devices) will not be tolerated, and may result in the loss of points from daily and weekly assignments.