

Engineering and Technology Education

ETE 7230 Foundations of Technology

Fall 2007-3 Credits

Instructor:

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Catalog Description:

Study of the objectives, legislative foundations, principles, philosophy, impact and organization of technology and industrial education.

Introduction:

The discipline of Career and Technical Education including Technology Education has a history of dynamic change including content, purpose and even names. Through much of our past we have struggled with image and identity. We have sought acceptance by the education community and society at large. The professionals that claim the discipline are loyal and convinced that skill development and technological studies are important in the education of our young people. This course will address the origin of our field and its development to where we find it today. This will be done as a basis for charting the future.

Course Goals:

Students who successfully complete this course will be able to:

1. describe the historical evolution of Career and Technical Education including Technology Education, particularly in the past century.
2. explain the names and terminology that have been used in the field over the years.
3. describe the relationships of Technology Education with other school subjects particularly Career and Technical Education.
4. synthesize the various philosophical shifts that are a part of the history of Technology Education and relate them to world events and societal demands.
5. make predictions on the future of Career and Technical Education and Technology Education as a result of understanding the evolution and history.

Course Design:

It is understood that class members have teaching and professional experience in many of the areas that the course will cover. As a result, the course will draw on this expertise through discussions to meet course unit objectives. Students will be asked to conduct readings, make class presentations and make predictions based on the readings and discussions.

Assignments:

1. Complete assigned readings.
2. Complete reflection response paper for readings
3. Participate in class discussions.

Instructions for Reflection Response Papers

Each week students will be asked to respond to the assigned/suggested reading topic via a reflection paper. This reflection paper will be based on the student's own personal and professional experience and frame of reference. These short reflection response papers of approximately two pages should express agreement and/or disagreement with the concepts found in the readings. A review of professional journals or articles should be part of these response papers.

In addition each week you will prepare two (2) questions based on the readings you have completed. These questions will potentially be discussed during the class discussion session.

Each Reflection Response Paper should follow the stated below criteria.

1. APA format
2. 12 point size text
3. Times New Roman
4. Double Spaced
5. Margins of 1.25"
6. Should follow the USU – "Publication Guide for Graduate Students"

Finally, each week each student will submit to the Reference Database three (3) articles, readings, or other sources. This database file will be created by using the software known as "Endnote 8" and located on the Graduate Computer in the Graduate Office (IS 004).

Course Outline Foundations of Technology

Unit 1. Development of CTE/TE

Influential Movements Prior to 1870
Industrial Education

Units 2. The European and American Systems of Technical Training

European Concepts
 Russian System
 Sloyd System
American Concepts
 Manual Training
 Arts and Crafts Movement
 Manual Arts
 Industrial Arts
 Vocational Education
 Industrial Education
 Technology Education
 Engineering Infusion

Unit 3. The Relationships of Industrial Education to General Education

General Education in Retrospect
Industrial Arts as Part of General Education

Unit 4. The Relationships of Industrial Education to Vocational Education

Vocational Education
Applied Technology Education
Career and Technical Education
 Leaders and Influences in Vocational Education
 Impact of the Land Grant Act
Vocational Education and the Development of Industrial Arts

Unit 5. The Development of Technology Education

Influences of Industrial Arts in the Development of Technology Education
Relationship of Technology Education to Career and Technical Education
Other influences on the Development of Technology Education

Unit 6. Curriculum Movements in History

Current Curriculum Content
Development of Content Over Time

Unit 7. Philosophical Foundations

Career and Technical Education
 Purpose and Objectives
 Educational Levels
 Supporting Organizations

Industrial Education

Trade and Industrial Education

Industrial Arts

Purpose and Objectives

Supporting Organizations

Recent and Historical Concepts in Technology Education

The Alberta Plan

American Industry Project

Georgia Plan of Industrial Arts

Industrial Arts Curriculum Project

Technology: The Study of American Industry

Maryland Plan

Unit 8. Jackson's Mill

Influence on the Development of Technology Education

Unit 9. Professional Organizations/Societies and Their Influence on Technology Education

Mississippi Valley Technology Education Conference

International Technology Education Association

Career and Technical Education Association

Unit 10. The Development of the Standards for Technological Literacy

Advanced Excellence in Technological Literacy

Professional Development

Program Standards

Addenda:

Planning Learning: Developing Technological Curricula

Realizing Excellence: Structuring Technology Programs

Measuring Progress: A Guide to Assessing Students

Developing Professionals: Preparing Technology Teachers

Impact on Technology Education

Curriculum

Accreditation

Laboratories

Acceptance in the Schools

Technologically Speaking

Unit 11. Federal Initiatives

Career Education

School to Work

Tech Prep

No Child Left Behind

Some Listed Readings

American Council on Industrial Arts Teacher Education (1981) An Interpretive History of Industrial Arts, 30th Yearbook.

American Council on Industrial Arts Teacher Education (1979) Industrial Arts Education: Retrospect, Prospect, 28th Yearbook.

Anderson, L. F., PhD (1926). History of Manual and Industrial School Education. New York, D. Appleton and Company.

Council on Technology Teacher Education (1995) Foundations of Technology Education, Glencoe/McGraw-Hill.

Barlow, M. L. (1967). History of Industrial Education in the United States. Peoria, IL, Bennett Co, Inc.

Bennett, C. A. (1926). History of Manual and Industrial Education Up to 1870. Peoria, IL, Chas A Bennett Co, INC, Publishers.

Bennett, C. A. (1937). History of Manual and Industrial Education 1870 to 1917. Peoria, IL, Char A Bennett Co, INC, Publisher.

Evans, Rupert (1978). Foundations of Vocational Education. Columbus, Ohio, C. E. Merrill Pub. Co.

Gordon, Howard R. (2003). The History and Growth of Vocational Education in America, Waveland Press, Inc.

Lindbeck, J. R. (1972). Practical Guide to Industrial Arts Education. New York, The Center for Applied Research in Education, INC.

Martin, E. (1981). "Industrial Education in Early America." American Council on Industrial Arts and Teacher Education 1981.

Martin, E. a. L., Joseph (1979). "The Movements That Led To Contemporary Industrial Arts Education." American Council on Industrial Arts and Teacher Education 1979.

National Research Council (2002) Technologically Speaking, National Academy Press.

Nelson, L. P. E. D. (1981). The European Influence. Bloomington, IL, McKnight Publishing Company.

