

The Infusion of Multicultural Competencies and Information Literacy/Fluency Into the Computer Systems Technology Curriculum

Introduction

Industry demands a diversity competent employee. The Accrediting Board for Engineering Technology (ABET) requires students to be culturally competent and be prepared to deal with globalization.

The primary goal of this Tilford Incentive Grant is to help you become both technological and information literate as well as multicultural competent.

This project will incorporate the Tilford Group Multicultural Competencies, the Tilford Process Model, TAC/ABET outcomes, and information literacy/fluency.

The module will use country studies as a unifying feature and a foundation for investigative research (information literacy/fluency) as well as a platform for the multicultural competencies to be valued, applied, and understood. Country studies are the investigation and analysis of the history, social, economic, political, cultural, and institutions of countries throughout the world.

Objectives

This project will attempt to:

1. Infuse multicultural competencies in a computer systems technology course.
2. Integrate student's comprehension of multicultural competency development, information literacy, computer literacy, and team work through independent study and small group discussion/activity sessions.
3. Encourage life long learning through student/faculty/librarian relationships and collaboration.

Multicultural Competencies

This project will be guided by the framework suggested by the Tilford Group Multicultural Competencies Development: I. Knowledge, II. Personal Attributes, and III. Skills (see Appendix A) and by the Tilford Process Model (see Appendix B). Specifically, we will try to address four competencies:

- I. Knowledge – Awareness and understanding needed to live and work in a diverse world.
 - a. Social/Political/Economic/Historical Frameworks – Awareness of how social, political, economic and historical issues impact race and ethnic relations in the world.
 - b. Diversity Implications for Career – Understanding how diversity impacts the academic discipline, career and professional development.
- III. Skills – Behaviors and performance tasks needed to live and work in a diverse world.
 - a. Teamwork – The ability to work in culturally diverse groups toward a common goal.
 - b. Leadership Development – The ability to provide multicultural leadership.

Another framework that will be taken into consideration is related to the TAC/ABET (Technology Assessment Commission/Accreditation Board for Engineering and Technology) accreditation document. This agency sets the learning outcomes for accredited programs or programs seeking initial accreditation. There are eleven student learning outcomes ranging from technical skills to personal traits to citizenship. This project will focus on the student learning outcome known simply as outcome *j*. It states that graduates will demonstrate “*respect for diversity and knowledge of contemporary professional, societal and global issues*” and it is aligned with the three competencies selected from the Tilford Group.

The Learning Process

The project will employ a project-based learning (PBL) approach which aims at developing deep understanding and transferable knowledge. In this environment multiple variables may lead to multiple solutions or points of view. PBL uses real world problems aimed at motivating you to identify and research the concepts and principles you need to know to work through these real world problems.

You will take responsibility over your learning experience by defining what you do not know and decide what needs to be learned. It should trigger your curiosity for exploration. The final product of this exploration will be an artifact such as a multimedia presentation or a report in which you are given the opportunity to reflect on the process and knowledge/experience gained from it.

Conclusion

We encourage you ...

- To be actively engaged in your learning by bringing to bear on your education your own interests, skills, passions, and potential as keys to your involvement with the subject matter of this course.
- To take both intellectual and creative risks.
- To actively engage with us and the other students in this course to create a classroom environment that promotes respect, meaningful dialogue, and trust.
- To keep in mind that what you gain from this course depends on your effort and involvement. As much as we wish for each of you to succeed, our role is necessarily limited to that of facilitator, encourager, guide, and cheerleader.

We look forward to our time together.

Multicultural Competency Development: Preparing Students to Live and Work in a Diverse World

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Multicultural competency is defined as the knowledge, skills and personal attributes needed to live and work in a diverse world. Kansas State University acknowledges the importance of helping students develop these multicultural competencies. In 2000-2001 the Tilford Group conducted focus groups with faculty and students. The following synthesis of multicultural competencies was compiled as a result of what was learned from those and subsequent discussions.

I. Knowledge -- Awareness and understanding needed to live and work in a diverse world.

- **Cultural Self** -- The ability to understand one's ethnic identity and how it influences identity development.
- **Diverse Ethnic Groups** -- Knowledge of diverse ethnic groups and their cultures.
- **Social/Political/Economic/Historical Frameworks** -- Awareness of how social, political, economic and historical issues impact race and ethnic relations in the world.
- **Changing Demographics** -- Understanding population dynamics related to ethnic minority and majority citizens.
- **Diversity Implications for Career** -- Understanding how diversity impacts the academic discipline, career and professional development.

II. Personal Attributes -- Traits needed by those who live and work in a diverse world.

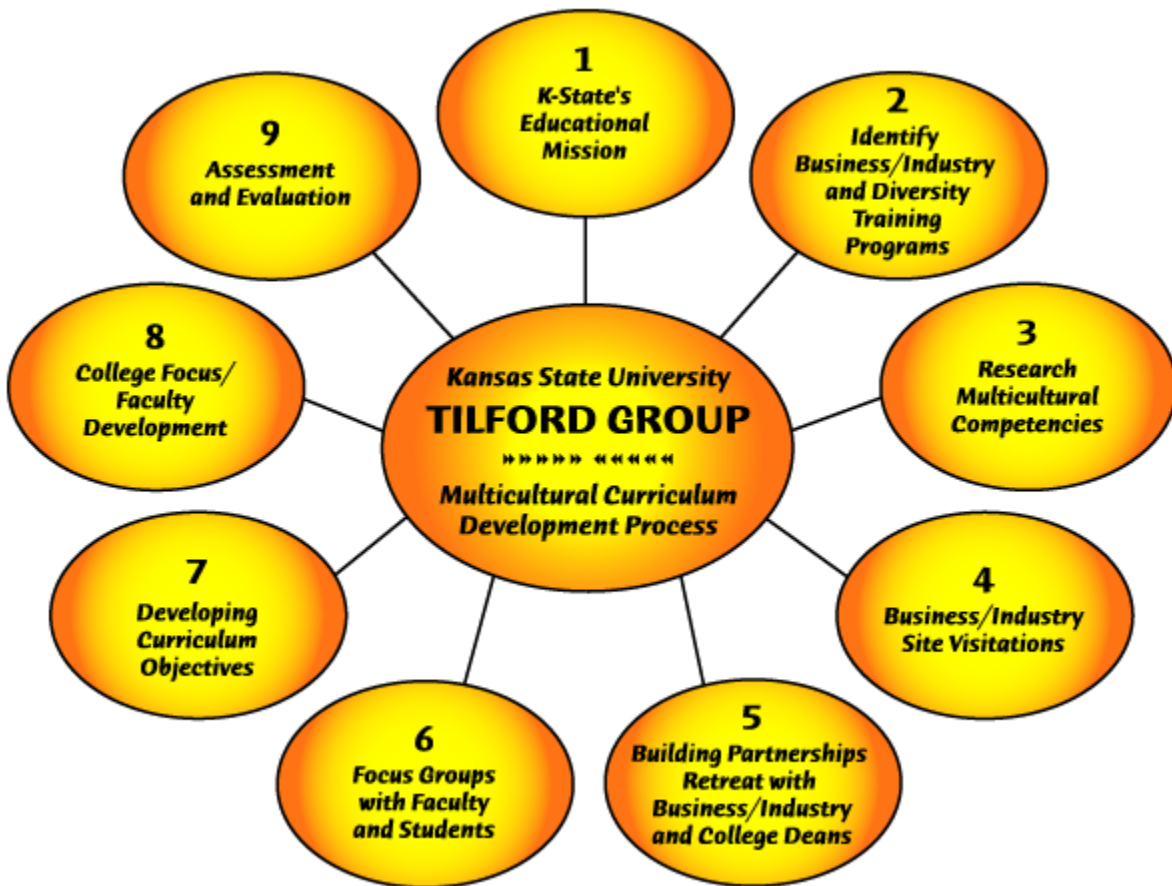
- **Flexibility** -- The ability to respond and adapt to new and changing situations.
- **Respect** -- An appreciation for those who are different from one's self.
- **Empathy** -- The ability to understand another person's culture by listening to and understanding their perspective.

III. Skills -- Behaviors and performance tasks needed to live and work in a diverse world.

- **Cross Cultural Communication** -- Verbal and nonverbal communication skills in interaction with those who are culturally different from one's self.
- **Teamwork** -- The ability to work in culturally diverse groups toward a common goal.
- **Listening** -- The intention and ability to attend to what others are saying.
- **Conflict Resolution** -- The ability to resolve cultural conflicts that occur between individuals and groups.
- **Critical Thinking** -- The ability to use inductive and deductive reasoning to understand diverse perspectives.
- **Language Development** -- The ability to speak and write more than one language.
- **Leadership Development** -- The ability to provide multicultural leadership.

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The Tilford Process Model



What Is Information Literacy/Fluency?

Information Literacy/Fluency “may be seen as using information technology; as a combination of information and technology skills; as acquiring mental models of information systems; as a process; as an amalgam of skills, attitudes and knowledge; as the ability to learn; or as a complex of ways of experiencing information use.”¹

According to the Association of College and Research Libraries’ web site, the information literate/fluent student will be able to: (1) determine the nature and extent of the information needed, (2) access needed information effectively and efficiently, (3) evaluate information and its sources critically and incorporates selected information into his or her knowledge base and value system, (4) individually or as a member of a group, use information effectively to accomplish a specific purpose, and (5) understand many of the economic, legal, and social issues surrounding the use of information and assesses and use information ethically and legally.²

¹ Bruce, C. (2000). Information literacy programs and research: An international review. *Australian Library Journal*, August, 2000, pages 209-218.

² Available online at: <http://www.ala.org/ala/acrl/acrlissues/acrlinfolit/informationliteracy.htm>

Six Virtues All Human Cultures Respect and Admire³

1. Wisdom
 - a. Curiosity
 - b. Love of learning
 - c. Judgment
 - d. Ingenuity
 - e. Emotional intelligence
 - f. Perspective
2. Courage
 - a. Valor
 - b. Perseverance
 - c. Integrity
3. Humanity
 - a. Kindness
 - b. Loving
4. Justice
 - a. Citizenship
 - b. Fairness
 - c. Leadership
5. Temperance
 - a. Self-control
 - b. Prudence
 - c. Humility
6. Transcendence
 - a. Appreciation of beauty and excellence
 - b. Gratitude
 - c. Hope
 - d. Spirituality
 - e. Forgiveness
 - f. Humor
 - g. Zest

³ Peterson, C.; & Seligman, M.E.P. (2004). *Character Strengths and Virtues: A Handbook and Classification*. Washington, DC: American Psychological Association and Oxford University. Some of this material is also available Online at: <http://www.authentic happiness.sas.upenn.edu/default.aspx>

Questions for Cultural Awareness⁴

Question	Potential Areas of Discussion	Examples
What are some key dissimilarities between people from different cultures?	<ol style="list-style-type: none"> 1. Physical traits 2. System of values 3. Language or dialect 4. Religion 5. Institutions 	<ol style="list-style-type: none"> 1. Sex, age, race 2. Work ethic 3. Spanish 4. Judaism 5. Economic
How do these differences come about?	<ol style="list-style-type: none"> 1. Custom 2. Lifestyle 3. Shared norms 4. Shared experiences 5. Communication patterns 	<ol style="list-style-type: none"> 1. Clothing 2. Food 3. Conforming 4. War veteran 5. Nonverbal symbols
What are the implications when different cultures interact?	<ol style="list-style-type: none"> 1. Conflict 2. Stereotyping or ethnocentrism 3. Sexism or racism 	<ol style="list-style-type: none"> 1. When there is a misunderstanding 2. When a group refuses to accept a person from another group 3. Discrimination

Most cross-cultural awareness training programs deal with at least four elements:

1. Raising the awareness of cultural differences: focus on understanding some the assumptions, beliefs, and values people have about other cultures.
2. Focusing on ways attitudes are shaped: help people understand how cultural stereotypes are formed and the destructiveness of cultural bias.
3. Providing factual information about each culture: necessary to reinforce new assumptions, values, beliefs, and attitudes about different cultures.
4. Building skills in the areas of language, nonverbal communication, cultural stress management, and adjustment adaptation skills: address critical interpersonal relations of employees both inside and outside the organization.

⁴ Mason, H.; & Spich, R.S. (1987). *Management: An International Perspective*. Homewood, IL: Irwin.