Importance of Global Experience for Engineers

Opportunities for Global Experience at TAMU

Engineering International Certificate
Today’s Economy is Global and Interconnected
The Engineering Industry is Global

• Engineers working in research and development, design, production, service and other areas can be located anywhere in the world as required by their business

• This includes:
  ▪ U.S. engineers located abroad
  ▪ Foreign engineers working for companies in the USA
  ▪ Conducting business in international locations without traveling to that location
Today’s Engineer Needs Global Competency

• The National Academy of Engineering states that a core need for engineers is to be able to work with a diverse, multinational, multidisciplinary workforce

• Engineers need to have a global mindset and be prepared for the global job market

(Chan & Fishbein, 2009)
Knowing Other Cultures

• Knowing about different cultures can not only save you from difficult situations…
  – https://www.youtube.com/watch?v=GOHvMz7dl2A

• But it can also help you close deals and work more effectively….  
  – https://www.youtube.com/watch?v=QlifMplwPus
Global Engineer

A well rounded and effective engineer in this global environment is one that complements the core technical knowledge with excellent cross-cultural competence and international exposure.
How To Become a Global Engineer?

• Culture: is the total sum of the learned behavior of a group of people that are generally considered to be the tradition of that people and are transmitted from generation to generation

• Different cultural groups think, feel, and act differently

• Facts x Interpretation: We interpret facts based on our cultural values and background

• There are no scientific standards for considering one group as intrinsically superior or inferior to another

• Video: http://www.youtube.com/watch?v=PSt_op3fQck
Story Time… A little exercise

What do you see?
What do you think?
Intercultural Sensitivity

What is each phase: [http://www.youtube.com/watch?v=6vKRFH2Wm6Y](http://www.youtube.com/watch?v=6vKRFH2Wm6Y)

(Bennett, 1993)
How To Become a Global Engineer?  
Part 2

• First know yourself
• Look at how your own cultural values
  – Drive behavior
  – Compare that to other cultures
• Learn skills that will help understand other cultures
• Apply those skills and adapt for success
Culture Comparison By Hofstede

1. **Power distance**: Society’s inequality is endorsed by the followers as much as by the leaders

2. **Individualism**: “I” or “We”. In Individualist societies people are only supposed to look after themselves and their direct family. In Collectivist societies people belong to “in groups” that take care of them in exchange for unquestioning loyalty

3. **Masculinity**: Masculine dimension indicates that the society will be driven by competition, achievement and success. Feminine dimension means caring for others and quality of life

4. **Uncertainty avoidance**: Should we try to control the future or just let it happen?

5. **Pragmatism**: In normative societies most people have a strong desire to explain as much as possible. In pragmatic societies most people don’t have a need to explain everything, they believe that it is impossible to fully understand the complexity of life

6. **Indulgence**: The extent to which people try to control their desires and impulses, based on the way they were raised. Relatively weak control over their impulses is called “indulgence”, and a strong control over their urges is called “restraint”
Let's Compare:

- [http://geert-hofstede.com/countries.html](http://geert-hofstede.com/countries.html)
In this Global World we need... to be respectful and culturally sensible

It is important to be aware of the larger societal norms

HOWEVER

it is even more important not to generalize all of the individuals of that culture
Importance of Global Experience for Engineers

Opportunities for Global Experience at TAMU

Engineering International Certificate
Dwight Look College of Engineering is Transforming the Undergraduate Engineering Education

By providing high quality engineering education that prepares students to be future engineering leaders with enriching opportunities for global experiences

For 2014-2015 academic year: 715 engineering students traveled abroad
We need to double this number!!!
Did you Know?

- Studying Abroad is required for the Engineering International Certificate.
- Studying Abroad will distinguish you from other candidates when in the job market.
- There is a guaranteed scholarship for students with a 2.5 GPA or higher.
- Study Abroad can help you graduate faster.
- Some programs cost less than studying in College Station.
- Study abroad programs can range from one-week to a full year abroad.
2014/2015 Study Abroad Program Locations
Types of Programs

• Summer Faculty Lead
• Summer Research Internships
• Company Internships
• Semester/Year Abroad
• Short-term experience

Where to find information:
http://engineering.tamu.edu/international/studyabroad
Importance of Global Experience for Engineers

Opportunities for Global Experience at TAMU

Engineering International Certificate
Engineering International Certificate

- Language courses (200 level) 3
- International and Cultural Diversity courses in the university core curriculum 6
- ENGR 410 Global Engineering -OR- a design course in an engineering department with significant international component 3
- International experience 3
Maria Alves
Director, Engineering International Programs
malves@tamu.edu