### 2014 PLUS 3 SYLLABUS (CHINA)

# BUSSPP0xx and ENGR00xx – International Field Project

# **Course Description**

BUSSPP00XX and ENGR00XX are optional three-credit study abroad opportunities offered as a follow-up to Managing in Complex Environments (required of freshmen CBA students) or ENGR0011 and ENGR0012 (required of freshmen engineering students) at the University of Pittsburgh. These courses involve teams of both business and engineering students who will work on a project involving travel to China.

The course consists of two parts:

- A pre-departure component that will include a brief introduction to the historical, cultural, economic, and social environments of China, and will also introduce the companies that will be visited during the field study. The student will write a short individual report and do a team oral presentation for this part.
- A field study component to Beijing, China. The field study includes company visits, sightseeing, and lectures at Tsinghua University in Beijing, China. Each student is required to keep a daily journal and participate in the local activities for this part. At the end of the trip, the students will make a team oral presentation on a business plan to start a business in China based on their experience and opportunities they find during the trip. Both business and engineering viewpoints related to the national and global industry in which it operates must be considered in the presentation.

### **Faculty**

Di Gao

Associate Professor, Department of Chemical and Petroleum Engineering

Office: 1235 Benedum Hall

Tel: 412-624-8488 (office), Email: gaod@pitt.edu, 724-719-0231 (US cell), (86) 187 013 68275 (China cell)

Vanessa Sterling

Coordinator, Pitt Map, Study Abroad Office

Office: 802 William Pitt Union (Study Abroad Office) Tel: (412) 624-2033 (office), Email: <a href="wmsst4@pitt.edu">wmsst4@pitt.edu</a>

Faculty from the University of Pittsburgh will travel with students and they have designed a number of academic activities for the trip. The Plus 3 program is a study abroad experience where the classroom is a real world experience of another culture. Thus, the instructors act more as guides, helping the student have a successful experience.

During any study abroad experience the faculty also have the role of chaperones. We are assuming all the students are adults and will act as such during the trip. The instructors are there to help, but we do not watch every step every student takes 24 hours a day. It is impossible to do this. Thus, it is assumed that the students have the level of maturity necessary to conduct themselves properly during this experience.

# **Program Outline and Evaluation**

The Program and evaluation of student performance is based on three components:

### I) Pre-departure (30%)

Two mandatory workshops will be scheduled that include Visa application, discussions of socio/political/historical context of your country, information on the companies that will be visited, student team presentations, and advice and tips on traveling to your country.

There are four components to the **pre-departure portion** of the course:

- a) Mandatory attendance (5%). Attendance at each of the two sessions is required, including your active participation.
- **b) Blog setup** (5%). Each student is required to set up a blog, which will be used to post their predeparture presentation and daily journals.
- c) An individual report (10%). Each student will produce a short report that describes their travel experiences and country predictions. This needs to be completed before the 2<sup>nd</sup> workshop and posted on their blog. Each student will write short answers (50 word minimum) to each of the following questions:
  - My international experience to date is:
  - I want to go to China because:
  - I think the main professional work differences I will experience will be:
  - I think the main cultural differences I will experience will be:
  - I think the main political differences I will experience will be:
  - I think the students I meet in my country will be:
  - I predict I will be surprised to find:
  - I think the major differences in living conditions will be:

Each student will need to post this report to their blog by **Friday April 4.** This report will be posted on website. Please be careful and remove anything that might be offensive to the people you are visiting (they may read our website).

# d) A group presentation (10%) Saturday April 6.

Teams: We will have approximately 15 to 20 students, some from business and some from engineering. There will be 4 company visits, thus the students will work in teams of three to five students. Each team will be composed of both business and engineering students. Team assignment will be made during the first workshop to enable students to prepare for the trip before they leave the United States.

Before we leave for China and during the field trip, each student should be thinking about the following topics. As such, students should think of these concepts as preparation before we leave for the country and they should be presented in a power point presentation.

The PowerPoint presentation should be 12 minutes long and should include a short introduction to 1) the historic/scenic sites, and 2) the company assigned to your group. When you prepare your presentation, assume you will be talking to a group who does not know anything about the company or country or about the advantages and challenges of doing business there. For resources, you should use the material presented in the pre-departure sessions, the assigned readings, and other reference work that you develop. The deliverables are the oral presentation and an electronic copy of your PowerPoint slides. Figure that you probably can cover about 10 -15 slides in 12 minutes. PRACTICE SO THAT YOU DO NOT EXCEED THE TIME LIMIT! The copy of the PowerPoint file will be posted to the trip web site.

### i) Historic/scenic sites

Give the students a brief introduction to the historic/scenic sites assigned to you as if you are the tour guide. What is the history of this place? What is it used for? Why does it worth our time and money to visit? What is most attractive in this place (or what you need to take a picture with)?

(ii) Company:

- <u>Industry Analysis</u>: (Preparation) Describe the industry of the firm that you are going to visit. What are the major product categories in this industry and who are the firm's major competitors? What unique challenges or opportunities exist for firms in this industry? Why is this industry of interest to a professional in business or engineering?
- <u>Global/National Environment</u>: (Preparation) What interesting political, economic, social or technological factors affect the firm that you will visit? Why are these factors of interest to a professional in business or engineering?
- Engineering Principles: (Preparation) Research the basic engineering principles involved in the company process. How is the product or service produced, what raw materials are required, how do the raw materials get to the site, how is the product shipped to the customers, what variables must be considered, what are the safety concerns, what environmental factors must be considered, what skills must the workforce involved with the process have?
- <u>List of questions</u>: (Preparation) Make at least 2 power point slides with a list of questions you would like to ask. One slide should be the questions you will ask the professionals and students you meet, and the other slide should be the questions you would like to ask the representatives of the companies you are assigned to.

# II) Two weeks study abroad experience (70%)

The scheduled departure date is Saturday, May 3 and we will arrive in Beijing on Sunday May 4. We will depart from Beijing on Saturday, May 16 and we arrive back in the United States on Saturday, May 16.

## There are three components evaluated as part of the Study Abroad Trip:

## a) Individual Journal (20%). Due Friday, May 30

During the two week in-country component of the course, each student is responsible for keeping a daily professional journal of their reflections on various professional issues and concerns that are encountered during the trip. We expect the average daily entry to be at least 250 words in length. We expect that each entry will discuss the daily experiences, and describe what each student did and saw; however, this is also a professional journal. This means that each entry must include not only descriptive comments about what you saw or did, but it should make connections between the daily experiences and how they help in your development as an engineering or business professional. The journal is intended to compel students to make direct connections between what they are observing and experiencing on the trip and the types of issues and concerns they will face as professionals. These observations can be comparative (how the country is the same or different from the U.S.) and can include comments on day-to-day life, anecdotes, language, politics, geography, stores, social life, the popular culture of the country, etc. As you write on these topics, try and frame your comments in such a manner that they explain how this helps you understand the people and the lifestyle of your country and how this impacts your professional development in the area of global issues. As part of this journal, you must also include a description of how the program of study and life of an engineering or business student (whichever you are) is the same as and different from that of a comparable student in the U.S. Your journal will be posted on the blog, so please be certain to censor out things that might offend or upset people.

In addition to writing on their daily activities, students must also submit a final summary journal entry that address topics on the following five (5) professional development topics. It is suggested that each student try and include something from the following list in each daily activity. At the end of the trip each student will then summarize their view on each of the following five topics by addressing each item in a separate paragraph (minimum of 200 words for each) and this will be the final journal entry. It should also be posted to the blog as the final summary journal entry.

# 1. Ethical Issues in My Profession:

Give an understanding of the professional and ethical responsibility you see as a result of the United States industries becoming global players. For example, do you see things in your country that would not be allowed or are not typical industry standards in the United States, such as safety issues, environmental issues, employee issues (wages, benefits, working conditions, etc.)? Does your country address diversity issues (gender, race, religion, lifestyle choices) differently than the United States. Because of these differences you see, could a company make more money, or do more business by doing the same thing in your country than in the United States? If so how does this affect life and business in the United States?

### 2. Educational Breadth as Professional Development:

Based on your experiences traveling in this country, describe the need for a broad education necessary to understand the impact of engineering/business solutions in a global and societal context. Is it important? Are there enough differences between your country and the United States that you believe students should expand their classroom experience to include learning about different cultures? If so, explain what future courses you should take to prepare you for a global economy.

# 3. <u>Lifelong Learning, Continuing Education as Professional Development:</u>

As you go to the company visits, ask yourself and the people you meet, what part of their job did they learn in school and what part did they learn on the job. Ask them if their education allowed them to do their job throughout their career or did they need to learn new things each year. Ask them how technology has changed their jobs and how did they learn how to use this technology. Then, give a recognition of the need for, and an ability to engage in life-long learning and explain how this is needed to compete in the future.

# 4. The Social Environment of Professional Life:

As you travel around the country, try and discover the connection between peoples' social life and their professional life. Do you see any connection? Ask people in your country if they know anything about the social and political issues in the United States. Do you know the same about their country? Read the local newspaper, watch the local television shows, what are the topics addressed in what you see on TV, hear on the radio, read in the newspaper or magazines. If you cannot understand the material in their media, look at the pictures, and ask the local students to explain this to you. Explain why it is important to have knowledge of contemporary issues related to the global economy. What political, social, economic and diversity issues are involved within engineering/business that are involved within your industry on a global scale? How does this affect life and business in the United States?

#### 5. Functioning on Multi-Disciplinary Teams:

It is important for professionals to be able to function and communicate effectively as a member of a team of individuals from diverse backgrounds. How do you work when you are a member of such a team (for example – you are either an engineering student who is traveling with business students, or vice-versa)? What are some of the challenges involved in establishing and maintaining effective communication on this type of cross-functional team?

Your journal should be updated daily. Bring digital or standard cameras to document your trip and include photos with your journal if possible. At the end of each day go back and reflect on what you wrote for each day of the trip and continue to update your journal.

We have found that the time goes by very fast during the trip, and students do not always have time to completely finish each day's journal during the trip; thus, you have until **Friday, May 30** to reflect on each day and edit/modify/complete your journal. If you are not going to complete an entry for any given day and are going to wait until you return to complete your journal, then you must at least produce an outline of your activities each day.

# b) Participation (30%).

*Professional activities*. Each student is expected to attend each and every planned event, including the sightseeing trips, the company visits and the lectures at the local universities; be on or ahead of schedule for all events; participate in all work activities; and be actively engaged in asking questions of lecturers and speakers. The professors will maintain participation records. After each company visit each student should complete an individual reflection on what they saw and write down any observations and/or questions they have from the trip. Then each student should use these observations as starting points for the next company visit. Consider such questions as: What interesting strengths or weaknesses were discussed (or are apparent) in the firm that you visited today? Does this firm face any interesting opportunities or threats from the external environment? Why is this firm of interest to a professional in business or engineering? What engineering issues are involved in the process? What technology or lack of did you observe? What business practices did you observe? Student groups are encouraged to share their thoughts with other groups and with each other.

**Personal activities**. We understand that each student is an adult and as such has the right to spend his or her free time in the country as he or she wishes. However, all students must also understand that while they are on the site visits and also while they are on their own time, they are representing the University of Pittsburgh. Thus, their actions directly reflect on the university's image and the image of the United States. **Failure to maintain acceptable behavior will result in a lower grade or failure of the participation component and can be grounds for a lower final grade or failing the course and being sent home.** Acceptable and unacceptable actions will be described in the pre-departure sessions.

### c) Team Presentation (20%)

At the end of the trip (**Friday May 16**), the students will make a team oral presentation on a business plan to start a business in China based on their experience and opportunities they find during the trip. Both business and engineering viewpoints related to the national and global industry in which it operates must be considered in the presentation.

### **Presentation Content.**

The presentation must consider both business and engineering points of view. Below are issues that should be considered in your business plan presentation.

#### Overview of the Business

What products or services does it produce?

Industry Overview: Describe the industry. Is the firm competing in a local market or a global market or both? Who are its major competitors (global and/or local) and what are their market shares?

What will its revenues and market share be?

### Operations of the Company

Describe the production process of the firm. Describe the process, the raw materials involved, the supply chain and infrastructure needed to support the company. Finally how does the system work, how do you make whatever you want to make, and/or what are the scientific principles behind the product? How many employees does it need to have? What percentage of the work force are professionals (engineers and/or business)? What types of engineers work for the firm? What business disciplines are most important for the business professionals?

#### The Firm's Environment

Where will the company be located and why? What is the fit with its national environment? What is the fit within its industry? What national and global <u>P</u>olitical, <u>E</u>conomic, <u>S</u>ocial and <u>T</u>echnological factors affect your firm?

Firm Analysis - SWOT Analysis: What specific environmental factors does your company face, that are internal to the company (<u>S</u>trengths or <u>W</u>eaknesses)? What environmental factors does your company face that are external to the company (<u>O</u>pportunities and <u>T</u>hreats)?

# The Firm's competitive strategy

What is the firm's competitive strategy, and how does it "fit" with the various environmental conditions it faces globally/nationally, in its industry, and with respect to the various strengths, weaknesses, opportunities and threats it faces (SWOT analysis)?

What are the main things that your firm needs to do well in order to be innovative and compete successfully? Which areas may not be fully developed in your firm, or, are not being addressed adequately?

#### **Data Sources**

Completion of the project may require the use of a variety of data sources. A few places to check for these data on the web include bigcharts.com, ceoexpress.com, the Global Edge section of Michigan State's CIBER website (http://globaledge.msu.edu), the CIA website. Your presentation may include a list of your references using a standard method of documentation such as Chicago Style, MLA or APA. See <a href="http://www.library.pitt.edu/guides/citing/for guidance">http://www.library.pitt.edu/guides/citing/for guidance</a> on citing, particularly of internet sources.

For articles on companies, industries and countries use the University Library System's Electronic Databases (www.library.pitt.edu), particularly the Business and International ones. Some of these are Business Source Premier/EbscoHost; Business and Company Resource Center/InfoTrac; National Newspapers; Stat-USA (particularly good for country information); Global Market Information Database (Euromonitor, good for marketing studies). Other sources: for competitiveness and economic freedom ratings - Economic Freedom of the World PCL (<a href="http://www.freetheworld.com/index.htm/">http://www.freetheworld.com/index.htm/</a>); Index of Economic Freedom (<a href="http://www.heritage.org/Index/">http://www.heritage.org/Index/</a>); The Global Competitiveness Report of the World Economic Forum (<a href="http://www.weforum.org">http://www.weforum.org</a>).

For industry information: Investext\*; NetAdvantage\* (Standard and Poor's). For company information, see Disclosure Global Access and www.Hoovers.com (though this source applies to US firms, at least primarily). The information provided by the Career Services and Engineering Library throughout the first year can also be used to find information on your company.