OEL302 Overseas Experiential Learning (Shanghai/Hangzhou)

Level: 3

Credit Units: 5 Credit Units

Language: ENGLISH

Presentation Pattern: EVERY JULY

Synopsis:

Disruptive technologies refer to the advances in technologies that will transform life, business and the global economy. These include big data, artificial intelligence, the Internet of Things, autonomous vehicles, advanced genomics, and other emerging technologies that support the next digital revolution and enhance the quality of our lives. There is a strong need for individuals who understand and harness the full power of these innovations, in order to tap into all the potential changes. To meet this need, this course covers the new trends and disruptive technologies from a technical and managerial point of view. Emphasis will be given to the way technologies create a competitive edge and generate business value. Topics will include data-driven innovation (e.g. big data, artificial intelligence, smart grid energy, etc.) and data-matching businesses (e.g. Uber, Grab, and Airbnb), disruptive technologies that power the smart manufacturing (e.g., autonomous robots, additive manufacturing, internet of things, augmented reality, etc.), and implementations of these disruptive technologies in smart transportation and cashless payment systems. This course makes comparison between Singapore, Shanghai and Hangzhou through getting participants to visit companies and fields that utilize disruptive technologies to create smart solutions in these three cities and observe state-of-the-art of smart manufacturing, smart transportation and cashless payment implemented in these cities. Shanghai and Hangzhou are chosen because both cities are located at the Yangtze River Delta that has been described as the “showpiece” of the booming economy of mainland China. Both cities are working to become smarter by exploiting the Internet and related disruptive technologies to the full. At the end of this course, students would acquire a more holistic view of the most important disruptive technologies that are driving businesses in the current world and the application of technologies in manufacturing, transportation, and financial industries.

Topics:

- China’s history, economy, political system, and businesses
- Data-driven Innovation and Smart Nation
- Smart Manufacturing
- Smart Transportation
- Smart Cashless Society with Contactless payment
- Disruptive Innovation and Entrepreneurial Opportunity

Learning Outcome:

- Appraise various disruptive innovations from a technical perspective and gain a basic working knowledge of these technologies
- Discuss the differences and affordance inherent in emerging and disruptive technologies for different contexts
- Examine the strengths and weaknesses of cutting-edge technologies and the advantages and disadvantages of these technologies when implemented in society
- Deconstruct how their personal worldviews and presumptions about the host country shape the way they address their selected issues
- Examine comparative perspectives of the use of disruptive technologies in Singapore, Shanghai, and Hangzhou through on-site observation studies and published secondary sources
- Analyse market gaps and create technological innovations that can address these gaps by assimilating prior coursework on technologies, programming, economics and data analytics

Assessment Strategies (Daytime Class):

Components	**Description**	**Weightage Allocation (%)**
Overall Continuous Assessment	TUTOR-MARKED ASSIGNMENT 1	5
	GROUP BASED ASSIGNMENT 1	20
	TUTOR-MARKED ASSIGNMENT 2	10
	TUTOR-MARKED ASSIGNMENT 3	10
	GROUP BASED ASSIGNMENT 2	25
	GROUP BASED ASSIGNMENT 3	25
	TUTOR-MARKED ASSIGNMENT 4	5
Total		**100**