



## **CIEE Global Institute – Shanghai**

<b>Course name:</b>	Technopreneurship
<b>Course number:</b>	(GI) BUSI 3009 SHCN
<b>Programs offering course:</b>	Open Campus
<b>Open Campus Track:</b>	Business
<b>Language of instruction:</b>	English
<b>U.S. semester credits:</b>	3
<b>Contact hours:</b>	45
<b>Term:</b>	Spring 2020

### **Course Description**

In technology industries, it has become commonplace to disrupt economic order and reliable business practices by merging technological prowess with entrepreneurial skills. Taking this notion as its mainspring, a new form of entrepreneurship is entering the start-up landscape, namely technopreneurship. This course will introduce students to the skills necessary to become a technopreneur, such as the mobilization of resources, creative thinking, design thinking, the ability to manage knowledge and information, exploit change as an opportunity, and dismantle traditional business and service systems. Students will develop skills they can contribute to the start-up ecosystem while critiquing current technology trends that dominate the tech market. In this course students will also survey the environments (economic, legal, industry, etc.) that contribute to the success of technopreneurial development, using contemporary case studies as a platform for discussions.

### **Learning Objectives**

By completing this course, students will:

- Recognize and evaluate viable market opportunities
- Create a concrete and profitable business plan for a new venture
- Develop effective go-to-market, growth, and exit strategies
- Plan for financial projections that are aligned with the business plan



### **Course Prerequisites**

No previous coursework in areas relevant to the course is required.

### **Methods of Instruction**

The format of the course includes lectures, videos, field trips, company visits, discussion of case studies and mini-assignments. Students will be required to develop and present a business plan for a new venture on a group basis. Each group is required to consult with the instructor on their business plan.

### **Assessment and Final Grade**

1.	Start-Up Profile	20%
2.	Design Thinking Project	20%
3.	Written Business Plan	30%
4.	Business Plan Presentation	10%
5.	Participation:	20%
TOTAL:		100%

### **Course Requirements**

#### **Start-Up Profile**

In order to gain experience in recognizing viable market opportunities, each student will select a real start-up that s/he is interested in and then write a 1500 word profile on the entrepreneur's background and approach to business development. This profile should detail how the entrepreneur evaluated the market opportunity, developed the venture idea as well as the business model of the venture, and the lessons learned following the success or failure of the start-up.

#### **Design Thinking Project**



For this assignment students will be asked to use their design thinking skills and design thinking approach to innovation to solve a region-specific problem identified by your instructor. Your solution should be innovated independently (it should not be similar to your peers) and it should make use of new technology. In order to demonstrate how you have applied design thinking to create a concrete new venture, you will represent your approach and solution in digital project form and submit it to your instructor.

### **Written Business Plan (Group)**

Each team will develop a concrete and profitable business plan for a new venture. This consists of a detailed, written business plan. The business plan should not be simply academic; rather, it should be realistic and based on exploitation of technology and contain a feasibility analysis that could be used by a real start-up. If proprietary intellectual property is involved, team members should present solutions of how to make it legally accessible.

### **Business Plan Presentation (Group)**

The in-class presentation will be delivered by the students in groups of no more than 4 participants. Each group will present their written business plan for a new venture. Each team is expected to present on the new venture's exploitation of technology, the business model, and a realistic feasibility analysis. The presentation should be in PowerPoint and each group member will present a part of the presentation, although all participants should be familiar with the entire topic; the presentation will be 15 minutes in length and will be followed by a Q&A session.

### **Participation**

Participation is valued as meaningful contribution in the digital and tangible classroom, utilizing the resources and materials presented to students as part of the course. Meaningful contribution requires students to be prepared in advance of each class session and to have regular attendance. Students must clearly demonstrate they have engaged with the materials as directed, for example, through classroom discussions, online discussion boards, peer-to-peer feedback (after presentations), interaction with guest speakers, and attentiveness on co-curricular and outside-of-classroom activities.



**Attendance Policy**

Regular class attendance is required throughout the program, and all unexcused absences will result in a lower participation grade for any affected CIEE course. Due to the intensive schedules for Open Campus and Short Term programs, unexcused absences that constitute more than 10% of the total course will result in a written warning.

Students who transfer from one CIEE class to another during the add/drop period will not be considered absent from the first session(s) of their new class, provided they were marked present for the first session(s) of their original class. Otherwise, the absence(s) from the original class carry over to the new class and count against the grade in that class.

For CIEE classes, excessively tardy (over 15 minutes late) students must be marked absent. Attendance policies also apply to any required co-curricular class excursion or event, as well as to Internship, Service Learning, or required field placement. Students who miss class for personal travel, including unforeseen delays that arise as a result of personal travel, will be marked as absent and unexcused. No make-up or re-sit opportunity will be provided.

Attendance policies also apply to any required class excursion, with the exception that some class excursions cannot accommodate any tardiness, and students risk being marked as absent if they fail to be present at the appointed time.

Unexcused absences will lead to the following penalties:

<i>Percentage of Total Course Hours Missed</i>	<i>Equivalent Number of Open Campus Semester classes</i>	<i>Minimum Penalty</i>
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Up to 10%	1 content classes, or up to 2 language classes	Participation graded as per class requirements
10 – 20%	2 content classes, or 3-4 language classes	Participation graded as per class requirements; <b>written warning</b>
More than 20%	3 content classes, or 5 language classes	Automatic <b>course failure</b> , and possible expulsion

### Weekly Schedule

Please note this schedule is subject to change if opportunities arise to enhance the curriculum.

#### **Week 1 Orientation Week**

Class 1:1 Introduction to Class

The opening lecture will introduce students to key terms, course goals, and requirements. By the end of this lecture students will have gained fundamental knowledge and awareness of the issues relating to developing a business plan for a new venture.

Balachandran, Bala V (2018). Technopreneurship: What It Is and What It Is Not.

<https://www.entrepreneur.com/article/314142>

#### **Week 2**

Class 2:1 Opportunity Identification and Creation



For any entrepreneurship to happen, one must first identify opportunities. This lecture will teach students the factors that shape and influence the recognition as well as creation of entrepreneurial opportunities. The lecture will be followed by relevant exercises and a discussion of the assigned readings.

Lim, Wei Lee and Siri Roland Xavier. 2015. Opportunity Recognition Framework: Exploring the Technology Entrepreneurs. *American Journal of Economics*, 5 (2). 105-111.

Wong, Poh Kam (2001). Leveraging Multinational Corporations, Fostering Technopreneurship: The Changing Role of S&T Policy in Singapore. *International Journal of Technology Management*, 22 (5-6), 539-567.

#### Class 2:2 Entrepreneurial Motivation

This lecture explores different internal and external factors that influence the motivation of technical entrepreneurs, such as a need for power and recognition, an orientation toward autonomy and independence, promising demand for a certain technical product, or available government research and start-up grants. Students will learn what motivational factors are characteristic in start-ups.

Roberts, Edward B. 1989. The Personality and Motivations of Technological Entrepreneurs. *Journal of Engineering and Technology Management*, 6 (1), 5-23.

#### Class 2:3 Entrepreneurial Creativity

Why is it so important to nurture creativity in technopreneurship? Students will learn about the contribution of creativity to entrepreneurial practice, different theoretical approaches to creativity, and methods to enhance individual as well as collective creative processes.

Fillis, Ian and Ruth Rentschler 2010. The Role of Creativity in Entrepreneurship. *Journal of Enterprising Culture*, 18 (1), 49-81.

### Week 3



Class 3:1 Elements of Business Models

This lecture explores what elements are crucial for a successful business model for a start-up based on technologically innovative products, including identification of company products and services; market identification and analysis; marketing and sales strategy; the business ecology; competitor analysis; platforms and network effects, etc.

Mullins, John. 2010. *The New Business Road Test*, 3rd edition, Prentice Hall. Pp. 9-16.

Class 3:2 Design Thinking

What is design thinking? What constitutes its specific relevance for technopreneurship? This lecture will explore the different stages and methods of design thinking and how this type of creative strategy can be successfully implemented in technology-driven start-ups.

Singhal, Harshit. 2018. The Importance of Design Thinking.

<https://hashed.in.com/blog/the-importance-of-design-thinking/>

Class 3:3 Field trip

Students will visit a start-up company in Shanghai and have a structured conversation with the entrepreneur.

HKTDC Research. 2016. Technopreneurship in China (1): Recent Innovations and Opportunities. <https://hkmb.hktdc.com/en/1x0a5945/hktdc-research/technopreneurship-in-china-1-recent-innovations-and-opportunities>

HKTDC Research. 2016. Technopreneurship in China (2): Recent Innovations and Opportunities. <http://product-industries-research.hktdc.com/business-news/article/Electronics-Electricals/Technopreneurship-in-China-2-The-Hong-Kong-Cross-border-Partnership-Opportunity/rp/en/1/1X000000/1X0A5BQD.htm>

HKTDC Research. 2016. Technopreneurship in China (3): Recent Innovations and Opportunities. <http://china-trade-research.hktdc.com/business-news/article/China-Investment-Environment/Technopreneurship-in-China-3-Hong-Kong-s-Role-as-a-Strategic-Partner-and-Investor/rp/en/1/1X000000/1X0A5EQ4.htm>

HKTDC Research. 2016. Technopreneurship in China (4): Recent Innovations and Opportunities. <http://china-trade-research.hktdc.com/business-news/article/China-Consumer-Market/Technopreneurship-in-China-4-Hangzhou-s-Big-Data-Success-Story/rp/en/1/1X000000/1X0A5HOX.htm>

### **Start-Up Profile due**

#### **Week 4**

##### **Class 4:1 Intellectual Property and Legal Issues**

In this session, students will learn about the legal issues that technopreneurial ventures are typically confronted with, i.e. as start-ups that produce new intellectual property as well as use the intellectual property of others.

Granstrand, Ove 1999. *The Economics and Management of Intellectual Property*. Edward Elgar Publishing. Pp. 17-54.

##### **Class 4:2 Go-to-Market Strategy**

The lecture will present a widely used go-to-market strategy, i.e. an action plan that specifies how a company will reach target customers and achieve competitive advantage. In a second step, students will apply their newly gained knowledge through exercises and reflect upon potential modifications based on concrete case studies.

Friedman, Lawrence. 2002. *Go To Market Strategy*, 1<sup>st</sup> edition. London: Routledge. Pp. 28-70.

##### **Class 4:3 Financial Projection**



In this session, students will learn about payment systems, bundled payment models, bitcoin, blockchains and the business ecology emerging around them as well as crowd funding.

Patel, Sujan. 2016. 6 Good Things Crowdfunding Is Doing for Startups.

<https://www.entrepreneur.com/article/278181>

### **Design Thinking Project due**

## **Week 5**

### **Class 5:1 Fund Raising Strategy**

This session will provide an introduction to the “science” of effective fund-raising by presenting a selection of approaches and methods, emphasizing their strengths and weaknesses.

Courtney, Christopher, Supradeep Dutta, and Yong Li. 2017. Resolving Information Asymmetry: Signaling, Endorsement, and Crowdfunding Success. *Entrepreneurship Theory and Practice*, 41 (2), 265-290.

### **Class 5:2 Business Growth Strategy**

This lecture will explore a range of topics, comprising the acquisition of customers and the forecasting of demand, marketing and PR, cost structures, pricing and tracking, as well as creating and scaling company culture.

Chandra, Aruna and Chia-An Chao. 2011. Growth and Evolution of High-Technology Business Incubation in China. *Human Systems Management*, 30 (1-2), 55-69.

### **Class 5:3 Company visit**

Students will visit an established company in Shanghai to deepen their understanding of the various strategies they learned in class.



## Written Group Business Plan due

### Week 6

#### Class 6:1 Team Building

Team building is important for establishing motivated and successful teams. This lecture will explore how to communicate effectively within the team, deal with conflicts, and work to increase the strengths of the team.

Ammeter, Anthony P. and Janet M. Dukerich. 2002. Leadership, Team Building, and Team Member Characteristics in High Performance Project Teams. *Engineering Management Journal*, 14 (4), 3-10.

#### Class 6:2 Exit Strategy

Why exit a business? What are valid reasons and successful strategies for exiting? This lecture will explore the process of exiting a business, breaking it down into individual steps and possible options, and concluding with a consideration of short-term and long-term effects.

Shelters, David. 2013. *Startup Guide for the Technopreneur: Financial Planning, Decision Making and Negotiating from Incubation to Exit*. New York: John Wiley. Pp. 7-23.

#### Class 6:3 Putting It All Together

This lecture will review the relevant concepts and frameworks taught in this course and encourage students to dig further into the knowledge learned.

## Business Plan Presentation due

### Readings

Lim, Wei Lee and Siri Roland Xavier. 2015. Opportunity Recognition Framework: Exploring the Technology Entrepreneurs. *American Journal of Economics*, 5 (2). 105-111.



Wong, Poh Kam (2001). Leveraging Multinational Corporations, Fostering Technopreneurship: The Changing Role of S&T Policy in Singapore. *International Journal of Technology Management*, 22 (5-6), 539-567.

Roberts, Edward B. 1989. The Personality and Motivations of Technological Entrepreneurs. *Journal of Engineering and Technology Management*, 6 (1), 5-23.

Fillis, Ian and Ruth Rentschler 2010. The Role of Creativity in Entrepreneurship. *Journal of Enterprising Culture*, 18 (1), 49-81.

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Shelters, David. 2013. *Startup Guide for the Technopreneur: Financial Planning, Decision Making and Negotiating from Incubation to Exit*. New York: John Wiley. Pp. 7-23.

### **Online Resources**

Balachandran, Bala V (2018). Technopreneurship: What It Is and What It Is Not.

<https://www.entrepreneur.com/article/314142>



Singhal, Harshit. 2018. The Importance of Design Thinking. <https://hashed.in.com/blog/the-importance-of-design-thinking/>

HKTDC Research. 2016. Technopreneurship in China(1): Recent Innovations and Opportunities. <https://hkmb.hktdc.com/en/1x0a5945/hktdc-research/technopreneurship-in-china-1-recent-innovations-and-opportunities>

HKTDC Research. 2016. Technopreneurship in China(2): Recent Innovations and Opportunities. <http://product-industries-research.hktdc.com/business-news/article/Electronics-Electricals/Technopreneurship-in-China-2-The-Hong-Kong-Cross-border-Partnership-Opportunity/rp/en/1/1X000000/1X0A5BQD.htm>

HKTDC Research. 2016. Technopreneurship in China(3): Recent Innovations and Opportunities. <http://china-trade-research.hktdc.com/business-news/article/China-Investment-Environment/Technopreneurship-in-China-3-Hong-Kong-s-Role-as-a-Strategic-Partner-and-Investor/rp/en/1/1X000000/1X0A5EQ4.htm>

HKTDC Research. 2016. Technopreneurship in China(4): Recent Innovations and Opportunities. <http://china-trade-research.hktdc.com/business-news/article/China-Consumer-Market/Technopreneurship-in-China-4-Hangzhou-s-Big-Data-Success-Story/rp/en/1/1X000000/1X0A5HOX.htm>

Patel, Sujan. 2016. 6 Good Things Crowdfunding Is Doing for Startups. <https://www.entrepreneur.com/article/278181>