GLOBAL NETWORK FOR ADVANCED MANAGEMENT

Yale SCHOOL OF MANAGEMENT

ECONOMIC ANALYSIS OF HIGH-TECH INDUSTRIES

MANAGEMENT 960

CLASSES MEET VIA ZOOM ON TUESDAYS AND THURSDAYS
1 SEPTEMBER 2020 – 15 DECEMBER 2020

Section 1 (Yale SOM Elective) 8:30 a.m. – 9:50 a.m. Eastern Standard Time
Section 2 (Global Network for Advanced Management) 10:10 a.m. – 11:30 a.m. Eastern Standard Time

Semester Breaks: October 15-23, 2020 and November 23-27,2020

Instructor:

Edward A. Snyder, Yale School of Management
email: tsnyder@yale.edu

Investment Analyst:

Logan Bender, CFA, MBA, Yale SOM Class of 2019
email: logan.bender@aya.yale.edu

Teaching Assistants:

Ms. Aneta Gasiewska, MBA/MPH Candidate, Yale SOM & SPH Class of 2021
email: aneta.gasiewska@yale.edu

Ms. Blake Harwood, MBA Candidate, Yale SOM Class of 2021
email: blake.harwood@yale.edu

Course Administrator:

Ms. Stacy Awe
email: stacy.awe@yale.edu

Registration and Credit Hours:

Section 1: All students must be enrolled in Yale University degree programs
Some seats will be available for Yale students enrolled throughout the university.
Section 2: All students must be enrolled in degree programs offered by member schools in the Global Network for Advanced Management (advancedmanagement.net).

Notes:

1. Yale SOM students can enroll in either section.
2. GNAM member schools will determine the number of course credits earned. For reference, Yale SOM considers this to be a 4 unit, full-semester course.

Course Description:

This course applies Industrial Organization frameworks from economics to high-tech industries. Students, individually and in teams, use those frameworks to (a) assesses competition among high-tech firms, (b) develop insights about the market capitalizations of individual firms. A further important objective is to understand how the ecosystem for high-tech industries is affecting business and society.

This offering of Management 960 is the second step in developing a *learning system* about high-tech industries. The intellectual output generated from this course will be an important product and will be updated in future course offerings.

Learning Objectives:

- Apply IO concepts to high-tech industries
- Assess competition by industry and geography
- Develop economics-based insights into valuations of individual firms and industries
- Understand ecosystem dynamics
- Improve presentation skills
- Improve team skills
- Improve questioning skills
- Develop strategies for systematic learning

Class sessions will include:

i. Lectures by Professor Snyder
ii. Discussions – Q&A
ii. Commentary from Mr. Bender about industry dynamics and valuation
iii. Contributions from leading industry participants
iv. Individual student assignments and quizzes
v. Presentations of Team Projects and discussion of the findings

The course focuses on 3 geographies and 4 industries:

Geographies:

1. China
2. European Union (EU)
3. United States (US)

Industries:

1. Ride-sharing
2. Video-Streaming
3. On-line Retail / eCommerce
4. Payment systems

	Ride-Sharing	Video-Streaming	On-Line Retail/ eCommerce	Payment Systems
China				
EU				
US				

Team Projects:

Each of twelve student teams will analyze one cell of the matrix. Therefore, the set of team projects will "fill in" the Matrix of 3 geographies and 4 industries.

Teams will use a *common PowerPoint template* for their projects. (The Template will be available on the Canvas site for the course.)

Teams should generate insights on questions such as the following:

1. What types of economies are most relevant for firms in the industry?
2. Are these industries global or local? This will depend on whether firms that are successful in one country or region can expand into others.
3. Will these industries be "dominated" by a small number of firms?
4. Will firms with large shares earn above-normal profits?
5. How difficult is entry? Are the positions of incumbents "contestable"?
6. Does a firm's success in one industry provide yield competitive advantages in others?
7. Do the valuations of individual companies operating in these industries make sense?
8. How will 5G affect the industry and individual firms?

Grading: Students will be graded based on:

- Short assignments and quizzes (30%)
- Team Projects & Presentations of Team Projects (40%)
- Class Attendance and Participation (20%)
- Individual student commentary on other Team Projects (10%)

Course Materials

Course materials accessible on the Canvas website include (i) one-pagers on IO economics concepts, (ii) industry briefs, (iii) briefs on the Advance of 5G, and (iv) readings from academics and business.

Students are encouraged to purchase this text:

Dennis W. Carlton and Jeffrey M. Perloff, Modern Industrial Organization.
Any edition (1st, 2nd, 3rd, 4th, Global) would be useful.
Earlier editions cost less than $5.

The *"*one-pagers*"* provide a *threshold level of knowledge* about the following important concepts:

1. *Willingness to Pay*
2. *Switching Costs*
3. *Economies of Scale*
4. *Economies of Scope*
5. *Learning by Doing*
6. *Network Economies*
7. *Two-Sided Markets*
8. *Market power / Contestability*
9. *Industry structure and the Herfindahl-Hirschman Index (HHI)*
10. *Innovation and Intellectual Property*
11. *Asset-Specific Investments*
12. *Incomplete Contracts*
13. *Exclusive Contracts*
14. *Opportunistic Behavior*
15. *Open-Source versus Closed Systems*

The "industry briefings" on the four industries are not comprehensive, but they provide insights into how IO concepts are relevant.

The "5G" briefings cover (i) the advance to 5G, including the potential for a so-called "Splinternet" – an ecosystem that is divided between countries aligned with China and countries aligned with the US, (ii) potential impacts on the four industries.

Bios of the Team:

Ms. Stacy Awe

Ms. Awe has been a course administrator, along with performing other related duties, for the past five years at Yale SOM for a variety of courses including Global Virtual Teams and the Spring 2020 session of this course. Prior to working at SOM, Ms. Awe worked in the field of litigation consulting at a firm in New York City. She received her MA in Psychology from New York University.

Mr. Logan Bender

Logan is a CFA charterholder and MBA (Yale SOM, specialization in asset management). During his career as a global technology investor and research analyst at Putnam and First Analysis, Logan has specialized in high-tech industries including software, internet platforms, and semiconductors, with particular emphasis on the U.S. and China. Logan also has experience with venture investment focusing on series A and B stage investments in vertical SaaS, human capital technology, and other high-growth differentiated software businesses.

Ms. Aneta Gasiewska

Aneta is a dual degree student at the School of Management and the School of Public Health. Prior to coming to Yale, she was a Strategy Senior Consultant at Monitor Deloitte in Switzerland. She specializes in Life Sciences & Healthcare industry, with projects focused on growth, digital, and customer & marketing strategies. Aneta is an ACCA chartered accountant.

Ms. Blake Harwood

Blake is a second year MBA student at the School of Management. She previously worked in international development, most recently as a Program Officer at the National Democratic Institute. She has supported growth and strategy development for political parties, governmental bodies and civil society organizations in the Middle East & North Africa.

Mr. Edward Snyder

Mr. Snyder has applied IO frameworks to over thirty industries and product markets in the course of his academic and professional career. This set includes liquid crystal displays, video-streaming, payment systems, pharmaceuticals, optical disk drives, and modem chips used in smartphones. He studied economics at University of Chicago.

Course Schedule:

Tuesdays	Thursdays
1-Sep	3-Sep
8-Sep	10-Sep
15-Sep	17-Sep
22-Sep	24-Sep
29-Sep	1-Oct
6-Oct	8-Oct
13-Oct	
27-Oct	29-Oct
3-Nov	5-Nov
10-Nov	12-Nov
17-Nov	19-Nov
1-Dec	3-Dec
8-Dec	10-Dec
15-Dec	
(14)	(12)