



**MIS 5001 – Information Technology Management (Sec 401) – Spring 2020**  
**January 4, 5, 11, and 12, 8 AM – 5 PM, TUCC #622**

*As of January 1, 2020, subject to change*

**Instructor**

- Dr. Min-Seok Pang (Ph.D., University of Michigan)
- Associate Professor of Management Information Systems
- Speakman Hall 201A (1810 N. 13<sup>th</sup> St.)
- [minspang@temple.edu](mailto:minspang@temple.edu), 215-204-3059
- LinkedIn – <https://www.linkedin.com/in/minspang/> (Please connect!)
- Office Hours – before and after the classes or by appointment

**Required Materials and Class Site**

- **Harvard Business Coursepack for MIS 5001** – available for purchase at Harvard Business Publishing site (<https://hbsp.harvard.edu/import/678068>)
- **Class Site at Canvas** - <https://templeu.instructure.com/courses/67837>

**Course Objective**

Organizations that strategically select, manage, and deploy digital business models prosper in the global economy. Students will use systems and business process thinking to create and analyze strategies for technology-enabled organizational and industry transformation. They will map systems and processes and propose innovative solutions for new and existing business initiatives to leverage enterprise, consumer, and social technologies.

This is a discussion/case-based course with a managerial perspective on information technology (IT) and competitive strategies. Given the rapid advances in IT in recent decades and the transformative nature of IT in any functional area from accounting to marketing, IT is becoming an indispensable resource for not only improving organizational performance but also creating sustainable competitive advantages in virtually every industry.

Against this backdrop, this course helps the students understand the inter-relationship between IT, strategic management, and competitiveness. It also aims at developing an ability to effectively communicate the crucial role of IT in competitive strategies in both verbal and written languages.

**Program Competencies**

- PO1: Financial Acuity
- PO2: Business Reasoning
- PO3: Opportunity Response
- PO4: Influential Communication
- PO5: Leadership

- PO6: Cross-Cultural Effectiveness
- PO7: Ethical Management

### Course Learning Goals

After successfully completing this course, students will be ready to pursue a career as a capable business leader with a sufficient understanding of the transformative potential of IT in business. At the end of this course, before their executive superiors or consulting clients, the students will be able to:

- CO1: Explain the critical importance of IT for competitive advantages (PO2, PO3)
- CO2: Describe how IT management should be aligned with competitive strategies (PO3, PO5)
- CO3: Discuss how IT enables firms to create business opportunities and to formulate sustainable competitive strategies (PO2, PO5)
- CO4: Discuss how data analytics improves business decision making and supports competitive strategies (PO1, PO2)
- CO5: Identify the role of senior management in IT management (PO2, PO5)
- CO6: Explain how to deal with risks borne out by IT resources and to secure organizations from them (PO4, PO5, PO7)
- CO7: Define how to formulate and execute IT-driven competitive strategies (PO2, PO5)
- CO8: Understand the immense potential of artificial intelligence in business transformation (PO2, PO3)
- CO9: Discuss how to prepare for future career in the digital age (PO4, PO5)

### Grading

Item	Weight
Reading Briefs & Reflection Notes	10%
In-Class Group Projects	20%
In-Class Activities	10%
Executive Reports	45%
Presentation and Participation	15%
<b>Total</b>	<b>100%</b>

#### Reading Brief

- Before each session, a student is required to write briefs of two required reading materials that answer three questions from each reading.
- Eight briefs in total for eight articles – two briefs before each day.
- Each brief should be no more than 200-word long in total (not for each question).
- A brief is due by 8 AM every class. A late submission will not be graded.
- Grading Rubrics: Completion, Grammar & Mechanics

#### Reflection Notes

- After each session, a student is required to write a brief reflection note that summarizes what is learned.
- A reflection note should be at least 300-word long and no longer than 400 words.
- It is due by 11:59 PM on Tuesday (January 7 and 14) after each session.
- A note should be as comprehensive as possible by covering the whole class, rather than focusing on a few topics.

- It is encouraged to relate what is learned to current work, but not too much.

In-Class Group Projects (20%) and Activities (10%)

- All in-class activities including group discussions, in-class exercises, and business simulation games are counted toward the final grade.
- There will be two group projects (10% each) that students will complete and present in class. The instructor will allocate time for students to complete the group projects in class.

Executive Reports (45%) – Three Reports, 15% each

- This is an individual assignment to write three consulting reports for senior executives.
- A report should be no more than 2-page long including figures and tables. The instructor will not read beyond the 2<sup>nd</sup> page.
- It has to be formatted with 11-point font, Calibri (Microsoft Words default font), single spacing or more, and 1-inch margin in all four sides. Any report that does not conform to this formatting requirement will not be graded.
- Six or more topics will be provided. A student can choose any three topics for the reports.
- Executive Reports are due by January 24 (#1), February 7 (#2), and February 21 (#3), 11:59 PM EST. These deadlines are firm, and the instructor does not take any extraneous circumstance into consideration such as a PC malfunction or network outages.
- Late submission is allowed, but there will be 10% penalty per each 12 hours. For example, if the first Executive Report is submitted on the morning of Jan 26 and graded at 90, a 30% penalty is imposed, and the grade is to be  $90 \times (100-30)/100 = 63$ .
- Grading Rubrics : Organization, Originality of Ideas, Addressing the issue, Strategic Recommendations, Grammar & Mechanics
- (Optional) The instructor will provide a feedback to a draft report that is submitted one week before a deadline (i.e. January 17, January 31, and February 14).

Presentation and Participation (15%)

- Students are expected to actively participate in class discussions, activities, and debates.
- Students can volunteer to present a recommended reading.
- Both frequency and quality are considered in participation grading.
- In-class and post-session online participation will be graded equally. Details on online participation are below.

**Grade Scale**

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94% - 100%	A
90% - 93.99%	A-
87% - 89.99%	B+
83% - 86.99%	B
80% - 82.99%	B-
73% - 79.99%	C+
65% - 72.99%	C
60% - 64.99%	C-
55% - 69.99%	D+
50% - 54.99%	D
< 50%	F

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### Post-Session Online Discussion Forums at Canvas

- Students are encouraged to participate in post-session online discussion forums at Canvas, which would be a good venue for those who miss a chance to participate in-class or feel hesitated to speak up.
- One discussion topic will be posted after each day.
- The instructor will weigh post-session participation as much as in-class participation.
- No more than three posts are allowed in one single day.
- All post-session discussions close on Monday, January 20 at 11:59 PM.

### Course Policies

- Using laptops or tablets is allowed only for class-related activities such as reading cases/online materials or for in-class labs. Using them for other non-class activities including Internet surfing or checking personal emails is prohibited. Should the instructor find a student using a laptop for personal use, he or she will be asked to turn off the laptop. Students are required to close laptops while the instructor plays a video.
- Attendance : Since the class meets for four days only and in-class discussions are a key part of class, attendance is essential. Hence, it is strongly encouraged to come to classes on time at 8 am. If a student has to miss one whole day of class, he or she is required to withdraw from this course (Withdraw deadline - Jan 3).
- Late Arrival or Early Departure: Barring an extenuating circumstance, a student is required to stay in class until dismissal by the instructor. Should he or she arrive late or leave early, he or she must seek permission from the instructor at least one day in advance. It is the instructor's discretion to grant a late arrival or an early departure, and there will be some penalty to the participation portion of the grade. Alternatively, the instructor can provide an extra assignment to make up missed participation.
- LinkedIn : It is strongly encouraged to connected with the Instructor at LinkedIn (<https://www.linkedin.com/in/minspang/>).
- Email: Use @temple.edu email account for all correspondents with the instructor. Email messages sent from a non-Temple account may not be responded.
- Inclement Weather: Generally, in case of inclement weather, a TUCC class will not be canceled as long as the University is open.
- Cell phones should be turned off, muted, or turned to vibrate during class. Please do not send or receive texts, tweets, e-mail, or other communications during class.
- Participation: In order to speak, please raise a hand and wait for the instructor's cue.

### Daily Schedule

	Start	End	Minutes
Sub-Session #1	8:00	9:10	70
Break	9:10	9:20	10
Sub-Session #2	9:20	10:30	70
Break	10:30	10:40	10
Sub-Session #3	10:40	11:50	70
Lunch Break	11:50	12:50	60
Sub-Session #4	12:50	14:00	70

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Break	14:00	14:15	15
Sub-Session #5	14:15	15:25	70
Break	15:25	15:40	15
Sub-Session #6	15:40	16:50	70
Wrap-up	16:50	17:00	10

### Schedule at a Glance

Session	Date	Topic	Required Reading for Briefs
#1	Jan 4	Introduction IT and Competitive Strategies	<u>MIT CISR Case</u> – Schneider Electric <u>HBS Case</u> – Aetna
#2	Jan 5	Business Analytics Artificial Intelligence	<u>HBS Case</u> – Whither the Weather <u>HBR</u> – The Business of AI
	Jan 7	<i>Reflection Notes for Session #1 and #2 due</i>	
#3	Jan 11	IT-Enabled Competitive Strategies Digital Platform	<u>HBS Case</u> – Wealthfront Generation <u>HBS Case</u> – Intuit Quickbooks
#4	Jan 12	IT Risk Management Future of Work	<u>HBS Case</u> – Caregroup <u>Ivey Case</u> – Cyberattack at Maersk
	Jan 14	<i>Reflection Notes for Session #3 and #4 due</i>	
	Jan 17	<i>Executive Report #1 draft due</i>	
	Jan 20	<i>Online discussions closed</i>	
	Jan 24	<i>Final Executive Report #1 due</i>	
	Jan 31	<i>Executive Report #2 draft due</i>	
	Feb 7	<i>Final Executive Report #2 due</i>	
	Feb 14	<i>Executive Report #3 draft due</i>	
	Feb 21	<i>Final Executive Report #3 due</i>	

### Detailed Schedule (subject to changes)

#### Session 1 – January 4 – Introduction & IT and Competitive Strategies

- Required Reading for Reading Briefs
  - MIT CISR Case – Schneider Electric: Connectivity Inspires a Digital Transformation
  - HBS Case – Aetna and the Transformation of Health Care
- In-Class Reading
  - HBR – Investing in IT That Makes a Competitive Difference
  - Bloomberg Businessweek – How Amazon Became Corporate America’s Nightmare
- Recommended Reading
  - Bloomberg Businessweek – Every MBA Needs Tech Skills
  - Bloomberg Businessweek – Best Buy Should Be Dead, But It’s Thriving
  - MIT Technology Review – Business Adapts to a New Style of Computer
  - HBR – IT Transformation Healthcare Needs
- Pre-Session Assignments
  - Connect with the Instructor at LinkedIn (<https://www.linkedin.com/in/minspang/>)
  - Write reading briefs for Aetna and Schneider cases
  - Watch Fox Video – Technology and Competition
  - Watch Fox Video – Industry Analysis and Porter’s 5 Forces

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- Reading Brief Questions for Schneider Case
  - What are Schneider's digital business services?
  - What are its "new" digital business services?
  - What is the new value proposition of Schneider's IoT platform?
- Reading Brief Questions for Aetna Case
  - What are the problems in the U.S. healthcare system in 2017?
  - What are the goals of Community Health Care?
  - How do digital capabilities support Community Health Care?
- Class Discussion Questions in Sub-Session #1 and #2
  - Why is MIS 5001 a required course for Fox PMBA?
  - Why is IT critical for business success?
  - Why does IT make competition more dynamic and turbulent?
- Class Discussion Questions in Sub-Session #3 and #4
  - What is the rationale behind Schneider's move from manufacturing to service?
  - How does its IoT platform support this move?
  - How can Schneider achieve sustainable competitive advantages with the IoT platform?
- Class Discussion Questions in Sub-Session #5 and #6
  - What are the challenges for Aetna under the U.S. healthcare system?
  - What is the rationale behind its Community Health Care initiatives?
  - How does data analytics enable the transformation?
- In-Class Activities
  - Group discussion – How does technology affect industry competition?
  - Group discussion – Is the IoT platform valuable and inimitable?
  - Group discussion – How can Schneider attract greater value from the IoT platform?
  - Class discussion – Why is healthcare in the U.S. so expensive?
  - Group discussion – How can data make us healthier?
  - Class debate – Will Community Health Care work for Aetna?
- Post-Session Assignments
  - Write a reflection note by January 7
  - (Optional) Participate in post-session discussions at Canvas

## Session 2 – January 5 – Business Analytics & Artificial Intelligence

- Required Reading for Reading Briefs
  - HBS Case – Whither the Weather (Company): Forecasting 2016
  - HBR – The Business of Artificial Intelligence
- In-Class Reading
  - HBS Case – Predicting Consumer Tastes with Big Data at Gap
  - HBR – Trust the Algorithm or Your Gut?
- Recommended Reading
  - Bloomberg Businessweek – Stitch Fix Has an Algorithm for Cloths
  - HBR – What's Your Data Strategy?
  - CIO – How to Profit from the Ultimate Big Data Source: The Weather
  - HBR – When Data Creates Competitive Advantages
  - HBR – Artificial Intelligence for the Real World
  - Bloomberg Businessweek – Amazon's Most Ambitious Research Project
  - Bloomberg Businessweek – Tesla's Autopilot
  - MIT Technology Review – Five Questions to Cut through AI Hype

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- MIT Technology Review – AI Reinventing the Way We Invent
  - MIT Technology Review – Military AI Can Be Fooled
  - The Guardian – Weapons of Math Destruction
  - The Washington Post – HireVue AI Face-Scanning
- Pre-Session Assignments
  - Write reading briefs for Weather case and The Business of AI article
  - Register at [www.tradewindbusiness.com](http://www.tradewindbusiness.com) with a class code of A18F-C39E-8E14-33FB
- Reading Brief Questions for Weather Case
  - What does it mean by “Weather Co. maps the atmosphere”?
  - How did Weather Co. develop its digital capabilities?
  - What are its business services offerings?
- Reading Brief Questions for The Business AI Article
  - What are the two biggest advances in AI in recent years?
  - What is supervised machine learning?
  - What are the three levels in which machine learning is driving changes?
- Class Discussion Questions in Sub-Session #1 and #2
  - Why is data important for decision making?
  - How valuable does weather information to business?
  - Can data predict what people want to wear?
- Class Discussion Questions in Sub-Session #3 and #4
  - What is machine learning?
  - How is machine learning different from traditional algorithm?
  - What can machine learning do for business?
- Class Discussion Questions in Sub-Session #5 and #6
  - Which is more important for decision making - data or gut?
  - Did Gap make a right decision to let creative directors go?
  - When can predictive analytics go wrong?
- In-Class Activities
  - Business simulation game – Fishing game
  - Group discussion – How can be predictive analytics used in your work?
  - Group project – What would be new business opportunities from the data in your organization?
  - Class discussion – Is your organization an analytical competitor?
  - Group discussion – How can machine learning be utilized in your business?
  - Class debate – Should a promotion decision be based on algorithm or gut?
  - Class debate – Should predicting someone's future be illegal?
  - Class discussion – Why did many predictions in the 2016 Presidential Election go wrong?
- Post-Session Assignments
  - Write a reflection note by January 7
  - Complete a mid-semester survey
  - (Optional) Participate in post-session discussions at Canvas

## Session 3 – January 11 – IT-Driven Competitive Strategies & Digital Platform

- Required Reading for Reading Briefs
  - HBS Case – The Wealthfront Generation
  - HBS Case – Intuit Quickbooks: From Product to Platform

- In-Class Reading
  - HBS Case – Airbnb (A)
- Recommended Reading
  - HBR – Break Your Industry’s Bottleneck
  - WSJ – Amazon Rewrites Book Industry
  - HBR – Designing Better Review Systems
  - HBR – Platforms and the New Rules of Strategy
  - MIT Sloan Management Review - Strategic Decisions for Multisided Platform
  - The Washington Post – Apple Aims to Protect Kids’ Privacy
  - HBR – Finding the Platform in Your Product
- Pre-Session Assignments
  - Write reading briefs for Wealthfront and QuickBooks cases
  - Watch Fox Video – Disruptive Innovation
  - Watch Fox Video – What Is a Platform?
- Reading Brief Questions for Wealthfront Case
  - What does Wealthfront’s online investment platform do?
  - What is the \$7 trillion opportunity?
  - How is its business model different from the traditional asset management industry?
- Reading Brief Questions for QuickBooks Case
  - What are the reasons that Intuit transforms QuickBooks from a product to a platform?
  - What are the three ways to build a platform for QuickBooks?
  - What are QuickBooks Financing and Concierge?
- Class Discussion Questions in Sub-Session #1 and #2
  - What constitutes as a bottleneck in an industry?
  - Why are Amazon.com and Uber so disruptive?
  - What bottlenecks does Wealthfront aim to eliminate in the asset management industry?
- Class Discussion Questions in Sub-Session #3 and #4
  - Why are two-sided network effects so powerful?
  - Why is an online reputation system needed?
  - How to manage the health of digital platform?
- Class Discussion Questions in Sub-Session #5 and #6
  - Why does product companies pursue a platform strategy?
  - What should the business model be for Quickbooks Financing and Concierge?
  - How should companies control and curate the two-sided platform?
- In-Class Activities
  - Class discussion – What make your industry inefficient?
  - Group discussion – Bottlenecks and IT-driven disrupted strategies in the real estate industry
  - Business simulation game – Two-sided platform
  - Class debate – How can platforms prevent fake news from proliferating?
  - Group discussion – Which platform strategy should Intuit to adopt?
  - Group project – What is your platform strategy?
- Post-Session Assignments
  - Write a reflection note by January 14
  - (Optional) Participate in post-session discussions at Canvas

Session 4 – January 12 – IT Risk Management & Future of Work

- Required Reading for Reading Briefs
  - HBS Case – Caregroup
  - Ivy Case – Cyberattack: The Maersk Global Supply-Chain Meltdown
- In-Class Reading
  - HBS Case – iPremier (A)
  - Columbia Case - Evisort
- Recommended Reading
  - The Wall Street Journal – Target Staff Had Warnings
  - HBR – The End of Cybersecurity
  - Bloomberg Businessweek – The Hotel Hackers Are Hiding in the Remote Control
  - HBR – Sizing up Your Cyberrisks
  - HBR – The Giant Decoupling
  - MIT Technology Review – How Technology Is Destroying Jobs
  - HBR – Collaborative Intelligence: Humans and AI Are Joining Forces
- Pre-Session Assignments
  - Write reading briefs for Caregroup and Maersk case
  - Watch Fox Video – Business Case for Leadership
  - Watch Fox Video – Crisis Management
  - Watch Fox Video – Technology and Jobs
- Reading Brief Questions for Caregroup Case
  - What happened at Caregroup on Nov. 13, 2002? What caused this incident and what exacerbated it?
  - How did Caregroup manage to recover from the incident?
  - What were the major and decisive decisions that Mr. Halmaka and the senior management team had made?
- Reading Brief Questions for Maersk Case
  - What happened at Maersk on Jun. 26, 2017?
  - How did Russia attack Ukraine in its cyber warfare?
  - What is Notpetya Ransomware?
- Class Discussion Questions in Sub-Session #1 and #2
  - What are the causes of network collapse in Caregroup?
  - What would be the worst-case scenario in this incident?
  - How could Caregroup manage to recover from this incident so fast?
- Class Discussion Questions in Sub-Session #3 and #4
  - What we know and we don't know about the iPremier incident?
  - What are the causes of this incident?
  - What should be the most appropriate recovery action?
- Class Discussion Questions in Sub-Session #5 and #6
  - Why is the “Great Divide” happening?
  - How does AI destroy jobs?
  - What skills will be more valuable in the future?
- In-Class Activities
  - Group discussion – What went well in the Caregroup incident?
  - Group discussion – IT bureaucracy in your organization
  - Class discussion – What should your organization do to prevent ransomware attack?
  - Class debate - Should iPremier “pull the plug”?

- Class debate - Should iPremier disclose this incident to external stakeholders?
  - Class discussion – How will automation transform legal profession?
  - Class discussion – How should we educate the future generation?
- Post-Session Assignments
  - Write a reflection note by January 14
  - Complete Temple eSFF at <http://esff.temple.edu>
  - (Optional) Participate in post-session discussions at Canvas

### **Academic Integrity – ZERO TOLERANCE**

Plagiarism and academic dishonesty can take many forms. The most obvious is copying from another student's materials, but the following are also forms of this:

- Copying materials directly from the Internet (or another source) without a proper citation crediting the author
- Turning in an assignment from a previous semester as if it were your own
- Having someone else complete your assignment and submitting it as if it were your own
- Signing someone else's name to an attendance sign-in sheet
- Use of assignments completed in one class as any part of a project assigned in another class
- Sharing/copying homework assignments.
- Use of unauthorized notes during an examination
- In cases of cheating, both parties will be held equally responsible, i.e. both the student who shares the work and the student who copies the work.

There will be zero tolerance for blatant plagiarism or any other type of academic dishonesty. In particular, plagiarizing someone's work (be it a classmate's or on the Internet) is strictly prohibited. Under this zero tolerance policy, in any occurrence of academic cheating, a formal complaint will immediately be filed with the University Discipline Committee (UDC). This incident will be listed on the student's permanent academic record. The instructor will not discuss the penalty for violating this policy and simply direct the student to this paragraph in the class syllabus.

### **Academic Honesty**

Temple University believes strongly in academic honesty and integrity. Plagiarism and academic cheating are, therefore, prohibited. Essential to intellectual growth is the development of independent thought and a respect for the thoughts of others. The prohibition against plagiarism and cheating is intended to foster this independence and respect.

Plagiarism is the unacknowledged use of another person's labor, another person's ideas, another person's words, another person's assistance. Normally, all work done for courses -- papers, examinations, homework exercises, laboratory reports, oral presentations -- is expected to be the individual effort of the student presenting the work. Any assistance must be reported to the instructor. If the work has entailed consulting other resources -- journals, books, or other media -- these resources must be cited in a manner appropriate to the course. It is the instructor's responsibility to indicate the appropriate manner of citation. Everything used from other sources -- suggestions for organization of ideas, ideas themselves, or actual language -- must be cited. Failure to cite borrowed material constitutes plagiarism. Undocumented use of materials from the World Wide Web is plagiarism.

Academic cheating is, generally, the thwarting or breaking of the general rules of academic work or the specific rules of the individual courses. It includes falsifying data; submitting, without the instructor's

approval, work in one course which was done for another; helping others to plagiarize or cheat from one's own or another's work; or actually doing the work of another person.

The penalty for academic dishonesty can vary from receiving a reprimand and a failing grade for a particular assignment, to a failing grade in the course, to suspension or expulsion from the University. The penalty varies with the nature of the offense, the individual instructor, the department, and the school or college.

Students who believe that they have been unfairly accused may appeal through the School or College's academic grievance procedure. See Grievances under Student Rights in this section.

Source: Temple University Bulletin,

[http://www.temple.edu/bulletin/responsibilities\\_rights/responsibilities/responsibilities.shtml](http://www.temple.edu/bulletin/responsibilities_rights/responsibilities/responsibilities.shtml)

### **Disability Statement**

Any student who has need of accommodation based on the impact of a disability should contact the instructor privately to discuss the specific situation as soon as possible. Contact Temple University's Disability Resources and Services (DRS) office at (215)204-1280 at 100 Ritter Annex to coordinate accommodations for students with documented disabilities. Please contact the instructor and the DRS within the first week of class, at the beginning of the semester. DRS will establish a student's needs, and make necessary arrangements with faculty. If the student chooses not to contact DRS, he/she will be unable to receive accommodations retroactively, once exams are completed and/or course grades are submitted. Such decisions are made jointly between the DRS office and the instructor, at their discretion based on circumstances. Accommodation letters must be received by the instructor during the first two weeks of the semester.