



ISOM4780 Integrated Planning and Execution Spring 2023

Department of Information Systems, Business Statistics &
Operations Management

COURSE

This course will use an integrated simulation game as a major learning tool to illustrate how strategic and operational decisions should be made in a competitive business environment. Students will learn to integrate and align key decisions in different business functions to simultaneously achieve a set of defined performance objectives of a company by evaluating decision alternatives and tradeoffs as well as optimizing the resource utilization.

Spring 2023

Time: Monday, 1:30-2:50 pm, LSK-1001
Friday, 9:00-10:20 am, LSK-1001

INSTRUCTOR

Prof. Ronald Lau (rlau@ust.hk)
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TEACHING ASSISTANT

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TEXTBOOK

No required textbook; learning materials will be posted on Canvas.

GRADING POLICY

Final course grade will be determined by the following criteria and point distribution.

Competition games (group)	30
Presentation (group) *	10
Participation and peer evaluation	10
Final exam	<u>50</u>
Total	100

* Each group will have a chance to make at least one presentation on their game review/analysis (for about 10-15 minutes) or a company in the spotlight, as assigned by the instructor. If any group is selected to make more than one presentation, the better score will be used for final course grade computation.

LEARNING OBJECTIVES

By the end of the course, students should be able to:

1. Relate the business strategy and execution for a company in a competitive market
2. Monitor and evaluate the business results with proper performance measurement models and metrics, such as AHP, DEA, and SCOR etc.
3. Identify the strategic decisions to achieve higher returns and market dominance
4. Explain a broad spectrum of business concepts and business functions
5. Demonstrate how to run a business profitably through a simulation game
6. Explore and identify the cause and effect relationship between the drivers and business performance.

ACADEMIC INTEGRITY

Students at HKUST are expected to observe the Academic Honor Code at all times (see <http://www.ust.hk/vpao/integrity/> for more information). Zero tolerance is

shown to those who are caught cheating on any form of assessment and a zero mark will be given. In particular, any act of cheating on exam will automatically result in an F grade for this course.

**COURSE
OUTLINE**

<p>Week 1 February 3, 6, 10</p>	<p>Competitive strategy</p> <ul style="list-style-type: none"> ■ Integration of business strategy and functional strategies ■ Concepts of integrated planning and execution ■ Organizational performance measures and balanced scorecard <p>Benchmarking supply chain performance</p> <ul style="list-style-type: none"> ■ Drivers for supply chain key performance indicators (KPI) ■ Reading: Supply chain performance dashboards
<p>Week 2 February 13, 17</p>	<p>Analytic hierarchy process (AHP)</p> <ul style="list-style-type: none"> ■ Basic concepts of AHP ■ Selection of performance criteria using AHP <p>Learning MBS – Model 1 game</p> <ul style="list-style-type: none"> ■ Basic modules and analytics ■ Practice game
<p>Week 3 February 20, 24</p>	<p>Analytic hierarchy process (AHP)</p> <ul style="list-style-type: none"> ■ Exercise using MBS performance criteria <p>Learning MBS – Model 2 game</p> <ul style="list-style-type: none"> ■ Selection of performance criteria for Model 2 game using AHP ■ Planning and execution on core functions of sales, purchasing, and production ■ Practice game
<p>Week 4 February 27, March 3</p>	<p>Data envelopment analysis (DEA)</p> <ul style="list-style-type: none"> ■ Basic concepts of DEA ■ Benchmarking performance using DEA <p>MBS – Model 3 game</p> <ul style="list-style-type: none"> ■ Return on investment of R&D and marketing ■ Managing multiple retail markets ■ Group breakout session for competition game: Round 1 ■ Discussion and analysis of results ■ Submit decisions for competition game: Round 2
<p>Week 5 March 6, 10</p>	<p>Case discussion</p> <ul style="list-style-type: none"> ■ Saint Honore Bakery: Benchmarking store-level performance <p>MBS – Model 3 game</p> <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game: Round 3 and 4 ■ Discussion and analysis of results ■ Submit decisions for competition game: Round 5

<p>Week 6 March 13, 17</p>	<p>Case discussion</p> <ul style="list-style-type: none"> ■ Chinese Pharmaceuticals (HK) Limited: Effective forecasting for optimal inventory management <p>MBS – Model 3 game</p> <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game: Round 6 and 7 ■ Discussion and analysis of results ■ Submit decisions for competition game: Round 8
<p>Week 7 March 20, 24</p>	<p>MBS – Model 4 game (M4A)</p> <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game M4A: Round 1 and 2 ■ Discussion and analysis of results ■ Submit decisions for competition game M4A: Round 3
<p>Week 8 March 27, 31</p>	<p>MBS – Model 4 game (M4A)</p> <ul style="list-style-type: none"> ■ Group presentation ■ Additional information on financial leverage ■ Group breakout session for competition game M4A: Round 4 and 5 ■ Discussion and analysis of results ■ Submit decisions for competition game M4A: Round 6
<p>Week 9 April 3, 14</p>	<p>MBS – Model 4 game (M4A and M4B)</p> <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game M4A: Round 7 and 8 ■ Discussion and analysis of results ■ Submit decisions for competition game M4B: Round 1
<p>Week 10 April 17, 21</p>	<p>MBS – Model 4 game (M4B)</p> <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game M4B: Round 2 and 3 ■ Discussion and analysis of results ■ Submit decisions for competition game M4B: Round 4
<p>Week 11 April 24, 28</p>	<p>MBS – Model 4 game (M4B)</p> <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game M4B: Round 5 and 6 ■ Discussion and analysis of results ■ Submit decisions for competition game M4B: Round 7
<p>Week 12 May 5</p>	<p>MBS – Model 4 game (M4B)</p> <ul style="list-style-type: none"> ■ Group breakout session for competition game M4B: Round 8 ■ Discussion and analysis of results ■ Reflections on the overall business planning and execution strategy
<p>Week 13 May 8</p>	<p>Course review</p>