



ISOM4780 Integrated Planning and Execution Spring 2025

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 2025

Time: Monday/Wednesday, 10:30-11:50 pm, Room 4582 (Lift 27-28)

INSTRUCTOR

Prof. Ronald Lau (rlau@ust.hk)
Office: LSK-4081; Phone: 2358-8348
Office hours: Monday/Wednesday, 9:00-10:30pm or after class

TEACHING ASSISTANT

Sherry Wu (imwuc@ust.hk)
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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.

On-time attendance and participation [#]	10
Competition games (group)*	30
Presentation (group)*	10
Final exam	50
Total	100

[#] This course involves experiential learning and extensive group work. Your on-time attendance and participation in class are explicitly expected. The participation point that can be earned per class session ranges from 0 to 1 point. Lateness to class of 5-15 minutes will be -0.5 points while lateness of 15+ minutes or absence from class without any valid reasons will be -1 point per class session. While the maximum participation anyone can earn is 10 points for the entire term, the penalty for lateness to class or absence could also be as high as -10 points.

* All group work may require a peer evaluation on request. Anyone receiving a poor peer evaluation will receive a deduction up to 100% off from the scores originally assigned to the group work (competition games and presentation). Each group will have a chance to make a presentation for about 20 minutes, followed by Q&As, on their game review/analysis or a company in the spotlight, as assigned by the instructor.

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**

Week 1 February 3, 5	Competitive strategy <ul style="list-style-type: none">■ Resource-based and market-based view of competitive advantage■ Integration of business strategy and functional strategies■ Concepts of integrated planning and execution Value-based business strategy <ul style="list-style-type: none">■ Defining a unique value proposition
Week 2 February 10, 12	Case discussion <ul style="list-style-type: none">■ LeadNitro: An entrepreneurial journey of starting and scaling a software business Pricing strategy <ul style="list-style-type: none">■ Determining the optimal price point and the acceptable price range■ Reading: How to price your product: A guide to the Van Westendorp pricing model■ Quick case: Happy Cow Ice Cream
Week 3 February 17, 19	Benchmarking supply chain performance <ul style="list-style-type: none">■ Organizational performance measures and balanced scorecard■ Drivers for supply chain key performance indicators (KPIs)■ Determining the relative importance of KPIs using analytic hierarchy process (AHP)■ Reading: Why the most successful companies are scalable? Learning MBS – Model 1 game <ul style="list-style-type: none">■ Basic modules and analytics■ Practice game
Week 4 February 24, 26	Learning MBS – Model 2 game <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
Week 5 March 3, 5	Data envelopment analysis (DEA) <ul style="list-style-type: none">■ Basic concepts of DEA■ Benchmarking performance using DEA MBS – Model 3 game <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■ Submit decisions for competition game: Round 2

Week 6 March 10, 12	Case discussion <ul style="list-style-type: none"> ■ Saint Honore Bakery: Benchmarking store-level performance MBS – Model 3 game <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game: Round 3 and 4 ■ Submit decisions for competition game: Round 5
Week 7 March 17, 19	MBS – Model 3 game <ul style="list-style-type: none"> ■ Additional information on financial leverage ■ Group presentation ■ Group breakout session for competition game: Round 6 and 7 ■ Submit decisions for competition game: Round 8 to end
Week 8 March 24, 26	MBS – Model 4 game (M4A) <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game M4A: Round 1 and 2 ■ Submit decisions for competition game M4A: Round 3
Week 9 March 31 April 7, 9	MBS – Model 4 game (M4A) <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game M4A: Round 4 to 7 ■ Submit decisions for competition game M4A: Round 8 to end
Week 10 April 14, 16	MBS – Model 4 game (M4B) <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game M4B: Round 1 ■ Submit decisions for competition game M4B: Round 2
Week 11 April 23	MBS – Model 4 game (M4B) <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game M4B: Round 3 ■ Submit decisions for competition game M4B: Round 4
Week 12 April 28, 30	MBS – Model 4 game (M4B) <ul style="list-style-type: none"> ■ Group presentation ■ Group breakout session for competition game M4B: Round 5 and 6 ■ Submit decisions for competition game M4B: Round 7
Week 13 May 7	MBS – Model 4 game (M4B) <ul style="list-style-type: none"> ■ Group breakout session for competition game M4B: Round 8 to end Course review <ul style="list-style-type: none"> ■ Reflections on the overall business planning and execution strategy