

**MNO4715 Foresight and Scenario Planning**

**Semester 2, AY2025-2026**

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## **Course Description**

This course aims to equip students with the capabilities of corporate foresight using techniques such as horizon scanning and scenario planning. The students will learn how to identify and harness the opportunities presented by future scenarios, as well as manage the risks associated with their ambiguity and complexity. Students will learn how to apply foresight methods and scenario planning in strategic processes in organizations. They will learn how the specific role foresight activities play in the organization and support the activities involved in long-range planning for the organization.

## **Learning Outcomes**

After the course, the students will be able to learn

- Horizon scanning technique
- Scenario planning
- Divergent and convergent techniques for integrating scenarios and prioritizing initiatives
- Formulation of scenario-based strategic planning

## **Topics**

### Introduction to Strategic Foresight

- Sources of strategic uncertainty
- Understanding changing conditions and their role in company success and failure
- Introduction to Systemic Foresight Methodology

### Intelligence

- Horizon scanning
- Patent analysis

### Imagination

- Visioning
- Scenario planning (with AI-augmented personas)

### Integration

- Scenario building (using AI and algorithm)
- Build possible models

### Interpretation / Intervention

- Defining and planning strategies
- Action planning

## Topics by Week

| Week | Date   | Topics covered   |
|------|--------|--|
| 1    | 16 Jan | Introduction to Foresight <ul style="list-style-type: none"> <li>• Sources of strategic uncertainty</li> <li>• Understand changing conditions and their role in company success/ failure</li> <li>• Systemic Foresight Methodology (SFM)</li> </ul>                            |
| 2    | 23 Jan | Horizon Scanning <ul style="list-style-type: none"> <li>• Case study on healthcare industry</li> </ul> <a href="#">Workshop on use of Business Resources for Horizon Scan</a>  |
| 3    | 30 Jan | Patent Analysis <ul style="list-style-type: none"> <li>• Case study on ultrasound industry</li> <li>• Case study on cleaning robots</li> </ul> <a href="#">Workshop on use of Patent Resources for Patent Analysis</a>   |
| 4    | 6 Feb  | Scenario Planning 1 <ul style="list-style-type: none"> <li>• Understand archetypes of scenarios</li> </ul>   |
| 5    | 13 Feb | Scenario Planning 2 <ul style="list-style-type: none"> <li>• Define Scope</li> <li>• Analyze Perception (with AI-augmented personas)</li> <li>• Case study on airlines industry in Europe</li> <li>• Case study on auto industry</li> </ul> <a href="#">Guest speaker: TBD</a> |
| 6    | 20 Feb | Scenario Planning 3 <ul style="list-style-type: none"> <li>• Analyze Trend and Uncertainty</li> <li>• Case study on mobile phone industry</li> <li>• Case study on air cargo industry in Asia</li> </ul>   |
| 7    | 6 Mar  | Scenario Building 1 <ul style="list-style-type: none"> <li>• Identify scenarios</li> <li>• Build influence diagram</li> <li>• Case study on soft robotics 7</li> <li>• Plot scenario matrix</li> <li>• Develop fact sheets</li> </ul> <a href="#">Guest speaker: TBD</a>       |
| 8    | 13 Mar | Scenario Building 2 <ul style="list-style-type: none"> <li>• Machine-Augmented Insight Extraction (using AI and algorithm)</li> <li>• Distill insights from massive data for scenario building</li> </ul>  |
| 9    | 20 Mar | Strategy Definition <ul style="list-style-type: none"> <li>• Case study on airlines industry in Europe</li> <li>• Case study on pick-and-place industry in Asia</li> </ul> <a href="#">Guest speaker: TBD</a>  |
| 10   | 27 Mar | Implement Core Strategy and Monitor  |
| 11   | 3 Apr  | No class – Good Friday public holiday  |
| 12   | 10 Apr | Wrapping it up<br><a href="#">Guest speaker or Field Visit</a>   |
| 13   | 17 Apr | Group Presentation   |

## Assessment

| Individual Assessment |            | Group Assessment   |            |
|-----------------------|------------|--------------------|------------|
| Class Participation   | 20%        | Group Report       | 40%        |
| Individual Assignment | 30%        | Group Presentation | 10%        |
| <b>Total:</b>         | <b>50%</b> |                    | <b>50%</b> |

### Class Participation (20%)

This course uses learning methods that require active involvement (e.g. in-class discussion, Canvas Discussion, etc.). Attendance is required for every class session. You are expected to join the class ready to discuss the assigned readings.

### Individual Assignment (30%)

Students will be provided three options for written assignment:

- Case analysis
- Industry analysis
- Trend analysis

Students are expected to apply relevant frameworks and concepts from the course in their written assignment. More details will be provided during the course.

### Group Report (40%) /Group Presentation (10%)

Students will form groups for this group assignment. From the list of industries provided, each group will choose an industry and an organization operating in that industry to understand the trends that are likely to impact the organization in the next five to ten years (intelligence), develop possible future scenarios (imagination), identify the desired scenarios (integration), and define/ develop strategy for the organization for the next five to ten years (interpretation), so as to seize the opportunities/mitigate the risks inherent in the desired scenarios. Project groups will present their Group Report during Week 13 lesson. More details will be provided during the course.

## Readings and Lesson Preparation

### Compulsory reading

Cheah, S. (2020). Strategic Foresight: Accelerating Technological Change. Berlin: De Gruyter.

<https://www.degruyter.com/view/title/568809>

<https://www.amazon.sg/Strategic-Foresight-Accelerating-Technological-Change/dp/3110672901>

Please refer to reading list on [Canvas/Course Readings](#).

## Schedule

This course description and outline are subject to change. Changes will be announced in class.

## Profile of Instructor

Refer to <https://discovery.nus.edu.sg/4518-lai-yin-sarah-cheah/>