Academic Year	2021-2022	**Semester**	1
Course Coordinator	Capt KH Tan		
Course Code	MT4105		
Course Title	Intensive Seminar on Disruptive Scenarios		
Pre-requisites	Nil		
No of AUs	3		
Contact Hours	Lecture: 11 hrs; Tutorial: 28 hrs		
Proposal Date	Nov 2021		

Course Aims

The aim of this seminar is to apply scenario planning techniques and methodologies so that students can develop realistic future scenarios on behalf of an international company in the shipping industry that operates in world full of disruptions and uncertainties.

Intended Learning Outcomes (ILO)

After this seminar students can:

1. Identify the differences between the range of scenario planning methodologies described in literature and other type methodologies such as forecasting and contingency planning
2. Identify various trends and disruptions with an impact on ports, shipping, and supply chains
3. Generate large amounts of business intelligence from various sources and synthesise these into a coherent strategy
4. Employ scenario planning methodologies
5. Self-organise into groups and communicate results under time pressure.

Course Content:

S/N	Topic	Lecture Hrs	Tutorial Hrs
1	**Introduction:** Introduction to Scenario Planning	1	0
2	**Scenario Planning Step 0:** Choose group / subject & company **& Step 1:** Identify your Focal Issue		3
3	**Literature 1:** Scenario Planning Methodologies	1	0
4	**Scenario Planning Step 2:** Identify Key Factors		3
5	**Literature 2:** Tracking, Analysing, Imaging, Deciding and Acting (TAIDA)	1	0
6	**Guest Lecture:** Industry Perspective	2	0
7	**Scenario Planning Step 3:** Identify External Driving Forces		3
8	**Literature 3:** The Principles of Scenario Thinking	1	0
9	**Scenario Planning Step 4:** Critical Uncertainties		3

10	**Literature 4:** Strategy and Dynamic Capabilities	1	0
11	**Guest Lecture:** Industry Perspective	2	0
12	**Scenario Planning Step 5:** Scenario Logics		3
13	**Consultation**		1
14	**Guest Lecture:** Industry Perspective	2	0
15	**Scenario Planning Step 6:** Write Scenarios		3
16	**Consultation**		1
17	**Scenario Planning Step 7:** Strategic Options		3
18	**Consultation**		1
19	**Scenario Planning Step 8:** Early Indicators		3
20	**Consultation**		1
	Total	**11**	**28**

Assessment (includes both continuous and summative assessment)

Component	Course LO Tested	Related Programme LO or Graduate Attributes	Weightage	Team / Individual	Assessment Rubrics
1. Written Exam	1	A,B	30%	Individual	-
2. Continuous Assessment 1 (CA1): - Weekly Report	2 to 5	A,B,C,D,E,F,G,H,I,J,K	20% x MF*	Team & Individual	Appendix 1
3. Continuous Assessment 2 (CA2): - Final Report	2 to 5	A,B,C,D,E,F,G, H,I,J,K	40% x MF*	Team & Individual	Appendix 2
4. Continuous Assessment 3 (CA3): - Final Presentation	2 to 5	A,B,C,D,E,F,G, H,I,J,K	10%	Team & Individual	Appendix 3
Total			100%		

Notes *: The assessment for this course is heavily reliant on you working closely as a team to complete the project. Hence, the Modification Factor (MF) will be applied to account for your individual contribution to the project work. The MF is derived from panel judges' feedback, weekly discussion session and peer assessment. For more details on the MF calculation, please see Appendix 4.

Program Learning Outcome

   ✓ *Competency*

A. Develop an overall awareness of maritime activities, port and shipping industry and their association with economy and trade. Describe and apply concepts and theories in sub-fields as contributing to the maritime industry and integrate various related themes, skills, and knowledge

B. Understand and manage the uncertainties and risks in the maritime business environment

C. Apply related information pertaining to procedures, operations and management of maritime entities and operational issues in the maritime industry

D. Capture and analyse market data using analytical tools, conduct related research in the maritime arena, as well as design, develop and execute maritime projects

E. Appreciate the maritime environment for vocations and career options

   ✓ *Creativity*

F. Approach and solve basic maritime problems, through both strategic and research methods, and put theoretical knowledge into practical applications in related industries

G. Develop maritime related risk management strategies.

   ✓ *Communications*

H. Communicate shipping and maritime management in policy, strategy, and prevailing issues and requirements in an organization and to achieve good teamwork.

I. Write professional reports and conduct public speaking confidently

   ✓ *Character*

J. Recognise the importance of a strong and just leadership, comply to ethical standards, and uphold highest standards of integrity as a professional

   ✓ *Civic Mindedness*

K. Integrate all related skills and knowledge into the industry and exercise due diligence as a highly responsible professional, contributing towards nation and the society.

Formative feedback

The lectures shall be interactive, and your inputs are highly encouraged in the process.

Case studies basis real life scenarios shall be deployed in the tutorials, to guide on the realities and practical approach through concepts as captured in lectures.

Quiz and case study aimed to provide regular feedback to you pertaining to level of understanding in concepts and principles. Answers and sample solutions provided to allow you to assess your understanding, along with measures to arrest weaknesses promptly.

Learning and Teaching approach

Approach	How does this approach support students in achieving the learning outcomes?
Lecture	Lesson topics delivered in series as to share, and focus on the concepts, as well as the application to the essentials in various aspects of maritime trade practices. Concepts are supported with numerous industry examples, clear diagrams, graphs, and equations to assist with your understanding and application of this subject.
Tutorials	Teamwork shall be included, whereby you will take different approaches in various levels to apply concepts by way of case studies. Strong interaction and participation in challenging concepts and achieving practical applications in the related industry are encouraged.

Reading and References

1. Amer, M., Daim, T. U., & Jetter, A. (2013). A review of scenario planning. Futures (46), 23-40

2. Cornelius, P., Van de Putte, A., Romani, M. (2005), Three decades of Scenario Planning in Shell, California Management Review, Vol. 48 Fall 2005, p.92-109

3. Lindgren, M., and Bandhold, P. (2003), Scenario Planning. The Link Between Future and Strategy, New York: Palgrave Macmillan

4. McKinsey & Co. (2015), Overcoming Obstacles to Effective Scenario Planning, McKinsey Press.

5. Postma, T., and Lieble, F. (2005), How to improve scenario analysis as a strategic management tool, Technological Forecasting & Social change, 72: 161-173

6. Shoemaker, P.H. (1995), Scenario Planning. A tool for Strategic Thinking, MIT Sloan Management Review 36 (2): 24-40.

Course Policies and Student Responsibilities

1. Attendance :

   There is mandatory attendance requirement, you are expected to place all lectures and tutorials on their utmost top priority and note that there shall be no make-up class to affect.

2. Punctuality:

   You are expected to be On Time for classes, as late arrivals are disruptive to class activities. Likewise, that all assignments to be submitted within dateline.

3. Participation:

   You are strongly encouraged to stay dynamic and participate well in class, without hesitation to raise questions when in any doubt.

As a student of the course, you are required to abide by both the University Code of Conduct and the Student Code of Conduct. The Codes provide information on the responsibilities of all NTU students, as well as examples of misconduct and details about how students can report suspected misconduct. The University also has the Student Mental Health Policy. The Policy states the University's commitment to providing a supportive environment for the holistic development of students, including the improvement of mental health and wellbeing.

These policies and codes concerning students can be found in the following link: http://www.ntu.edu.sg/SAO/Pages/Policies-concerning-students.aspx

Academic Integrity

Good academic work depends on honesty and ethical behavior. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values

As a student, is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, and collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the academic integrity website for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

Course Instructors

Instructor	Office Location	Phone	Email
Dr Wouter Jacobs	Rotterdam, NL	+31 (0)10 408 1851	w.a.a.jacobs@ese.eur.nl

Planned Weekly Schedule

Week	Topic	Course Lo	Readings/Activities
1	Introduction	1	Lectures & Tutorials
2	Step 0 & 1 (Instruction & Tutorial) Literature 1	1 to 5	Lectures & Tutorials
3	Step 2 (Instruction & Tutorial) Literature 2	1 to 5	Lectures & Tutorials
4	Guest Lecture	1 to 3	Lectures
5	Step 3 (Instruction & Tutorial) Literature 3	1 to 5	Lectures & Tutorials
6	Step 4 (Instruction & Tutorial) Literature 4	1 to 5	Lectures & Tutorials
7	Guest Lecture Exam	1 to 3	Lectures, Tutorials Exam
8	Step 5 (Instruction & Tutorial)	2 to 5	Tutorials

	Discussion hour		
9	Guest Lecture	1 to 3	Lectures
10	Step 6 (Instruction & Tutorial) Discussion hour	2 to 5	Tutorials
11	Step 7 (Instruction & Tutorial) Discussion hour	2 to 5	Tutorials
12	Step 8 (Instruction & Tutorial) Discussion hour	2 to 5	Tutorials
13	Final Presentations	2 to 5	Exam

Appendix 1: Continuous Assessment 1 (CA1 – Weekly Report / 20 marks) Criteria

Criteria	Details	Unsatisfactory (25%)	Satisfactory (50%)	Good (75%)	Exemplary (100%)
Weekly Report (20 Marks)	Hand-in of scenario planning steps before tutorial (20)	Handed in 5 out of 8 steps of the scenario planning on time and to satisfaction, meaning answered all the questions completely.	Handed in 6 out of 8 steps of the scenario planning on time and to satisfaction, meaning answered all the questions completely.	Handed in 7 out of 8 steps of the scenario planning on time and to satisfaction, meaning answered all the questions completely.	Handed in 8 out of 8 steps of the scenario planning on time and to satisfaction, meaning answered all the questions completely.

Appendix 2: Continuous Assessment 2 (CA2 – Final Report / 40 marks) Criteria

Criteria	Details	Unsatisfactory (25%)	Satisfactory (50%)	Good (75%)	Exemplary (100%)
Final Report (40 Marks)	Layout and Structure (10)	Layout of report is not logical, even after supervisor's feedback.	Layout and order of report is acceptable and reasonably logical.	Layout and order of report is good and logical.	Clear layout and order of report with logical link among the chapters.
	Creativity (10)	Shows little creativity or originality	A few original contributions	Thoughtful and unique; clever at times	Exceptionally clever and unique report while showing deep understanding of the subject matter
	Content Step 1: Quality of Focal Issue (3)	Poorly formulated focal issue and/or not relevant, even after supervisor's feedback. Unable to place into the context of strategic management literature and scenario planning methodology.	Adequately formulated and partly relevant focal issue placed insufficiently into the context of strategic management literature and scenario planning methodology.	Well formulated and relevant focal issue. placed sufficiently into the context of strategic management literature and scenario planning methodology.	Excellent and relevantly formulated focal issue placed in context of strategic management literature and scenario planning methodology.
	Content Step 2 & 3: Quality of key factors and external driving forces (SEEPT) (3)	Unable to identify relevant key factors and external driving forces (SEEPT). Showing little to no understanding of the relevance of major trends and key factors.	Identified some key factors and external driving forces (SEEPT). Showing limited understanding of major trends and key factors of a company.	Identified sufficient key factors and external driving forces (SEEPT). Showing sufficient understanding of major trends and sufficient understanding	Identified all the key factors and external driving forces (SEEPT). Showing excellent understanding of major trends and deep understanding of key factors of the company.

				of key factors of a company.	
	Content Step 4: Quality of critical uncertainties (3)	Identified irrelevant or insufficient critical uncertainties; Did not apply Wilson matrix / cross impact analysis	Identified sufficient critical uncertainties, but not all are relevant; Partly applied Wilson matrix / cross impact analysis	Identified sufficient and relevant critical uncertainties. Applied Wilson matrix / cross impact analysis correctly.	Structurally identify and described critical uncertainties while excellently applying Wilson matrix / cross impact analysis method, understanding its benefits and limitations.
	Content Step 5 & 6: Quality of Scenarios (3)	Poor morphological vector analysis between uncertainties is conducted. Internally consistency, plausibility, coherence in scenarios is lacking; Narrative does not use a protagonist.	Insufficient morphological vector analysis between uncertainties is conducted. Internal consistency, plausibility, coherence in scenarios is flawed; Adequate narrative is used from the perspective of a protagonist.	Adequate morphological vector analysis between uncertainties is conducted. Internally consistency, plausibility, coherence in scenarios can be questioned; Good narrative is used from the perspective of a protagonist.	Excellent morphological vector analysis between uncertainties is conducted. Internally consistent, plausible, coherent, in-depth scenarios are defined; Excellent narrative is used from the perspective of a protagonist.
	Content Step 7: Quality of strategic options (3)	No understanding on the implications of the scenarios on the company. Has not mentioned any relevant or realistic strategic options.	Limited understanding of the implications of the scenarios on the company. Irrelevant and unrealistic strategic options are addressed. And no consideration of focal issue and the company's key factors.	Sufficient understanding of the implications of the scenarios on the company. Able to formulate some strategic options but with limited consideration of focal issue and the company's key factors.	High level of understanding of the implications of the scenarios on the company. Able to formulate relevant and realistic strategic options considering the focal issue and the company's key factors.
	Content Step 8: Quality of early indicators (3)	Did not identify relevant indicators. Unable to describe the relevancy and accuracy of indicators. Shows poor understanding of how and why the	Relevant but unoriginal indicators are selected. Unable describe their relevance and accuracy. Shows limited understanding of how and why	Relevant but unoriginal indicators are selected. Able describe their relevance and accuracy. Shows limited understanding of how and why the indicator	Selected highly relevant and original indicators. Able describe their relevance and accuracy. Shows clear understanding of how and why the indicator should be monitored considering the various scenarios.

		indicator should be monitored considering the various scenarios.	the indicator should be monitored considering the various scenarios.	should be monitored considering the various scenarios.	
	References (2)	Few and not up to date references are listed. Lack of citing. Did not select relevant business intelligence reports or data sources. No reflection on the limitations of the selected references.	Adequate use and citing of references throughout the report. A limited selection of relevant business intelligence reports and data sources is used. Little or no reflection on the limitation of the literature is shown.	Good use and citing of references throughout the report. Relevant business intelligence reports, but only limited sources of data are used. Little reflection on the limitation of the literature is shown.	Excellent use and citing of references throughout the report. Relevant business intelligence reports and various sources of data are used, and limitation of the literature are identified.

Appendix 3: Continuous Assessment 3 (CA3 – Final Presentation / 10 marks) Criteria

Criteria	Details	Unsatisfactory (25%)	Satisfactory (50%)	Good (75%)	Exemplary (100%)
Final Presentation (10 Marks)	**Analysis of all factors in the problem (5)**	Poor analysis and not all the factors are considered, even after supervisor's feedback.	Adequate analysis and some factors are considered.	The factors are logically analysed; trends are identified with further discussion.	Logical in-depth analysis is conducted; new ideas are proposed for possible new knowledge.
	Results, discussion, conclusions, and suggestions (3)	No relevant results and poor discussion. No conclusions drawn; related outcomes are oversimplified, even after supervisor's feedback. No reflection of work done.	Relevant results and adequate discussion are presented. Conclusions are made but lacking in understandings and logic. Little reflection of work done.	New and interesting results with good discussion. Conclusions are made in connection with the results and suggestions for future work. Highlight some limitation of current work.	High quality and new results, promising for a peer-reviewed publication. Logical in-depth conclusions reflecting student's deep understanding of the topic. Recognized the limitation of what has been achieved. Good suggestions for future work.
	Presentation (2)	Poor content and slide design and presentation sequence is not logical. Unable to understand and answer questions, even after supervisor's feedback.	Adequate contents, average slide design, and reasonable depth of explanation. Able to understand and answer some questions.	Logical sequence, able to highlight major outcomes and offer good explanation, substantial effort in slide design. Able to understand and answer most questions.	Relevant content beyond the scope of project, able to correlate major outcomes to developments in the field, refreshing slide design. Able to understand and answer all questions, and also provide additional relevant information.

Appendix 4: Criteria for Peer Assessment

Performance Indicators	Outstanding: 4	Good: 3	Average, meet expectation: 2	Below expectations: 1
Collaborative behaviour	Cooperative and always delivered assigned tasks on time. Take initiative to help other to ensure success of team project.	Cooperative and always delivered assigned tasks on time. Willing to assist others upon request.	Stop short at delivering assigned tasks, sometimes after reminder(s).	Uncooperative, non-committed, always miss deadlines.
Quality of works	Quality of works higher than overall group quality, or go extra miles to assist teammate to enhance the quality of group works.	Good quality of deliverables under individual responsibility.	Acceptable quality of deliverables under individual responsibility.	Quality of works not acceptable.
Ideas & participations	Active participation and initiatives, good ideas & suggestions in enhancing the quality of group works.	Contributed suggestions and ideas to enhance the quality of group works.	Somewhat contributed in enhancing the quality of group works.	Did not participate in group works.

Average Peer Assessment Score	MF
3.51 to 4.00	1.05
2.76 to 3.50	1.00
2.51 to 2.75	0.95
2.00 – 2.50	0.9
Below 2.0	Separate Assessment

Peer assessment exercise will be anonymous and done towards the end of the semester.

For student who has average peer assessment score below 2.0, Course coordinator might contact/call up the student as well as the other team member(s) to further assess the appropriate MF.

In addition to peer assessment, MF might be moderated by course coordinator and panel judges from the interaction during consultation, feedbacks from the team members.