#### **COURSE OUTLINE**

#### **ET5213 MANAGING NEW VENTURES**

Expected Implementation in Academic Year	AY2024-2025
Semester/Trimester	Semester 2
Course Author	Marilyn Ang Uy
Course Author Email	muy@ntu.edu.sg
Course Title	Managing New Ventures
Course Code	ET5213
Academic Units	3
Contact hours	39
Research Experience Components	☐ Final Year Project (FYP) ☐ Undergraduate Research Opportunity Programme (UROP)/Undergraduate Research Experience on Campus (URECA)/ Education Research (for NIE BaBSc/SSM) ☐ Research Defined Course (at least 50% of deliverables involve practical research activities: problem identification, hypothesis forming, data collection/analysis/interpretation, result communication) √ Not Applicable

# **Course Requisites (if applicable)**

Pre-requisites	NA
Co-requisites	NA
Pre-requisite to	NA
Mutually exclusive to	NA
Replacement course to	NA
Remarks (if any)	NA

#### **Course Aims**

This course aims to help the students relate theoretical concepts of strategy and organization design with practical and execution issues of managing new ventures in today's economy. Strategies for new venture development and key elements that propel scaling up as well as impede growth will be explored. You will understand the process from starting a new venture to the growth and development of the venture, as well as concepts such as entrepreneurial motivation, new venture types, competitive analysis, go-to market strategies, raising funds for start-ups, harnessing human capital, and execute operations for sustainable growth.

## **Course's Intended Learning Outcomes (ILOs)**

Upon the successful completion of this course, you would be able to:

ILO 1	Describe and discuss the aggregate picture of managing new ventures in today's economy.
ILO 2	Demonstrate broad knowledge in new venture development process from the aspects of market strategies, business models, fund raising, operations for profitability and sustainable growth.
ILO 3	Determine relevant forms of new ventures with different entrepreneurial motivations and business scenarios.
ILO 4	Conduct competitive analysis and formulate go-to market strategies.
ILO 5	Identify and evaluate the risks and challenges of managing new ventures and apply relevant knowledge and skills for problem solving.
ILO 6	Apply specific knowledge and skills for tasks related to formulating go-to-market strategies, managing human resource, collaborating with value chain partners, and developing growth strategies.

#### **Course Content**

- 1. Entrepreneurs and New Ventures: What & Why
- 2. New Venture Development: How & Who
- 3. Forms of New Ventures: What kind
- 4. Product and Service Development
- 5. Develop the Performance Management System
- 6. Financial Management
- 7. How to Raise Start Up Capital
- 8. Managing A Venture Human Capital
- 9. Managing A Venture Operations, Profitability and Sustainability
- 10. Value Chain and Collaboration
- 11. Growth Strategies and Risk Management
- 12. Dynamic capabilities and Agility
- 13. Group Project Presentation

#### **Reading and References**

#### **Textbook:**

Kuratko, D.F., Hornsby, J.S. (2020). New Venture Management. The Entrepreneur's Roadmap for Development, Management and Growth. Routledge.

#### Reference

- Introduction to Entrepreneurship Essentials
   https://online.hbs.edu/courses/entrepreneurship-essentials/
- 2. What Is A Value Chain Analysis? 3 Steps https://online.hbs.edu/blog/post/what-is-value-chain-analysis
- 3. Six steps to successful supply chain collaboration <a href="https://www.mckinsey.com/capabilities/operations/our-insights/six-steps-to-successful-supply-chain-collaboration">https://www.mckinsey.com/capabilities/operations/our-insights/six-steps-to-successful-supply-chain-collaboration</a>
- 4. ESG in The Value Chain (2024)
  <a href="https://www.pwc.com/gx/en/issues/esg/esg-asia-pacific/esg-asia-pac-podcast-series/setting-the-stage-for-series/ser

# <u>change.html?gclid=CjwKCAjw586hBhBrEiwAQYEnHc99323zbfNSC3QCxHeNc9l6hWq4BwTA18leiOBL58cOEZp2Q\_MKqRoC4iYQAvD\_BwE</u>

- 5. Adomako et al. (2022). Human capital, reverse engineering and new venture growth: The moderating role of competitive strategy. Technovation.
- 6. Collins, J. (2019). Turning the Flywheel: A Monograph to Accompany Good to Great. HarperCollins.
- 7. Olve, N., Roy, J. Wetter, M., and Cohen, S.J. (2019) Performance Drivers: A Practical Guide to Using the Balanced Scorecard. Gildan Media Corporation.
- 8. Yuen, S. (2020). Funding for Start-Ups: A Guide to Fundraising. Marshall Cavendish International (Asia).

#### **Planned Schedule**

Week/S ession	Topics/Themes	ILO	Readings	Deliver y	Activiti es
				Mode	
1	Entrepreneurs and New Ventures: What & Why      Overview of the course     The entrepreneur's motivation and purpose     Starting a new venture     From ideation to conceptualization	1, 2	Reference:	In- person	Lectur
			e.com/watch?v=7loB		
2	New Venture Development: How & Who  Market Research and competitive analysis  Value proposition Target customers and why Communicate ideas and innovation	2	Reference:	In- person	Lectur e

			https://www.youtub e.com/watch?v=sw- i3T4OjY4&list=PLQyk yC1zr8f_ZcAZoTz- rruBBOP4Fmii5&inde x=6		
3	Forms of New Ventures: What kind	3	Reference: 'New Venture Management' by Donald F. Kuratko, Jeffrey S. Hornsby	In- person	Home Based Learni ng
4	Product and Service Development	2		In- person	Lectur e
5	Develop the Performance Management System      Develop & plan the strategy     Launching the strategic initiatives     Stakeholders Management & Aligning Organization Units and Employees	2,3,6	Reference:  'Performanc e Drivers' by Nils- Göran Olve, Jan Roy, Magnus Wetter  A Plan is Not a Strategy: https://www.youtub e.com/watch?v=iuYl GRnC7J8  From Dreaming to Doing: How We Set and Achieve Goals: https://www.youtub e.com/watch?v=Onu JAHJEMKI&list=TLPQ MDIwNDIwMjPk12Pc jFvtCQ&index=2  Steve Jobs talks about managing people: https://www.youtub e.com/watch?v=f60d hel4ARg  How to create a high performance culture:	In- person	Lectur

			https://www.youtub e.com/watch?v=BAd eFHlhKi4		
6	Financial Management	4,5	Reference: Kirsty Nathoo- Managing Startup Finances (Y Combinator): https://www.youtub e.com/watch?v=LBC 16jhiwak	In- person	Lectur e
7	<ul> <li>How to Raise Start Up Capital</li> <li>Public and private financing</li> <li>Alternative sources of funding</li> <li>Negotiations</li> <li>Legal perspectives</li> </ul>	2,6	Reference: • 'Funding for Start-Ups: A Guide to Fundraising' by Yuen Samuel	In- person	Lectur e
8	<ul> <li>Managing A Venture – Human Capital</li> <li>Building A business based on quality</li> <li>Attract the best multi-tasking diversified talents</li> <li>Aim for the global markets</li> </ul>	2, 3, 4, 5	Reference: 'New Venture Management' by Donald F. Kuratko, Jeffrey S. Hornsby	In- person	Lectur e
9	Managing A Venture – Operations, Profitability and Sustainability  Manage unconventionally yet with confidence Staying flexible and strive for consistency Be profitable and manage cashflow The sustainability perspective	1,2,5,6	Reference: 'New Venture Management' by Donald F. Kuratko, Jeffrey S. Hornsby	In- person	Lectur e and/wi th a Guest lecture

10	Value Chain and Collaboration	2, 6	Reference:	In-	Lectur
10	Understanding the value chain	2,0	What Is A	person	e
	Components of a value chain		Value Chain	person	
	Value chain analysis		Analysis? 3 Steps		
	<ul> <li>Collaboration strategies in supply</li> </ul>		https://online.hbs.ed		
	chain / value chain		u/blog/post/what-is-		
	Chairi / Value Chairi		value-chain-analysis		
			Six steps to		
			successful supply		
			chain collaboration		
			https://www.mckins		
			ey.com/capabilities/		
			operations/our-		
			insights/six-steps-to-		
			successful-supply-		
			chain-collaboration		
			ESG in The		
			Value Chain		
			https://www.pwc.co		
			m/gx/en/issues/esg/		
			esg-asia-pacific/esg-		
			asia-pac-podcast-		
			series/setting-the-		
			stage-for-		
			change.html?gclid=Cj		
			wKCAjw586hBhBrEi		
			wAQYEnHc99323zbf		
			NSC3QCxHeNc9l6hW		
			q4BwTA18leiOBL58c		
			OEZp2Q_MKqRoC4iY		
			QAvD_BwE		
11	Growth Strategies and Risk Management	2,4,5,6	Reference:	In-	
	<ul> <li>Resource-based view</li> </ul>		Human	person	
	<ul> <li>Venture capabilities</li> </ul>		capital, reverse		
	<ul> <li>New venture growth strategies</li> </ul>		engineering and new		
	and performance		venture growth: The		
	<ul> <li>Internal and external forces of</li> </ul>		moderating role of		
	crisis and troubles		competitive strategy,		
	<ul> <li>Managing risks associated with</li> </ul>		Adomako et al,		
	rapid growth		Technovation, 2022		
			•		
			Entrepreneu		
			rship and growth:		
			the strategic use of		
			external resources, J.		
			Carlos Jarillo, Journal		
			of Business		
			Venturing, 1989		
			How do new  vontures grow? Firm		
			ventures grow? Firm		
			capabilities, growth		

12	Dynamic Capabilities and Agility  Dynamic capabilities: what are they?  The essence of dynamic capabilities and measurement  Dynamic capabilities and venture performance  Dynamic capabilities and organisational agility  Group Consultation	1,2,5,6	strategies and performance, Chen et al, International Journal of Research in Marketing, 2009 Reference:     Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they?. Strategic management journal, 21(10-11), 1105-1121.     Baškarada, S. and Koronios, A. (2018), "The 5S organizational agility framework: a dynamic capabilities perspective", International Journal of Organizational Analysis, Vol. 26 No. 2, pp. 331-342.     Teece, D.,	In- person	
			perspective", International Journal of Organizational Analysis, Vol. 26 No. 2, pp. 331-342.		
			Review, 58(4), 13–35.		
13	<ul> <li>Group Project Presentation</li> <li>Student in-class presentations</li> <li>Expert critics and learning review</li> <li>Debriefing</li> </ul>	1,2,4,5, 6		In- person	

# **Learning and Teaching Approach**

Approach	How does this approach support you in achieving the learning outcomes?
Reading	Intensive study is required to break into the field of managing growth.
	Students needs to read deeply to formulate a broad view of what makes a
	company tick, and with that grasp of on-going challenges, deciding which
	direction to grow becomes more informed, disciplined and intuitive.

Picking a specific topic of interest to write	To promote independent thinking and development of business judgment and linking to an area of direct interest to the student.
Individual research & networking with the entrepreneurs and executives	Students explore entrepreneurial ideas through peer-to-peer learning. Promotes intensive and authentic conversations about direction as well as gaps in understanding. The students are encouraged to approach entrepreneurs and understand their mentality, as well as the management style. Moving out of their comfort zone within the school, and reaching out to the industry, through their networks and cold calling to simulate how life is like as a new venture entrepreneur or management executive.

# Planned no. of hours for learning activities (across the entire course)

'Learning activities' refer to the range of activities students will engage in, in-person and online, to acquire the course's intended learning outcomes.

No.	Category	Planned no. of hours
1	Lecture-based sessions Learning activities where primarily, students receive content and perform notetaking.	33
2	Participation-based classroom sessions (Tutorials, Seminars) Learning activities where primarily, students are expected to engage actively with the instructor, their peers and the content.	6
3	In-house practical sessions (Labs) Learning activities where students engage in hands-on activities to conduct experiments, with the guidance of instructors, alongside peers, within the NTU campus.	NA
4	In-house practical sessions (Practicum) Learning activities where students engage in hands-on activities, with the guidance of instructors, alongside peers, within the NTU campus.	NA
5	Self-learning Learning activities where students are expected to engage in independent learning. For example, preparing for classes, labs and practicum, engaging in readings, completing quizzes or tasks.	NA
6	Others	NA
	Total planned no. of hours (across the entire course)	39

Estimated percentage of hours for online and in-person learning (based on the total planned no. of learning activity hours, across the entire course)

Percentage of online learning (Includes synchronous and asynchronous learning)	0
Percentage of in-person learning	100

#### **Assessment Structure**

Assessment Components (includes both continuous and summative assessment)

No.	Component	ILO	Related PLO or Accredit ation	Weightag e	Team / Individual	Rubrics	Level of Understanding
1	Class Participation	1, 2		20%	Individual	Analytic [Rubric 1*]	Relational
2	Mid-term Continuous Assessment	1, 2, 3		20%	Individual	QUIZ	Multi-structural
3	Group Project <sup>1</sup>	4,5,6		40%	Team	Analytic [Rubric 2*]	Multi-structural
4	Final Reflection Memo	1, 2, 5		20%	Individual	Analytic [Rubric 3*]	Relational
	Total			100%	Individual – 60% Team – 40%		

Description of Assessment Components (if applicable)					

<sup>&</sup>lt;sup>1</sup> Peer evaluation will be used in moderating the grading of project presentation and final written report for each individual team member's score.

#### Formative Feedback

Feedback will be provided to students. Ideas will be judged on their merit, impact, and feasibility. Students will be encouraged to "find their voice" during the team and individual presentations. At the same time, sufficient time will be provided to promote discourse and clarification, and to collectively derive a higher level of abstraction and deeper level of conviction so as to persuade. It is envisaged that the classroom environment should be more accommodating to encourage confidence building.

## **NTU Graduate Attributes/Competency Mapping**

This course intends to develop the following graduate attributes and competencies (maximum 5 most relevant)

No.	Attribute	Basic	Intermediate	Advanced	Level
1	Adaptability Exercise flexibility in behaviours or approaches to respond to changes and evolving contexts. If you have selected Value Creation, Design Thinking or Systems Thinking, consider deselecting Adaptability to minimize over-representation.	Modify behaviours and approaches to respond to changes and evolving contexts.	Manage change in evolving contexts.	Foster a culture of flexibility that caters to changes and evolving contexts.	
2	Collaboration Manage relationships and work collaboratively and effectively with others to achieve goals. If you have selected Project Management, Value Creation or Systems Thinking, consider deselecting Collaboration to minimize over- representation.	Contribute to a positive and cooperative working/learning environment by fulfilling own responsibilities, managing interpersonal relationships and providing support to others to achieve goals.	Build relationships and work effectively with various-stakeholders to create synergies in working towards shared goals.	Establish team effectiveness and manage partnerships to create a cooperative working/learning environment which enables the achievement of goals.	
14	Influence Effect changes in behaviours, beliefs or attitudes of others in order to achieve desired outcomes and solutions. If you have selected Design Thinking, consider deselecting Influence to minimize overrepresentation.	Demonstrate empathy to understand the feelings and actions of others and communicate in ways that limit misunderstandings and effect changes in others on operational issues.	Develop relationships with stakeholders to build confidence, alignment and communicate desired purpose, goals or objectives.	Build consensus with stakeholders to achieve desired outcomes on matters of strategic importance.	
15	Learning Agility Deploy different learning approaches which enable continuous learning across different contexts to drive self-development and the achievement of long-term career goals.  If you have selected Embrace Challenge, consider deselecting Learning Agility to minimize overrepresentation.	Identify opportunities and targets for learning to facilitate continuous personal and career development.	Deploy various learning approaches in different settings to maximise opportunities for learning and self- reflection and measure their impact on the achievement of personal and career goals.	Drive a culture of continuous learning to encourage the adoption of new learning approaches and identification of new learning opportunities.	
16	People Orientation Identify and respond to the needs of others whom one interacts directly	Identify and respond to the needs of others whom one interacts directly	Demonstrate an understanding of the needs or objectives of others to respond in a	Build relationships based on trust and demonstration of concern and	

	with in a manner that factors trust	with in a manner	way which factors	anticipation of	I
	with, in a manner that fosters trust and positive experiences. If you have selected Design Thinking, consider deselecting People Orientation to minimize over- representation.	with, in a manner that foster trust and positive experiences.	way which fosters trust and positive interactions.	anticipation of other's needs.	
17	Problem Solving Generate effective and efficient solutions to solve problems and capitalise on new opportunities. If you have selected Project Management, Value Creation, Critical Thinking, Design Thinking or Systems Thinking, consider deselecting Problem Solving to minimize over-representation.	Implement guidelines and procedures to solve identified common or simple problems and test solutions.	Collaborate with other stakeholders to implement and evaluate solutions to address determined causes of problems.	Drive a culture of continuous improvement which seeks to turn anticipated (potentially complex) problems into opportunities.	I
18	Self-Management Take ownership of managing one's personal effectiveness, personal growth and identity as well as holistic physical, mental, emotional and social well-being. If you have selected Information Literacy, consider deselecting Self-Management to minimize over-representation.	Exercise self- awareness by monitoring own behaviours and ways of working in personal and professional capacities and implement techniques for improvement.	Analyse own well- being and personal effectiveness to develop strategies to regulate self, personal growth and build personal identity.	Evaluate strategies to manage own well-being, personal effectiveness and personal identity and growth.	
19	Sense Making Leverage sources of qualitative and quantitative information and data to recognise patterns, spot opportunities, infer insights and inform decisions.  If you have selected Information Literacy, Critical Thinking or Systems Thinking, consider deselecting Sense Making to minimize over-representation.	Organise and interpret information to identify relationships and linkages.	Analyse information and data and uncover patterns, opportunities and impacts.	Evaluate relationships, patterns and trends to inform actions and generate wider insights.	
20	Transdisciplinarity Apply concepts from multiple disciplines and synthesise different areas of knowledge and insights to guide decisions, foster cooperation and drive continuous improvement. If you have selected Critical Thinking, Design Thinking or Systems Thinking, consider deselecting Transdisciplinarity to minimize over- representation.	Explore concepts from outside one's field of expertise to supplement one's knowledge, proficiency and work practice.	Identify opportunities for transdisciplinary collaboration and knowledge transfer to facilitate the integration of knowledge from different disciplines.	Endorse collaboration and the integration of knowledge across disciplines to make decisions and solve problems within and outside the organisation.	
No.	Competency The Competencies below are often composites of attributes with ADDITIONAL nuances/aspects as expressed in the descriptions. Please weigh the descriptions of the Attributes vs Competencies to select the best fits for your course's design/intent. If you choose one or more of these Competencies, please consider to DE-SELECT the attributes packaged under that Competency to limit redundancy and over-representation.	Basic	Intermediate	Advanced	Level
21	Information Literacy Recognize information needs, locate and evaluate the quality of information, store and retrieve information, make effective and ethical use of information, apply information to create and communicate knowledge.  Overlaps with: Decision making, Sense Making, Digital Fluency, Ethical Reasoning, Self-Management. If you have selected any of the above, please DESELECT them.	Identify misinformation, disinformation and ascertain reliable information sources.	Source, evaluate, analyze, and determine reliable and factual information and communicate ethically, responsibly, and effectively.	Source, evaluate, analyze, integrate, manage, and convey reliable and factual information to others ethically, responsibly, and effectively.	
22	Project Management Plan, execute, track and govern projects, including allocating and managing people resources, stakeholder engagement, time and budgets and problem resolution. Overlaps with: Communication, Decision Making, Problem Solving, Creative Thinking,	Implement project administration processes in accordance with project administration policies.	Manage small - medium scale projects or perform key functions that are critical to the operation of a project by implementing	Lead end-to-end management of large, complex projects or multiple projects concurrently.	

	Collaboration. If you have selected any of the above, please DESELECT them.		appropriate methodologies and tools.		
23	Value Creation Utilize deep mastery, innovation, and creativity to create new use for existing entity. Overlaps with: Communication, Problem Solving, Adaptability, Collaboration, Creative Thinking, Curiosity. If you have selected any of the above, please DESELECT them.	Identify personal, social, resource, and collective capital in questioning status quo.	Question status quo, collaborate with others and think "outside the box" in order to find innovative solutions.	Demonstrate a sense of higher purpose and to apply critical thinking and creativity in finding different approaches to solve problems and create new value for users.	I
24	Critical Thinking Examine, manage and connect issues and ideas from multiple perspectives to identify reasoning in a variety of fields with differing assumptions, contents, and methods. Overlaps with: Decision Making, Problem Solving, Sense Making, Transdisciplinarity, Creative Thinking. If you have selected any of the above, please DESELECT them.	Identify and examine problems to generate ideas and solutions.	Manage problems from multiple stakeholder perspectives to ensure that the ideas generated are best suited to address the problems.	Lead critical thinking processes to formulate connections between ideas and devise solutions to solve complex and unpredictable problems.	
25	Design Thinking Manage design thinking methodologies and processes to solve specific challenges, and guide stakeholders through the phases of inspiration, empathy, ideation and implementation. Overlaps with: Problem Solving, Adaptability, People Orientation, Influence, Creative Thinking, Transdisciplinarity. If you have selected any of the above, please DESELECT them.	Apply design thinking methodologies and execute design thinking processes to challenge norms and conventions in existing frameworks.	Facilitate and guide others to apply design thinking methodologies and to collectively challenge norms and conventions in existing frameworks.	Establish effective design thinking processes, methodologies and frameworks to proliferate design thinking across multiple stakeholder groups.	
26	Systems Thinking Identify, analyse and evaluate relationships among systems' parts, with the use of simulation tools and systems thinking techniques and frameworks to understand situations and drive change for improvements. Overlaps with: Sense Making, Problem Solving, Digital Fluency, Adaptability, Creative Thinking, Transdisciplinarity, Collaboration. If you have selected any of the above, please DESELECT them.	Examine the interactions of components within systems to attain holistic understanding of how the parts relate to one another.	Evaluate the interdependencies of different systems across the whole, to link patterns and trends across systems, programmes and/or operations.	Drive changes for strategic alignment of systems and processes across different stakeholder groups.	
5	Embrace Challenge Identify, adopt, and execute cutting- edge and innovative approaches that may disrupt mainstream practices amid an element of risk. Overlaps with: Creative Thinking, Curiosity, Decision making, Learning Agility. If you have selected any of the above, please DESELECT them.	Analyse and question current approaches to identify improvement opportunities and propose innovation initiatives that may pose an element of risk.	Adopt or formulate cutting-edge ideas to redesign current practices with a balanced weighing of feasibility vs risk of innovation initiatives.	Formulate and execute innovation strategies and lead radical changes to challenge and potentially disrupt mainstream practices, creating new processes or models amid an element of risk.	I

# **Course Policy**

Policy (Academic Integrity)

# **Academic Integrity**

Good academic work depends on honesty and ethical behaviour. 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, it 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, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the <u>academic integrity website</u> for more information.

On the use of technological tools (such as Generative AI tools), different courses / assignments have different intended learning outcomes. Students should refer to the specific assignment instructions on their use and requirements and/or consult your instructors on how you can use these tools to help your learning.

Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

#### Policy (General)

You are expected to complete all assigned pre-class readings and activities, attend all seminar classes punctually and take all scheduled assignments and tests by due dates. You are expected to take responsibility to follow up with course notes, assignments and course related announcements for seminar sessions you have missed. You are expected to participate in all seminar discussions and activities.

#### Policy (Absenteeism)

Absence from class without a valid reason will affect your overall course grade. Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies.

If you miss a lecture, you must inform the course instructor via email prior to the start of the class.

#### Policy (Others, if applicable)

## (3) Absence Due to Medical or Other Reasons

If you are sick and not able to attend a quiz or midterm, in addition to submitting your Medical Certificate (or other relevant document) to your school, you must submit a copy to your instructor and NTUpreneur administration to support your absence. As far as possible, make-up CA will be conducted. Otherwise, the missed assessment component will not be counted towards the final grade and the total course marks will be rescaled to a base of

100%. The original contribution of the CAs and the final examination towards the total course mark will remain changed.

#### (4) Submission Deadline

Assignments, projects, class exercises and any other assessable components must be submitted punctually. Marks will be deducted for late submission. Grades will be deducted accordingly (refer to below table) for assignments that are submitted after the stipulated deadline.

Timeframe:	Grading:
1st Day*	Mark down by one grade ('A-' → 'B+')
2nd Day	Mark down by two grades ('A-' → 'B')
3rd Day and part-thereof	Submitted assignment will not be accepted

<sup>\*</sup> After the stipulated submission deadline, it will be considered the next day.

#### **NTU Education Initiatives**

In this course, the following NTU2025 education initiatives are emphasised:

No.	Initiative	Description	Select
1	Interdisciplinary learning	Students learn through <b>applying more than one disciplinary framework</b> to solve problems or examine issues from different perspectives.	V
2	Collaborative learning	Students learn through <b>sharing and working with one another</b> to solve problems or address issues.	V
3	Experiential learning	Students learn through activities that have significant elements of <b>observation and reflection</b> of <b>concrete experience</b> .	

### **External Partners (if applicable)**

Indicate the organisation's type, name and describe the nature of involvement e.g., co-curation of course, speaker or instructor (include no. of course hours if known). Indicate 'TBC' if the information is not yet confirmed.

No.	Organisation Type	Organisation Name	Nature of involvement
1	NA	NA	NA
2	NA	NA	NA
3	NA	NA	NA