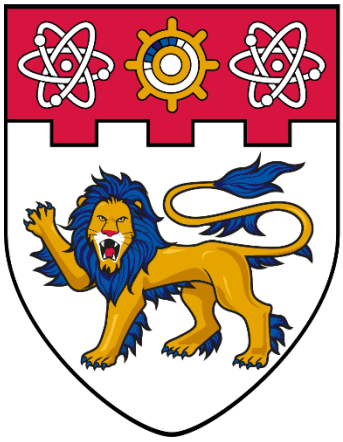


NANYANG TECHNOLOGICAL UNIVERSITY

SINGAPORE

CC0002 Navigating the Digital World (NDW)

Course Handbook for Students

AY2023/24 SEM 2

Contents

Intended Learning Outcome (ILO)

1. Apply
    a. Structured approaches to solve complex problems by breaking them into subproblems
    b. Quantitative reasoning to analyse data, guide problem-solving, and support decision making

2. Use
    a. Digital tools and technologies to search for, assess, analyse, develop, and share digital content and solutions through different media forms.

3. Interact and Collaborate
    a. Through digital platforms/channels.

4. Demonstrate
    a. One's use of digital technology and online presence responsibly, ethically, legally and with care.

5. Describe
    a. Current developments and issues in the digital world.

Learning Modules

Module 1: Computational Thinking and Problem Solving

Module 2: Quantitative Reasoning Techniques

Module 3: Managing Cybersecurity

Module 4: The World of Digital Misinformation

Module 5: Principles of Data Ethics in the Digital World

Module 6: Intellectual Properties, Rights and Data Privacy

Module 7: Latest and Emerging Technology Trends – Introduction to AI

Weekly Timetable

Students are required to attend in-class face-to-face two hours tutorials weekly conducted by tutors/instructors. Timetable (Table 1) is placed in such a way that students should complete video learning modules (VLMs) of that module before coming to tutorial class (e.g., student should complete module 1 VLM before coming to the module 1 tutorial class and so on). Students are required bring their laptop to weekly tutorial classes. Please note the class attendance is compulsory and is counted for class participation mark. During weekly in-class tutorial, you all will be working in a group, created by your respective tutors, to complete assigned module related activities and presenting your work to the class if selected by your respective tutors. Once the group is created, you all will be informed about your groups through the NTULearn Tutorial site.

Table 1: Weekly Timetable details

Week	Video Learning Modules releasing week. (Mode: Online)	Tutorial Topics (Mode: face – to-face)
Week 1 (15 Jan – 19 Jan)	Module 1	Introduction to CC0002
Week 2 (22 Jan – 26 Jan)	Modules 1 & 2	Module 1 Tutorial
Week 3 (29 Jan – 2 Feb)	Modules 1, 2 & 3	Module 1 Tutorial
Week 4 (5 Feb – 9 Feb)	Modules 2, 3 & 4	Module 2 Tutorial
Week 5 (12 Feb – 16 Feb)	Modules 3, 4 & 5	Module 2 Tutorial (Conducted as Home Based Learning (HBL)*
Week 6 (19 Feb – 23 Feb)	Modules 4, 5 & 6	Module 3 Tutorial
Week 7 (26 Feb – 1 Mar)	Modules 5, 6 & 7	Module 4 Tutorial + Project Consultation
Recess Week		

Week 8 (11 Mar – 15 Mar)	Modules 6 & 7	Module 5 Tutorial + Project Consultation
Week 9 (18 Mar – 22 Mar)	Module 7	Module 6 Tutorial
Week 10 (25 Mar – 29 Mar)	None	Module 7 Tutorial
Week 11 (1 Apr – 5 Apr)	None	Module 7 Tutorial
Week 12 (8 Apr – 12 Apr)	None	Team Project Presentation + Quiz
Week 13 (15 Apr – 19 Apr)	None	Team Project Presentation + Quiz makeup

Please Note: Holidays: 10-12th February 29th March, and 10th April. If your class falls on a holiday, your tutor will arrange for a makeup.

***All undergraduate programme courses will be conducted as HBL as per University's initiative on implementing the NTU-level e-learning week. All our CC0002 tutorials will be conducted in an online mode. (please note: this week also collides with Chinese New Year Holiday – tutors will arrange for an online makeup class).**

Please refer to the detailed breakdown (table 2 below) of weekly tutorials and instructions on flow of each tutorial classes planned.

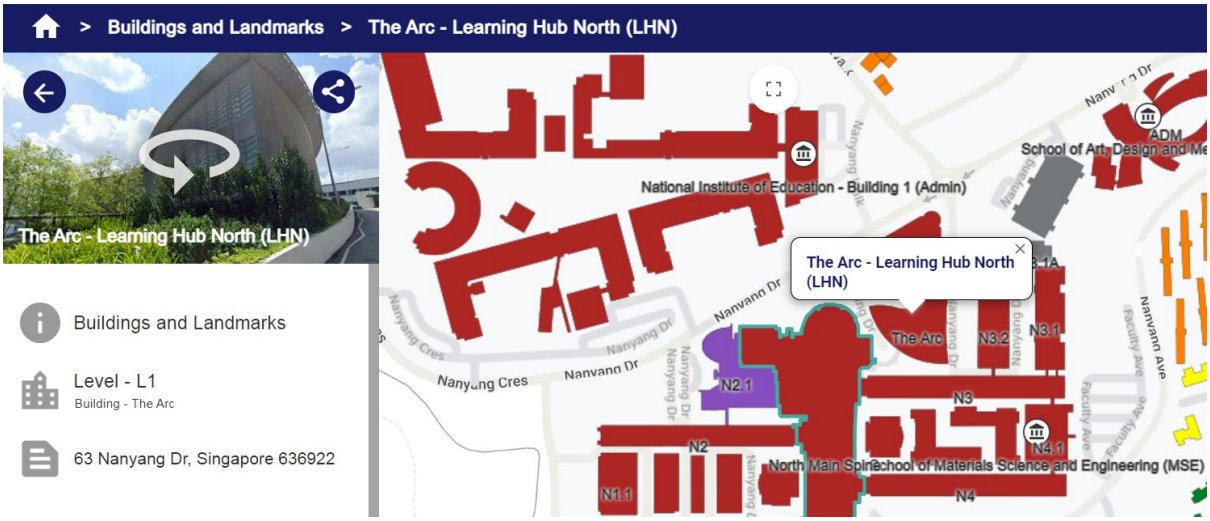
Table 2: Weekly plan

Week	VLM module	Tutorial Module	Tutorial Topic	Prerequisite
1 (15 Jan – 19 Jan)	Module 1	Introduction to CC0002	Briefing about CC0002 Handbook	None
2 (22 Jan – 26 Jan)	Module 1+ Module 2	Module 1: Computational thinking and problem solving	Module 1 Tutorial: Application of Computation Thinking to Solve 3D Mazes.	VLM of Module 1 3D maze manual
3 (29 Jan – 2 Feb)	Module 1+ Module 2 + Module 3	Module 1: Computational thinking and problem solving	Module 1 Tutorial: Application of CT concepts to Solve real-life/real-world examples.	VLM of Module 1
4 (5 Feb – 9 Feb)	Module 2 + Module 3 + Module 4	Module 2: Quantitative Reasoning	Module 2 Tutorial: Basics of Quantitative Reasoning.	VLM of Module 2 Basics of Excel Basics of Data Analysis
5 (12 Feb – 16 Feb)	Module 3 + Module 4 + Module 5	Module 2: Quantitative Reasoning	Module 2 Tutorial: Application of basic Quantitative Reasoning to real-world data. Please note – this is a HBL week conducted online.	VLM of Module 2 Week 4 Tutorial (Module 2 Tutorial: Basics of Quantitative Reasoning) Basics of Excel Basics of Data Analysis
6 (19 Feb – 23 Feb)	Module 4 + Module 5 + Module 6	Module 3: Managing Cybersecurity	Module 3 Tutorial: Understanding Digital Well Being and Ethics.	VLM of Module 3, Pre-Reading materials uploaded in NTULearn
7 (26 Feb – 1 Mar)	Module 5 + Module 6 + Module 7	Module 4: Digital Misinformation + Project Consultation	Module 4 Tutorial: Awareness on Fake News.	VLM of Module 4 Started work on their Team Project Assignment/ready with some draft version.
Recess Week				
8 (11 Mar – 15 Mar)	Module 6 + Module 7	Module 5: The Principles of Data Ethics + Project Consultation	Module 5 Tutorial: Importance of Digital Well Being and Ethics Awareness.	VLM of Module 5 Started work on their Team Project Assignment/ready with some draft version.
9 (18 Mar – 22 Mar)	Module 7	Module 6: IP & Copyright	Module 6 Tutorial: Understanding the importance of Intellectual Property Rights in Digital Creation & Solutioning.	VLM of module 6

10 (25 Mar – 29 Mar)	None	Module 7: Introduction to AI	Module 7 Tutorial: Design and Solve a 3D maze using GPT.	VLM of module 7
11 (1 Apr – 5 Apr)	None	Module 7: Introduction to AI	Module 7 Tutorial: Digital Learning & Adoption of Latest AI Innovations.	VLM of module 7
12 (8 Apr – 12 Apr)	None	Quiz + Team Project Presentation	Quiz + Team Project Presentation	Poster and video must be submitted.
13 (15 Apr – 19 Apr)	None	Team Project Presentation + Make up Quiz	Team Project Presentation + Make up Quiz	Poster and video must be submitted.

Weekly Timetable – Tutorial Venue: The Arc

All your weekly tutorials are conducted in The Arc tutorial rooms (TRs). Please check properly the TRs you are supposed to go before hand.



How to get there: https://maps.ntu.edu.sg/

Weekly Timetable – Tutorial Details

Refer to the Table 3 for detail about the tutorial groups and the respective tutors assigned. He/she will be your tutors for the entire semester 2 and you can contact him/her for any matters/queries related to your tutorials.

Table 3: Details of tutorials and tutors

Class Group	Day	Start Time	End Time	Venue	Instructor's Name	Title	Instructor's Email
T01	M	10:30	12:20	LHN-TR+04	Alex Chichung KOT	Prof	eackot@ntu.edu.sg
T02	M	10:30	12:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg
T03	M	10:30	12:20	LHN-TR+36	Vidya Sudarshan	Dr	vidya.sudarshan@ntu.edu.sg
T04	M	10:30	12:20	LHN-TR+37	Marc Low	Mr	ACWLow@ntu.edu.sg
T05	M	12:30	14:20	LHN-TR+04	Cheng Jiaxiang	Mr	JIAXIANG002@e.ntu.edu.sg
T06	M	12:30	14:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg
T07	M	12:30	14:20	LHN-TR+36	Ricky Chua	Dr	ricky.chua@ntu.edu.sg
T08	M	12:30	14:20	LHN-TR+37	Marc Low	Mr	ACWLow@ntu.edu.sg
T09	M	14:30	16:20	LHN-TR+04	Cheng Jiaxiang	Mr	JIAXIANG002@e.ntu.edu.sg
T10	M	14:30	16:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg

T11	M	14:30	16:20	LHN-TR+36	Vidya Sudarshan	Dr	vidya.sudarshan@ntu.edu.sg
T12	M	14:30	16:20	LHN-TR+37	Tan Yong Heng Michael	Mr	michael.tan@ntu.edu.sg
T13	M	16:30	18:20	LHN-TR+04	Tan Yong Heng Michael	Mr	michael.tan@ntu.edu.sg
T14	M	16:30	18:20	LHN-TR+30	Vidya Sudarshan	Dr	vidya.sudarshan@ntu.edu.sg
T15	T	10:30	12:20	LHN-TR+04	Koh Kian Hoe Benjamin	Mr	benjamin.koh@ntu.edu.sg
T16	T	10:30	12:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg
T17	T	10:30	12:20	LHN-TR+36	Josephine Chong	Dr	josephine.chong@ntu.edu.sg
T18	T	10:30	12:20	LHN-TR+37	Ricky Chua	Dr	ricky.chua@ntu.edu.sg
T19	T	12:30	14:20	LHN-TR+04	Vidya B	Dr	bvidya@ntu.edu.sg
T20	T	12:30	14:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg
T21	T	12:30	14:20	LHN-TR+36	Ricky Chua	Dr	ricky.chua@ntu.edu.sg
T22	T	12:30	14:20	LHN-TR+37	Mohammed Yakoob Siyal	Assoc Prof	eyakoob@ntu.edu.sg
T23	T	14:30	16:20	LHN-TR+04	Vidya B	Dr	bvidya@ntu.edu.sg
T24	T	14:30	16:20	LHN-TR+30	Tan Yong Heng Michael	Mr	michael.tan@ntu.edu.sg
T25	T	14:30	16:20	LHN-TR+36	Josephine Chong	Dr	josephine.chong@ntu.edu.sg
T26	T	14:30	16:20	LHN-TR+37	Marc Low	Mr	ACWLow@ntu.edu.sg
T27	T	16:30	18:20	LHN-TR+04	Michael	Mr	michael.tan@ntu.edu.sg
T28	T	16:30	18:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg
T29	W	10:30	12:20	LHN-TR+04	Ricky Chua	Dr	ricky.chua@ntu.edu.sg
T30	W	10:30	12:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg
T31	W	10:30	12:20	LHN-TR+36	Marc Low	Mr	ACWLow@ntu.edu.sg
T32	W	10:30	12:20	LHN-TR+37	Vijay Sethi	Prof	avsethi@ntu.edu.sg
T33	W	12:30	14:20	LHN-TR+04	Mohammed Yakoob Siyal	Assoc Prof	eyakoob@ntu.edu.sg
T34	W	12:30	14:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg
T35	W	12:30	14:20	LHN-TR+36	Ricky Chua	Dr	ricky.chua@ntu.edu.sg
T36	W	12:30	14:20	LHN-TR+37	Vijay Sethi	Prof	avsethi@ntu.edu.sg
T37	W	14:30	16:20	LHN-TR+04	Zhou Xing	Assoc Prof	exzhou@ntu.edu.sg
T38	W	14:30	16:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg
T39	W	14:30	16:20	LHN-TR+36	Marc Low	Mr	ACWLow@ntu.edu.sg
T40	W	14:30	16:20	LHN-TR+37	Ricky Chua	Dr	ricky.chua@ntu.edu.sg
T41	W	16:30	18:20	LHN-TR+04	Fannie Zhang	Dr	fannie.zhang@ntu.edu.sg
T42	W	16:30	18:20	LHN-TR+30	Leedham Charles Graham	Dr	graham.leedham@ntu.edu.sg
T43	TH	10:30	12:20	LHN-TR+04	Neerja Sethi	Ms	aneerja@ntu.edu.sg
T44	TH	10:30	12:20	LHN-TR+30	Koh Kian Hoe Benjamin	Mr	benjamin.koh@ntu.edu.sg
T45	TH	10:30	12:20	LHN-TR+36	Loo Dong Lin	Mr	donglin.loo@ntu.edu.sg
T46	TH	10:30	12:20	LHN-TR+37	Ong Chin Ann	Dr	chinann.ong@ntu.edu.sg
T47	TH	12:30	14:20	LHN-TR+04	Neerja Sethi	Ms	aneerja@ntu.edu.sg
T48	TH	12:30	14:20	LHN-TR+30	Koh Kian Hoe Benjamin	Mr	benjamin.koh@ntu.edu.sg
T49	TH	12:30	14:20	LHN-TR+36	Marc Low	Mr	ACWLow@ntu.edu.sg
T50	TH	12:30	14:20	LHN-TR+37	Loo Dong Lin	Mr	donglin.loo@ntu.edu.sg
T51	TH	14:30	16:20	LHN-TR+04	FWJ	Assoc Prof	ewjfan@ntu.edu.sg

T52	TH	14:30	16:20	LHN-TR+30	Liu Yu	Dr	yu.liu@ntu.edu.sg
T53	TH	14:30	16:20	LHN-TR+36	Ong Chin Ann	Dr	chinann.ong@ntu.edu.sg
T54	TH	14:30	16:20	LHN-TR+37	Ricky Chua	Dr	ricky.chua@ntu.edu.sg
T55	TH	16:30	18:20	LHN-TR+04	Marc Low	Mr	ACWLow@ntu.edu.sg
T56	TH	16:30	18:20	LHN-TR+30	Loo Dong Lin	Mr	donglin.loo@ntu.edu.sg
T57	F	10:30	12:20	LHN-TR+04	Neerja Sethi	Ms	aneerja@ntu.edu.sg
T58	F	10:30	12:20	LHN-TR+30	LYH	Assoc Prof	eyhlee@ntu.edu.sg
T59	F	10:30	12:20	LHN-TR+36	Ong Chin Ann	Dr	chinann.ong@ntu.edu.sg
T60	F	10:30	12:20	LHN-TR+37	Vijay Sethi	Prof	avsethi@ntu.edu.sg
T61	F	12:30	14:20	LHN-TR+04	Marc Low	Mr	ACWLow@ntu.edu.sg
T62	F	12:30	14:20	LHN-TR+30	Loo Dong Lin	Mr	donglin.loo@ntu.edu.sg
T63	F	12:30	14:20	LHN-TR+36	Vijay Sethi	Prof	avsethi@ntu.edu.sg
T64	F	12:30	14:20	LHN-TR+37	Vidya Sudarshan	Dr	vidya.sudarshan@ntu.edu.sg
T65	F	14:30	16:20	LHN-TR+04	Marc Low	Mr	ACWLow@ntu.edu.sg
T66	F	14:30	16:20	LHN-TR+30	Tan Yong Heng Michael	Mr	michael.tan@ntu.edu.sg
T67	F	14:30	16:20	LHN-TR+36	Loo Dong Lin	Mr	donglin.loo@ntu.edu.sg
T68	F	14:30	16:20	LHN-TR+37	Josephine Chong	Dr	josephine.chong@ntu.edu.sg
T69	F	16:30	18:20	LHN-TR+04	Fannie Zhang	Dr	fannie.zhang@ntu.edu.sg
T70	F	16:30	18:20	LHN-TR+30	Tan Yong Heng Michael	Mr	michael.tan@ntu.edu.sg

CC0002 Assessments

This course has four assessment components – (1) VLMs, (2) Quiz, (3) Team Project Assignment, (4) Class Participation including in-class presentation and discussion. Individual assessments contribute 55% and group assessments contribute 45% to the total score. Please refer to the table 4 below for breakdown of each.

Table 4: Assessment components and weightage

Assessment Components	Individual / Group	Weighting
Video Learning Modules (VLMs)	Individual	10%
Quiz	Individual	35%
Team Project Assignment (+ Peer Evaluation) 1. Project work 2. Project Presentation	Group	20% 15%
Class Participation, in-class Presentation and Discussion	Individual + Group	10% (class participation) +10% (in-class presentation and discussion)

1. Individual Assessment – Video Learning Module (VLM) (10% weightage)

Video learning Module contains videos, related to weekly modules, to be watched online and requires the student to answer few Knowledge Check (KC) questions at the same time. Every Monday of the week starting from week 1, videos are released, and students have few days from the day of release to complete this assessment. This is a **single attempt** assessment, and **No extension** is given for this assessment to any kind of request. Please refer to the table 5 below to mark **the releasing dates and deadlines** set for these VLMs every week.

Table 5: VLMs – Important Dates

Releasing Week - Modules	Video Learning Modules releasing date	Video Learning Modules deadline
Week 1 – Module 1 (15 Jan – 19 Jan)	15th January 8:00am	2nd February 11:59pm
Week 2 – Module 2 (22 Jan – 26 Jan)	22nd January 8:00am	9th February 11:59pm
Week 3 – Module 3 (29 Jan – 2 Feb)	29th January 8:00am	16th February 11:59pm
Week 4 – Module 4 (5 Feb – 9 Feb)	5th February 8:00am	23rd February 11:59pm
Week 5 – Module 5 (12 Feb – 16 Feb)	12th February 8:00am	1st March 11:59pm
Week 6 – Module 6 (19 Feb – 23 Feb)	19th February 8:00am	15th March 11:59pm
Week 7 – Module 7 (26 Feb – 1 Mar)	26th February 8:00am	22nd March 11:59pm

2. Individual Assessment – Quiz (35% weightage)

This course has one quiz which is conducted on **week 12 (11th April 2024, Thursday),** at in-campus lecture theatres (LTs) (exact venue and other required details will be announced on Week 10), and quiz component contribute 35% weightage to the total score. Quiz contains **50**

MCQ based questions to be answered in 40 minutes; syllabus includes all 7 modules which are covered in this course and in addition, VLMs concepts, tutorial materials and additional reading materials are included for quiz. **Scope of the quiz will be announced on Week 8** in NTULearn. Please refer to the table 6 below to mark your quiz session and timings.

Table 6: Quiz session details

Venue	Tutorial Class (Session)	Chief Invigilator	Invigilators
To be announced on Week 10	T01 to T05 (S1) T32 to T36 (S2)	Mr. Tan Yong Heng Michael	Cheng Jiaxiang
	T06 to T11 (S1) T37 to T42 (S2)	A/P Mohammed Yakoob Siyal	Neerja Sethi
	T12 to T17 (S1) T43 to T48 (S2)	Prof Vijay Sethi	Fannie Zhang
	T18 to T22 (S1) T49 to T53 (S2)	Dr Josephine Chong	Ong Chin Ann
	T23 to T31 (S1) T54 to T62 (S2)	Dr Vidya Sudarshan	Loo Dong Lin
	T63 to T66 (S1) T67 to T70 (S2)	A/P Zhou Xing	Koh Kian Hoe Benjamin

Session 1 (S1) is from 6:45pm – 7:45pm and session 2 (S2) from 8 pm – 9 pm. More details are as follows,

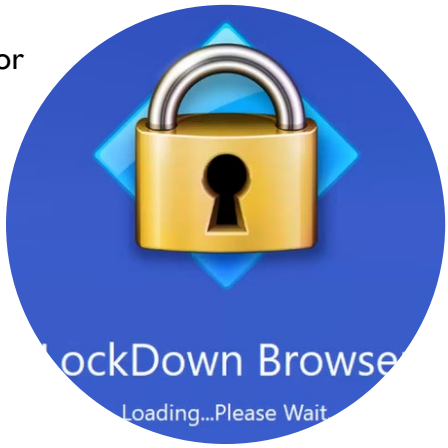
- 6:30pm – 6:45pm (Venue preparation)
- 6:45pm – 7:00pm (Session 1 enters quiz venue)

- **7:00pm – 7:40pm (Session 1 quiz)**
- 7:40pm – 8:00pm (Session 1 leaves quiz venue)
- 8:00pm – 8:15pm (Session 2 enters quiz venue)
- **8:15pm – 8:55pm (Session 2 quiz)**
- 8:55pm (Session 2 leaves quiz venue)

Students are required to bring their own laptop (fully charged) to the quiz venue, with lockdown browser software installed and tested using the mock quiz (**released on Week 10** in NTULearn tutorial site).

To install Respondus Lockdown Browser:

Go to NTU intranet and click on ServiceNow@NTUSearch for "Respondus Lockdown Browser and Monitor". Click on "How to Take Online Test with Respondus Lockdown Browser and Monitor". If you encounter issues such as downloading or testing the lockdown browser, please contact Center for IT Services (CITS) directly.



Quiz - Attendance

Note: Attendance is compulsory and will be taken during the quiz. If unable to attend the quiz due to the following reasons,

- ✓ Medical Certificate
- ✓ Compassionate Reason(s)
- ✓ Official Leave of Absence (LOA) from School
- ✓ Technical errors faced during main quiz (with attendance taken)
- ✓ Others (case by case considerations)

please follow the procedure mentioned below to notify us if you are unable to attend or complete the quiz,

- Go to https://forms.office.com/r/LzUuzkiTMy to notify us if you are unable to attend with a valid reason listed above.

- Submission is to be done by student, not by tutor.
- Documentary proof of reason must be provided.
- If tested covid positive, image of ART test alongside your identity document is sufficient to be the documentary proof.
- **Email notification will not be accepted.**

3. Group Assessment – Team Project Assignment (35% weightage)

Team Project assignment is one of the group assessment components which is divided into two sub-components: (1) Project work, and (2) Project presentation. Project work contribute 20% whereas the project presentation 15% to the total score.

3.1 Project Work – Innovative Cross-Module Project

In this exciting assignment, each group will unleash their creative thinking and problem-solving skills by proposing an innovative idea that spans at least two out of seven modules they studied in this course. Your task is to identify problem statements within the selected/chosen CC0002 modules and to propose an approach to solve or tackle those problems. This project will not only demonstrate your interdisciplinary thinking but also showcase the practical application of concepts studied in CC0002 in solving real-world challenges. The assignment consists of crafting a comprehensive project proposal by creating an informative digital poster and producing a captivating video to highlight your project's uniqueness in the AI based digital landscape. Refer to the assignment deliverables and components below for more details.

3.2 Project Presentation

Each group to present their project work starting from week 12 and Week 13. Five groups will be presenting their work on week 12 and the remaining five groups will be presenting on week 13. The sequence of your presentation will be announced to you all by your respective instructors. On the presentation day – each group will be given 15 minutes where - in 10 minutes using their digital poster/power point slides, **each member of the team should present their part** they have worked to complete this project. Remaining 5 minutes will be allocated for questions and answers session.

Project Assignment Deliverables:

1. Digital poster
2. Five-minute video created using generated AI.
3. Presentation
    a. Using digital poster/power point slides
    b. Question and Answer

Project Assignment Components (both Project work + Presentation):

1. Idea Proposal and Problem Statement:
    - As a group, select two modules from the CC0002 course that you believe can be combined to address a meaningful real-world challenge.
    - Identify specific problem statements within these chosen modules that your project aims to solve or answer.
    - Present a concise proposal outlining your idea, including how it relates to both modules and why it's worth pursuing.
2. Detailed Design Approach:
    - Explain the data sources that will fuel your project, detailing their relevance to each module and the overall problem.
    - Elaborate on the analysis methods and approaches you intend to employ. Compare the novelty of your approach with existing solutions.
    - Discuss how your innovative fusion of concepts from the two modules contributes to a more holistic solution.
    - Your design approach should be backed up with proper review of research work or journal articles.
3. Outcome and Future Possibilities:
    - Clearly define the anticipated outcome of your design approach. Will it answer or solve the identified problem statements?
    - Reflect on the potential impact of your project in addressing the challenges at hand using CC0002 concepts.

- Envision and describe possible future directions for your project, such as extensions, improvements, or applications in related domains.

4. Poster Creation and Presentation:
    - Create a visually appealing digital poster of size A0 or A1 (Portrait/Landscape) that concisely summarizes your project.
    - Include above mentioned 3 sections that introduce the problem statements, outline your approach, highlight key findings, and provide a glimpse of future possibilities.
    - Utilize visuals, diagrams, and infographics to make your poster engaging and easy to understand.
    - Your group will be presenting this created poster either using the poster or power point slides **in ten minutes** during the presentation slot allocated either in week 12 or week 13.
    - Samples of posters will be uploaded in NTULearn for your reference.
5. Video Creation:
    - Develop a dynamic 4 – 5 minutes **video** using any generative AI tools of your choice that effectively communicates your project's essence and value.
    - Begin with a captivating introduction that hooks the audience and emphasizes the significance of your project design approach in the AI-driven digital world.
    - Provide an overview of the problem statements, showcasing your interdisciplinary approach.
    - Explain the data-driven and AI-powered (if any) components of your design approach, taken to obtain solution to the problem statements, by highlighting the novel aspects of your project compared to existing ones.
    - Conclude with a forward-looking segment that discusses the broader implications and potential future applications of your project.
    - Samples of videos will be uploaded in NTULearn for your reference.

6. Submission Guidelines:

- Submit your detailed project proposal poster in a digital format, and a link to your video. No report submission is required, only the poster and video developed must be submitted before the deadline.

Deadline to submit poster + video of your project work is on Sunday 7th, April, 11:59pm (before the presentation).

- Make sure to acknowledge any external resources used and provide references where necessary.
- Your project will be evaluated based on the originality and feasibility of your idea, the clarity of your design approach, the effectiveness of your poster and the use of generative AI tools for video creation and creativity of your video.

Through this assignment, you will not only showcase your expertise in multiple modules but also illustrate your ability to synthesize knowledge from different areas to develop innovative ideas and approach to solve a real-world problem. Your work will stand as a testament to the power of AI-driven problem-solving in today's digital age.

Please refer the table 7 below for rubrics

Table 7: Team Project Assignment Rubric

Criteria	Outstanding	Average	Below Average/Poor	Max Score
Project Work				
Poster				
Poster	**Content and Creativity** The poster was well organized and clearly written. The underlying logic was clearly articulated and easy to follow. Words were chosen that precisely expressed the intended meaning and supported reader comprehension. Diagrams or analyses enhanced and clarified presentation of ideas. Sentences were grammatical and free from errors.	**Content and Creativity** The poster was organised and clearly written for the most part. In some areas the logic and/or flow of ideas were difficult to follow. Words were well chosen with some minor expectations. Diagrams were consistent with the text. Sentences were mostly grammatical and/or only a few spelling errors were present, but they did not hinder the reader.	**Content and Creativity** The poster lacked overall organisation. The reader had to make considerable effort to understand the underlying logic and flow of ideas. Diagrams were absent or inconsistent with the text. Grammatical and spelling errors made it difficult for the reader to interpret the text in places.	**4**
	Contribution All requirements and objectives are identified, evaluated, and completed. The deliverable offered new information or approach to the topic under discussion. Likewise, the application is based on stated criteria, analysis, and constraints.	**Contribution** All requirements are identified and evaluated but some objectives are not completed. The deliverable offered some new information or approach to the topic under discussion. The application is reasonable; further analysis of some of the alternatives or constraints may have led to a different recommendation.	**Contribution** Many requirements and objectives are not identified, evaluated and/or completed. The deliverable offered no new information or approach to the topic under discussion. Few application considerations are analysed, and other factors were ignored or incompletely analysed.	**2**

	Subject Knowledge The deliverable demonstrated knowledge of the course content by integrating major and minor concepts into the response. The deliverable also demonstrated evidence of extensive research effort and a depth of thinking about the topic.	**Subject Knowledge** The deliverable demonstrated knowledge of the course content by integrating major concepts into the response. The deliverable also demonstrated evidence of limited research effort and/or initial of thinking about the topic.	**Subject Knowledge** The deliverable did not demonstrate knowledge of the course content, evidence of the research effort or depth of thinking about the topic.	**2**
	Supporting material All relevant information was obtained, and information sources were valid. Analysis and design considerations were well supported by the information.	**Supporting material** Sufficient information was obtained, and most sources were valid. Analysis and design considerations were mostly supported by the information.	**Supporting material** Insufficient information was obtained and/or sources lack validity. Analysis and design considerations were not supported by the information collected.	**2**
				Total = 10
Video				
Video	**Video Delivery** The demonstration was imaginative and effective in conveying ideas to the audience. Developed using generative AI tools.	**Video Delivery** The demonstration techniques used were effective in conveying main ideas, but a bit unimaginative. Only some parts are developed using generative AI tools.	**Video Delivery** The demonstration failed to capture the interest of the audience and/or is confusing in what was communicated. Generative AI tools are not used in video creation.	**4**
	Content and Creativity The video was well organized and clearly narrated. The underlying logic was clearly articulated and easy to follow. Audio words were chosen that precisely expressed the intended meaning and supported audience comprehension. Diagrams/Figures/Illustration or analyses enhanced and clarified	**Content and Creativity** The video was organised and clearly narrated for the most part. In some areas the logic and/or flow of ideas were difficult to follow. Audio words were well chosen with some minor expectations. Diagrams/Figures/Illustration were consistent with the text. Audio words were mostly grammatical and/or only a few	**Content and Creativity** The video lacked overall organisation. The audience had to make considerable effort to understand the underlying logic and flow of ideas. Diagrams/Figures/Illustrations were absent or inconsistent with the text. Grammatical and spelling errors made it difficult for the audience to interpret the audio words in places.	**4**

	ideas. Audio words were grammatical and free from errors.	spelling errors were present, but they did not hinder the audience.		
	Time Management Within 1-2 minutes to the time limit	**Time Management** Within 3 minutes to the time limit	**Time Management** Video either exceeds or falls behind the time limit.	**2**
				Total = 10
Presentation				
Effectiveness	Presentation includes all/most of the material needed to deliver a comfortable understanding of the topic.	Presentation is incomplete but still understandable.	Presentation is lacking multiple key elements and no longer comprehensible.	**2**
Speaking Skills and Participation	Every team member spoke and participated at a very high and balanced level. Speakers demonstrated good volume; enthusiasm and confidence was exuded.	Team members were mostly audible and / or fluent on the topic. Not all team members spoke or participated in a high and balanced level. Speakers demonstrated fair volume, and light discomfort with public speaking was exuded.	Team members were often inaudible and/or hesitant and relied heavily on notes. A high level of discomfort with public speaking was exuded.	**2**
Sequencing of Information	Most information is organized in a clear, logical way. It is easy to anticipate the type of material that might be on the next slides.	One can still see some logical connection between slides. However, few slides are out of place.	There is no clear plan for the organizing of information.	**2**
Time Management	Within 1-2 minutes to the time limit	Within 3 minutes to the time limit	Presentation either exceeds or falls behind the time limit.	**2**
Question and Answer (Knowledge)	Team demonstrated high level of subject knowledge through their answers to all the questions asked.	Team demonstrated moderate level of subject knowledge through their answers to few of the questions asked.	Team could not demonstrate the subject knowledge – not able to answer most of the questions asked.	**6**

Professionalism	Completely professional. Students are ready for presentation and respectful to other presenters.	Presentation contains typos or lack of organization among members during presentation.	Students being late for their presentation or unrespectful to other presenters.	**1**
				Total: 15

3.3 Team Project Assignment + Peer Evaluation

Team project score is subjected to adjustment based on peer evaluation. Please refer to the table 8 below for more details on the adjustment done.

Table 8: Project Score Adjustment

Average Rating Range (min: 1; max: 9)	Marks Deduction (out of 100%)	Final Adjusted Marks (out of 100%)
≥ 6.5	0%	Original team assignment mark (**M%**)
≥ 5.5 to < 6.5	-5%	**M%** – 5%
≥ 4.0 to < 5.5	-10%	**M%** – 10%
≥ 3.0 to < 4.0	-15%	**M%** – 15%
> 1.0 to < 3.0	-20%	**M%** – 20%
= 1.0	**-M%**	0%

1. All team members are expected to complete the peer evaluation for all other members in the team (i.e., self-assessment is not required). ***Should a student fail to complete the peer evaluation of all other members in his/her group, 5% will be deducted from the student's final team assignment mark.***
2. All assessments and qualitative comments are *confidential*. (Note: *Students should avoid identifying themselves in any manner when providing qualitative comments to their team members.*)
3. Please complete the peer evaluation through the evaluation platform in NTULearn (enabled in week 8) for all your team members for the team assignment no later than **deadline 18th April 2024.**
4. Each member's average rating given by his/her team members will be used to determine the final team assignment marks awarded to each member.
5. Please note that the teaching team reserves the right to adjust students' final team assignment marks based on additional considerations including gathered information, certified special education needs (SEN), and medical diagnosis.

4. Group Assessment – Class Participation (10% weightage) + in-class Presentation & Discussion (10% weightage)

Students are required to attend the tutorials weekly they are assigned, and **attendance is compulsory**. In each tutorial, the participation of student as individual and as a team in discussion, presentation and any other mode of assessments given by their respective tutor will be graded. Individual class participation score might get affected if that student's attendance is poor without a valid reason. Class participation carries **weightage of 10% whereas in-class presentation by team & discussion carries weightage of 10%** to the total marks.

Table 9: Weekly Class Participation + in-class presentation & discussion Rubrics

Criteria	Scores			Total Scores
	1-3	4-6	7-10	
Class Participation (individual assessment)				**10 marks**
Attendance	<50%	50-75%	>75%	4
Frequency of participation	Student never initiates any contribution in all the tutorials	Student initiates contribution once in each tutorial or at least in half of the total tutorials covered	Student initiates contributions more than once in each tutorial	3
Listening skills	Does not listen or inattentive; regularly talks/makes disruptive comments or does not pay attention while others speak; distracts from discussion, sleeps etc.	Students mostly attentive when others present their work but sometimes displays lack of interest in comments/presentation of others.	Student listens attentively when others present. Actively and respectfully listens to peers and instructor	3
In-class Presentation & Discussion (Group Assessment)				**10 marks**
In-class Team Presentation	Not showing any interest or enough effort in in-class presentation	Some interest shown or effort is made in in-class presentation	Always shown interest or good effort shown and efficiency in in-class presentation	5
Team Participation in in-Class Discussion and completion	Low contribution and no work completed	Some contribution in in-class discussion and completed some tutorial activities	Contributing to much of the learning in the class discussion and always complete the	5

of tutorial work assigned			tutorial work assigned	

5. Miscellaneous Information – Contact details

For course related matter, contact icc-cc0002@ntu.edu.sg. For tutorial class related matter, contact your individual tutor (email address from Table 3).