## Annexe A: New/Revised Course Content in OBTL+ Format

## **Course Overview**

The sections shown on this interface are based on the templates <u>UG OBTL+</u> or <u>PG OBTL+</u>

If you are revising/duplicating an existing course and do not see the pre-filled contents you expect in the subsequent sections e.g. Course Aims, Intended Learning Outcomes etc. please refer to <a href="Data Transformation Status">Data Transformation Status</a> for more information.

Expected Implementation in Academic Year	AY2023-2024
Semester/Trimester/Others (specify approx. Start/End date)	Semester 2
Course Author  * Faculty proposing/revising the course	Assistant Professor Chen Yupeng
Course Author Email	ypchen@ntu.edu.sg
Course Title	Modern Technologies in Marketing
Course Code	BM2516
Academic Units	3
Contact Hours	39
Research Experience Components	

## Course Requisites (if applicable)

Pre-requisites	None
Co-requisites	
Pre-requisite to	
Mutually exclusive to	
Replacement course to	
Remarks (if any)	

## **Course Aims**

Technology has been the key driver behind current marketing practices. This course is designed to introduce you to modern technologies that have found successful marketing applications (e.g., text mining, deep learning, recommendation systems), and emerging technologies that hold great promise for transforming marketing practices (e.g., neuro-marketing, chatbots, internet of things). It aims to help you develop an intuitive understanding of the fundamental logic of the surveyed technologies, and gain knowledge about how these technologies can be used to improve marketing practices. This course is suitable for second-and third-year marketing students, and business students from other specializations who are interested in the applications of technologies in marketing. By the end of the course, you will be equipped with a conceptual framework and domain knowledge for analyzing how technologies are transforming marketing practices and identifying areas in which current practices can be improved by modern and emerging technologies. These skills are valuable for a career in marketing management, marketing analytics, and marketing research.

## Course's Intended Learning Outcomes (ILOs)

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

ILO 1	Articulate the rationales behind and the key mechanisms of the technologies discussed in the course.
ILO 2	Explain how the technologies can be used to enable and improve marketing practices.
ILO 3	Identify areas in which marketing practices can be made more effective by appropriate applications of modern and emerging technologies.

#### **Course Content**

This course will cover the following topics: A/B testing, text mining for review analysis, deep learning for image analysis, eye-tracking, neuro-marketing, blockchain, personalized marketing, recommendation system, chatbot, and internet of things.

## Reading and References (if applicable)

Anderson, Eric, Duncan Simester. 2011. "A Step-by-Step Guide to Smart Business Experiments". Harvard Business Review. Bonner, Anne. 2019. "The Complete Beginners Guide to Deep Learning". https://towardsdatascience.com/intro-to-deep-learning-c025efd92535Cha, Bonnie. 2015. "A Beginner's Guide to Understanding the Internet of Things".https://www.vox.com/2015/1/15/11557782/a-beginners-guide-to-understanding-the-internet-of-thingsChua, Roger. 2019. "A Simple Way to Explain the Recommendation Engine in Al". https://medium.com/voice-tech-podcast/a-simple-way-to-explain-the-recommendation-engine-in-ai-d1a609f59d97Farnsworth, Bryn. 2018. "Eye Tracking: The Complete Pocket Guide". https://imotions.com/blog/eye-tracking/Harrell, Eben. 2019. "Neuromarketing: What You Need to Know". Harvard Business Review. Kannan, P.V., Josh Bernoff. 2019. "Does Your Company Really Need a Chatbot?". Harvard Business Review.Matz, Sandra, Michal Kosinski, Gideon Nave, David Stillwell. 2017. "Psychological Targeting as an Effective Approach to Digital Mass Persuasion". Proceedings of the National Academy of Sciences, 114(48), 12714-12719.MonkeyLearn. 2020. "Text Mining: The Beginner's Guide". https://monkeylearn.com/text-mining/Rosic, Ameer. 2020. "What is Blockchain Technology? A Step-by-Step Guide for Beginners". https://blockgeeks.com/guides/what-is-blockchain-technology/#A\_blockchain\_carries\_no\_transaction\_cost

# **Planned Schedule**

Week or Session	Topics or Themes	ILO	Readings	Delivery Mode	Activities
1	Introduction	ILO 1	N/A		N/A
2	A/B Testing	ILO 1, 2, 3	Anderson and Simester (2011)		Anderson and Simester (2011)
3	Text Mining for Review Analysis	ILO 1, 2, 3	MonkeyLearn (2020)		MonkeyLear n (2020)
4	Deep Learning for Image Analysis	ILO 1, 2, 3	Bonner (2019)		Bonner (2019)
5	Eye-Tracking	ILO 1, 2, 3	Farnsworth (2018)		Farnsworth (2018)
6	Neuro- Marketing	ILO 1, 2, 3	Harrell (2019)		Harrell (2019)
7	E-Learning: Blockchain	ILO 1, 2, 3	Rosic (2020)		Rosic (2020)
8	Personalization and Targeting	ILO 1, 2, 3	Matz et al. (2017)		Matz et al. (2017)
9	Recommendatio n System	ILO 1, 2, 3	Chua (2019)		Chua (2019)
10	Chatbot	ILO 1, 2, 3	Kannan and Bernoff (2019)		Kannan and Bernoff (2019)
11	Internet of Things	ILO 1, 2, 3	Cha (2015)		Cha (2015)
12	Group Project Presentation	ILO 3	N/A		

Week or Session	Topics or Themes	ILO	Readings	Delivery Mode	Activities
13	Quiz	ILO 1,2, 3	N/A		N/A

# Learning and Teaching Approach

Approach	How does this approach support you in achieving the learning outcomes?
Seminar s	Seminars allow the instructor to convey the concepts clearly to the entire class. They also allow you to think critically and share your ideas with peers in class.
Cases	Cases require you to apply concepts learned in class to analyze various marketing practices.
Group Project	The group project allows you to apply concepts learned in class to develop plans for improving the current marketing practices.
Quiz	The quiz tests your understanding of the concepts taught in class and your ability to apply these concepts to solve problems facing marketing practitioners.

#### Assessment Structure

Assessment Components (includes both continuous and summative assessment)

No.	Component	ILO	Related PLO or Accreditation	Weightage	Team/Individual	Rubrics	Level of Understanding
1	Continuous Assessment (CA): Class Participation(Participation)	1,2,3	Class Participation	10	Individual		
2	Continuous Assessment (CA): Report/Case study(Case Presentation (not all members are required to present))	1,2	Critical Thinking	20	Team		
3	Continuous Assessment (CA): Project(Group Project – Written Report)	3	Problem Solving & Decision Making	25	Team		
4	Continuous Assessment (CA): Project(Group Project – Presentation (All members are required to present))	3	Oral Communication	10	Individual		
5	Continuous Assessment (CA): Test/Quiz(Quiz)	1,2,3	Problem Solving & Decision Making	35	Individual		

#### Description of Assessment Components (if applicable)

As the case presentations and the written report for the group project are based on team effort, all members of your team will get the same score for these assignments. Toward the end of the course, a peer evaluation will be conducted. See Annex A for the peer evaluation form and the relevant rubric. If a team member scores an overall average rating of 3 or below (i.e., the mean of the average ratings from all other team members), the instructor will engage directly with all the team members about the issue(s) at hand. If the instructor deems that a team member has not contributed sufficiently after looking into the matter, a penalty will be dealt to the offending team member. This process is meant to ensure that no student is unfairly accused of not contributing to the team projects without clear supporting evidence.

#### Formative Feedback

You will receive verbal feedback from the instructor about your presentations and written feedback from the instructor about your written report for the group project. Through in-class quiz, you will be able to check your level of understanding along the way.

# NTU Graduate Attributes/Competency Mapping

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

Attributes/Competency	Level
Communication	Advanced
Creative Thinking	Advanced
Problem Solving	Advanced
Critical Thinking	Advanced
Embrace Challenge	Advanced

## **Course Policy**

#### Policy (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 academic integrity website for more information. On the use of technological tools (such as Generative Al 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 seminars 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 seminars you have missed. You are expected to participate in all class 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 seminar, you must inform the course instructor via email prior to the start of the class. It is your responsibility to make up the materials that are missed.

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