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

### **Course Overview**

The sections shown on this interface are based on the templates UG OBTL+ or PG OBTL+

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 <u>Data Transformation Status</u> for more information.

Expected Implementation in Academic Year	AY2024/AY2025	
Semester/Trimester/Others (specify approx. Start/End date)	Semester 1 Semester 2	
Course Author * Faculty proposing/revising the course	Chin Wui, Marc Low	
Course Author Email	acwlow@ntu.edu.sg	
Course Title	Intermediate Excel	
Course Code	AB1403	
Academic Units	1	
Contact Hours	13	
Research Experience Components	Not Applicable	

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

#### **Course Aims**

This course focuses on teaching introductory through intermediate techniques in Excel. No prior knowledge in programming or advanced math skills are necessary. Upon completion of the course, students will gain skills in Excel, data management and real-world problem solving.

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

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

ILO 1	Edit and format Excel worksheets;
ILO 2	Implement basic to advanced Excel functions (mathematical, statistical, logical, lookup, error- checking, text functions);
ILO 3	Explain how to manage data sets (filter, remove duplicates, consolidate data, sort data, and validate data).
ILO 4	Explain how to effectively visualize data through Excel charts and pivot tables.
ILO 5	Explain how to perform Goal seeking and What if Analysis.
ILO 6	Explain how to automate work using Macros.

### **Course Content**

This course focuses on the following key topics: Topic 1: Excel concepts, e.g. cell, addressing Topic 2: Formatting, e.g. text, alignment, shading, conditional formatting, etc Topic 3: Formulae and managing data, e.g. mathematical, statistical, logical, lookup, errorchecking, text, date/time, filtering, sorting Topic 4: Working across spreadsheets Topic 5: Data visualization (Excel Charts and Tableau) Topic 6: Pivot Tables Topic 7: Goal seeking and What If analysis Topic 8: Combining formulae to solve business problems Topic 9: Introduction to Excel macros (work automation) Some topics (e.g. formulae, combining formulae to solve business problems, and Excel macros) may be covered across two or more sessions.

## Reading and References (if applicable)

Readings are provided by the Instructor.

# **Planned Schedule**

Week	Topics or Themes	ILO	Readings	Delivery Mode	Activities
or Session					
1	Excel Basics (I)	ILO 1		In-person	Quiz 1
2	Excel Basics (II)	ILO 1		In-person	Quiz 2
3	Formulas and Functions (I)	ILO 2		In-person	Quiz 3
4	Formulas and Functions (II)	ILO 2		In-person	Quiz 4
5	Working with Data	ILO 3		In-person	Quiz 5
6	Working with Multiple Worksheets	ILO 3		In-person	Quiz 6
7	Data Visualization	ILO 4		In-person	Quiz 7
8	Pivot Tables	ILO 5		In-person	Quiz 8
9	What-IF Analysis	ILO 5		In-person	Quiz 9
10	Combining Functions to solve business problems (I)	ILO 2		In-person	Quiz 10
11	Combining Functions to solve business problems (II)	ILO 2		In-person	Quiz 11
12	Macros	ILO 6		In-person	Quiz 12
13	Final Assessment	Rubr ic 1		In-person	Final Assessment

## Learning and Teaching Approach

Approach	How does this approach support you in achieving the learning outcomes?				
Online Lectures	This course isdivided into 9 modules. Each module is delivered via pre¬recorded videos.				
Quizzes and Course Project	At the end of each module, students are required to complete a Quiz. Students are also required to complete a comprehensive project covering all the topics.				

### **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): Test/Quiz(Quizzes after each topic)	ILO1- 6	Acquistion of Knowledge	50	Individual	Holistic	Multistructural
2	Continuous Assessment (CA): Project(Course Project)	ILO2, ILO4	Problem Solving and Decision Making	50	Individual	Holistic	Multistructural

Description of Assessment Components (if applicable)

Each week you are required to watch some videos and complete an online quiz. Each quiz will be in the form of a MCQ which will be graded and adds towards 50% of the total score of the course. The other 50% of the course will be in the form of a course project which tests the various skills introduced throughout the course, particularly skills in using individual as well as combining multiple functions to solve more complex problems. Both MCQ and course project are individual component.

Students are required to complete the quiz for each week. 2 attempts are allowed for each quiz. The score for each quiz will be the average of the 2 attempts. There are a total of 12 quizzes in the course. The overall quiz score is the average of all the 12 quiz scores. This overall quiz score contributes 50% of the total score for the course. The other 50% will come from the course project, also known as the Final Assessment. To obtain a pass for the course, the course project must be submitted and the combined score of the overall quiz score (50%) and the course project (50%) must be at least 60%. More detailed instructions on how the Final Assessment will be conducted will be announced in the course site at a later date. The aim is to conduct the Final Assessment in a face-to-face setting instead of a take-home test if all logistic and technical challenges can be addressed.

#### Formative Feedback

The formative feedback provided is students' performance on topical quizzes.

## NTU Graduate Attributes/Competency Mapping

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

Attributes/Competency	Level	
Creative Thinking	Intermediate	
Curiosity	Advanced	
Decision Making	Intermediate	
Digital Fluency	Basic	
Sense Making	Intermediate	

## **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 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. You should inform your instructor early of your impending absence from class, and to follow-up later by providing him/her with the supporting document for your absence.

#### Policy (Others, if applicable)

The course is organized into 9 topics. Some topics may be covered across two or more sessions. Students need to complete quizzes after each topic and complete a course project.

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