

## Course Outline

**Course Code** : RE1706  
**Course Title** : Design and Construction  
**Semester** : Semester 1, Academic Year 2024/2025  
**Faculty** : Dr Wong Khei Mie, Grace  
**Department** : Real Estate  
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### Overview

Property development is the continual reconfiguration of the built environment to meet society's needs. The choices we make about what to build, where to build and how to build influence urban sustainability, equity and resilience. The first part focuses on the fundamental principles and practice of real estate development by studying the key building components, essential services and structural systems that are involved in building design and construction. The interdependence and trade-offs between design and construction are further highlighted by the discussion on the attributes, economics and evaluation of building design. In addition, the design of the building form is examined in terms of past and present approaches and concepts that can significantly affect the building's functionality, maintainability, sustainability, aesthetics and property value. The second part covers the building construction methodology and phases, including the impact of the regulatory environment, roles of stakeholders, variety of construction methods as well as technology applied in construction. In this course, students will also acquire skills in the interpretation of building drawings and an appreciation of construction methods and materials.

### Learning Outcomes

Through the course, students will be able to:

- Examine the roles and interdependence of design and construction in real estate development.
- Analyse the key determinants of building design including economic, psychological, technological and regulatory drivers.
- Appreciate building design approaches and concepts, and how they impact value outcomes in real estate developments.
- Understand building construction including the regulatory environment, construction methods, roles of stakeholders and issues arising from project complexity.

### Course Prerequisite(s)

Nil

### Course Preclusion(s)

Nil

### General Guide & Reading

Nil

### Tentative Schedule & Outline

Week	Date	Topic	Activity
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1	16 Aug 2024	Introduction to Design & Construction	Project Brief & Discussion
2	23 Aug 2024	Elements of a Building	Assignment 1 Brief & Discussion
3	30 Aug 2024	Building Design Development & Typology	Assignment 1 Presentation & Submission
4	6 Sep 2024	Building Design Attributes, Economics & Evaluation	CANVAS Discussion 1
5	13 Sep 2024	Building Design Approaches & Concepts	Assignment 2 Brief & Discussion
6	20 Sep 2024	Building Construction Regulatory Environment	Assignment 2 Presentation & Submission
	<b>21 – 29 Sep</b>	<b>RECESS WEEK</b>	
7	4 Oct 2024	Building Construction Methodology	CANVAS Discussion 2
8	11 Oct 2024	Building Construction Key Stakeholders	Assignment 3 Brief & Discussion
9	18 Oct 2024	Building Construction Methods	Assignment 3 Presentation & Submission
10	25 Oct 2024	Building Construction in Asset Enhancement Initiatives & Course Summary	CANVAS Discussion 3
11	1 Nov 2024	<b>NUS Well-Being Day</b>	
12	8 Nov 2024	Site Visit	Project Submission
13	15 Nov 2024	Independent Work on Site Visit Reflection	Site Visit Reflection Submission
	<b>16 – 22 Nov</b>	<b>READING WEEK</b>	
	<b>23 Nov – 7 Dec</b>	<b>EXAMINATION (2 WEEKS)</b>	

### Assessment

Assessment Components	Weightage (%)
<u>Group Work</u>	
• Group Project	30%
• Group Project Presentation	5%
• Seminar Assignments	15%
<u>Individual Work</u>	
• Seminar Presentation & Participation	15%
• CANVAS Discussions	15%
• Peer Review & Reflection	5%
• Site Visit Participation	5%
• Site Visit Reflection	10%
	<b>100%</b>

### Academic Honesty & Plagiarism

Academic integrity and honesty is essential for the pursuit and acquisition of knowledge. The University and School expect every student to uphold academic integrity & honesty at all times. Academic dishonesty is any misrepresentation with the intent to deceive, or failure to acknowledge the source, or falsification of information, or inaccuracy of statements, or cheating at examinations/tests, or inappropriate use of resources.

Plagiarism is “the practice of taking someone else’s work or ideas and passing them off as one’ own” (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubt, you should consult your instructor.

**Additional guidance is available at:**

- <http://www.nus.edu.sg/registrar/administrative-policies-procedures/acceptance-record#NUSCodeofStudentConduct>
- <http://nus.edu.sg/osa/resources/code-of-student-conduct>

**About me**

Grace K.M. WONG is a Senior Lecturer at the School of Business, National University of Singapore. Her academic qualifications include B.Sc. (Estate Management) (Honours) and M.Sc. (Property & Maintenance Management) at NUS, as well as MPhil (Housing Economics) and PhD (Housing Economics) at University of Cambridge, UK. Since 1989 when she first joined NUS, Dr. Wong has taught a wide range of core, elective and GEM modules, and has won numerous teaching awards including NUS Annual Teaching Excellence Awards, School of Design & Environment Teaching Excellence Awards as well as GEM and SS Incentive Scheme Awards. Dr. Wong is an Alumnus of the NUS Teaching Academy as well as Member of the School of Business Teaching Excellence Council. Her teaching research publications, which focus on her pedagogical initiatives, are featured in *Ideas on Teaching*, *CDTL Brief*, *CDTLink*, *Teaching Connections* as well as in conferences for teaching and learning in higher education.