

## COURSE CONTENT

<b>Academic Year</b>	AY2017-18,	<b>Semester</b>	1
<b>Course Coordinator</b>	Asst Prof Zhu Feng		
<b>Course Code</b>	SU3001		
<b>Course Title</b>	Integrated Urban Management		
<b>Pre-requisites</b>	Nil		
<b>No of AUs</b>	3		
<b>Contact Hours</b>	Total : 39 Hours (Lectures: 26 hrs and tutorials: 13 hrs)		
<b>Proposal Date</b>	20 June 2017		

### **Course Aims**

This course is open to Year 3 students. It introduces the latest economic, social and environmental urban management theories from a sustainable city point of view. By the end of the course, students will be able to know the theories of urban system management from various perspectives, apply the theoretical knowledge to evaluate current and future urban system issues, and develop sustainable action plans.

### **Course Learning Outcomes (Course LO)**

By the end of this course, you (as a student) would be able to:

1. apply concepts of urban planning, management and system to real-world cases
2. use methods of micro management of urban infrastructure to assess local infrastructure
3. evaluate the economics, finance and risks associated with urban asset management within a given urban context
4. evaluate urban management from the perspective of environmental development and ecology
5. analyse and solve urban system management problems

### **Course Content**

#### **Propose Course outline:**

S/N	Topic	Lecture Hours	Tutorial Hours
1	Introduction to Urban System management and Integrated Urban Management	2	1
2	Urban Planning, management and system	2	1
3	Micro management of Urban Infrastructure	2	1
4	Urban development economic	2	1
5	Financing and Risk Management of Urban Assets	2	1
6	Social Economics Management	2	1
7	Concepts of Eco city- Economics and Ecology	2	1
8	Environmental Management, Sustainable urban infrastructure development	2	1
9	Solid waste management, Urban water and wastewater management	2	1
10	Case studies of Good and Fail Urban System Management	2	1
11	Urban development organization	2	1

12	Integrated Best Urban Management Practices	2	1
13	Summary of Urban System in providing a sustainable livable cities of tomorrow	2	1
	Total hours	26	13

**Brief Description:**

Urbanization can be planned or organic. Planned urbanization, i.e. new town or the garden city movement, is based on an advance plan, which can be prepared for aesthetic, economic or urban design reasons. Many ancient organic cities experienced redevelopment for military and economic purposes, new roads carved through the cities, and new parcels of land were cordoned off serving various planned purposes giving cities distinctive geometric. UN agencies prefer to see urban infrastructure installed before urbanization occurs. Urban planners are responsible for urban system and infrastructure (public parks, sustainable urban drainage systems, greenways etc.) which can be planned before urbanization takes place, or afterward to revitalized an area and create greater liveability within a region.

**Assessment (includes both continuous and summative assessment)**

Component	Course LO Tested	*Related Programme SLO or Graduate Attributes	Weightage	Team / Individual	Assessment Rubrics
1. Quiz 1	1, 2, 3	CEE SLOs a,c,d,	20%	Individual	
2. Quiz 2	4, 5	CEE SLOs a,c,d,e,h	20%	Individual	
3. Final Examination	1, 2, 3, 4, 5	CEE SLOs a,c,d,e,h	60%	Individual	
Total			100%		

\* CEE SLOs = Student Learning Outcomes for Civil Engineering Programme (per BEng Civil Engineering Accreditation)

**Related Programme SLOs or Graduate Attributes**

**Knowledge**

- a. Competence in mathematics, science, information technology and modern engineering tools for the solution of civil engineering and sustainable infrastructure development problems;

**Skills**

- b. Ability to design and conduct experiments, analyse and interpret data, and synthesise valid conclusions for problems related to civil engineering and sustainable infrastructure development;

- c. Ability to design a system, component, or process, and synthesise solutions for complex problems in civil engineering and sustainable infrastructure development to achieve desired needs and understand the solutions' limitations;
- d. Ability to identify, formulate, research through relevant literature review, and solve civil engineering and sustainable infrastructure development problems reaching substantiated conclusions;
- e. Ability to use state-of-the-art techniques, skills, and modern engineering tools necessary for civil engineering and sustainable infrastructure development practices with appropriate considerations for public health and safety, cultural, societal, and environmental constraints;
- f. Ability to communicate effectively;

**Professional awareness and insight**

- g. Ability to acquire knowledge for continual professional development in civil engineering through lifelong learning or pursue graduate study and recognize its importance;
- h. Awareness of the impact of civil engineering solutions in a societal context and to be able to respond effectively to the needs for sustainable development;
- i. Ability to function effectively within multi-disciplinary teams and understand the fundamental precepts of effective civil engineering and sustainable infrastructure project management;
- j. Ability to recognize the importance of ethics, and the need to uphold high moral standards in relation to professional conduct and apply appropriate ethical principles in practices.

**Formative feedback**

This course would be an interactive course where the inputs of each students would be taken for some of the open questions asked during the class and the tutorial session. Students are assessed on Quiz 1 consists of structural questions where feedback is given in terms of quiz scores and instructors go through the mistakes made by students.

**Learning and Teaching approach**

Approach	How does this approach support students in achieving the learning outcomes?
Lectures	The interactive lecture session where there is ample opportunities for open discussion on the conceptual questions raised in the class allows the student to think critical and share their ideas and concept with the class. This also allows the instructor to get the concepts clearly through the entire class by involving each student there and ensure that the targeted learning outcomes are being achieved

Tutorials	This would allow the students to crack some intriguing problems and thus help the instructor achieve the learning outcome.
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### Reading and References

- a. Tan. Eng Khiam, Sustainable Built Environment - The Singapore Experience. 1st Edition, Pearson 2011.
- b. Tan. Eng Khiam, International Project and Facilities Management. 1st Edition, Pearson 2011.
- c. Tan. Eng Khiam. Vision Cities.1st Edition, Pearson 2014.
- d. A. A. F. Massawe, Urban Management: Issues, Problems and Trends, Institute of Development Management, 1996.
- e. Tan Yigitcanlar, Rethinking Sustainable Development: Urban Management, Engineering, and Design, 2010.
- f. Sebastian Loew, Urban Design Practice: An International Review, 2012.

### Course Policies and Student Responsibilities

#### MAKE-UP POLICY:

Acceptable reasons for missing a quiz or exam include unexpected illness, university-sponsored conflicts, and evacuation due to natural disaster. Vacation plans or undocumented illness are not acceptable reasons for missing an exam or quiz. If a student knows in advance that he/she will need to miss an exam or quiz for an acceptable reason, he/she needs to inform the course instructor as soon as he/she becomes aware of the conflict (i.e., in no later than 24 hours afterwards). Delayed notification will impact the decision to administer a make-up exam or quiz. In all cases, if the student does not have verifiable documentation for the absence, does not have an acceptable reason, and/or does not contact the course instructor immediately, the student will receive zero credit for the exam, quiz, or class missed.

#### CLASS-TIME COURTESY:

Please be courteous to your fellow classmates. It is very tempting to have a conversation with your classmates, browse the internet, hop on social media, send text messages, do work for other classes, etc. However, these not only get in the way of your own learning, but they also get in the way of the learning of other students, as these activities are very distracting to those who are trying to pay attention and contribute in class. Please respect the course instructor, your fellow classmates, and yourself during class.

#### SENDING EMAILS:

Feel free to email the course instructor for any quick question or concern.

#### LAPTOP USAGE:

Laptops should only be used for taking notes and participating in class activities.

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

### Course Instructors AY2017/18

Instructor	Office Location	Phone	Email
Asst/P Zhu Feng	N1-01b-45	6790 5267	zhufeng@ntu.edu.sg

### Planned Weekly Schedule

Week	Topic	Course LO	Readings/ Activities
1	Introduction to Urban System management and Integrated Urban Management	1	Tutorial and lectures
2	Urban Planning, management and system	1	Tutorial and lectures
3	Micro management of Urban Infrastructure	2	Tutorial and lectures
4	Urban development economic	2	Tutorial and lectures
5	Financing and Risk Management of Urban Assets	3	Tutorial and lectures
6	Social Economics Management	3	Tutorial and lectures
7	Concepts of Eco city- Economics and Ecology	3	Tutorial and lectures
8	Environmental Management, Sustainable urban infrastructure development	4	Tutorial and lectures
9	Solid waste management, Urban water and wastewater management	4	Tutorial and lectures
10	Case studies of Good and Fail Urban System Management	5	Tutorial and lectures
11	Urban development organization	5	Tutorial and lectures
12	Integrated Best Urban Management Practices	5	Tutorial and lectures
13	Summary of Urban System in providing a sustainable livable cities of tomorrow	5	Tutorial and lectures