

Course Syllabus

Class/Department : Real Estate and Built Environment

中文課程名稱：緊緻城市與複合型開發

Course Title: **Compact city and mixed-use development**

Grade(應修系級) : Master's course 1st / 2nd year

Type: Required Selective Whole Half

Credits:3

Course Number:

Prerequisite Course: N/A

Professors:游舜德(Shun-Te You)

Course Description:

The concept of compact city proposed a possibility to achieve sustainability. Under the concept, more and more new property developments in central urban areas tend to provide higher density and mixed-use. In other words, for any large-scale development projects, mixed-use become one of the strategies to achieve higher value, reducing energy wasting on traffics, thus hoping to prevent urban sprawl. However, higher density and mixed-use also bring in complexity, and perhaps conflicts. The aim in this course is to fully understand the pros and cons of compact city and mixed developments.

Course Objective:

The study objectives of this course are to understand and explore the concept of compact city and the development issues and management concerns of mixed-use developments. To explore the sources of complexity, and introduce theories related to its planning, design, distribution of resources, management, and measurements. After studying this course, students should be able to understand the concept of compact city and the element parts of mixed-use developments and to establish the ability to analyze and evaluate certain projects.

Course Outline: (including teaching schedule):

Lecture 1 (week 1-3)

Compact City: The relationship between compact city and sustainability

- Compact city theory
- Garden city and compact city: which is more liveable and sustainable?
- Centrists, de-centrists and compromisers: views on the future of urban form
 - Advantages and disadvantages of compact city.
- Is compact city sustainable?
- In Favour of the compact city
- The difficulty and impossibility of compact

Lecture 2(week 4-6)

Agglomeration economies and diseconomies

- Why clustering?
- The sources of agglomeration economies and diseconomies.
- Externalities: imbalanced rights and obligations
- Three ultimate methods that solving external problems: Pigouvian tax/subsidy; Coase theorem; and government/third party intervention, and their implementation
- Zoning and land use policy
- Related to mixed-use development: the complexity and flexibility of space usage

Lecture 3 (week 7-9)

What is a mixed-use development?

- The value of commercial property:
 - ◆ Real estate value
 - Physical environment
 - Also characteristics generates from these physical features
 - ◆ Business value
 - Intangible components

Sources of complexities: mixed-use and property development

- Large-parcel of land-floorspace with more than one usage type.
- Hence-the highest and best use analysis. But how?
- Size, shape, location, adjacent condition
- Mixed-use possibilities

Lecture 4 (week 9-12)

Externalities and complex property

- Interdependence. Good or bad.
- Influences: existence of externalities means unbalanced rights and obligation.
- How to avoid externalities among usages?
 - Sub-zoning
 - Internalizing process

Lecture 4 (week 13-16)

Mixed-use Development and management

- Real estate development
- Evaluating markets and development potential
- Feasibility analysis: investment and finance
- The public sector's involvement in mixed-use development
- Planning and Design
- Marketing and promotion
- Operations, management, and maintenance

- Case studies
- Trends

Lecture 5(week 17-18)

Future trends:

- intelligent city, smart city and walkable city
- Big data and data mining/machine learning
- Open data sources
- IoT: Internet of Things and mixed-use development
- Future applications and implications
- Mixed-use development evaluation tools: GIS and spatial database
- Using R and QGIS and other open source tools

學生核心能力權重：八項加總為 100，不需每項均得填寫，惟至少需填一項

Item	Creative thinking and Problem-solving 創意思考與問題解決	Comprehensive integration 綜合統整	Communication and Coordination 溝通協調	Team cooperation 團隊合作
Weight	20%	20%	20%	10%
Item	Integrity and Upright 誠信正直	Respect and Reflection 尊重自省	Diverse care 多元關懷	Cross-border cooperation 跨界合作
Weight	5%	5%	5%	15%

Career Development:

Students who take this course may suitable for the following works:

- Real estate consultancy Company
- Real estate development company
- Urban planners and designers

Evaluation Methods:

Course grades will be based on student performance in the following areas:

- Attendance and class participation
- Homework assignments: reading feedbacks and presentations
- Case study reports
- Final Exam (option)

Required texts:

Handouts of each topic prepared by the lecturer

Reference texts:

1. Yuo (2005), The management of tenant mix in shopping centres-applications of retail agglomeration theories,
2. Schwanke, Dean (2003) Mixed-Use Development Handbook, Urban Land Institute (ULI)
3. Miles, M. E., G., Berens, M. A. and Weiss (2000), Real Estate Development: Principles and Process, Urban Land Institute (ULI)
4. Jenks, M., Burton, Elizabeth, and Williams Katie, (1996) The compact city :a sustainable urban form?, E & FN Spon, London
5. Anders,M. (2004)Understanding and balancing mixed-use schemes : The key to creating successful communities,. Journal of Retail & Leisure Property.3:4; p. 353