

# PIA5510: UNDERSTANDING AND MANAGING SMART CITIES

---

## Effective Term

Semester A 2025/26

## Part I Course Overview

### Course Title

Understanding and Managing Smart Cities

### Subject Code

PIA - Public and International Affairs

### Course Number

5510

### Academic Unit

Public and International Affairs (PIA)

### College/School

College of Liberal Arts and Social Sciences (CH)

### Course Duration

One Semester

### Credit Units

3

### Level

P5, P6 - Postgraduate Degree

### Medium of Instruction

English

### Medium of Assessment

English

### Prerequisites

Nil

### Precursors

Nil

### Equivalent Courses

None

### Exclusive Courses

None

## Part II Course Details

### Abstract

A smart city is a city in which decision-making elements are fulfilled by knowledge-based automated systems. Smart cities enhance livability, workability and sustainability by leveraging methodological and technical innovations to allow those systems to work synergistically with each other and to interact more effectively with the inhabitants. However, on the other hand, they also run the risk of adverse effects of automated decision-making. In the first half of this course, through discussion-based seminars students will learn about the development of the smart city, influence of smart city infrastructure, criteria for measuring the smartness of a city, the role of data and information technology, and other related issues that go towards the making of a future smart city. The second half of this course will focus on group-based student projects that reflect on the understanding and evaluating smart city technologies, discussing: (1) approaches to designing and implementing strategic planning techniques and governance models that facilitate smart city development, including environmental scanning, stakeholder analysis, strategic issue identification, and strategy formulation; and (2) development a critical awareness and evaluation of the potential strengths and weaknesses of smart city initiatives; and translate this evaluation into suggestions for adjustment directions for these smart city projects.

### Course Intended Learning Outcomes (CILOs)

CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	To provide an understanding of the foundational elements of a smart city and address the breadth of systems that comprise it.	x	x	
2	To get an initial understanding of the potential for IT to improve the interactions between humankind in cities and the planet, and the potential for harm.	x	x	
3	To define the purpose, scope, and process of strategic planning as a tool. To practice approaches to designing and conducting strategic planning.		x	x
4	To evaluate concrete smart city initiatives. And to develop suggestions than can help to ameliorate potential shortcomings of smart city initiatives while not hurting potential strengths.		x	x

#### A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

#### A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

#### A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

### Learning and Teaching Activities (LTAs)

LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Discussion-based Seminars	Presentation of theories, concepts and ideas based on academic literature and real-world examples. Course lecturer (and guest speakers) moderates discussions with students attending the workshops answers questions and facilitates class exercises.	1, 2, 3  Three hours per week during the first half of the course
2	Readings	Readings contained in the Course Outline to be read by every student before class	1, 2, 3, 4  This will vary from student to student: average: 4-5 hours per week
3	Group Projects and Presentations	Students will: - work as a member of a group / team to understand and critically discuss a smart city application; - locate relevant information; evaluate, organize & synthesize materials; present ideas to the class in a clear, concise; and stimulating way; engage with classmates in answering questions and discussing presentation topics.	1, 2, 3, 4  6 hours allocated for presentations (excluding preparation)
4	In-Class test	Advances students' ability in integrating information, and develops analytic and communication skills	1, 2, 3, 4

#### Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks ("-" for nil entry)	Allow Use of GenAI?
1	Participation	1, 2, 3, 4	10	Students are expected to actively participate in class meetings. They must read and contemplate the course literature prior to class. Good class participation involves: active listening, consideration of your peers, making comments, asking questions, taking risks and giving opinions.	Yes
2	Group Presentation	1, 2, 3, 4	20	In groups, students will select one smart city technology, and students will explain and critically access its functioning.	No
3	Term paper	1, 2, 3, 4	30	Based on their group presentation and the critical feedback to that presentation, the students will write a group paper explaining and critically discussing a smart city technology of choice.	No
4	In-class test (duration 2 hrs)	1, 2, 3, 4	40	After the first part of the course that consists of a series of discussion-based seminars and before the second part in which students engage in group projects there will be an in-class test to assess the understanding of the students of the course material.	No

**Continuous Assessment (%)**

100

**Assessment Rubrics (AR)**

**Assessment Task**

Participation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

**Criterion**

Ability to present & communicate Frequency of participation Quality of comments

**Excellent**

(A+, A, A-) Demonstrate high capacity to present and communicate in oral and/or written format by proactively offering comments balanced between general impressions, opinions & specific, thoughtful criticisms or contributions and asking questions related to smart cities

**Good**

(B+, B, B-) Demonstrate significant capacity to present and communicate in oral and/or written format by proactively offering comments balanced between general impressions, opinions & specific, thoughtful criticisms or contributions and asking questions related to smart cities

**Fair**

(C+, C, C-) Demonstrate moderate capacity to present and communicate in oral and/or written format by proactively offering comments balanced between general impressions, opinions & specific, thoughtful criticisms or contributions and asking questions related to smart cities

**Marginal**

(D) Demonstrate basic capacity to present and communicate in oral and/or written format by proactively offering comments balanced between general impressions, opinions & specific, thoughtful criticisms or contributions and asking questions related to smart cities

**Failure**

(F) Demonstrate little or no evidence in participation

**Assessment Task**

Group Presentation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

**Criterion**

Teamwork Contribution Subject knowledge Listening skills and quality answers in discussion

**Excellent**

(A+, A, A-) Demonstrate high capacity in teamwork to achieve objectives in a way that each member contributed in a valuable way to the presentation topic and/or response to questions raised. The deliverable(s) also demonstrated evidence of comprehensive research effort and a depth of thinking about the topic

**Good**

(B+, B, B-) Demonstrate significant capacity in teamwork to achieve objectives in a way that each member contributed in a valuable way to the presentation topic and/or response to questions raised. The deliverable(s) also demonstrated evidence of extensive research effort and a depth of thinking about the topic

**Fair**

(C+, C, C-) Demonstrate moderate capacity in teamwork to achieve objectives in a way that each member contributed in a valuable way to the presentation topic and/or response to questions raised. The deliverable(s) also demonstrated evidence of sufficient research effort and a depth of thinking about the topic

**Marginal**

(D) Demonstrate basic capacity in teamwork to achieve objectives in a way that each member contributed in a valuable way to the presentation topic and/or response to questions raised. The deliverable(s) also demonstrated evidence of little research effort and a depth of thinking about the topic

**Failure**

(F) Demonstrate little or no effort in group presentation

---

**Assessment Task**

Term paper (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

**Criterion**

Teamwork Organisation Logical analysis & argument Written skills and citation

**Excellent**

(A+, A, A-) Demonstrate high capacity in teamwork to coherently elucidate the chosen topic with a comprehensive, clear, and logical analysis & arguments together with an all-rounded literature review & references in an excellent academic writing style, structure and full citation

**Good**

(B+, B, B-) Demonstrate significant capacity in teamwork to coherently elucidate the chosen topic with a comprehensive, clear, and logical analysis & arguments together with an all-rounded literature review & references in a good academic writing style, structure and full citation

**Fair**

(C+, C, C-) Demonstrate moderate capacity in teamwork to coherently elucidate the chosen topic with a comprehensive, clear, and logical analysis & arguments together with an all-rounded literature review & references in an adequate academic writing style, structure and full citation

**Marginal**

(D) Demonstrate basic capacity in teamwork to coherently elucidate the chosen topic with a comprehensive, clear, and logical analysis & arguments together with an all-rounded literature review & references in a marginal academic writing style, structure and full citation

**Failure**

(F) Demonstrate little or no effort in term paper

---

**Assessment Task**

In-class test (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

**Criterion**

Course key concepts and assigned journal articles

**Excellent**

(A+, A, A-) Demonstrate excellent performance in the in-class test

**Good**

(B+, B, B-) Demonstrate good performance in the in-class test

**Fair**

(C+, C, C-) Demonstrate adequate performance in the in-class test

**Marginal**

(D) Demonstrate marginal performance in the in-class test

**Failure**

(F) Demonstrate poor performance in the in-class test

---

**Assessment Task**

Participation (for students admitted from Semester A 2022/23 to Summer Term 2024)

**Excellent**

(A+, A, A-) Be present at all classes, and actively engage with the lectures and participate in discussions.

**Good**

(B+, B) Be present at all lectures and regularly participating in discussions

**Marginal**

(B-, C+, C) Be present at lectures, but rarely participating in discussions

**Failure**

(F) No active participation to the classes

---

**Assessment Task**

Group Presentation (for students admitted from Semester A 2022/23 to Summer Term 2024)

**Excellent**

(A+, A, A-) Demonstrating comprehensive, in-depth understanding of the presentation topic.

**Good**

(B+, B) Demonstrating a fairly good understanding of the presentation topic.

**Marginal**

(B-, C+, C) Demonstrating adequate understanding of the presentation topic.

**Failure**

(F) Fail to demonstrate an adequate understanding of the presentation topic.

---

**Assessment Task**

Term paper (for students admitted from Semester A 2022/23 to Summer Term 2024)

**Excellent**

(A+, A, A-) Demonstrating comprehensive, in-depth understanding of the term paper topic.

**Good**

(B+, B) Demonstrating a fairly good understanding of the term paper topic.

**Marginal**

(B-, C+, C) Demonstrating adequate understanding of the term paper topic.

**Failure**

(F) Fail to demonstrate an adequate understanding of the term paper topic

**Assessment Task**

In-class test (for students admitted from Semester A 2022/23 to Summer Term 2024)

**Excellent**

(A+, A, A-) Demonstrating comprehensive, in-depth understanding of the course literature on smart city development

**Good**

(B+, B) Demonstrating a good understanding of the course literature on smart city development

**Marginal**

(B-, C+, C) Demonstrating and adequate understanding of the course literature on smart city development

**Failure**

(F) Fail to demonstrate an understanding of the course literature on smart city development

**Part III Other Information****Keyword Syllabus**

Smart City; SimCity; Politics of Planning; Technocracy; Social Engineering; Modernist Planning and its Shortcomings; Smart Citizens; The Government and Business Rational for Big Data; Strengths and Weaknesses of the Smart City; Strategic Management in Public Sector.

**Reading List****Compulsory Readings**

	Title
1	Greenfield, Adam (2017) <i>Radical Technologies: The Design of Everyday Life</i> , London & New York: Verso.
2	Angelidou, Margarita (2014). <i>Smart City Policies: A Spatial Approach</i> . <i>Cities</i> , 41, S3-S11.
3	Khansari, Nasrin, Ali Mostashari, and Mo Mansouri (2014). <i>Impacting Sustainable Behaviour and Planning in Smart City</i> . <i>International Journal of Sustainable Land Use and Urban Planning</i> 1(2), 46-61.
4	Hashem, Ibrahim Abaker Targio, Victor Chang, Nor Badrul Anuar, Kayode Adewole, Ibrar Yaqoob, Abdullah Gani, Ejaz Ahmed, and Haruna Chiroma (2016). <i>The Role of Big Data in Smart City</i> . <i>International Journal of Information Management</i> 36(5), 748-758.
5	Thite, Mohan (2011). <i>Smart Cities: Implications of Urban Planning for Human Resource Development</i> . <i>Human Resource Development International</i> 14(5), 623-631.
6	Andrews, Rhys, George A. Boyne, Jennifer Law and Richard M. Walker. (2012) <i>Strategic Management and Public Service Performance</i> . Palgrave Macmillan.
7	Bryson, John (2011). <i>Strategic Planning for Public and Nonprofit Organizations: A Guide to Strengthening and Sustaining Organizational Achievement</i> . 4th edition. San Francisco, CA: Jossey-Bass. ISBN 9780470392515
8	Poister, Theodore H. (2010) <i>The Future of Strategic Planning in the Public Sector: Linking Strategic Management and Performance</i> , <i>Public Administration Review</i> , 5246-5254.
9	Albino, V., Berardi, U., & Dangelico, R. M. (2015). <i>Smart cities: Definitions, dimensions, performance, and initiatives</i> . <i>Journal of urban technology</i> , 22(1), 3-21.
10	Ma, Ruiqu, Lam, Patrick T.I, & Leung, C.K. (2018). <i>Potential pitfalls of smart city development: A study on parking mobile applications (apps) in Hong Kong</i> . <i>Telematics and Informatics</i> , 35(6), 1580-1592.

11	Castelnovo, W. (2019). Coproduction and Cocreation in Smart City Initiatives: An Exploratory Study. In E-Participation in Smart Cities: Technologies and Models of Governance for Citizen Engagement (pp. 1-20). Springer, Cham.
12	Lam, Patrick T.I, & Yang, Wenjing. (2020). Factors influencing the consideration of Public-Private Partnerships (PPP) for smart city projects: Evidence from Hong Kong. <i>Cities</i> , 99, 102606.
13	Ma, Ruiqu, & Lam, Patrick T.I. (2019). Investigating the barriers faced by stakeholders in open data development: A study on Hong Kong as a “smart city” . <i>Cities</i> , 92, 36-46.
14	Office of the Government Chief Information Officer (2019), Smart city development in Hong Kong. <i>IET Smart Cities</i> , 1(1), 23-27.
15	Srnicek, N. (2017). <i>Platform capitalism</i> : John Wiley & Sons.
16	Cinnamon, J. (2020). Platform philanthropy, ‘public value’ , and the COVID-19 pandemic moment. <i>Dialogues in Human Geography</i> , 10(2), 242-245. doi:10.1177/2043820620933860

### Additional Readings

	Title
1	<a href="http://readinessguide.smartcitiescouncil.com/">http://readinessguide.smartcitiescouncil.com/</a>
2	<a href="http://www.oreilly.com/data/free/the-global-impact-of-open-data.csp">http://www.oreilly.com/data/free/the-global-impact-of-open-data.csp</a>
3	<a href="http://smartcitiescouncil.com/resources/smart-cities-open-data-guide">http://smartcitiescouncil.com/resources/smart-cities-open-data-guide</a>
4	<a href="http://empoweringcities.eiu.com/">http://empoweringcities.eiu.com/</a>
5	<a href="http://workspace.unpan.org/sites/Internet/Documents/UNPAN96407.pdf">http://workspace.unpan.org/sites/Internet/Documents/UNPAN96407.pdf</a>
6	<a href="https://www.transportation.gov/sites/dot.gov/files/docs/Smart%20City%20Challenge%20Lessons%20Learned.pdf">https://www.transportation.gov/sites/dot.gov/files/docs/Smart%20City%20Challenge%20Lessons%20Learned.pdf</a>
7	<a href="https://www.smartcity.gov.hk/">https://www.smartcity.gov.hk/</a>
8	<a href="https://www.smartnation.sg/docs/default-source/default-document-library/smart-nation-strategy_nov2018.pdf">https://www.smartnation.sg/docs/default-source/default-document-library/smart-nation-strategy_nov2018.pdf</a>