

Course Title	:	Physical Activity Promotion and Smart City
Course Code	:	SCE3002
Recommended Study Year	:	3
No. of Credits/Term	:	3
Mode of Tuition	:	Sectional Approach
Class Contact Hours	:	3 hours per week
Category in Major Prog.	:	Foundation
Discipline	:	Sports
Prerequisite(s)	:	N/A
Co-requisite(s)	:	N/A
Exclusion(s)	:	N/A
Exemption Requirement(s)	:	N/A

Brief Course Description

This course is designed to inspire students to integrate the concept of Smart City with physical active lifestyle. Physical active lifestyle is important for health and well-being; the question is how to engage people in a physical active lifestyle. The course introduces students the concept of Smart City, the Smart City Blueprint for Hong Kong 2.0 and the role of new technology in promoting physical active lifestyle. The legal and ethical issues are also covered in the course. Upon completion the course, students are equipped with the knowledge to integrate the concepts of Smart City with physical active lifestyle.

Aims

This course aims to:

- introduce the concept and the importance of physical active lifestyle
- equip students with the knowledge of Smart City and application it in promoting physical active lifestyle
- develop students a legal and ethical mindset in the related area

Learning Outcomes (LOs)

On successful completion of this course, students will be able to:

1. explain key concepts and principles of Smart City;
2. examine the role of physical active lifestyle in health and well-being;
3. examine the legal and ethical issues in using technology to promote physical active lifestyle; and
4. formulate a proposal to integrate the concept of Smart City in promoting physical active lifestyle

Indicative Content

1. Introduction of the concept of Healthy City according to WHO guideline
2. Introduction of the relationship between physical active lifestyle in health and well-being
3. Introduction of Smart City and its components

4. Introduction of Smart City Blueprint for Hong Kong 2.0
5. Applying technology in physical active lifestyle
6. Discuss how to integrate the concept of Smart City with physical active lifestyle
7. Discuss the legal and ethical issues when using technology
8. Future trend and impact of technology development to physical active lifestyle

Teaching Methods

The course is delivered through lectures, classroom discussions, case studies, video, workshops and tutorials. Conference, talk or seminar about Smart City or new technology may be arranged to help students to understand the new development in the related area. Teacher will illustrate the concepts with real-life example. Lectures will be accompanied by relevant reading materials which students would have to read before the lecture.

Measurement of Learning Outcomes

In-class participation and discussion assess students' understanding of Smart City concepts, and ability to integrate the concepts with physical active lifestyle.

Mid-term test assess students' understanding of the Smart City concepts and the ability to integrate the concepts with physical active lifestyle.

Individual assignment(s) require student to discuss and analyze real-world to integrate the concept of Smart City with physical active lifestyle.

Group project with presentation and report, provides the opportunity for students to integrate and apply the knowledge and concepts they learnt from the course. Students are required to search and study the required materials, write a report, and present their findings in class.

Learning Outcome	In-class participation and discussion	Mid-term test	Individual assignment(s)	Group project
1. Explain the key concepts and principles Smart City	✓	✓	✓	✓
2. Examine the role of physical active lifestyle in health and well-being	✓	✓	✓	✓
3. Examine the legal and ethical issues in using technology to	✓		✓	✓

promote physical active lifestyle				
4. Formulate a proposal to integrate concept of Smart City in promoting physical active lifestyle				✓

Assessment

Continuous Assessment

100%

1. 10% In-class participation and discussion
2. 25% Mid-term test
3. 25% Individual assignment(s)
4. 40% Group project (20% report and 20% presentation)

Required/Essential Readings

Broom, D., & Flint, S. (2018). Physical activity interventions impacting health in the community. In R. Wilson, & C. Platts (Eds.), *Managing and Developing Community Sport*. Routledge. <https://doi.org/10.4324/9781315561356>

Hong Kong Smart City Blueprint 2.0 (2020), HKSAR Government, The Smart City for Hong Kong, <https://www.smartcity.gov.hk/>

Lindqvist A, Rutberg S, Söderström E, Ek A, Alexandrou C, Maddison R, Löf M (2020). User Perception of a Smartphone App to Promote Physical Activity Through Active Transportation: Inductive Qualitative Content Analysis Within the Smart City Active Mobile Phone Intervention (SCAMPI) Study. *JMIR Mhealth Uhealth* 2020;8(8):e19380. doi: 10.2196/19380

Mario, R. et. al. (2019). Supporting Better Physical Activity in a Smart City: a Framework for Suggesting and Supervising Walking Paths. *Advances in Science, Technology and Engineering Systems Journal*, 4(4), 404-414. <https://astesj.com/v04/i04/p49/>

Rocha, N. et. al. (2019). A Systematic Review of Smart Cities' Applications to Support Active Ageing. *Procedia Computer Science*, 160, 306-313. <https://doi.org/10.1016/j.procs.2019.11.086>

Tjønnedal, A., & Nilssen, M. (2019). Innovative sport and leisure approaches to quality of life in the smart city. *World Leisure Journal* , 61(3), 228-240. <https://doi.org/10.1080/16078055.2019.1639922>

What is Smart City? <https://www.gemalto.com/iot/inspired/smar-cities>

Recommended/Supplementary Readings

Anthopoulos, L. (Ed.). (n.d.). Smart City Emergence: Cases From Around the World. ELSEVIER.

Anderson, E., & Durstine, J. L. (2019). Physical activity, exercise, and chronic diseases: A brief review. Sports Medicine and Health Science, 1(1), 3-10.
<https://doi.org/10.1016/j.smhs.2019.08.006>

Brawner CA, Churilla JR, Keteyian SJ. (2016) Prevalence of Physical Activity is Lower among Individuals with Chronic Disease. Medicine and Science in Sports and Exercise, 48(6), 1062-1067. DOI: 10.1249/mss.0000000000000861. PMID: 26741117.

Buttazzoni, A., Veenhof, M., & Minaker, L. (2020). Smart City and High-Tech Urban Interventions Targeting Human Health: An Equity-Focused Systematic Review. International Journal of Environmental Research and Public Health, 17(7), 2325.
<http://dx.doi.org/10.3390/ijerph17072325>

Faß, E., Pyun, H., & Schlesinger, T. (2020). Perception of aging in the relation between sport activity and self-rated health in middle and older age - A longitudinal analysis. SSM - Population Health, 11. <https://doi.org/10.1016/j.ssmph.2020.100610>.

Fu, P. (2020). Getting to Know Web GIS, fourth edition (4 ed.). Esri Press.

Kumar, T. M. (Ed.). (2020). Smart Living for Smart Cities: Case Studies. Springer Singapore.

Maheswar, R., Balasaraswathi, M., Rastogi, R., Sampathkumar, A., & Kanagachidambaresan, G. R. (Eds.). (2021). Challenges and Solutions for Sustainable Smart City Development. Springer International Publishing.

Mario, R. et. al. (2019). Supporting Better Physical Activity in a Smart City: a Framework for Suggesting and Supervising Walking Paths. Advances in Science, Technology and Engineering Systems Journal, 4(4), 404-414.
<https://astesj.com/v04/i04/p49/>

Rocha, N. et. al. (2019). A Systematic Review of Smart Cities' Applications to Support Active Ageing. Procedia Computer Science, 160, 306-313.
<https://doi.org/10.1016/j.procs.2019.11.086>

Walsh, D. W., Green, B. C., Holahan, C., Cance, J. D., & Lee, D. (2019). Healthy aging? An evaluation of sport participation as a resource for older adults in retirement. Journal of Leisure Research, 50(1), 56-80. <https://doi.org/10.1080/00222216.2018.1554092>

**Additional readings may also be suggested on a topic by topic basis*

Important Notes:

1. Students are expected to spend a total of 9 hours (i.e. 3 hours of class contact and 6 hours of personal study) per week to achieve the course learning outcomes.
2. Students shall be aware of the University regulations about dishonest practice in coursework, tests and examinations, and the possible consequences as stipulated in the Regulations Governing University Examinations. In particular, plagiarism, being a kind of dishonest practice, is “the presentation of another person’s work without proper acknowledgement of the source, including exact phrases, or summarised ideas, or even footnotes/citations, whether protected by copyright or not, as the student’s own work”. Students are required to strictly follow university regulations governing academic integrity and honesty.
3. Students are required to submit writing assignment(s) using Turnitin.
4. To enhance students’ understanding of plagiarism, a mini-course “Online Tutorial on Plagiarism Awareness” is available on <https://pla.ln.edu.hk/>
5. Students must adhere to the University’s guidelines and practices when using Generative Artificial Intelligence (AI) tools. The official documents “Guidelines for Using GAI Tools at Lingnan University” and “Best Practices for Ethical and Responsible Use of GAI Tools in Course Assessments” can be found here: <https://www.ln.edu.hk/tlc/generative-artificial-intelligence/gai-guidelines-best-practices>