

CA4192: SUSTAINABLE URBANISM

Effective Term

Semester A 2022/23

Part I Course Overview

Course Title

Sustainable Urbanism

Subject Code

CA - Civil and Architectural Engineering

Course Number

4192

Academic Unit

Architecture and Civil Engineering (CA)

College/School

College of Engineering (EG)

Course Duration

One Semester

Credit Units

3

Level

B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

This course aims to provide students with both the skills to conceptualise a sustainable city and the ability to design one. The city in the twenty-first century faces major challenges, including social and economic stratification, wasteful

consumption of resources, transportation congestion, and environmental degradation. Through a series of lecture and laboratory classes, students are expected to understand these issues and propose solutions toward a sustainable city development. Specifically, students should have a theoretical understanding from a diverse range of disciplines including sociological, environmental, political and economic theory. Students learn knowledge of key disciplinary areas including urban design, spatial planning, property development and ecology. Students acquire the aptitude to enable implementation such as creative thinking, negotiation, project management skills, and advocacy.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if DEC-A1 app.)		DEC-A2	DEC-A3
1	Explain the latest thinking and debates on urban sustainability from policy, research and practice perspectives (Sustainable thinking);	30	x		
2	Develop real projects and places for studying the actual meanings of sustainable places;	30		x	
3	Develop skills and knowledge required to actually deliver sustainable development (Delivering sustainability).	40		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.

Teaching and Learning Activities (TLAs)

TLAs	Brief Description	CILO No.	Hours/week (if applicable)	
1	Lecture	Introduce key issues, concepts sources, and applications related to sustainable urbanism	1, 2	2 hours/week
2	Tutorial	Handle actual issues and learn how to use specific applications and analytical techniques in practical ways	1, 2, 3	1 hour/week

Assessment Tasks / Activities (ATs)

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)	
1	In-class quiz	1, 2, 3	20	
2	Group Project & Presentation	2, 3	30	

Continuous Assessment (%)

50

Examination (%)

50

Examination Duration (Hours)

3

Additional Information for ATs

To pass a course, a student must obtain minimum marks of 30% in both coursework and examination components, and an overall mark of at least 40%.

Assessment Rubrics (AR)

Assessment Task

In-class quiz

Criterion

Comprehensive understanding of the key concepts and issues of sustainable urbanism.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

Group Project & Presentation

Criterion

Ability to apply skill settings and present analytical results accurately, effectively and innovatively using multiple approaches and techniques.

Excellent (A+, A, A-)

High

Good (B+, B, B-)

Significant

Fair (C+, C, C-)

Moderate

Marginal (D)

Basic

Failure (F)

Not even reaching marginal levels

Assessment Task

Examination

Criterion

Comprehensive understanding of the key concepts and issues of sustainable urbanism.

Excellent (A+, A, A-)

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Moderate

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Failure (F)

Not even reaching marginal levels

Part III Other Information**Keyword Syllabus**

Sustainable development, green urbanism, planning for resilience, economic stratification, environmental degradation.

Reading List**Compulsory Readings**

Title	
1	Nil

Additional Readings

Title	
1	Haas,Tigran. (2012) Sustainable Urbanism and Beyond: Rethinking Cities for the Future. Rizoli.
2	Farr, Douglas. (2007).Sustainable Urbanism:Urban Design with Nature. Wiley.
3	Coyle, S.J. (2011).Sustainable and Resilient Communities: A Comprehensive Action Plan for Towns, Cities, and Regions.Wiley.
4	Beatley, Timothy. (1999). Green Urbanism: Learning from European Cities. Island Press.
5	Calthorpe, Peter.(2010). Urbanism in the Age of Climate Change. Island Press.
6	Benton-Short, Lisa and John Rennie Short. (2013). Cities and Nature. Routledge.