# CA4192: SUSTAINABLE URBANISM

**Effective Term**
Semester B 2024/25

## 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 app.) | DEC-A1 | 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.

**Learning and Teaching Activities (LTAs)**

| | LTAs | 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-)**
High

**Good (B+, B, B-)**
Significant

**Fair (C+, C, C-)**
Moderate

**Marginal (D)**
Basic

**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. |