

### COURSE IDENTIFICATION FORM

**Course Code and Name:** IM5020 SUSTAINABLE CITY

**Department of :** CIVIL ENGINEERING / MASTER PROGRAMME

Semester	Theoretic Hour	Practice Hour	Total Hour	Credits	ECTS	Education Language	Type: Compulsory Elective
Autumn/Spring	3	0	3	3	5	Turkish	Optional

**Prerequisite (s)**

**Instructor**

**Mail :**  
**Web :**

**Course Assistant**

**Mail :**  
**Web :**

**Groups / Classes**

**Course Aim**

Understanding the interaction of the city's construction, planning, urban recycling, infrastructure problems with the environment, understanding the concept of sustainability. Minimizing the interaction of the sustainable city with the environment, learning construction practices for a sustainable city that is self-sufficient and able to recycle.

**Course Goals**

Construction practices for sustainable cities will be discussed with concrete examples through the concepts of climate change, urban heat island, urban floods, urban recycling, sustainable materials, and technosol .

**Course Learning Outcomes and Proficiencies**

of sustainability , Knows ecology and sustainable methods in Civil Engineering. Knows Green buildings in construction. Knows construction excavation, recycling of demolition waste and materials. Knows sustainable energy systems in construction structures .

**Course Basic and Auxiliary Contexts**

- Musy , M., Bozonnet , E., Briottet , X., Gutleben , C., Lagouarde , J.P., Launeau , P., ... & Saber , M. (2014). Rapport final Projet ANR-09-VILL-0007 VegDUD Programme Villes Durables 2009.
- Vidal-Beaudet , L. (2018) . dechet au Technosol fertile : the appropriate Circular Du' programme français de recherche SITERRE. *VertigO -la revue électronique en sciences de l'environnement* , ( Hors-série 31).
- A. Mengü, D. İşçioğlu .( 2018). Urban Policies, Palme Publishing House,

**Methods of Give a Lecture**    Lecture, research and presentation.

Assessment Criteria		If Available, to Sign (x)	General Average Percentage (%) Rate
	Midterm Exam	X	50
	1. Quiz		
	2. Quiz		
	3. Quiz		
	4. Quiz		
	Oral Examination		
	Practice Examination (Laboratory, Project etc.)		
	Final Exam	X	50
<b>Semester Course Plan</b>			
Week	Subjects		
1	Introduction to Ecology and Urban Sustainability in Civil Engineering		
2	Carbon footprint and lifespan of materials		
3	Green buildings and energy consumption		
4	Urban floods and infrastructure problems		
5	Urban heat island, energy consumption and life comfort problem		
6	Urban recycling and waste management		
7	Technosol and sustainable floors		
8	Alternative practices for rainwater management		
9	City and Greenery: Ecological functions of green roofs and urban green spaces		
10	Ecological building materials		
11	Drinking water, Rainwater networks and wastewater networks and treatment systems		
12	Urban pollution		
13	General assessment: Global warming and the construction industry		
14	Presentations		