



Department of Architecture Engineering
University of Cihan- Sulaymaniyah

Subject: Architecture & Environment II
Course Book – 4th Stage-2nd Semester

Lecturer's name:

Sara Dhiaadin Bahaadin

Academic Year: 2023/2024

Course Book

1. Course name	Architecture & Environment II
2. Lecturer in charge	Sara Dhiaadin Bahaadin
3. Department/ College	Architecture Engineering
4. Time (in hours) per week	2 hrs
5. Office hours	
6. Course code	ARC4203
7. Teacher's academic profile	Assistant Lecturer, <ul style="list-style-type: none"> - BSc. Architectural Engineering –University of Sulaimaniya,2008 - MSc. Sustainable environmental design in architecture- University of Liverpool, UK 2013
8. Keywords	
9. Course overview: <p>The course trying to explore how an adequate building can minimize negative impact on the climate. It also supporting students’ learning on how the built environment in different limits is affected by the microclimate, vegetation, orientation etc., and support the students’ learning on how building affect energy use and daylight in buildings and the impact of people's attitude and behavior towards climate and energy issues.</p>	
10. Course objective: <ul style="list-style-type: none"> • Introducing, the Modern Science of Climatology in the context of climate and weather as determinants of Design and Form of Buildings. • Understanding Climate and its impact on architectural design, fundamentals of climatology and environmental studies. • The provision for comfort, health and safety is one of the most basic objectives in architecture. • Developing a basic understanding of how to achieve and maintain these provisions and how to integrate them into the architectural design process. 	

11. Student's obligation

To understand and deal with the concepts of Architecture and Environment as creative tool in architectural design, students need to work beyond just the course materials provided by the instructor. That is why in the course there will be several presentation sessions by the students.

12. Forms of teaching

Theoretical lectures, presentations and discussions.

13. Assessment scheme

2% of total degree for daily discussion and lesson cooperation,

8% on student presentations

30% on mid-term Exam

60% on final term Exam

14. Student learning outcome:

- Learning about nature and interrelating to the buildings
- Learning about biomimicry
- Learning about natural air movement and natural ventilations in building design.
- Implementation of stack effect phenomenon on building design.
- Design climatic principles applications on buildings.
- Preparation of students for practical life projects applications concerning climatic principles and concepts.
- Learning about sustainability and green building principles and rating systems applied on buildings to minimize energy consumption or reduce it as much as possible.

15. Course Reading List and References:

- Brown, G.Z. & Mark DeKay, Sun, Wind & Light: Architectural Design Strategies, John Wiley & Sons, 2000.
- Watson, Donald, "Time Saver Standards for Architectural data", McGraw-Hill, 1999.
- Peter Templeton & Saunders, "Detailing for architectural acoustics", Architectural press, 1994
- Mark Blitz et al., "Elements of acoustics", John Wiley & sons, 1975

16. The Topics:

Lecture No	Topic
1	Introduction to the course and main topics
2	Climate and Buildings 1
3	Climate and Buildings 1
4	Architecture and environment
5	Green & Sustainable Architecture
6	Renewable energy resources
7	Passive heating cooling I
8	Passive heating cooling II
9	Zero-Energy buildings I
10	Zero-Energy buildings II
11	Building Envelopes, I
12	Building Envelopes II
13	Students' presentation
14	Design with nature I
15	Design with nature II
16	Noise control

17. Peer review

Main Lecturer in charge
Sara Dhaadin Bahaadin

Head of the Department
Mrs. Tara Azad Rauof