



Department of Architectural Engineering
College of
University of Cihan- Sulaimaniya

Subject: Urban Design

Course Book – Year Third.

Lecturer's name Dr. Nahedh Al-Qemaqchi

Academic Year: 2023/2024

Course Book

1. Course name	Logic and design methodology
2. Lecturer in charge	Assistant Professor Dr. Nahedh Taha AL-QEMAQCHI
3. Department/ College	Department of Architectural Engineering
4. Time (in hours) per week	2hr.
5. Office hours	1hr.
6. Course code	ARC083104
7. Teacher's academic profile	https://uni.sulicihan.edu.krd/qa/profile/nahed.taha/
8. Keywords	Logic, Architecture, Design Methodology, Design Process
9. Course overview: Studying and understanding the role of using logical and rational thinking in architectural design	
10. Course objective: The course aims, to discuss and provides the basic concepts of logical thinking in architectural design process	
11. Student's obligation To understand and deal with the concepts of logic as tool in the thinking of architectural design, and able to make a rational decision about design problem solving.	
12. Forms of teaching Theoretical lectures and discussions	
13. Assessment scheme	
Midterm Examination	30 %
Paper, Quiz, Project	05%
Lab exam (discussions)	05%
Final Practical Examination	**%
Final theory exam	60%
14. Student learning outcome: Can deal with the aspects of logical thinking and rationality in architectural design	

15. Course Reading List and References:

1. **How Designers Think: The Design Process Demystified, 2005 by Bryan Lawson**
2. **Design Methods, 2nd Edition, 1992 by John Chris Jones, Design Methods in Architecture 1990, by Geoffrey Broadbent**

16. The Topics:

Lecture No	Topic
1	Definitions, types, cognitive, interpretation, thinking processes
2	Thinking cycle
3	Logic, logical thinking
4	Reasoning, tools and procedures
5	Logical inference types Deduction and Induction
6	Logical inference types abduction and analogy
7	Analogy in logic vs. analogy in architecture
8	Using inference thinking in architecture
9	Midterm exam
10	Philosophy, Epistemology, and Methodology
11	The role of methodology in architecture, Concept in architecture
12	Black box methods in architectural design
13	Glass box methods in architectural design
14	Hybrid methods in architectural design
Final Examination	

17. Peer review

Nahedh

Main Lecturer incharged

Head of The Department