

Ministry of Higher Education and Scientific Research

University of Technology

Department of Architecture

Baghdad-Iraq

## Academic Study Plan

2016-2017

Postgraduate curriculum

الجامعة التكنولوجية  
University of Technology

(١)

Master degree in:

Architectural Design, Urban Design ,

Architecture Technology

&

Doctorate Philosophy degree in Architecture

## Introduction

The Department of Architecture stems with the vision, mission and goals of academic institution dedicated academy programs toward architectural education supported by modern mechanisms and techniques in order to build new Iraqi architectural reality which watch and have interest in the quality of output expected from graduate students by having all the benefit of the available opportunities on the level of the educational process pillars in order to achieve the goal of competence - Architecture Engineering- which seeks to put a comprehensive anchor structure where all intellectual- knowledge, methodological and applied dimensions for the fundamental lessons show, first and foremost architectural design by using the latest design technologies and methodologies in learning and education. hence came our vision in our understanding of the responsibility of scientific sobriety and how to support it down to explore the implementation tools of scientific specialization policy.

The Department of Architecture Engineering founded in 1977 within the University of Technology in Baghdad. Through its teaching philosophy and curricula, the Department of Architecture strives to develop a basis for a truly national architectural school that emphasizes the importance of inspiration from Iraq's architectural heritage with a sophisticated and contemporary approach in both architectural and urban scale. During the period 1977-2012, around 1900 architects graduated, many of them are now well-established in various state establishments and some have also become well-known on the Arab-world and international levels.

Our department excels in providing basic and advanced Architectural engineering education. It has been designed to provide a firm foundation across a wide breadth of activities that fall under the umbrella of Architectural Engineering. We offer courses in areas related to Architecture, Urban design, landscape, interior architecture, Structure, Environment, and Construction Engineering. The theoretical program and practical skills that students learn in their degree program give them a unique advantage after they complete their program.

The Master of Science (MSc) degree in Architectural Engineering established in 1986, it's intended to meet the needs of students who wish to prepare for careers and expertise in areas such as design and analysis, Buildings Technology, Critical Theory, Building and Environment, Urban design, Project Management, and research. The program also provides excellent preparation for doctoral studies, which established in our department in 1992, a PhD philosophy degree in architecture and urban studies for minimum three years length and combines a practical and theoretical approach for learning and research.

The Master of Science in Architectural Engineering is a research-based Master's degree for students interested in pursuing in-depth architectural research. The study includes one courses year and one research project year. The curriculum gives the students some flexibility in choosing the electives from their areas of interest.

The department offers MS programs of 36 units in the following areas:

- Urban design
- Architectural design
- Architectural Technology

### The System of the postgraduate Study:

The Msc degree is obtained after passing two years study, First year is a preparation study which covers the required courses through attending theoretical lectures , preparing dissertation and essays and attending studios and workshops. Second year is for doing a research project.

The PhD. degree is obtained after passing three years study, First year is a preparation study, which covers the required courses through attending theoretical lectures, preparing dissertation and essays and attending workshops. After that two years for doing a research project (Thesis) .

**Number of hours and units depended to obtain any kind of certificates are as follows:**

- No. of units depended to obtain MSc degree is (3٦ units).
- No. of units depended to obtain PHD degree is (60 units).

## MSc. Courses

### Architecture Design Study Plan

#### Semester 1:

Code	Course	Weekly hours		Credit unites
		First semester		
		Theoretical	Practical	
ARC-A 601	Design Strategies	2	-	٢
ARC-A 602	Building System Techniques	2	-	2
ARC-A 603	Theory of Architecture	2	-	٢
ARC-A 604	Systems and Architecture	2	-	2
ARC-A 605	Research Theory	2	-	2
ARC-A 606	English Language Techniques	1	-	1
Total		11	-	1١

هندسة العمارة  
Architecture Engineering

## MSc. Courses

### Urban Design Study Plan

#### Semester 1:

Code	Course	Weekly hours		Credit unites
		First semester		
		Theoretical	Practical	
ARC-U 601	Housing	2	-	2
ARC-U 602	Landscape Design	2	-	2
ARC-U 603	Analysis of Climatic Urban Environment	2	-	2
ARC-U 604	Urban design Theory	2	-	2
ARC-U 605	Research Theory	2	-	2
ARC-U 606	English Language Techniques	1	-	1
Total		11	-	11

هندسة العمارة  
Architecture Engineering

## MSc. Courses

### Architecture Technology Study Plan

#### Semester 1:

Code	Course	Weekly hours		Credit unites
		First semester		
		Theoretical	Practical	
ARC-AT 601	Climatic Environment Design	2	-	2
ARC-AT 602	Thought of architectural Technology	2	-	2
ARC-AT 603	Technology of Construction and Materials	2	-	2
ARC-AT 604	Theory of Architecture	2	-	2
ARC-AT 605	Research Theory	2	-	2
ARC-AT 606	English Language Techniques	1	-	1
Total		11	-	11

هندسة العمارة  
Architecture Engineering

## Ph.D. Courses

### Study Plan

### Semester 1:

Code	Course	Weekly hours		Credit unites
		First semester		
		Theoretical	Practical	
ARC 701	Architecture Philosophy	2	-	2
ARC 702	Research Theory	2	-	2
ARC 703	Urban design Theory	2	-	2
ARC 704	Architecture and Environment	2	-	2
ARC 705	Elective course (1)	2	-	2
ARC-U 706	Elective course (2)	2	-	2
ARC-U 707	English Language Techniques	1	-	-
Total		13	-	12

هندسة العمارة  
Architecture Engineering

Ministry of Higher Education and Scientific Research  
University of Technology  
Department of Architecture

**Subjects Description of Master Curriculum  
2016 - 2017**

الجامعة التكنولوجية  
University of Technology

**Architectural Design, Urban Design**

1977

&

**Architecture Technology**

هندسة العمارة  
Architecture Engineering



## MSc. Courses

### Architectural Design Specification

#### Semester 1 :

#### **ARC-A 601 : Design Strategies**

This course aim to introduce students to the most important curriculum and contemporary Strategies that target the production of texts architectural relevant attributes of creative and communicative through the system and investigate the survey about the most important of these Strategies adopted by the international architects and discuss the formation formats at both the formal and the semantic of these texts with a comparison accredited concepts systems by architect and other fields such as literature, poetry and art that the methods of reading of cash in these fields are Peerha and clarity of the nature of the interrelationships between network elements and semantic formalism alike.

#### **ARC-A 602 : Building System Techniques**

The course aim generally to identify the relationship between building as an architecture and building as a construction. Specifically on many items :Technology: Technology definitions,. Technology as a utilitarian need, Technology as a Phenomenon. The course also aim to identify: the impact of technological change on building structure, Systems of Building, Technology systems and contemporary architectural products.

#### **ARC-A 603 : Architectural Theory**

The aim of this course is to introduce students to the genesis of theories and assets also to keep pace with the emergence of contemporary intellectual theories and their application. As well as the course aims to build a knowledge base for the development of the history of architecture intellectually, and to form philosophical knowledge base from which the student can connect to the mechanics of the intellectual and philosophical concepts.

## **ARC-A 604 : Systems and Architecture**

This course aims to study and understand the importance of Systems in general and their characteristics and the extent of their impact in the construction of architectural work and outcome consistent humanitarian needs, spiritual and symbolic as well as for pure architecture systems that make up the physical construction. vocabulary covers basic definitions disparate systems and how to identify them in the theoretical and practical fields of architecture that requires an understanding of some basic vocabulary for systems such as context and content, language, values and moral organization, structure, and its role in our understanding of the architecture. Depending on this are discussed definition of the theory and the theory of general systems that give a systematic concept urban scenarios that make realizing the city systems and informatics, language and symbols and signal and traditions influential in the formation of tangles in growth and a sense of the city and the place is what leads to the result of understanding of architecture such as the composition and realistically reflects the consistent and different systems. students are responsible preparing the subject of a research reflects the ability to identify relevant in architecture systems and offers a discussion based on the participation of the rest of the students which will expand the approved knowledge of important aspects and essential in understanding the architecture systems and systems, retaining the same footprint and applications through an understanding of the theory of general systems and theories are supported by others.

## **ARC 605-A : Research Theory**

This course aim to Introduce students to the following subjects: The most important scientific research vocabularies, the public foundations of scientific research, the most important philosophical propositions public vocabulary and its currents, and the general framework of Structural Research majoring in Architecture in general.

## **ARC 606 -A : English Language Techniques**

The aim of this course is to develop researcher ability to understand and interpretive English texts and literature, at the same time to present their knowledge in a perfect way. This would be by taking many items like: Grammar Skills, Vocabulary Skills, Speaking Skills Listening Skills, Reading Skills, and Writing Skills.

## MSc. Courses

### Urban Design Specification

#### Semester 1 :

#### **ARCH- U 601 Housing**

The aim of this course is to identify students with new theories in housing , plus the housing problems , and the proposed solutions.

#### **ARC-U 602 Landscape Design**

This course aims to :

- Focus on Landscape because it represents one of the specialized subjects within the purview of urban design.
- Identify the most important themes and literature concerning landscape architecture in order to take advantage of them in the field of urban landscape, to help the students in preparation their studies, research, and design concerning landscape architecture.
- Focus on sustainability and ecosystem and how to achieve it by working to induce students' interest research on this topic because of its importance in the present after the man realized negative results, which reached his environment through the negligence of landscape and its substantial role in the climate and environmental design.
- Creation of a cadre has a knowledgeable and knowing the importance and the role of landscape architecture in urban design.

#### **ARC-U 603 Analysis of Climatic Urban Environment**

This course is constrain on the following general items:

- The Importance of providing thermal comfort in outside spaces.
- The benefiting from the site characteristics in the development of the design program and design alternatives.
- Reach to urban designs that minimize the impact on climate change.

## ARC-U 604 Urban Design Theory

The course is an introduction to contemporary urban design and to the main theories and positions from the past five decades. Urban design integrates aspects from planning, architectural design, sociology, cultural studies, and urban history. A principal goal of the course is to tie a connection between theory and practice, and discusses of the impact of these theory in local urban design projects and Iraqi city developments.

## ARC-U 605 Research Theory

The course aim to introduce students to the characteristics of academic scientific research , and ways of finding information and analysis of previous literature down to solve the problem of the research, as well as to define the characteristics and specifications of the scientific writing and the completion of the master's thesis.

## ARC-U 606 English Language Techniques

The aim of this course is to develop researcher ability to understand and interpretive English texts and literature, at the same time to present their knowledge in a perfect way. This would be by taking many items like: Grammar Skills, Vocabulary Skills, Speaking Skills Listening Skills, Reading Skills, and Writing Skills.

## MSc. Courses

### Architecture Technology Specification

#### Semester 1 :

#### **ARC – AT 601 Climatic Environmental Design**

This Course aims to introduce fundamental orders about Providing Human Comfort, including thermal comfort, and to Identify new technologies in the building's design and provide a comfortable indoor environment.

#### **ARC – AT 602 Thought of architectural Technology**

The course aim to introduce the following subjects:

- The historical development of the relationship between technology and architecture and to clarify its role in the emergence of different architectural approaches.
- Addressing the complexity of the design process, which mounts up determinants and effects on various systems and the level of (architectural, construction, service, etc ...) and the role of the digital in finding solutions for it.
- Highlighting the influential role of integration between technological systems as the most effective approach to the nature of the relationship between the Association of architecture and construction.
- The role of new technology in the emergence of new architectural trends.
- Diagnosis of the impact of technological systems as a variable basis to show the expressive aspects of creativity and formal.
- Addressing the many contemporary Virtual Reality technology and techniques of media and to clarify the role of architecture and urban landscape concepts.

Architecture Engineering

## ARC-AT 603 Technology of Construction and Materials

The course aims generally to:

- Identify the relationship between building as material and building as a construction and aim to teach the student the requirements of the Construction Technology and Materials Technology that helps to keep up with creations contemporary thought in the field of architecture.
- The possibility of clarifying the relationship between the material and the characteristics of the contemporary architectural form in twentieth century architecture .
- Clarify innovative materials, which aspires to link art and architectural design and technological practice.

## ARC-AT 604 Architectural Theory

The aim of this course is to introduce students to the genesis of theories and assets also to keep pace with the emergence of contemporary intellectual theories and their application. As well as the course aims to build a knowledge base for the development of the history of architecture intellectually, and to form philosophical knowledge base from which the student can connect to the mechanics of the intellectual and philosophical concepts.

## ARC- AT 605 Research Theory

This course aim to introduce students to the following subjects: The most important scientific research vocabularies, the public foundations of scientific research, the most important philosophical propositions public vocabulary and its currents, and the general framework of Structural Research majoring in Architecture in general.

## ARC – AT 606 English Language Techniques

The aim of this course is to develop researcher ability to understand and interpretive English texts and literature, at the same time to present their knowledge in a perfect way. This would be by taking many items like: Grammar Skills, Vocabulary Skills, Speaking Skills Listening Skills, Reading Skills, and Writing Skills.

## Semester 1

### MSc. Courses - Architectural Design Staff

subject	Subject Instructor
Design Strategies	Asst. Prof. Dr. Abbas Ali Hamza
Building System Techniques	Asst. Prof. Dr. Safaa Aldeen H. Ali
Architectural Theory	Asst. Prof. Dr. Basim Hasan Hashim
Systems and Architecture	Asst. Prof. Dr. Abdullah Sa'doon Salman
Research Theory	Asst. Prof. Ahmed Hashim Hameed
English Language Techniques	Prof. Shatha Alsadi

## Semester 1

### MSc. Courses - Urban Design Staff

Subject	Subject Instructor
Housing	Prof. Dr. Sana Sati
Landscape Design	Asst. Prof. Dr. Rawaa Fawzi Naom Abbawi
Analysis of Climatic Urban Environment	Asst. Prof. Dr. Younis Mahmood M. Saleem
Urban Design Theory	Asst. Prof. Wahda Shuker Al-Hinkawi
Research Theory	Asst. Prof. Dr. Anwar Subhi Ramdan
English Language Techniques	Prof. Shatha Alsadi

## Semester 1

### MSc. Courses - Architecture Technology Staff

subject	Subject Instructor
Climatic Environmental Design	Asst. Prof. Dr. Basim Hasan Hashim
Thought of architectural Technology	Asst. Prof. Dr. Safaa Aldeen H. Ali
Technology of Construction and Materials	Asst. Prof. Ahmed Hashim Hameed
Architectural Theory	Dr. Younis Mahmood M. Saleem
Research Theory	Prof. Dr. Ali Muhsin Ja'far
English Language Techniques	Prof. Shatha Alsadi

Ministry of Higher Education and Scientific Research

University of Technology

Department of Architecture

## Subjects Description of doctorate Curriculum

2016-2017

الجامعة التكنولوجية  
University of Technology

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1977

Doctorate Philosophy degree in Architecture

هندسة العمارة  
Architecture Engineering



## Ph.D. Courses - Specification

### Semester 1 :

#### **ARC- 701 Philosophy of Architecture**

The course aim generally to create an architectural logic in philosophy and the occurrence of events, to question the researcher on multi levels

- is a requirement for the researcher in the philosophy of architecture.
- is there a correct architecture and other false.
- is the movement in an integrated architecture or Accepted decadence.
- How can the use of the arbitrator and the symmetric in the impact of architecture and directions.
- Could you choose a specific method, and the mistakes that accompanied?
- How can identify the four parties in the interpretation of architecture and its movements.
- Can you prepare a guide in interpreting the philosophy of architecture (latent and the apparent system).
- Can you interpret the issues concerning the architecture under four reasons.
- The adoption of the statement of one of the pioneers of architecture you can take a stand.
- Create initial perceptions in the Composition of of four parts.

#### **ARC- 702 Research Theory**

The aim of this course is to clarify The nature and role of architectural research, as conducted in the academy and practice, and who it is gradually shifted over the decade according to different methodologies.

#### **ARC- 703 Urban design Theory**

The course concern with theories and dimensions of urban design: Changes and transformation in urban design.

## ARC- 704 Architecture and Environment

The course aims to identify scientific and intellectual aspects that make design work fit its environment, and discuss the scientific basis for the vocabulary that had previously successfully performed in traditional architecture and methods for employing those vocabulary modernly.

## ARC- 705 Elective course (1)

## ARC 706 Elective course (2)

### The Elective Courses are:

- **Statistic Analysis:**

The course aim to introduce student to the following subjects: Statistics is concerned with scientific methods for collecting, organizing, summarizing, presenting and analyzing data as well as deriving valid conclusions and making reasonable decisions on the basis of this analysis. Statistics is concerned with the systematic collection of numerical data and its interpretation.

- **Urban Management:**

The course aim generally to identify the following items for the students:

Identify the relationship between intelligent systems and knowledge cities, and also identify the urban management, which specializes in intelligent systems in the knowledge cities through the pillars of the knowledge society. Finally identify the intelligent systems at different levels for the growth of cities.

- **Concept of City:**

This course aims to search in all aspects of the city in order to understand the concept behind it . It aims to also to search behind the changes in the concept of the city and the presence of the conditions of change . Finally , it aims to discover the techniques of how the change should respects the city identity and personality and history and physical topics.

## ARC- 707 English Language Techniques

The aim of this course is to develop researcher ability to understand and interpretive English texts and literature, and to enhance their Communication Skills This would be by taking many items like: Technical Vocabulary, Essay Writing, Business Writing, Technical Writing, Effective Communication, and Presentation Skills.

## Semester 1

### PH.D. Courses Staff

subject		Subject Instructor
Architectural Philosophy		Prof.Dr.Ibrahim Jwad Al-Yosif
Research Theory		Asst.Prof. Asmaa Mohammed Hussain al-moqaram
Urban Design Theory		Prof.Dr.Sana Sati
Architecture and Environment		Prof.Dr. Miqdad Haidar Al-Jawadi
Elective course	Statically Analysis	Dr. Falah Khalaf
	Urban Management	Asst.Prof. Dr.Safaa Aldeen H. Ali
	Concept of City	Asst.Prof. Dr.Khansaa Ghazi
English Language Techniques		Prof.. Shatha Alsadi

الجامعة التكنولوجية  
University of Technology

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1977

هندسة العمارة  
Architecture Engineering

Ministry of Higher Education and Scientific Research

University of Technology

Department of Architecture

Baghdad-Iraq

## Academic Study Plan

2016-2017

Postgraduate curriculum

الجامعة التكنولوجية  
University of Technology

(٢)

Master degree in:

Architectural Design, Urban Design ,

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&

Doctorate Philosophy degree in Architecture

## Introduction

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The PhD. degree is obtained after passing three years study, First year is a preparation study, which covers the required courses through attending theoretical lectures, preparing dissertation and essays and attending workshops. After that two years for doing a research project (Thesis) .

**Number of hours and units depended to obtain any kind of certificates are as follows:**

- No. of units depended to obtain MSc degree is (3٦ units).
- No. of units depended to obtain PHD degree is (60 units).

## MSc. Courses

### Architecture Design Study Plan

#### Semester ٢:

Code	Course	Weekly hours		Credit unites
		First semester		
		Theoretical	Practical	
ARC-A 60٧	Climatic Environmental design	2	-	٢
ARC-A 60^	Theory of Architecture	2	-	2
ARC-A 60^	Research Applications	2	-	٢
ARC-A 6١٠	Islamic Architecture	2	-	2
ARC-A 6١١	Elective course (1)	2	-	2
ARC-A 6١2	Elective course (2)	2	-	2
ARC-A 6١3	English Language Techniques	1	-	1
Total		11	-	1١

هندسة العمارة  
Architecture Engineering

## MSc. Courses

### Urban Design Study Plan

#### Semester ٢:

Code	Course	Weekly hours		Credit unites
		First semester		
		Theoretical	Practical	
ARC-U 60٧	Sustainable Urban design	2	-	2
ARC-U 60٨	Urban design Strategies	2	-	2
ARC-U 60٩	Analysis of Urban Design	١	٢	2
ARC-U 6١٠	Research Applications	2	-	2
ARC-U 6١١	Elective course (1)	2	-	2
ARC-U 6١٢	Elective course (٢)	2	-	2
ARC-U 6١٣	English Language Techniques	1	-	1
<b>Total</b>		<b>١٢</b>	<b>٢</b>	<b>١٣</b>

هندسة العمارة  
Architecture Engineering



## MSc. Courses

### Architecture Technology Study Plan

#### Semester 2:

Code	Course	Weekly hours		Credit unites
		First semester		
		Theoretical	Practical	
ARC-AT 60 <sup>٧</sup>	Advanced building systems	2	-	2
ARC-AT 60 <sup>٨</sup>	Sustainable Architecture	2	-	2
ARC-AT 60 <sup>٩</sup>	Research Applications	2	-	2
ARC-AT 61 <sup>٠</sup>	Project Management	2	-	2
ARC-AT 61 <sup>١</sup>	Elective course (1)	2	-	2
ARC-AT 61 <sup>٢</sup>	Elective course (٢)	2	-	2
ARC-AT 61 <sup>٣</sup>	English Language Techniques	1	-	1
Total		11	-	11

Architecture Engineering

## Ph.D. Courses

### Study Plan

### Semester 2:

Code	Course	Weekly hours		Credit unites
		First semester		
		Theoretical	Practical	
ARC 708	Theory in Architecture	2	-	2
ARC 709	Architectural Research Philosophy	2	-	2
ARC 710	Architectural Technology Thought	2	-	2
ARC 711	Theory of Criticism	2	-	2
ARC 712	Elective course (1)	2	-	2
ARC-U 713	Elective course (2)	2	-	2
ARC-U 714	English Language Techniques	1	-	-
<b>Total</b>		<b>13</b>	<b>-</b>	<b>12</b>

هندسة العمارة  
Architecture Engineering

Ministry of Higher Education and Scientific Research  
University of Technology  
Department of Architecture

**Subjects Description of Master Curriculum  
2016 - 2017**

الجامعة التكنولوجية  
University of Technology

**Architectural Design, Urban Design**

**&**

**Architecture Technology**

هندسة العمارة  
Architecture Engineering

## MSc. Courses

### Architectural Design Specification

#### Semester 2 :

#### ARC-A 607 : Climatic Environmental design

- Provide Human Comfort, including thermal comfort.
- The impact of sustainable development in architecture.
- Identify new technologies in the building's design and provide a comfortable indoor environment.

#### ARC-A 608 : Theory of Architecture

- Trend towards new mechanisms helps student to multiple types of thinking to change according to the studied case.
- Exposure to the variables that deal with architectural theories. To expand the ability of the student to research in the creation of theoretical models capabilities. By increasing the knowledge(theoretical & practical) and intellectual principle.
- The ability to analyze architectural projects according to architectural movements. And indicate the positive and negative effects in the community.
- Relying on the nature of the information derived from previous studies and evaluation by recognizing the interest earned in each subject.
- Verification of interesting topic which is a detailed search is moving in a range.
- Increasing the knowledge to the student in the theoretical and intellectual principle associated with the system of applied research aspects related to society.

#### ARC-A 609 : Research Applications

. The course aim to learn student how to applied scientific research constraints and procedure on an a specific topic which students choose. That contain :research methodology, research problem, literature review sampling, measurements, etc.

## ARC-A 610 : Islamic Architecture

The course aims to develop and expand the participant's knowledge base of the Islamic ideology with focus on Islamic architecture. Enhancing and emphasizing the students' critique, analytic and comparative approach. The course outline consists of three parts: First: Introducing the Islamic ideology. The formation of early Islamic ideology. Modern and contemporary Islamic ideology. Second: delving into the Islamic architecture study, Islamic arch: Concepts and implementation. Comparative study of the variety of civilizations and how their ideologies effected their architectural achievements. Study example: Aga Khan, how Islamic intellectual trend effects architecture. Third: discussing the student reports.

## ARC A- 611 : Elective Course (1) Statistics Anylises

Statistics is concerned with scientific methods for collecting, organizing, summarizing, presenting and analyzing data as well as deriving valid conclusions and making reasonable decisions on the basis of this analysis. Statistics is concerned with the systematic collection of numerical data and its interpretation.

## ARC A- 612 : Elective Course (2)

And these Include:

### Advanced Architectural Design Strategies:

The objective of the advanced architectural design strategies is to introduce students to the most important contemporary methods and strategies aimed at producing architectural texts with creative features and continuity through a system of survey and research on the most important strategies adopted by international architects and discussing formulations at the formal and semantic levels of these texts. By the designer of the fields of other fields such as literature, poetry and art. The methods of critical reading in these fields are characterized by the ease and clarity of the nature of the interrelationships between the elements of the formal network and the both.

### Philosophy of Architecture Ethics:

- Increasing the student's knowledge of the theoretical principles of thinking about moral values and their sources through the connection of this subject to several aspects of methodology and analysis in light of the data and elements of thought and reality.
- Acquire the student intellectual skill in the analysis and composition according to a particular moral doctrine. By understanding the extent to which moral doctrines influence the formulation of formal structures and architectural formations.

- Revealing the role of moral action in the structure of Arab Islamic architecture and deconstruction, and its role in shaping the architecture in general.
- Building an architectural moral approach and adopting it as a destination for the generation of architects and employing it to create an intellectual basis based on the design readings to achieve the architecture with ethical function.

#### Human and the formation of the urban environment :

The course deals with the human and the physical environment, the human dimension to the drafting of the architectural vacuum, the concepts and foundations of formation and architectural formation and their impact on the functional and cultural aspects. It also deals with the relationship between the foundations of formation and the aesthetics of architecture and architecture through a comprehensive vision of architecture and humanities. Sociology, literature, and extrapolation of the human dimension in architectural models of local and international reality.

#### **ARC A- 613 : English Language Techniques**

The aim of this course is to develop researcher ability to understand and interpretive English texts and literature, at the same time to present their knowledge in a perfect way. This would be by taking many items like: Grammar Skills, Vocabulary Skills, Speaking Skills Listening Skills, Reading Skills, and Writing Skills.

الجامعة التكنولوجية  
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Architecture Engineering

## MSc. Courses

### Urban Design Specification

#### Semester 2 :

#### **ARCH- U 607 Sustainable Urban Design**

The aim of this material is to identify students with urban sustainability , sustainable development, and sustainable urban design, with new theories in this field. Plus sustainable cities and eco systems

#### **ARC-U 608 Urban Design Strategies**

The "Urban Design Strategy " - UDS puts a target to act as a guide for planners, designers and decision-makers to help improve urban design in a dynamic, ever-changing urban environment, and put the design within a process of design strategy and experiences significant pressure for redevelopment and land use change. In this context, the purpose of the UDS is to promote good design outcomes that contribute to a coherent and appealing urban environment and encourage continuity, growth and change.

The UDS also acknowledges that future developments will need to achieve better environmental outcomes. Good urban design should ensure an attractive and interesting place.

The UDS recognizes that the need to achieve good design outcomes at an individual site level should be balanced with a greater focus on collectively improving the quality of urban design through the strategy of the designer to put to each urban projects and the techniques the designer put to create the urban shape.

#### **ARC-U 609 Analysis of Urban Environment**

Studies of urban environment analysis address the multiple links between spatial structure, use patterns, social and cultural meaning.

Studies in this area develop models and morphologies of use, based on tools ranging from Graphic Information Systems to Space Syntax. Representing and modeling the spatial dimensions of behavior and use patterns become aspects of the formal description of built as well as virtual environments. This work may be closely linked with cultural and behavioral studies,

The main tool in the study will be space syntax method in studying city structure, Iraqi city centers will be examples in the analytic study.

## ARC-U 610 Research Applications

The course focuses on the application of all the vocabulary related to the theory of scientific research on selected samples of the master's thesis as well as architectural research published in local and international journals through the axes shown in the weekly schedule.

## ARC-U 611 Statics Analysis

Statistics is concerned with scientific methods for collecting, organizing, summarizing, presenting and analyzing data as well as deriving valid conclusions and making reasonable decisions on the basis of this analysis. Statistics is concerned with the systematic collection of numerical data and its interpretation.

## ARC-U 612 The future vision of the city

The course explores the development of a future planning vision for cities as an inevitable factor in their success and sustainability, and the different ways and means applied by cities to attract business and people.

It also deals with access to vision in different cities. Identify practical steps to establish a city development strategy that includes the start-up phase, scope of work, initial assessment and visibility, as well as identifying strengths, weaknesses, opportunities and risks to reach the appropriate strategy through community involvement of the community.

The importance of participation in decision-making. With the study and criticism of development plans with local and global theme in terms of preparation and its relationship to planning and urban design

## ARC-U 613 English Language Techniques

The aim of this course is to develop researcher ability to understand and interpretive English texts and literature, at the same time to present their knowledge in a perfect way. This would be by taking many items like: Grammar Skills, Vocabulary Skills, Speaking Skills Listening Skills, Reading Skills, and Writing Skills.

Architecture Engineering



## MSc. Courses

### Architecture Technology Specification

#### Semester 2 :

#### **ARC – AT 607      Advanced building systems**

Upon completion of the course, students will :

- Understand fundamental principles of building systems and detailing .
- Understand fundamental relationships between environment and building enclosure.
- Develop core skills to evaluate, determine and integrate appropriate of technology.
- Develop high performance to architectural systems proposals .
- Develop framework for further ongoing research on the subject .

#### **ARC – AT 608      Sustainable Architecture**

- Increasing the student's knowledge of the theoretical principles of thinking about the concepts of sustainability and its sources through the connection of this subject to several aspects of methodological and analytical in light of the data and elements of thought and reality.

- Acquiring the intellectual skill in analysis and structure according to the sustainability strategy and its mechanisms by understanding the impact of the concept of sustainability in the formulation of the formal structure, architectural configurations and the rules of the spatial organization of the architectural work.
- Disclosure of the role of sustainability concepts in construction techniques and construction materials performance, and their role in shaping the functional structure of architecture in general.

Building an architectural approach that adopts the concept of sustainability and its adoption as a destination for the generation of architects and its use in creating an intellectual base based on the design readings to achieve the architecture that is compatible with the surrounding environment

#### **ARC-AT 609      Research techniques**

- Trend towards new mechanisms helps student to multiple types of thinking to change according to the studied case.

- Knowing variables that deal with the research student to ensure the expansion of its capabilities in the creation of theoretical models.
- Increasing the knowledge to the student.
- How to use the theoretical and intellectual principle associated with the system of applied research aspects related to society.
- Emphasize the role of the researcher to influence society in order to ensure the existence of positive effects from behavioral and practical to do with members of the community.
- The practical detection of the role of the research act for the student through architecture structure associated with technological concepts.
- Mental Capacity Development to build architectural curriculum-related topics related to the competence of the IT architecture necessarily employed in the definition of intellectual bases for the student researcher.

## ARC-AT 610 Project Management

Students will learn the principles of project management, planning methods, time scheduling, to have the essential tools as a knowledge base to enable using the modern softwares for project management in high efficiency. In addition, they will know the kinds of contracts and other related subjects, as well as the principles of preparing feasibility studies for construction projects

## ARC- AT 611 Elective Course (1) Statics Analysis

Statistics is concerned with scientific methods for collecting, organizing, summarizing, presenting and analyzing data as well as deriving valid conclusions and making reasonable decisions on the basis of this analysis. Statistics is concerned with the systematic collection of numerical data and its interpretation.

## ARC- AT 612 Elective Course(2) (Technology of Construction and Advanced Materials)

Educating students with the knowledge about the role of advanced technology in contemporary architecture, which a combined by advances made in other fields especially digital technology , nanotechnology, bio nanotechnology, digital media technology, nanomaterials and smart materials and its applications in structural systems.

## ARC – AT 613 English Language Techniques

The aim of this course is to develop researcher ability to understand and interpretive English texts and literature, at the same time to present their knowledge in a perfect way. This would be by taking many items like: Grammar Skills, Vocabulary Skills, Speaking Skills Listening Skills, Reading Skills, and Writing Skills.

## Semester 2

### MSc. Courses - Architecural Design Staff

subject	Subject Instructor
Climatic Environmental design	Asst. Prof. Dr. Younis Mahmood M. Saleem
Theory of Architecture	Prof.Dr.Ibrahim Jwad Al-Yosif
Research Applications	Asst. Prof. Dr.Aasmaa Mohammed Hussain al-moqaram
Islamic Architecture	Lec. Dr. Mahdi Salih Faraj
Elective course (1)	Asst. Prof.Dr. Falah Khalaf Ali
Elective course (2)	Asst.Prof.Dr. Abbas Ali Hamza
	Asst Prof.Dr. Abdallah Sadoon Salman
	Asst Prof.Dr.Sabeeh Lafta Farhan
English Language Techniques	Prof. Shatha Alsadi

## Semester 2

### MSc. Courses - Urban Design Staff

Subject	Subject Instructor
Sustainable Urban design	Prof.Dr.Sana Sati
Urban design Strategies	Asst.Prof. Dr.Khansaa Ghazi
Analysis of Urban Design	Asst.Prof. Wahda Shuker Al-Hinkawi
Research Applications	Asst.Prof. Dr. Anwar Subhi Ramdan
Elective course (1)	Asst. Prof.Dr. Falah Khalaf Ali
Elective course (2)	Asst Prof.Dr.Sabeeh Lafta Farhan
English Language Techniques	Prof. Shatha Alsadi

## Semester 2

### MSc. Courses - Architecture Technology Staff

subject	Subject Instructor
Advanced building systems	Prof.Dr. Ali MUhsin Ja'far
Sustainable Architecture	Asst Prof.Dr. Abdallah Sadoon Salman
Research Applications	Prof.Dr.Ibrahim Jwad Kathom
Project Management	Lec. Dr. Suaad Khaleel Ibraheem
Elective course (1)	Asst. Prof.Dr. Falah Khalaf Ali
Elective course (2)	Lec. Dr. Wijdan Deyaa Abdul Jalil
English Language Techniques	Prof. Shatha Alsadi

Ministry of Higher Education and Scientific Research

University of Technology

Department of Architecture

## Subjects Description of doctorate Curriculum

2016-2017

الجامعة التكنولوجية  
University of Technology

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1977

Doctorate Philosophy degree in Architecture

هندسة العمارة  
Architecture Engineering

## Ph.D. Courses - Specification

### Semester 2 :

#### ARC- 708 Theory Of Architecture

The course focuses on presenting a wide range of architecture theory, in general, and the theory of architecture in the late 20th century and up to the present, in particular, through the axes shown in the weekly schedule.

#### ARC- 709 Architectural Research Philosophy

The purpose of this research philosophy is to introduce the student to the most important concepts that aim to explore the nature of the relationship between the three which form the subject matter of philosophy, research and architecture through the system of survey and inquiry about the most important concepts adopted by researchers in the doctoral stage and within the architectural specialization and discuss the dimensions of the relationship and its effects on Specific methodologies in writing doctoral thesis.

#### ARC- 710 Architectural Technology Thought

Contemporary architectural practice in which digital technologies radically change how buildings are designed, designed and produced. It discusses digitally-driven changes, their origins, and their effects by grounding them into actual practices that are already occurring, while speculating at the same time about their wider effects in the future. The course offers a variety of ideas about what is relevant today and what will be related tomorrow to emerging architectural practices in the digital age.

#### ARC- 711 Theory of Criticism

- The aim of the course is to introduce the student to the theories of criticism and its origins, and to indicate the importance and need for criticism in all directions of knowledge, including architecture.
- The aim of the article to keep up with the emergence of contemporary theories and trends and their applications and to show their relevance to the thought that I created

- The aim of the course is to build a knowledge base for the student through which he can critique theories and intellectual orientations
- Formation of a philosophical philosophical knowledge base through which the student can analyze the ideas and writings and show the viewer without the influences of the school to which he belongs.
- Teaching a PhD student how to write articles in the field of specialization.

## ARC- 712 Elective course (1)

### The Elective Courses are

- **Environmental psychology:**

It deals with environmental psychology, design and psychological factors affecting human perception and the mechanisms of human perception of the surrounding space. And the development of human perception of the various environmental elements. Emphasis on the reinterpretation of the design process through the use of perception and perception, and linked to various cultural and civilizational aspects.

- **The Aesthetics of place**

Introducing the principles of beauty and beauty philosophy and its association with the city's beauties, urban design and sensory perception.

## ARC 713 Elective course (2)

### The Elective Courses are:

- **probability theory:**

To introduce the student to the general framework of the design approaches in the building and the possibility of linking them to the subject of possibilities.

To introduce the student to the most important vocabulary of intellectual ideas in the building concerned with aspects of design studies from a probabilistic perspective.

Introducing the student to the most important vocabulary of the subject of possibilities.

Introducing the student to the general foundations of probability theories.

- **Systems transformation:**

The course aims to give a definition of the concept of the system, the concept of transformations and systems of complexity in architecture, and the types of geometries accompanying them, as well as exploring their potential in the analysis of architectural systems and the generation of other systems.

- **Practice the ethics of architecture:**

- Understanding the basic forms of professional behavior. This category covers issues related to professional life in general, such as honesty, fair dealing and promises, earning and maintaining sufficient skills to perform tasks efficiently. Is architecture a personal practice or is it a socio-cultural phenomenon?
- Increasing the student's knowledge of the theoretical principles of thinking about moral values and their sources through the connection of this subject to several aspects of methodology and analysis in light of the data and elements of thought and reality. And the extent of influence of moral doctrines in the formulation of formal structure and architectural formations.
- Revealing the role of moral action in the structure of Arab Islamic architecture and deconstruction, and its role in shaping the architecture in general.
- Building an architectural moral approach and adopting it as a destination for the generation of architects and employing it to create an intellectual basis based on the design readings to achieve the architecture with ethical function.

- **Philosophy Architecture Search:**

- Orientation of new mechanisms in research. Consistent with perceptions of other knowledge.
- The search for curricula, develop multiple thinking patterns depending on the change of the situation studied.
- Review studies and research that deal with architecture as an influential phenomenon in the social sphere. As well as its built environment.
- Building theoretical models by adopting the philosophy of formation and dealing with its variants. Ensuring an increase in theoretical and applied knowledge. And their aspects related to research problems in the community.
- Emphasize the role of the researcher in the impact of society, and what is the role of positive in its behavior and practical work with members of the community.
- Exposure to theories that mimic the research output in architecture and the possibilities of interpretation.
- Development of mental capacity to build architectural approaches related to topics related to the competence of architecture and its use in building the intellectual bases of the student researcher, towards reading the structure of research output of public benefit.

## ARC- 714 English Language Techniques

The aim of this course is to develop researcher ability to understand and interpretive English texts and literature, and to enhance their Communication Skills This would be by taking many items like: Technical Vocabulary, Essay Writing, Business Writing, Technical Writing, Effective Communication, and Presentation Skills.

### Semester 2

### PH.D. Courses Staff

subject		Subject Instructor
Theory Of Architecture		Asst.Prof.Dr.Anwar Subhi Ramadan
Architectural Research Philosophy		Asst.Prof.Dr.Abbas Ali Hamza
Architectural Technology Thought		Prof.Dr.Ali Muhsin Ja'af
Theory of Criticism		Asst. Prof.Dr. Basim Hasan Majed
Elective course(1)	Environmental Psychology	Asst. Prof.Dr.Susan Abd Hasan
	The Aesthetics of Place	Asst. Prof.Dr.Saad Al Jumaily
Elective course(2)	Probability Theory	Asst. Prof.Dr.Ahmed Hashim Hameed
	Systems Transformation	Asst. Prof.Dr.Asmaa Mohammed Ali
	Practice the ethics of architecture	Asst. Prof.Dr.Abdullah Sadoon Salman
	Philosophy Architecture Search	Prof.Dr.Ibrahim Jwad Kathom
English Language Techniques		Prof.. Shatha Alsadi