

**Ministry of Higher Education and Scientific Research
Supervision and Scientific Education Office
Department of Quality Assurance and Academic Accreditation**

**Academic Program Description form for Colleges
For the Academic year 2020-2021**

**University name: Technology
College name: Architectural Engineering
Date of filling out the file: 30/7/2020**

**signature
Department Dean Name:**

**signature
Department Scientific Assistant
Name:**

Date / / 2021

Date / / 2021

**The file endorsed by :
Department of Quality Assurance and Academic Accreditation Division
Name of the Director of the Quality Assurance and University
Performance Division:
Date / / 2020**

Signature

Academic Program Description Form

Reviewing The Performance Of Higher Education Institutions ((Review Of The Academic Program))

Academic Program Description

This academic program description provides a requisite summary of the most important characteristics of the program and the expected learning outcomes of the student to achieve, proving whether he has made maximum use of the available opportunities. It is accompanied by a description of each course within the program.

1. Educational Institution	University of Technology
2. University Department	Department of Architecture
3.The name of the academic program	Architecture Engineering
4.The name of the graduate certificate	Bachelor of Architecture
5.Academic system	courses
6.Accreditation Program	NAAB
7.Other external influences	
8.Date of preparation of the description	2020 / 7 / 30
The vision	The vision: architecture is a comprehensive knowledge base in which all intellectual, cognitive, methodological and applied dimensions of architectural design are embedded with the help of the latest technologies, design methodologies and intellectual education.
The Goal	Towards teaching architectural design with modern techniques and tools to build a new Iraqi urban reality.

9. Academic Program Objectives

a Preparing architects, professional with contemporary knowledge and techniques for the purpose of developing the applied technological aspects of the design and the educational process.

b. Looking towards the functional - aesthetic - technical (performance) balance of the architectural form that appropriate to its nature, climatic, economic and social environment by making the design process as a field for creativity (within this vision) as this contributes to improving the local urban environment

c. Providing the scientific and material environment that allows the student to enter into precise specializations, at the level of specialized professional practice within the labor market.

d. Adopting the design curricula in addition to the modern educational and architectural curricula, which is considered as a cornerstone in the educational process to qualify the student and graduate the architect who is properly aware of his responsibilities.

e. Working in the educational, administrative and organizational level within a team spirit through the exchange of scientific and cultural knowledge , and the development of the social and cognitive relationship between the employments working in the department.

10 .Required learning outcomes and methods of teaching, learning and assessment

A - knowledge and understanding

A1- The basics of design in general and architectural design, especially in the relationship between mass and space.

A2- History and theories of architecture, architectural design approaches, and the various intellectual trends in them.

A3-Mathematical analysis, properties of structural materials, methods of analysis and the idea of structural design appropriate to the architectural specialization.

A4-Components of the structural process through traditional and advanced structural systems, patterns of facades and finishing in addition to the architectural details.

A5-Building services, environmental studies, surveying works, materials specifications and calculating quantities .Building laws and regulations.

A6-Design standards, and functional requirements for different types of spaces ,architectural structures and urban projects.

. Curriculum-specific skills

B 1- The architectural design of the building in the light of the cultural aspect of the community in parallel with global development In particular.

B 2- Designing small buildings such as housing ,then designing of large strategic buildings such as hotels , hospitals, ports, airports and most other building styles within urban environmental design.

B 3- Preparing executive plans for buildings and designing various types of architectural details.

B4 - Architectural presentation , drawing by using modern digital technologies in the field of computers as designing tools that considered as an important aid in the design process.

B 5- Writing reports and solving exercises for courses of a theoretical or practical nature that serving the support of the architectural design process..

Lecturing and learning methods

- **Lecturing and learning different CAD programs as a main tool in the design process.**
- **The education is based on criticism and follow-up of students by the faculty members to ensure the most use of students' talents and abilities aiming at applying all these ideas in order to achieve the objectives of the educational program.**
- **Education through the design environment within both virtual and (sometimes) real client**

Assessment Methods

- **Labor market: a census of the percentage of students and graduates working in Iraq and abroad in the field of architecture or lecturing.**
- **An external evaluation by specialists at the university level in Iraq (and abroad in the future.)**
- **A comprehensive general evaluation committees that include most of the teaching staff in the department, in addition to the major lecturing team.**
- **Evaluation through question paper, report writing, presentation methods, and different architectural output.**

C- Thinking skills

C1 - mental-creative thinking to solve problems in general, and design problems in a holistic framework, Aesthetic-functional-structural at the level of mass and architectural space.

C2 - Presenting opinions, setting possibilities, and inferring with persuasion based on scientific and logical justifications.

C3 - The skill of self-learning through self-reliance in deriving solutions for design and cognitive problems.

Teaching and learning methods

- **Self-learning, and self-directed education.**
- **Education based on group interaction in solving problems..**

Assessment Methods

- **Intellectually based questions, or by using multiple choice questions (MCQs) that lead to the development of the process of inference and intellectual extraction of cognitive concepts in order to move towards decision-making and validating judgment to solve design and cognitive problems.**
- **Direct dialogue and discussion tests (Oral).**
- **Discussing and providing logical scientific justifications.**

D - General and transferable skills (other skills related to employability and personal development).

D1 - Teamwork within the group.

D 2 - Personal development through ethical values in dealing, and respect for the opinion of others.

D3 - Personal development through building a general and professional cultural background.

D 4 - Interacting with the lecturer as an educational and administrative guide for the educational process.

Teaching and learning methods

Teamwork .

- **Discussion based on prior knowledge and scientific and logical justifications.**
- **Exhibitions of specialized student projects and public exhibitions.**

Assessment Methods

- Dialogue and discussion.
- Lecturers reports and evaluation of teamwork.
- Scientific discussion with the student based on scientific and procedural goals and justifications.

1. Program structure				2. Certificates and credit hours (weekly)	2. 2. Certificates and credit hours Bachelor's degree requires (4020) credit hours
Level/year	Course code	Course or course name			

المستوى الدراسي الاول							
رمز المقرر	متطلب سابق / مصاحب (CO)	وحدة معتمدة	ساعة عملية	ساعة نظري	اسم المقرر		نوع المتطلب
					باللغة الانكليزية	باللغة العربية	
UOT100	-	2	-	2	English Language 1	لغة انكليزية 1	متطلبات جامعة
UOT101	-	2	-	2	Computer science	علم الحاسوب	
UOT102	-	2	4	-	Workshop 1	الورشة 1	
UOT103	Workshop 1	2	4	-	Workshop 2	الورشة 2	
UOT104	-	2	-	2	Human rights	حقوق الانسان	
ARCH100	-	2	-	2	Introduction in architecture , art & engineering	مقدمة في العمارة والفن والهندسة	متطلبات كلية (قسم)
ARCH101	Co : Introduction in architecture , Architectural drawing 1, Free hand	3	4	1	Basic design 1	مبادئ التصميم 1	
ARCH102	Co: Introduction in architecture , Basic design 1	2	2	1	Architectural drawing 1	الرسم المعماري 1	
ARCH103	Co: Architectural drawing 1	2	2	1	Free hand drawing	الرسم الحر	
ARCH104	-	2	-	2	Mathematic 1	الرياضيات 1	
ARCH105	-	3	2	2	Physics 1	الفيزياء 1	
ARCH106	Architectural drawing 1	2	4	-	Architectural Drawings 2	الرسم المعماري 2	
ARCH107	Mathematic 1	2	-	2	Mathematic 2	الرياضيات 2	
ARCH108	Physics 1	3	2	2	Physics 2	الفيزياء 2	
ARCH109	-	2	-	2	Chemistry	الكيمياء	
ARCA100	Basic design 1	3	4	1	Basic design 2	مبادئ التصميم 2	متطلبات القسم (التخصص)
ARCA101	Architectural drawing 1 / Co: Computer science	1	2	-	Basic Computer aided Design	مبادئ التصميم بمساعدة الحاسوب	
		37	30	22	المجموع		
			52				

المستوى الدراسي الثاني							
رمز المقرر	متطلب سابق / مصاحب (CO)	وحدة معتمدة	ساعة عملي	ساعة نظري	اسم المقرر		نوع المتطلب
					باللغة العربية	باللغة الانكليزية	
UOT200	English Language 1	2	-	2	English Language 2	لغة انكليزية 2	متطلبات جامعة
UOTxxx	يراجع جدول الدروس الاختيارية لمتطلب الجامعة	2	-	2	Elective university course	درس متطلبات جامعة اختياري 1	
ARCH200	Architectural drawing 2 / Co : Architectural design 1	2	2	1	Building Construction 1	انشاء المباني 1	متطلبات كلية (قسم)
ARCH201	Basic Computer aided Design	2	2	1	Computer aided Design 1	التصميم بمساعدة الحاسوب 1	
ARCH203	-	2	-	2	History and theory of Architecture 1	تاريخ ونظريات العمارة 1	
ARCH204	History and theory of Architecture 1	2	-	2	History and theory of Architecture 1	تاريخ ونظريات العمارة 2	
ARCH205	-	2	2	1	Surveying	المساحة	
ARCA200	Basic design 2	5	6	2	Architectural design 1	التصميم المعماري 1	متطلبات القسم (التخصص)
ARCA201	CO: Architectural design 1	2	4	-	Architectural presentation	الاطهار المعماري	
ARCA202	Physics 2	2	-	2	Material & methods for construction	مواد وطرق الانشاء	
ARCA203	Architectural design 1	5	6	2	Architectural design 2	التصميم المعماري 2	
ARCA204	History and theory of Architecture 1	2	-	2	Islamic & Arabic Architecture	العمارة الاسلامية والعربية	
ARCA205	Building Construction 1/ Co : Architectural design 2	3	2	2	Building Construction 2	انشاء المباني 2	
ARCA206	Computer aided Design 1	2	2	1	Computer aided Design 2	التصميم بمساعدة الحاسوب 2	
ARCA207	Co : Architectural design 2	2	-	2	Environmental systems & control	تنظيم البنية والتحكم للمعماري	
ARCA208	Material & methods for construction	2	-	2	Fundamental structure analysis	مبادئ تحليل الانشاءات	
		39	26	26	المجموع		
			52				

المستوى الدراسي الثالث

رمز المقرر	متطلب سابق / مصاحب (CO)	وحدة معتمدة	ساعة عملي	ساعة نظري	اسم المقرر		نوع المتطلب
					باللغة العربية	باللغة الانكليزية	
UOT300	English Language 2	2	-	2	English Language 3	لغة انكليزية 3	متطلبات جامعة
ARCA300	Architectural design 2	6	8	2	Architectural design 3	التصميم المعماري 3	متطلبات القسم (التخصص)
ARCA301	Building Construction 2 / Co : Architectural design3	3	2	2	Building Construction 3	انشاء المباني 3	
ARCA302	Islamic & Arabic Architecture / Co : Architectural design3	2	-	2	Islamic & Vernacular Architecture	العمارة الاسلامية والمحلية	
ARCA303	Environmental systems & control	2	-	2	Sustainable Architecture	العمارة المستدامة	
ARCA304	Fundamental structure analysis	2	-	2	Reinforced concrete design	تصميم الخرسانة المسلحة	
ARCE305	-	2	-	2	Building acoustics and illumination	الصوتيات والاضاءة للمباني	
ARCA306	Architectural design 3	6	8	2	Architectural design 4	التصميم المعماري 4	
ARCA307	Building Construction 3 / Co : Architectural design4	3	2	2	Building Construction 4	انشاء مباني 4	
ARCA308	Architectural design 3, Building acoustics and illumination/ Co : Architectural design4	3	2	2	Interior Design	العمارة الداخلية	
ARCA309	-	2	-	2	Writings Report For Architect	كتابة التقارير للمعماري	
ARCA310	Fundamental structure analysis	2	-	2	Structural Steel Design	تصميم الهياكل الحديدية	
ARCA311	Environmental systems & control	2	-	2	Heating, Ventilation and air conditioning for architect	التدفئة والتهوية وتكييف الهواء للمعماري	
ARCA3xx	برامج جدول الدروس الاختيابة للتخصص	2	-	2	Elective AR- Architectural Design 1	درس اختصاص معماري اختياري 1	
		39	22	28	المجموع		
			50				

المستوى الدراسي الرابع

رمز المقرر	متطلب سابق / مصاحب (CO)	وحدة معتمدة	ساعة عملي	ساعة نظري	اسم المقرر		نوع المتطلب
					باللغة العربية	باللغة الانكليزية	
UOT401	-	2	-	2	Engineering ethics	اخلاقيات هندسية	متطلبات جامعة
ARCH400	-	2	-	2	Methods & theory of design	طرق ونظريات التصميم	متطلبات كلية (قسم)
ARCA400	Architectural design 4	6	8	2	Architectural design 5	التصميم المعماري 5	متطلبات القسم (التخصص)
ARCA401	Building Construction 4	2	4	-	Working Drawings	الرسومات التنفيذية للمعماري	
ARCA402	Architectural design 4/ CO: Architectural design 5	3	2	2	Landscape design	عمارة المناظر الطبيعية	
ARCA403	CO: Architectural design 5	2	-	2	Urban planning	التخطيط العمراني	
ARCA404	Architectural design 4/ CO: Architectural design 5	2	-	2	Urban design & Housing	نظريات التصميم الحضري والاسكان	
ARCA405	-	2	-	2	Sanitary Services	الخدمات الصحية	
ARCA406	Architectural design 5	6	10	1	Architectural design 6	التصميم المعماري 6	
ARCA407	-	2	-	2	Programming for architect	البرمجة للمعماريين	
ARCA408	-	2	-	2	Psychology for Architects	علم النفس للمعماريين	
ARCA409	-	2	-	2	Quantity surveying and specifications	المسح الكمي والمواصفات	
ARCA4xx	يراجع جدول الدروس الاختيائية للتخصص	2	-	2	Elective AR-Architectural Design 2	درس اختصاص معماري اختياري 2	
ARCA4xx	يراجع جدول الدروس الاختيائية للتخصص	2	-	2	Elective AR-Architectural Design 3	درس اختصاص معماري اختياري 3	
ARCA4xx	يراجع جدول الدروس الاختيائية للتخصص	2	-	2	Elective AR-Architectural Design 4	درس اختصاص معماري اختياري 4	
		39	24	27	المجموع		
			51				

المستوى الدراسي الخامس							
رمز المقرر	متطلب سابق / مصاحب (CO)	وحدة معتمدة	ساعة عملي	ساعة نظري	اسم المقرر		نوع المتطلب
					باللغة العربية	باللغة الانكليزية	
ARCA500	Architectural design 5, Writings Report For Architect, Methods & theory of design, Programming for architect	7	10	2	Graduation project 1	مشروع التخرج 1	متطلبات القسم (التخصص)
ARCA501	Methods & theory of design	2	-	2	philosophy & critical Architecture	فلسفة ونقد معماري	
ARCA502	-	2	-	2	Building codes	قوانين البناء	
ARCA503	Graduation project 1	7	10	2	Graduation project 2	مشروع التخرج 2	
ARCA504	Graduation project 1/ CO: Graduation project 2	2	4	-	Architectural detail	تفاصيل معمارية	
ARCA505	-	2	-	2	Project management	إدارة المشاريع	
ARCA5XX	براجع جدول الدروس الاختيابة للتخصص	2	-	2	Elective AR- Architectural Design 5	درس اختصاص معماري اختياري 5	
ARCA5XX	براجع جدول الدروس الاختيابة للتخصص	2	-	2	Elective AR- Architectural Design 6	درس اختصاص معماري اختياري 6	
ARCA5XX	براجع جدول الدروس الاختيابة للتخصص	2	-	2	Elective AR- Architectural Design 7	درس اختصاص معماري اختياري 7	
ARCA5XX	براجع جدول الدروس الاختيابة للتخصص	2	-	2	Elective AR- Architectural Design 8	درس اختصاص معماري اختياري 8	
		30	24	18	المجموع		
			42				

- **Personal development planning**

- **Developing architectural education and building an architect (technology) by adopting a development system based on:**
- **Modern and contemporary design approaches.**
- **Educational curricula.**
- **Simulating the quality of architectural education curricula and international academic accreditation, with an emphasis on the local specificity.**
- **- Studying the market need for different architectural specialties..**

- **Admission criterion (regulations related to enrolling in the college or institute)**

- **Determined by the Ministry according to the central acceptance (rate and desire).**
- **Acceptance tests commensurate with the specificity of the department.**

- **The most important sources of information about the program**

- **-International standards such as RIBA, NAAB, ABET.**
- **Architecture departments in the world, the Arab region and at the local level.**
- **Educational strategies.**
- **Self-educational experiences.**
- **Labor market need.**