Ministry of Higher Education and Scientific Research
Scientific Supervision and Scientific Evaluation Apparatus #
Directorate of Quality Assurance and Academic Accreditation
Accreditation Department#

Academic Program and Course Description Guide

2024

Academic Program Description Form

University Name: University of Diyala

Faculty/Institute: Faculty of Engineering

Scientific Department: Architecture Engineering

Academic or Professional Program Name: Bachelor of Architectural Engineering

Final Certificate Name: Bachelor of Science in Architectural Engineering

Academic System: Yearly

Description Preparation Date: 03 September, 2023

File Completion Date: 03 September, 2023

Signature:

Head of Department Name:

Dr. Samaan Majeed Yas

Date: 17 September, 2023

Signature:

Scientific Associate Name:

Assistant Professor Dr. Jabbar Qasim Jabbar

Date: 17 September, 2023

The file is checked by:

Department of Quality Assurance and University Performance

Director of the Quality Assurance and University Performance Department:

Assistant Professor Dr. Salah Nouri Farhan

Date: September, 2023

Signature:

Approval of the Dean

Professor Dr. Anees Abdullah Kazem

1. Program Vision

The Department of Architecture Engineering seeks to prepare graduates in the field of architectural engineering to work in government departments and the private sector, benefit from specialization in the practical and applied fields, keep pace with scientific and professional development, and contribute to the development of human capabilities.

2. Program Mission

Working to prepare and graduate leading scientific and leadership competencies in the field of architecture and to develop the balance of knowledge in the field of scientific research and in the field of architecture to serve the local, regional and international community, as well as training and refining the minds of students scientifically and cognitively, and emphasizing social and cultural values and responding to the requirements of the local market.

3. Program Objectives

The academic program in the Department of Architecture Objectives to ensure that graduates of the program are able to build abstract relationships and understand the impact of ideas based on the study and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. Graduates should be able to use a variety of skills to think about and communicate architectural ideas, including writing, investigating, speaking, drawing and modeling. through:

1) Career Pathways: How the program ensures that students understand the paths to obtaining licensure as an architect and the range of career opportunities available that use disciplinary skills and knowledge.

2) Design: How the program instils in students the role of the design process in shaping the building environment and conveys methods that lead to the integration of multiple factors in design processes, in different environments and scales of development, from buildings to cities.

3) Environmental Literacy and Responsibility: How the program instills in students a comprehensive understanding of the dynamics between built and natural environments, enabling future architects to mitigate climate change responsibly by utilizing the principles of environmental and advanced building performance, adaptation and resilience in their work and advocacy activities.

4) History and Theory: How the program ensures that students understand the history and theories of architecture and urbanism, framed by diverse social, cultural, economic and political forces, both nationally and globally.
5) Research and Innovation: How the program prepares students to engage and participate in architectural research to test and evaluate innovations in the field.
6) Leadership and Collaboration: How the program ensures that students understand approaches to leadership in multidisciplinary teams, diverse stakeholder components, and dynamic physical and social contexts, and learn how to apply effective collaboration skills to solve complex problems.
7) The culture of learning and teaching: How does the program enhance and ensure a positive and respectful environment that encourages optimism, respect, participation, engagement, and innovation among students, administration, and teaching staff at the college.
8) Social Justice and Inclusion: How the program enhances and deepens students' understanding of diverse cultural and social contexts and helps them translate this understanding into building environments that support and include people of different backgrounds, resources, and abilities.

4. Program Accreditation

No.

5. Other external influences

No.

6. Program Structure

Program Structure	Number of Courses	Credit hours	Percentage	Reviews*
Institution Requirements	1	4	2 %	Basic course
College Requirements	0	0	0	Basic course
Department Requirements	41	157	98 %	Basic course
Summer Training	There is			
Other				

* This can include notes whether the course is basic or optional.

7. Program Description

Year/Level	Course Code	Course Name	Credit Hours	
			theoretical	practical
2023-2024 / Second	Arc. 201	Architectural Design	4	16
	Arc. 202	Architectural drawing and graphic	2	4
	Arc. 203	Free Hand	0	4
	Arc. 204	Building construction II	2	6
	Arc. 205	Constructions I	4	0
	Arc. 206	History of Iraqi Architecture I	2	0
	Arc. 207	Logic and design methodology	2	0
	G.S 208	Computers II	2	4
	G.E. 209	English language II	4	0
	Arc. 210	History of Iraqi Architecture II	2	0
2023-2024 / Third	Arc. 301	Architectural Design	4	20
	Arc. 302	Building construction III	4	6
	Arc. 303	Constructions II	4	2
	Arc. 304	Planning basics	4	0
	Arc. 305	History of Architecture III	4	0
	Arc. 306	Piping services	2	0
	Arc. 307	Air conditioning services	2	0
	Arc. 308	Lighting services	2	0
	Arc. 309	Computers III	2	4
	Arc. 310	Preservation methods	2	0
2023-2024 / Forth	Arc. 401	Architectural Design	4	20
	Arc. 402	Interior design	1	4
	Arc. 403	Landscape	1	3
	Arc. 404	Advanced construction techniques	2	0
	Arc. 405	Housing planning	2	0
	Arc. 406	housing	2	0
	Arc. 407	Architecture theories	4	0
	Arc. 408	Arab-Islamic architecture	4	0
	Arc. 409	Architecture and climate	2	0
	Arc. 410	Architecture acoustics	2	0
	Arc. 411	Urban design theories	2	0
	Arc. 412	Survey	2	0
	Arc. 413	Technical construction	2	0
2023-2024 / Fifth	Arc. 501	Architectural Design	3	9
	Arc. 502	Thesis	5	21
	Arc. 503	Specifications and estimation	2	0
	Arc. 504	Professional practice	2	0
	Arc. 505	Architectural design theories	2	0
	Arc. 506	Architectural criticism theories	2	0
	Arc. 507	Contemporary Iraqi architecture	2	0
	Arc. 508	Contemporary Arab architecture	2	0

	Arc. 509	Philosophy of architecture	2	0

8. **Expected learning outcomes of the program**	
Knowledge	
1) Professional Communication Skills	1) Writing and speaking effectively and using appropriate representational media both within the profession and with the general public.
2) Design thinking skills	2) To ask clear and precise questions, use abstract ideas to interpret information, consider diverse perspectives, reach logical conclusions, and test alternative outcomes against relevant standards and criteria.
3) Investigative skills	3) Collect, evaluate, record, and evaluate relatively relevant information and performance in order to support conclusions related to a specific project or task.
4) Architectural Design Skills	4) Effective use of basic formal, organizational and environmental principles and the ability of each to inform 2D and 3D design.
5) Demand Systems	5) Apply the fundamentals of both natural and formal demand systems and the ability of each to inform 2D and 3D design.
6) Using precedents	6) Study and understand the basic principles found in relevant precedents and make informed choices about incorporating these principles into architecture and urban design projects.
7) Global History and Culture	7) From the parallel and divergent histories of architecture and cultural norms of a variety of indigenous, vernacular, local and regional environments in terms of their political, economic, social, environmental and technological factors.
8) Cultural Diversity and Social Justice:	8) From the diverse needs, values, behavioral standards, physical abilities, social and spatial patterns that characterize different cultures and individuals and the responsibility of the architect to ensure equity in access to sites, buildings and structures.
Skills	
1) Pre-design	To prepare a comprehensive program for an architectural project that includes an assessment of client and user needs; Space inventory and requirements; Analysis of site conditions (including existing buildings); Review relevant building codes and standards, including relevant sustainability requirements, and evaluate their impacts on the project; Defining site selection and design evaluation criteria.
2) Site design	To respond to site characteristics, including urban context and development patterns, historical fabric, soils, topography, environment, climate, and building orientation, in developing the project design.
3) Codes and Regulations	To design sites, facilities and systems that respond to relevant laws and regulations, and include principles of safety and accessibility standards.
4) Technical documentation	Make technically clear drawings, prepare outline specifications, and build models that illustrate and specify the assembly of materials, systems, and components appropriate to the building design.

5) Structural Systems	To demonstrate the basic principles of structural systems and their ability to withstand gravity, earthquakes and lateral forces, as well as the selection and application of the appropriate structural system.
6) Ecosystems	To demonstrate the principles of ecosystem design, how design standards can vary by geographic region, and the tools used to evaluate performance. This demonstration should include active and passive heating and cooling, solar engineering, daylighting, natural ventilation, indoor air quality, solar systems, lighting systems, and acoustics.
7) Building Envelope Systems and Assemblies	Fundamental principles involved in the appropriate selection and application of building envelope systems relate to basic performance, aesthetics, moisture transfer, durability, energy resources and materials.
8) Building Materials and Assemblies	A basic principle used in the appropriate selection of interior and exterior building materials, finishes, products, components and assemblies based on their inherent performance, including environmental impact and reuse.
9) Building Services Systems	From the basic principles, proper application and performance of building services systems, including lighting, mechanical, plumbing, electrical, communications, vertical transportation, security and fire protection systems.
10) Financial considerations	The basics of construction costs, which should include project financing methods and feasibility, construction cost estimation, construction scheduling, operational costs, and life cycle costs.
Ethics	
1) Research	The theoretical and applied research methodologies and practices used during the design process.
2) Integrated assessments and design decision-making process	To demonstrate the skills associated with making integrated decisions across multiple systems and variables in completing a design project. This demonstration includes identifying problems, establishing evaluative criteria, analyzing solutions, and predicting implementation effectiveness.
3) Integrative Design	To make design decisions within a complex architectural project while demonstrating broad integration and consideration of environmental stewardship, technical documentation, accessibility, site conditions, life safety, environmental systems, structural systems, and building envelope systems and assemblies.

9. Teaching and Learning Strategies

- Explaining the scientific material to students in detail.
- Students' participation in solving mathematical, scientific and practical problems.
- Discussion and dialogue about vocabulary related to the topic.
- Individual and group criticism.
- Design groups.
- Individual and group submissions.

10. Evaluation methods

- Daily, weekly, monthly exams and the end-of-year exam.

- Individual and group evaluation.
- Exams within the studio (day sketch)
- Confidential evaluation.
- Evaluate projects periodically.

11. Faculty

Faculty Members

Academic Rank	Specialization		Special Requirements/Skills (if applicable)		Number of the teaching staff	
	General	Special			Staff	Lecturer
Professor Dr. Najm Abdullah Askar	Art Education	Educational techniques (graphic creation)			Staff	
Professor Dr. Saad Fawzi Tohme	Architecture	Architecture and urban environment			Staff	
Assistant Professor Dr. Nabil Taha Ismail	Architecture	Urban planning			Staff	
Assistant Professor Zainab Faleh Mahdi	Educational and psychological sciences	Methods of teaching the Arabic language			Staff	
Dr. Semaan Majeed Yas	Architecture	Architecture and planning of the Islamic city			Staff	
Assistant Professor Dr. Abdul Hussein Ali Hussein	Architecture	City planning			Staff	
Dr. Ali Odeh Muhammad	Architecture	Urban design and architecture theories			Staff	
Dr. Anwar Essa Abd	Civil Engineering	Soil and foundations			Staff	
Dr. Wameed Turki Muhammad	Mechanical Engineering	Fluids and refractories			Staff	
Dr. Hamid Ghaleb Hussein	Petroleum Engineering	Oil project management			Staff	
Dr. Omar Ismail Muhammad	Civil Engineering	Construction			Staff	
Lecturer Nabil Mohammed Saleh	Architecture	Architectural design			Staff	
Assistant Lecturer Ban Muhammad Sultan	Architecture	Architecture technology			Staff	
Assistant Lecturer Ayman Karim Henkish	Civil Engineering	Construction			Staff	
Assistant Lecturer Agadir Ahmed Abbas	Civil Engineering	Construction			Staff	
Assistant Lecturer Rawaa Ammar Razouki	Computer Engineering	information			Staff	

Professional Development
Mentoring new faculty members
• Developing skills and a creative way of thinking. • Focus on the passion for learning, and enhancing the skills of presentation, discussion and dialogue. • Constant motivation and character building in a gradual, hierarchical manner that escalates with the completion of the academic program. • Integrating new teachers with more experienced teachers in the scientific and research fields.
Professional development of faculty members
• Participation in training courses in the field of architectural engineering specialization. • Participation in the research field in local and international scientific conferences and seminars. • Scientific cooperation with departments and colleges of architecture and planning in local, Arab and international universities.

12. **Acceptance Criterion**
Acceptance is central within the criterion of average and absorptive capacity. The pressure of study and the focus on the presence of creative and diligent skills are an important criterion in classifying students and indicating the extent of their ability to complete the academic program scheduled for study.

13. **The most important sources of information about the program**
• Neufert Architects' Data. • Design Drawing, Third Edition. • Time saver standards for architectural design. • Time-Saver Standards for Landscape Architecture. • Time Saver Standards for Building Types. • Time Saver Standards for Interior Design. • Time Saver Standards for Urban Design. • Time Saver Standards for Site Construction Details. • Principles of Art and Architecture - Shirin Shirzad.

- Building construction - Zuhair Sako.
- Building construction - Atef Al-Suhairi.
- Iraqi architecture through the ages - Sharif Youssef.

Engineering programs:

- AutoCAD, Rivet, 3d max, Photoshop, Sketch Up, Lumion.
- Manual and personal skills:
- Manual drawing, engineering drawing.

14. Program Development Plan

- Using new concepts in the field of architecture to keep pace with the latest architectural trends and trends, especially related to sustainable development and achieving its goals in the field of architecture and urban planning.
- Encouraging the application and use of computer techniques and programs related to architectural visualization, simulation and modeling.
- Updating academic curricula in line with the local and global labor market.

Program Skills Outline															
				Required program Learning outcomes											
Year/Level	Course Code	Course Name	Basic or optional	Knowledge				Skills				Ethics			
				A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
2023-2024 / Second	Arc. 201	Architectural Design	Basic		•	•	•	•	•	•	•	•	•	•	•
	Arc. 202	Architectural drawing and graphic	Basic	•	•	•	•	•	•	•	•	•			
	Arc. 203	Free Hand	Basic	•	•						•	•			
	Arc. 204	Building construction II	Basic	•	•	•	•				•				
	Arc. 205	Constructions I	Basic		•		•			•		•	•	•	•
	Arc. 206	History of Iraqi Architecture I	Basic	•	•	•	•			•	•				
	Arc. 207	Logic and design methodology	Basic	•		•	•				•	•			
	G.S 208	Computers II	Basic	•	•					•	•	•	•		
	G.E. 209	English language II	Basic		•			•	•	•			•		
	Arc. 210	History of Iraqi Architecture II	Basic	•									•		
	Arc. 301	Architectural Design	Basic								•				

2023-2024 / Third	Arc. 302	Building construction III	Basic	•											•	•
	Arc. 303	Constructions II	Basic	•							•					
	Arc. 304	Planning basics	Basic	•	•	•	•			•				•		
	Arc. 305	History of Architecture III	Basic		•		•			•		•				•
	Arc. 306	Piping services	Basic	•	•	•	•			•	•					
	Arc. 307	Air conditioning services	Basic	•		•	•				•	•			•	
	Arc. 308	Lighting services	Basic	•	•					•	•	•		•	•	•
	Arc. 309	Computers III	Basic		•			•	•	•		•				
	Arc. 310	Preservation methods	Basic	•	•			•	•	•			•	•		
2023-2024 / Forth	Arc. 401	Architectural Design	Basic		•	•	•	•	•	•	•	•	•	•	•	•
	Arc. 402	Interior design	Basic	•	•				•	•			•	•	•	
	Arc. 403	Landscape	Basic	•	•				•	•			•			
	Arc. 404	Advanced construction techniques	Basic	•	•	•	•			•			•			
	Arc. 405	Housing planning	Basic		•		•			•		•	•	•	•	
	Arc. 406	housing	Basic	•	•	•	•			•	•					
	Arc. 407	Architecture theories	Basic	•		•	•				•	•		•		
	Arc. 408	Arab-Islamic architecture	Basic	•	•					•	•	•	•	•	•	

	Arc. 409	Architecture and climate	Basic		•			•	•	•			•		
	Arc. 410	Architecture acoustics	Basic	•	•					•			•	•	
	Arc. 411	Urban design theories	Basic		•	•	•			•				•	•
	Arc. 412	Survey	Basic	•	•	•	•			•				•	•
	Arc. 413	Technical construction	Basic	•	•	•	•	•	•	•					
2023-2024 / Fifth	Arc. 501	Architectural Design	Basic		•		•			•				•	•
	Arc. 502	Thesis	Basic	•	•	•	•			•	•				
	Arc. 503	Specifications and estimation	Basic	•		•	•				•	•		•	
	Arc. 504	Professional practice	Basic	•	•					•	•	•	•	•	•
	Arc. 505	Architectural design theories	Basic		•			•	•	•			•		
	Arc. 506	Architectural criticism theories	Basic	•	•			•	•	•			•	•	
	Arc. 507	Contemporary Iraqi architecture	Basic		•	•	•	•	•	•	•	•	•	•	•
	Arc. 508	Contemporary Arab architecture	Basic	•	•					•	•		•	•	•
	Arc. 509	Philosophy of architecture	Basic	•	•					•	•	•	•		

Course Description Form

1.	Course:
	Architectural Design
2.	Course Code:
	Arc 201
3.	Semester / Year:
	Yearly / 2023 - 2024
4.	Date of preparation of this description:
	3/9/2024
5.	Available forms of attendance:
The annual system consists of 30 weeks distributed over two semesters each semester 15 weeks and the student attends two days a week and full-time by 5 hours on each day.	
6.	Number of credit hours (total) / (total number of units):
	300 hours / year – 10 units
7.	The name of the course administrator
	Name: Assoc. Prof. Dr. Abdul Hussain Ali Hussein - Email: alkafajy59@uodiyala.edu.iq Name: Eng. Manar Tahseen Taha – Email: manar.tahssen@uodiyala.edu.iq
8.	Course Objectives
Course Objectives	The second year of the architectural study represents an important transitional stage that moves the student from the stage of preparing designs of an abstract definition nature (represented in the first grade) to a more comprehensive stage in its definition of what architecture is (benefit, durability and beauty), with an emphasis on the concept of local privacy and integration with the context and the urban landscape through the study of projects in which the function ranges from private events to the most public, and the adoption of the structural structure of the solid system (load-bearing walls) to prepare the student at the end of the school year for the next stage.
9.	Teaching and Learning Strategy
Strategy	Gradually develop projects by sending students to project phases / public and private criticism / tests and exams (day sketches) / questions and discussions within the classroom / relationship between theory and practice.
10.	Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	10	Knowledge and skills outputs	A simple introductory project, the aim of which is to retrieve the information that the student was exposed to in the first stage and create a state of mental warm-up to move the student from the abstract stage to a stage characterized by realism and function. During this period, the summer assignment required of students is discussed and evaluated.	Lectures, in-class questions and discussions, extracurricular activities, reports,	• Approving class assignments. • Approving homework.
Second	10				
Third	10				

Fourth	10	Knowledge, skills and emotional value outputs	Residential House Design Project, the aim of identifying the design principles of specialized buildings. The residence is the building closest to the student's mind. Through this project, the functional, structural, environmental and expressive determinants and the specificity of local architecture, local building materials and building systems are identified. The design of the housing house includes two phases: the first is related to the preparation of the initial and then final designs for the project, which takes about 6-8 weeks, while the second phase includes the preparation of signature and assembly plans and some key components, which take about 2-4 weeks. * Of course, it is not possible to separate the two stages, where students are directed to achieve overlap with each other so as not to cause the student's effort to be wasted by repetition.	presentations and posters.	• Approving classroom exams. • At least two exams per semester.
Fifth	10				
Sixth	10				
Seventh	10				
Eighth	10				
Ninth	10				
Tenth	10				
Eleventh	10				
Twelfth	10				
Thirteenth	10				
Fourteenth	10				
Fifteenth	10		**Final Submission**		
Second Semester					
First	10	Knowledge and skills outputs	A quick test for a small design problem at a nearby location inside or outside the university aimed at creating a warm-up after the exam stage and the mid-year vacation.	Lectures, in-class questions and discussions, extracurricular activities, reports, presentations and posters.	The class is interspersed with two quick tests for a specific design problem. • Approving class assignments. • Approving homework. • Approving classroom exams. • At least two exams per semester.
Second	10	Knowledge, skills and emotional value outputs	A project to design a building of a general service nature (such as a club, museum or exhibition) aimed at identifying the design principles of specialized buildings of a general service nature that include spaces of small and medium sizes and sometimes relatively large This project moves the student from the stage of thinking about buildings with a mass character and load-bearing walls to another style of buildings that depend on the insertion between more than one structural system and within contextual and expressive determinants more complex than the housing house project As an initial stage of preparing the student to the class The third.		
Third	10				
Fourth	10				
Fifth	10				
Sixth	10				
Seventh	10				
Eighth	10				
Ninth	10				
Tenth	10				
Eleventh	10				
Twelfth	10				
Thirteenth	10				
Fourteenth	10		Pre-Final Application		
Fifteenth	10		Final Submission		

11. Course Evaluation	
• Summer assignment: 10%. • Housing design project: 30%. • Semester exams: 10%. • Inter-semester exam: 10%. • Second Semester Project: 40%.	
12. Learning and Teaching Resources	
Required textbooks (if any methodology)	• Ching, Francis D.k., Architecture –Form, Space, and Order, Second Edition, John Wiley & Sons, Inc., Canada. 1996. • Neufert, p & Ernst, Architects' Data, Third edition, Blackwell Publishing Co.UK,2000 • Karlen, M. Space Planning Basics, John Wiley Sons, 2004
Main references (sources)	• Available websites related to the subject. • -Periodical seminars • -Guest lectures, internship, visits to locations and buildings)
Recommended supporting books and references (scientific volumes, reports ....)	• Many projects, magazines and international examples • Annual • Architectural record
Electronic References, Websites	• Arch daily • Arch h2o • Arch space • Dezen

Course Description Form

1. Course Name	
Architectural drawing and graphics	
2. Course Code	
Arc 202	
3. Semester / Year	
Year - 2023/2024	
4. Description Preparation Date	
3/9/2023	
5. Available Attendance Forms:	
The annual system consists of 30 weeks distributed over two semesters each semester 15 weeks the student attends one day a week by 3 hours on each day.	
6. Number of Credit Hours (Total) / Number of Units (Total)	
90 hours - year / 4 units	
7. Course administrator's name	
Name: Lecturer Nabil Mohammed Saleh Email: nabil.ms@uodiyala.edu.iq	
8. Course Objectives	
Course Objectives	• Developing students' architectural drawing skills as a tool to express their design ideas and show them in the appropriate manner. • Special focus on three-dimensional architectural drawings such as perspective of all kinds (internal and external) and isometrics. • Using various means in architectural demonstration, with a focus on ink display methods with colored wooden pens, watercolors, collage, and others.
9. Teaching and Learning Strategies	
Strategy	• Questions, discussions and diagrams in class. • Lectures using data presentation. • homework. • Class and home assignments. • Tests and examinations.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	3	Knowledge, skills and emotional value outputs	An introductory lecture / exhibition of students' drawings explaining the different techniques	• Questions, discussions and diagrams in class. • Lectures using data presentation.	• Quick sketches. • Exams. • Final exam • Class and homework
Second	3		Two-dimensional drawings – drawing horizontal projections plans and site plan		
Third	3		Drawing vertical sections with emphasis on ink and color show style		
Fourth	3		Draw and show elevations		
Fifth	3		Submit a final project with architectural design material		

Sixth	3		For three-dimensional drawings - isometrics / types, uses / drawing a rectangular parallelepiped and vault	• homework. • Class and home assignments. • Tests and examinations	assignments
Seventh	3		Isometric – drawing a cylinder and a wall with openings of different shapes / composition exercise that includes different shapes / drawing levels		
Eighth	3		Drawing the dome and other shapes, drawing a more complex composition		
Ninth	3		Internal Isometrics – drawing method, similar examples, periodic exercise, homework the student draws an internal isometric for his design project		
Tenth	3		External isometric + duty to draw isometric for his design project		
Eleventh	3		Perspective A lecture on the concept and its characteristics Perspective with two vanishing points Drawing the cube in different positions		
Twelfth	3		The cube in perspective is complemented by other cases Drawing other simple shapes		
Thirteenth	3		Multipoint vanishing perspective, geometric configuration in perspective		
Fourteenth	3		Geometric composition in perspective		
Fifteenth	3				
Second Semester					
First	3	Knowledge, skills and emotional value outputs	Other shapes in perspective / stars and more complex shapes	• Questions, discussions and diagrams in class. • Lectures using data presentation. • homework. • Class and home	• Quick sketches. • Exams. • Final exam Class and homework assignments
Second	3		Perspective segment sective		
Third	3		Scale in perspective		
Fourth	3		Exterior perspective one vanishing point		
Fifth	3				
Sixth	3		The external perspective with more than one vanishing point		
Seventh	3		Internal perspective with one vanishing point		
Eighth	3				
Ninth	3		Internal perspective with two vanishing points		
Tenth	3				
Eleventh	3				
Twelfth	3		Shadows and shadows on two-dimensional drawings – on different shapes – sterile surfaces		
Thirteenth	3				
Fourteenth	3				

Fifteenth	3		Exam in the shadows and shadows	assignments. Tests and examinations	

11. Course Evaluation

- Class assignments: A class assignment is given in each lecture and evaluated (30%).
- Homework: Homework is given in each lecture and evaluated (20%).
- Submit a final project concurrent with the architectural design project (20%).
- Final exam of the year (30%).

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	• Architectural Graphic, Sixth Edition, (Francis D.K. Ching), 2015. • Design drawing, Third edition (Francis D.K. Ching; with Steven P. Juroszek), 2019.
Recommended books and references (scientific journals, reports...)	• Architectural Drawing. • Basic Perspective Drawing a Visual Approach, 6 editions. • The Watercolor Technique of Architectural Rendering. • Perspective Drawing Handbook - By Joseph DAmelio.
Electronic References, Websites	• Arch daily • Arch h2o • Arch space • Dezanne

Course Description Form

1. Course Name	
Free Hand	
2. Course Code	
Arc 203	
3. Semester / Year	
2023/2024	
4. Description Preparation Date	
3/9/2023	
5. Available Attendance Forms:	
The annual system consists of 30 weeks distributed over two semesters each semester 15 weeks and the student attends a day a week by 4 hours on each day .	
6. Number of Credit Hours (Total) / Number of Units (Total)	
120 hours - year / 4 units	
7. Course administrator's name (mention all, if more than one name)	
Name: Prof. Dr. Najim Abdullah Askar and Eng. Hadeer Yahya Mohammed Email: najimaskar@uodiyala.edu.iq, Hadeer_yehya_eng_archit@uodiyala.edu.iq	
8. Course Objectives	
Course Objectives	• Developing the student's skills in the use of watercolors, posters, pastels and oil colors with advanced techniques. • Developing the student's ability to control the implementation of complex shapes and advanced color techniques. • A practical practice of how to show projects through binoculars implemented in color and benefit from them in design materials. • Strengthening the student's skill in transforming what is going on in his mind into an image that can be perceived through free drawing • Introducing the student to the most important artistic movements and Iraqi and Arab artists, and this comes through theoretical lectures accompanied by a photographic presentation of their works, as well as visits by students to places where artworks are displayed inside Iraq. • Introducing the student to ceramic and sculpture materials and his sense of mass through some exercises in clay and gypsum, which help him increase his skill in showing his designed projects, especially stereoscopic ones, and giving them a more beautiful and closer image to reality. • Implementation of graphics, watercolors and other selected areas in the area in which the student resides, and the progress of works with design works at the beginning of the third academic year.
9. Teaching and Learning Strategies	
Strategy	• Drawing a still life in the classroom. • Questions, discussions, and outlines within the classroom. • Lectures using data display on art and celebrities. • Homework. • Reports and presentations. • Exterior drawing of the surrounding buildings and landscapes.

	• Excursions to art exhibitions.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	4	Knowledge and skills outputs	Water color painting Introducing the origins of modern painting with watercolors and their types, brushes / cartoons with direct application to them.	• Drawing a still life in the classroom. • Questions, discussions, and outlines within the classroom. • Lectures using data display on art and celebrities. • Homework. • Reports and presentations. • Exterior drawing of the surrounding buildings and landscapes. • Excursions to art exhibitions.	• Quick sketches. • drawing • Tests. • Final exam • Home work, class and additional duties
Second	4		Extracting the double and triple colors is an exercise about that and emphasizing the intensity of the color		
Third	4	Knowledge, skills and emotional value outputs	Extract optical values Tones Colors are a circle of colors. Compare colors by the number of possible light values for them. With a monochromatic monochromatic live drawing with a background based on a single light source.		
Fourth	4		Daily exam with one-color painting with still life exercise in natural colors with background		
Fifth	4		Another exercise still life in natural watercolor while avoiding the use of black and white dyes, then a lecture on the general composition and creation in the plastic painting.		
Sixth	4		Exercise on color reflections in materials Drawing a living composition still life through plants.		
Seventh	4		Drawing trees from nature in watercolor.		
Eighth	4		Studying details about the surroundings of the buildings Land Scape as an integral part of any building (panorama of the site) and at different depths		
Ninth	4		Drawing the surrounding environment of the buildings with an assessment of the previous stage		
Tenth	4		Explain the foundations of perspective in buildings with one vanishing point and two points with a perspective drawing exercise for a building with one vanishing point in		

			watercolors and emphasize avoiding basic black and white colors		
Eleventh	4		Exercise on drawing types of techniques - glossy materials, reflectivity, glass		
Twelfth	4		Submit additional assignments		
Thirteenth	4				
Fourteenth	4				
Fifteenth	4		End of First Semester Exam		
Second Semester					
First	4	Knowledge, skills and emotional value outputs	Figures Drawing a person in two different positions with a simple use of watercolor	• Drawing a still life in the classroom. • Questions, discussions, and outlines within the classroom. • Lectures using data display on art and celebrities. • Homework. • Reports and presentations. • Exterior drawing of the surrounding buildings and landscapes. • Excursions to art exhibitions.	• Quick sketches. • drawing • Tests. • Final exam • Home work, class and additional duties
Second	4		The stage of drawing in pastel colors / quick layouts with pastel pens for people Figures and in different positions more than one case with quick layouts for the human face portrait more than one case in pastel colors.		
Third	4		Drawing a neighborhood composition still life in pastel colors with a building drawing with a perspective in pastel colors with an assessment of the stage (exam)		
Fourth	4		The perspective of high buildings with three vanishing points: - Emphasis on giving depth to the building in colors in three directions with the use of inking pens to complement the topic		
Fifth	4		Quick layouts to create a still life neighborhood with a background using watercolors and inking pens and emphasis: The use of pure colors (trends towards abstraction / the use of inking pens or pencils in clarifying the shadow, shadows and depth		
Sixth	4		Quick layouts of buildings with their environmental surroundings using watercolors with inking pens, pencils or wooden colors with an exam in rapid sketches in watercolors with various other means of expression (wooden pens, inking pens, Lead)		
Seventh	4		The stage of clay sculpture, the formation of clay shapes with their installation together and giving high		

			flexibility in the formation of shapes.		
Eighth	4		A lesson in the form in clay ceramic material with the implementation of a group of forms with clay material, which is difficult to implement with other materials		
Ninth	4		The stage of drawing with poster colors Poster color Principles of drawing with poster colors Re-development of what the student learned in the first grade with drawing a group of flowers with poster material		
Tenth	4				
Eleventh	4		Drawing a perspective for the Deanship building of the College of Engineering with poster colors from a high angle and emphasizing the coverage of all Color surfaces, obtaining distinct color gradients, studying people on site		
Twelfth	4				
Thirteenth	4		Submit additional assignments		
Fourteenth	4				
Fifteenth	4		Drawing pieces of furniture in poster colors with poster colors exam for a piece of furniture (live exam) The student's right to choose the appropriate material for drawing with an exam for a building in watercolors		

11. Course Evaluation

- Class assignments: 40%.
- Homework: 40%.
- Semester exams: 20%.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	
Main references (sources)	
Recommended books and references (scientific journals, reports...)	Available sites that are relevant to the topic: art, art movements, and famous artists
Electronic References, Websites	• Arch daily • Arch h2o • Arch space

Course Description Form

1. Course:	
Building Construction II	
2. Course Code:	
Arc 204	
3. Semester/Year:	
Yearly 2023/2024	
4. Date of preparation of this description:	
3/9/2023	
5. Available forms of attendance:	
The annual system consists of 30 weeks distributed over two semesters each semester 15 weeks and the student attends one day a week and full-time by 4 hours a day.	
6. Number of credit hours (total) / (total number of units):	
120 hours per year / 5 units	
7. Course administrator name	
Name: Dr. Anwar Isa Abd Email: anwaressa@uodiyala.edu.iq	
8. Course Objectives	
Course Objectives	• Introducing the student to some aspects of technical systems related to structural information that the architect must be familiar with in order to develop his structural design ability, the student is introduced to the structural and structural systems in general, and then infiltrates knowledge and in a way that suits the way the architect perceives his building as an environmental envelope that enjoys durability, beauty and environmental protection.
9. Teaching and Learning Strategy	
Strategy	• The course includes two parts, the first theoretical dealing with general principles (especially the solid system), and the second applied dealing with ways to express structural problems in architectural language as an application of the theoretical material. • Homework. • Reports and presentations. • Site visits to familiarize the student with the structural reality. • Tests and exams. • Assigning each student to follow up the process of building a house and preparing a report to increase the knowledge base.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First Theoretical Semester					
First	2	Knowledge and skills outputs	Introducing the student to the lesson in its practical and theoretical part,	• Homework. • Reports and presentations.	• Tests. • Final exam.

			(Curriculum Objective, Sources and Grades, Basic Definitions)	• Site visits to familiarize the student with the structural reality. • Tests and exams.	• Preparing reports.
Second	2		Construction Operations Roads - Construction		
Third	2		Structural systems (solid, structural, decimal)		
Fourth	2	Knowledge, skills and emotional value outputs	The wall as a structural element (the behavior of the structural element towards different stresses and ways to resist them)		
Fifth	2		Structural classification of walls, construction methods		
Sixth	2		Wall with building units (bricks) connecting methods		
Seventh	2		Linking and the problem of dimensional formatting		
Eighth	2		Openings in brick walls + (rapid exam)		
Ninth	2		Foundations		
Tenth	2		Floor		
Eleventh	2		Upper floors (Akada, wood)		
Twelfth	2		Concrete flooring		
Thirteenth	2		Ceiling		
Fourteenth	2		Resistance to environmental factors in the wall		
Fifteenth	2		Resistance to environmental factors in floors and ceiling		
Practical First Semester					
First	4		Types of fastening	• Homework.	

Second	4	**First practical exercise:** The student studies one of the following subjects: - Clay, bricks, stone, reinforced concrete or wood, and the study is presented in the form of illustrations, then the student designs a residential house with the chosen material. **Second practical exercise:** Implementing a casing of an integrated building with a solid system and brick material and presenting it in the form of an isometric magnifier at the end of the first semester.		• Site visits to familiarize the student with the structural reality. • Tests and exams.	• Practical Prescriptions (Classroom and Homework)
Third	4		Types of walls (solid, hollow, wood, membrane, stone)		
Fourth	4		Openings		
Fifth	4				
Sixth	4		The foundations of the wall and the floor		
Seventh	4				
Eighth	4		Roofing (Akada, Concrete) basement level, dome		
Ninth	4				
Tenth	4				
Eleventh	4		Sunroof		
Twelfth	4		Flatness		
Thirteenth	4		A section of the isometric magnifier in a building from the foundation to the roof		
Fourteenth	4				
Fifteenth	4		Final submission and evaluation		
Practical Second Semester					
First	4	**Practical exercise for the second semester:** Studying a structural building so that the structural system overlaps with the solid system and integrates with the architectural design material. The focus is on the element of vertical movement (stairs) and all its structural details with the details of doors,	Charts Details – Staircase	• Homework. • Site visits to familiarize the student with the structural reality. • Tests and exams.	• Practical Prescriptions (Classroom and Homework)
Second	4				
Third	4				
Fourth	4		Doors		
V	4				
Sixth	4		Windows		
Seventh	4		Finishing and flattening materials		
Eighth	4				
Ninth	4		Services		
X	4				
Eleventh	4		Interfaces, clips		
Twelfth	4				
Thirteenth	4		Submission of the semi-final (isometric + details) Previous (		
Fourteenth	4				

Fifteenth	4	windows and finishing materials and presented at the end of the chapter in the form of speakers (isometric).	Final submission and evaluation		

11. Course Evaluation	
• Practical obsolescence: 40%. • Semester exams: 20%. • Final exam: 40%.	
12. Learning and Teaching Resources	
Required textbooks (methodology, if any)	• Building construction for Mr. Atef Al-Suhairi
Main references (sources)	• Barry's book is 6 parts. • McKay's books and series.
Recommended supporting books and references (scientific volumes, reports ....)	• Many projects, magazines and international examples • Annual • Architectural record
Electronic ,References Websites	• Arch daily • Arch h2o • Arch space • Dezen

Course Description Form

1.	Course:
	Structure I
2.	Course Code:
	Arc 205
3.	Semester/Year:
	Yearly / 2023-2024
4.	Date of preparation of this description:
	3/9/2023
5.	Available forms of attendance:
The annual system consists of 30 weeks distributed over two semesters each semester 15 weeks and the student attend a day a week and full-time by two hours a day.	
6.	Number of academic hours (total) / (total number of units):
	60 hours per year / 4 units
7.	Course administrator name
	Name: Dr. Omar Ismail Mohamed Email: Omar.ismael@uodiyala.edu.iq
8.	Course Objectives
Course Objectives	The topic aims to introduce the student to the subject of forces, analysis and distribution to the facilities, as well as knowing the reactions in the facilities and giving an overview of the teethers and their types, the distribution of forces on them and their structural behavior, then the topic deals with finding the centers of gravity for the known spaces. Then the topic examines the various internal stresses and the effects generated by the types of forces and moments on different engineering materials, as well as the subject of elongation and its impact on some structural parts.
9.	Teaching and Learning Strategy
Strategy	• Lectures. • Interactive lessons. • Tasks and duties. • Tests and exams. • Questions and discussions in class. • Classroom participation. • Reports and presentations.
10.	Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	Knowledge and skills outputs	General introduction to forces, their types and effects	• Lectures. • Interactive lessons. • Tasks and duties.	• Tests. • Final exam. • Prepare a
Second	2		Quotients of forces in one plane (meeting at one point and parallel and not meeting at one point)		
Third	2				
Fourth	2				
Fifth	2				

Sixth	2		Dual (definition and how to find it)	• Tests and exams. • Questions and discussions in class. • Classroom participation. • Reports and presentations.	report.
Seventh	2		Equilibrium (general introduction, types of reactions in facilities and applications on the subject)		
Eighth	2				
Ninth	2				
Tenth	2		examination		
Eleventh	2		Tooths (trusses) types and finding forces in the internal organs of the tooth in the manner of sections and the method of joints		
Twelfth	2				
Thirteenth	2				
Fourteenth	2		Centers of gravity for areas (graphical equations and complex areas)		
Fifteenth	2				
Chapter Two					
First	2		Inertial moment of single and composite spaces	• Lectures. • Interactive lessons. • Tasks and duties. • Tests and exams. • Questions and discussions in class. • Classroom participation. • Reports and presentations.	• Tests. • Final exam. • Prepare a report.
Second	2				
Third	2		Drawings for axial forces, shear forces and bending moments in the lintel		
Fourth	2				
Fifth	2				
Sixth	2		Stresses Definition and Applications Stress as a result of axial forces Stress as a result of shear forces Stress The result of bending moments		
Seventh	2				
Eighth	2				
Ninth	2				
Tenth	2				
Eleventh	2		Emotion definition and applications		
Twelfth	2				
Thirteenth	2				
Fourteenth	2				
Fifteenth	2		examination		

11. Course Evaluation
• Civic exam is 2:20%. • Report: 10%. • Tasks and duties 10%. • Final exam 60%.

12. Learning and Teaching Resources	
Required textbooks ,methodology) (if any	• Ferdinand L.Singer • “Engineering Mechanics”. • References • Archie Higdon “Engineering Mechanics”

Main references (sources)	
Recommended supporting books and references (scientific volumes, reports ....)	
Electronic ,References Websites	

Course Description Form

1.	Course Title:
	History of Iraqi Architecture I History of Iraqi architecture II
2.	Course Code:
	First Semester / Arc 206 Second Semester / Arc 210
3.	Semester / Year:
	First Semester / 2023 – 2024 Second Semester / 2023 – 2024
4.	Date of preparation of this description:
	3/9/2023
5.	Available forms of attendance:
The annual system (two separate semesters) consists of 30 weeks distributed over two semesters each semester 15 weeks and the student attend a day a week and full-time by two hours a day.	
6.	Number of study hours (total) / (total number of units):
	Two hours per week / semester 30 hours / Two semester 60 hours. Two units for the first semester and 2 units for the second semester
7.	Course administrator name
	Name: Dr. Abdulhussain Ali Hussein Email: alkafajy59@uodiyala.edu.iq
8.	Course Objectives
Course Objectives	The article includes the architecture of Mesopotamia Valley and the architecture of the Nile Valley, where the study aims to identify the emergence of the first civilizations and their buildings and settlement in the Valley of the Acres and the Nile and track the development of architecture in them until the Islamic conquests that were affected by them as settles the difference of thought, belief and geological materials located in both valleys to their differentiation where the architecture of Mesopotamia is classified as architecture (contracts and domes (and similarly classified Pharaonic architecture architecture (Threshold and column (
9.	Teaching and Learning Strategy
Strategy	• Homework. • Reports and presentations. • Excursions to old areas and museums. • Tests and exams.
10.	Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method

First	2	Knowledge and skills outputs	Settlement theory: the displacement of human waves due to ice ages to Mesopotamia and the Nile	• Homework. • Reports and presentations. • Excursions to old areas and museums. • Tests and exams.	• Tests. • Final exam. • Prepare a report.
Second	2		The formation of city states in Mesopotamia: settlement in caves and then agricultural communities that grew into city states - explanation of some examples		
Third	2		Visit the Iraqi Museum: Learn about the achievements of the Mesopotamian civilization in the Stone Ages until the beginning of Islamic civilization		
Fourth	2	Knowledge, skills and emotional value outputs	Iraq - Geology, Rivers and Climate: Identifying Geographic and Climatic Information		
Fifth	2		The unification of cities and the emergence of states: Sargon of Akkadian unites the states in one state		
Sixth	2		Sumerian architecture: architectural features, architectural vocabulary with examples		
Seventh	2		Akkadian architecture: architectural features, architectural vocabulary with examples		
Eighth	2		Babylonian architecture: architectural features, architectural vocabulary with examples		
Ninth	2		Assyrian architecture: architectural features, architectural vocabulary with examples		
Temth	2		examination		
Eleventh	2		Parthian architecture, Seleucia: Adding some structures to existing Iraqi temples Seleucid planning (Tell Omar, the emergence of Hellenistic architecture)		
Twelfth	2		Hatra architecture and planning: The temple of Hellenistic cities within the traditional Iraqi city		
Thirteenth	2		Sassanid architecture: the palaces of cities and their influence on Assyrian architecture		
Fourteenth	2		Arab architecture before Islam - Iraq: Al-Khorang and Al-Sudair - the emergence of the Hiri style in Iraq		
Fifteenth	2		Exam and submission of reports		
Second Semester History of Iraqi Architecture II					
First	2	Knowledge, skills and emotional value outputs	Kufa and its planning: the first Iraqi city that was later adopted by Muslim Arabs as an example in the planning of Arab-Islamic cities	• Homework. • Reports and presentations. • Excursi	• Tests. • Final exam. • Prepare a report.
Second	2		Dar Al Emarat: The Arab palace is the first to be influenced by the old Iraqi palaces		
Third	2		Al-Akheider Palace: Contradictory opinions about the date of construction of this important building, as it is confused in its planning and		

			Sassanid in some of its vocabulary, as it has an Islamic Mosque and a bath as well	ons to old areas and museu ms. • Tests and exams.	
Fourth	2		Wasit: Despite the praise of the rule of the early Umayyads, all its vocabulary is Iraqi.		
Fifth	2		Baghdad: Represents the height of urban planning for its establishment phase in the civilizations of the ancient Near East		
Sixth	2		Samarra: Similarly, Samarra represents the first regional planning in the world, as its territory extends about 40 kilometers.		
Seventh	2		examination		
Eighth	2		Abbasid urban structures: These urban structures were developed in the civilization of ancient Iraq		
Ninth	2		Places of worship: Despite the different doctrine, their planning location derives from the planning of ancient Iraqi cities.		
Tenth	2		Schools and khans: It were one of the most important buildings in the early days of Islam		
Eleventh	2		Heritage House: It derives its roots in your and Babylon and to this day explains here the planning foundations of the houses and their communities		
Twelfth	2		Pharaonic architecture: Pharaonic thought and belief in immortality had a great impact on pharaonic architecture and its vocabulary		
Thirteenth	2		Pharaonic architecture: Here you explain the construction methods and architectural vocabulary with an explanation of the most important pharaonic buildings.		
Fourteenth	2		Pharaonic architecture: the marriage of giant sculpture arts with architecture and planning stages of temples decorated with arcades of (Sphinx) and huge obelisks Explanation of the appearance of busts of the pharaohs and their wives		
Fifteenth	2		Exam and submission of reports		

11. Course Evaluation
• Civic exam is 2:20%. • Report: 10%. • Tasks and duties 10%. • Final exam 60%.

12. Learning and Teaching Resources	
Required textbooks (methodol	• History of Iraqi Architecture in Different Eras: Sherif Youssef • History of architecture through the ages: Dr. Maliki tribe

ogy, if any)	
Main references (sources)	Many international sources and journals • Annual • Architectural record
Recommended supporting books and references (scientific volumes, reports ....)	
Electronic References, Websites	

Course Description Form

1. Course:	
Logic and Design Methodology	
2. Course Code:	
Arc 207	
3. Semester / Year:	
First Semester / 2023 – 2024	
4. Date of preparation of this description:	
3/9/2023	
5. Available forms of attendance:	
The semester system consists of 15 weeks and the student attends a day a week and full-time by two hours a day.	
6. Number of credit hours (total) / (total number of units):	
30 hours per year / 2 units	
7. Course administrator name:	
Name: Prof. Dr. Saad Fawzi Tohme - Email: dr.saadalnuaimi@uodiyala.edu.iq	
8. Course Objectives	
Course Objectives	Make the student aware of the multiple disciplines and topics that play an important role in the design process while clarifying the basic design principles, processes and factors included in the design act, as well as teaching the student to apply logic for a purpose that enables him to think clearly and reach sound conclusions and inferences to avoid incorrect and wrong thinking in his design work.
9. Teaching and Learning Strategy	
Strategy	• Lectures • Duties and assignments. • Tests & Exams • Questions and discussions in class. • Conversation • Use of audio-visual teaching aids • Presentations.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	Knowledge and skills outputs	Clarifying the objectives of the lectures and defining and shortening the terms	• Lectures • Duties and assignments.	• Semester and final exam. • Preparati
Second	2		Design as a rational and intellectual process		

Third	2		The importance of rational thinking and its effectiveness in design work: the mechanism of logical thinking and the methods used in logical evaluation	• Tests & Exams • Questions and discussions in class. • Conversation • Use of audio-visual teaching aids • Presentations.	on of a report • Graphics.
Fourth	2	Knowledge, skills and emotional value outputs	Design phenomena and reflections as they exist in nature		
Fifth	2		Design as a reflection of geographical and physical conditions and their impact on humans		
Sixth	2				
Seventh	2		Ancient Greek civilization and classical influences on design thinking		
Eighth	2		Vitruvius and the concept of its translation of architecture and the six main and basic elements in the design work		
Ninth	2		System and arrangement elements and their reflections in the design		
Tenth	2		Elements of ratio and symmetry and their reflection in the design		
Eleventh	2		Elements of convenience and economy and their reflections in design		
Twelfth	2		Use the method of criticism as a means of evaluating design work		
Thirteenth	2		Design work reflections of subjective desires and objective requirements		
Fourteenth	2		An explanation of the different stages required by the design work		
Fifteenth	2		Examination and submission of the report		

11. Course Evaluation
• Quarterly exam: 20%. • Report: 10%. • Tasks and duties 10%. • Final exam 60%.

12. Learning and Teaching Resources	
Required textbooks (methodology, if any)	
Main references (sources)	
Recommended supporting	

books and references (scientific volumes, reports ....)	
Electronic ,References Websites	

Course Description Form

1. Course Title:	
Computers II	
2. Course Code:	
G.S 208	
3. :Semester / Year	
2023-2024	
4. :Date this description was set up	
3/9/2023	
5. Available Forms of Attendance:	
The annual system consists of 30 weeks and the student attends a day in the week and full-time by three hours a day.	
6. Number of academic hours (total) / (total number of units)	
3 hours per week 90 hours per year / 4 units	
7. The name of the course administrator	
Name: Dr. Wameed Turki Mohamed, Dr. Omar Ismail Mohamed and assistant lecturer Roaa Ammar Razouki Email: wameedh.altameemi@uodiyala.edu.iq, Omar.ismael@uodiyala.edu.iq,	
8. Course Objectives	
Course Objectives	• Enable the student to use the AutoCAD program to help him in the design and production process • Enable the student to use Excel
9. Teaching and Learning Strategy	
Strategy	1. Lectures 2. Interactive lessons. 3. Duties. 4. Tests and exams. 5. Questions and discussions in class. 6. Practical application to programs in the laboratory.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	3	Cognitive Objectives: A.1. Building imagination to support ideas A.2. Learn how to develop their	A simple definition of programs Windows and the possibility of Making the folder and the Files and delete files In Folder	• Lectures • Interactive Lessons • Duties. • Tests and exams. • Questions and discussions in class.	• Daily and weekly tests. • Final exam. • Homework. • Practicality in the laboratory.
Second	3		Login to the program CAD Auto Simplified about the beginnings of this Program and areas Use		

Third	3	concepts into a design project that can be implemented in reality – A.3. Develop their ability to develop a design that meets reasonable costs and efforts	Explanation of the related instructions Storage and opening methods New files and naming them (Save… etc. New, Open, (with Give special exercises to this Purpose	• Practical application to programs in the laboratory.	
Fourth	3		Explanation of the first part of the drawing instructions with practical application during the lecture		
Fifth	3		Explanation of the second part of the drawing instructions with practical application during the lecture		
Sixth	3		Explanation of the first part of the amendment instructions with practical application during the lecture		
Seventh	3		Explanation of the second part of the amendment instructions with practical application during the lecture		
Eighth	3		Adding dimensions with practical application during the lecture		
Ninth	3		Adding texts with practical application during the lecture		
Tenth	3		Dealing with blocks with practical application during the lecture		
Eleventh	3		Dealing with classes with practical application during the lecture		
Twelfth	3		Horizontal projection drawing of a building map with practical application during the lecture		
Thirteenth	3		Drawing a simple interface through the horizontal projection with a practical application during the lecture		
Fourteenth	3		Drawing a section through the horizontal projection with a		
Fifteenth	3				

			practical application during the lecture		
Compensatory week					
First Semester Exams 31/12/2023 to 11/1/2024 **Spring break 14/1/2024 to 25/1/2024**					
Chapter Two					
First	3	Cognitive Objectives - A.1. Building imagination to support ideas A.2. Learn how to develop their concepts into a design project that can be implemented in reality – A.3. Develop their ability to develop a design that meets reasonable costs and efforts	An introductory lecture on what it is Folded sheet programs Spread sheet Excel privacy	• Lectures- • Interactive Lessons • Duties. • Tests and exams. • Questions and discussions in class. • Practical application to programs in the laboratory.	• Daily and weekly tests. • Final exam. • Homework. • Practicality in the laboratory.
Second	3		Explanation of access possibilities And go out and store information and summoned		
Third	3		Explanation of editing possibilities Information) Delete – Copy Transfer (		
Fourth	3		Show commands and accessories		
Fifth	3		Entry and modification commands Information		
Sixth	3		Format Features		
Seventh	3		Tools commands		
Eighth	3		Order Data		
Ninth	3		Statistics and its applications in Excel		
Tenth	3		Display capabilities on Screen & Print Information		
Eleventh	3		The first part of the functions in Excel		
Twelfth	3		The second part of the functions in Excel		
Thirteenth	3		Creating Graphs (Part One)		
Fourteenth	3		Creating Graphs (Part Two)		
Fifteenth	3		General review and discussion		
Compensatory week					
Final exams 19/5/2024 for two weeks					
Second round exams 16/6/2024 for two weeks					

11. Course Evaluation	
Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams editorial and reports .... etc	
12. Learning and Teaching Resources	
Required textbooks ,methodology) (if any	• AutoCAD 2021 Beginners Guide_ 8th Edition • A Guide to Microsoft Excel 2013 for Scientists and Engineers - Bernard Liengme
Main references (sources)	• AutoCAD Workbook for Architects and Engineers by Shannon R. Kyles
Recommended supporting books and references (scientific volumes, reports ....)	•
Electronic References, Websites	• Digital resources and related websites

Course Description Form

1.	Course Title:
	English Language II
2.	Course Code:
	G.E. 209
3.	Semester / Year:
	Yearly / 2023 – 2024
4.	Date of preparation of this description:
	3/9/2023
5.	Available forms of attendance:
The annual system consists of 30 weeks distributed over two semesters each semester 15 weeks and the student attend a day a week and full-time by two hours a day.	
6.	Number of credit hours (total) / (total number of units):
	60 hours per year / 2 units
7.	Course administrator name
	Name: Lecturer Mohammad Isa Alavan Email: essa9781@uodiyala.edu.iq
8.	Course Objectives
Course Objectives	At this stage, the student completes what he was exposed to in the first stage, emphasizing the need to encourage the student to dialogue, use language and build terminology. In the second stage, the focus is more widely on writing and reading texts, especially architectural ones, by selecting some simplified architectural articles that are read and then asking the student to write a summary, a private opinion, or a discussion of the topic.
9.	Teaching and Learning Strategy
Strategy	• Lectures • Duties and assignments. • Tests & Exams • Questions and discussions in class. • Conversation • Use of audio-visual teaching aids • Presentations
10.	Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
First	2	Knowledge and skills outputs	Definition: A Review of Previous Principles	• Lectures • Duties and assignments. • Tests & Exams • Questions and	• Exams & Tests • Student engagement and participation during
Second	2		Conditions and results: if, whether, unless		
Third	2		Two-word verbs: Direct and indirect speech		
Fourth	2		Passive voice		
Fifth	2		Passive voice(continued)		

Sixth	2		How: question and answers patterns	discussions in class. • Conversation • Use of audio-visual teaching aids • Presentations	lectures • Reporting
Seventh	2		Tag questions		
Eighth	2		Adjective: formation of the comparative and superlative		
Ninth	2		Types of adverbs: place, time, frequency, manner		
Tenth	2		Prepositions of time and place		
Eleventh	2		Word of quantity: some-any; much-many; too-enough		
Twelfth	2		Semester Exam		
Thirteenth	2		Conversation		
Fourteenth	2		Review		
Fifteenth	2				
Chapter Two					
First	2	Knowledge and skills outputs	Frequently confused word	• Lectures • Duties and assignments. • Tests & Exams • Questions and discussions in class. • Conversation • Use of audio-visual teaching aids • Presentations	• Exams & Tests • Student engagement and participation during lectures • Reporting
Second	2		Either… or; neither…. Nor; so, and neither		
Third	2		Word order: Numbers: cardinal, adverbial, fraction.		
Fourth	2		Composition: how to write a composition.		
Fifth	2		Letter writing: personal and business letters (continued)		
Sixth	2		Letter writing: personal and business letters		
Seventh	2		Vocabulary: engineering and architectural terms		
Eighth	2		Working with vocabulary (continued)		
Ninth	2		Reading and discussing architectural passages		
Tenth	2		Reading and discussing architectural passages (continued)		
Eleventh	2		Reading and discussing architectural passages (continued)		
Twelfth	2				
Thirteenth	2		Semester Exam		
Fourteenth	2		Review		
Fifteenth	2				

11. Course Evaluation

- Civic exam is 2:20%.
- Report: 10%.
- Tasks and duties 10%.

• Final exam 60%.	
12. Learning and Teaching Resources	
Required textbooks ,methodology) (if any	• Riggenbach, H. and Samuda, V. (2000) Grammar dimensions: form, meaning and use. Boston: Thomson Heinle Publishing.
Main references (sources)	• Dictionaries • Oxford picture dictionary • Oxford word power dictionary • Others • A collection of short English passages • Handouts prepared by the instructor
Recommended supporting books and references (scientific volumes, reports ....)	
Electronic ,References Websites	

Course Description Form

1. Course Name	
Architectural Design	
2. Course Code	
ARC 301	
3. Semester / Year	
2023/2024	
4. The history of preparation of this description	
12/4/2024	
5. Available Attendance Forms	
The annual system consists of 30 weeks distributed over two semesters each semester 15 weeks and the student attends two days a week and full-time by 6 hours in each day of it .	
6. Number of academic hours (total) / (total number of units)	
12 hours per week 360 hours per year	
7. The name of the course administrator (if more than one name is mentioned)	
Name: Dr. Ali Odeh Mohammed	E-mail: ali.a.mohammed.archi@uodiyala.edu.iq
8. Course Objectives	
The third academic year is the final stage of the information base in the field of architectural design, where the student is introduced to complex and multifunctional projects for their various exploitative and service spaces. Construction decisions and implementation technology are at the forefront of the design offering, through choices for projects with requirements for short and medium-term construction seas and can be implemented through reinforced concrete structures or iron structures through which the student learns about the most important structural details to be known in this field and in practical support with the building installation material (III) throughout the academic year. Then the student moves in the second semester to a multi-storey project, through which he learns the principles of design for functional requirements of a typical repetitive nature. Such as the educational, administrative, residential and commercial structure, and to see some of the structural details directed for this purpose, as well as the possibility of applying what the student	**Course Objectives**

has learned in the subject of health services, air conditioning and lighting services given to him in the first and second semesters.	

9. Teaching and Learning Strategy

A- Knowledge Objectives A1 - Building imagination to support the conceptual framework of the idea A2 - Learn how to develop their ideas into a design project that can be implemented in reality A3. Develop their ability to develop a design that meets reasonable costs and efforts B - Course skills objectives 1- Teaching the student to deal with medium and large seas in design. 2- Teaching the student to design small projects in a short time	Strategy

10. Course Structure

First Semester 2023−2024

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
- Studio work, homework, presentations, classroom discussion, evolutionary criticism of concepts and project ideas and critical evaluation. - Student interaction and participation during lectures - Presentations by students -Reporting	Lecture, individual and group criticism, PowerPoint presentations and site visits	The first project - a small multi-activity project to identify the student's design ability during the first and second academic year with an extensive discussion of the students' work during the summer vacation		12	First
					Second
				12	Third
				12	Fourth
		The second project - a complex project that contains small and medium-sized spaces such as classrooms and multi-purpose halls (academic or commercial complexes, medium-sized industrial projects or recreational centers that are implemented through reinforced concrete structures or iron structures with the adoption of some structural details in the material of installing buildings III accompanying the current project.		12	V
				12	Sixth
				12	Seventh
				12	Eighth
				12	Ninth
				12	X
				12	Eleventh
				12	Twelfth
				12	Thirteenth
				12	Fourteenth
				12	Fifteenth

Second Semester 2023-2024

Evaluation method	Method of education	Unit / Subject Name	Required Learning Outcomes	Hours	The week
- Studio work, homework, presentations, classroom discussion, evolutionary criticism of concepts and project ideas and critical evaluation. - Student interaction and participation during lectures - Presentations by students -Reporting	Lecture, individual and group criticism, PowerPoint presentations and site visits	The third project: Choosing a multi-storey project of an administrative nature, academic project or housing, containing repeated floors through which the student gets acquainted with the set of structural details adopted in such structural structures (reinforced concrete or iron) with an integrated application of sanitary engineering systems, air conditioning and interior lighting engineering.		12	First
					Second
				12	Third
				12	Fourth
				12	V
				12	Sixth
				12	Seventh
				12	Eighth
				12	Ninth
				12	X
				12	Eleventh
				12	Twelfth
				12	Thirteenth
				12	Fourteenth
				12	Fifteenth

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

- Architecture data book - Time sever book - AJ magazine Many of other architecture books	Required textbooks methodology, if) (any
	Main references (sources)

The subject includes rapid tests in order to determine the student's ability to choose the right design decisions within a short period of time. • Field and scientific visits.	Recommended supporting books and references (scientific volumes, reports ….)
	Electronic ,References Websites

Course Description Form

1. Course Name	
Buildings Construction III	
2. Course Code	
ARC 302	
3. Semester / Year	
Annual System 2023/2024	
4. The history of preparation of this description	
4/4/2024	
5. Available Attendance Forms	
The system is annual and consists of 15 weeks for each of the first semester and the second semester, and the student attends a day a week and full-time by five hours a day .	
6. Number of academic hours (total) / (total number of units)	
Five hours per week 150 hours per year	
7. The name of the course administrator (if more than one name is mentioned)	
Name: Dr. Hamid Ghaleb Hussein Email: hameedghalib@uodiyala.edu.iq	
8. Course Objectives	
Reviews the vocabulary of the history of architecture subject based on the style of (comparative analysis) and differentiation between different architectural styles throughout history and on the basis of: Geographical location, historical values, climatic and geological description, approved construction methods, specifications of ceilings, walls and foundations, while addressing the history of art through different eras - such as decorations, plastic art, ornaments and other arts, with an emphasis on the origins of urban agglomerations of different civilizations.	**Course Objectives**
9. Teaching and Learning Strategy	
A- Knowledge Objectives A1 - Building imagination to support the conceptual framework of the idea A2 - Learn how to develop their ideas into a design project that can be implemented in reality A3. Develop their ability to develop a design that meets reasonable costs and	Strategy

efforts

B - Course skills objectives

It enables students to design with the structural system and find various structural solutions and integrated details. And to prepare detailed plans for a multi-storey building of reinforced concrete in full detail Training students on and preparing detailed plans for a medium hall of structural seas of steel with full details

10. Course Structure

First Semester 2023-2024

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Tests. - Final exam Classroom work and homework	Theoretical lecture Interactive lecture PowerPoint slides Work in the studio	Introducing the student to the objectives of the subject, its importance, its direct relationship to architectural design, the importance of architectural details, and the arrangement and output of plans in their final form.		5	First
		The nature of the building, the units and structural elements that make up the building and the structural systems (structural) and how to group the structural elements and the types of joints between them.		5	Second
		Concrete and reinforced concrete material, its types and structural specifications and how we can benefit from its properties and formability.		5	Third
		Structural behaviors of the basic structural parts and elements of the building in terms of the structural structure , the forces acting on it, and the nature of the loads to which the building is exposed		5	Fourth
		Types of stresses on the building, stress intensity, moments, and forces acting on the building and their effect		5	V
		Foundations, requirements, selection principles, types, differential settlement, why it happens and how it is treated, with a focus on the Raft Foundation, tanking methods and how to construct multi-storey building basements.		5	Sixth
		Systems of loads transmission in vertical buildings		5	Seventh
		Structural structures for roofs roof structures Functional requirements Classification and methods of roofs and building materials for them and the characteristics of each type of them andbuilding materials Trusses and joists Girders Frame holding structures (Frames (Portal) Rigid types and methods of construction		5	Eighth

		Shell structural ceilings and construction methods Roofs varieties and materials Roofs of panels or surfaces (cracked) Folded slab (plates) Roofs		5	Ninth
		Shell structural ceilings and construction methods Roofs Varieties and materials Folded slab roofs (plates) Roofs Grid Roof structures – Complement		5	X
		Tension roof structures Air stabled balanced or pneumatic roof structures		5	Eleventh
		The shell covers the building External envelop includes the external walls of the building and its functional and environmental requirements and types and focus on the external wall systems of the multi-storey structure, namely (Infill's (fillings and cladding) Cladding (and packaging) Facing)		5	Twelfth
		Lightweight internal divisions are easy to disassemble and include partitions, walls and installation		5	Thirteenth
		Suspended ceilings, suspended ceilings and suspended floors		5	Fourteenth
				5	Fifteenth
Second Semester 2023−2024					
Tests. - Final exam Introducing a site to work Classroom work and homework	Theoretical lecture Interactive lecture PowerPoint slides Work in the studio	Stairs and Ramps Types of stairs - especially concrete and precast stairs and reinforced roads Various structural on-site casting of construction and their structural behavior. Upgraders - Ramps for people, wheels, slope angles and turning radii.		5	First
		Infrastructure Services - Heating and cooling services and their systems H V A C and their accessories within the building		5	Second
		Electrical services , lighting , installations and identification of some of the symbols used in the plans Services - Health Water supply and drainage		5	Third
		Telecom & Special Services		5	Fourth
		Steel structures / iron material extraction, components, types, properties and disadvantages.		5	V
		Types of basic structural structures of steel and its basic structural sections.		5	Sixth
		Connecting methods Elements, sections and methods of connecting the core sections of the basic steel structures with each other		5	Seventh
		Methods of strengthening steel structures against lateral and horizontal forces (Bracing)		5	Eighth
		Methods of packaging steel structures from the outside of ceilings and walls and methods of connecting and insulating them environmentally, thermally and acoustically with the details of openings.		5	Ninth
		Internal cutting, types of floors, intermediate floors, structures and finishing materials		5	X
		Steel stairs, types and methods of their construction, concrete and their details		5	Eleventh

		Steel and concrete structural structures and their details		5	Twelfth
		CI/S F B system and rolling tables		5	Thirteenth
		Application of the I/S F B system to the charts and types of diagrams dealt with by this system		5	Fourteenth
		Site delivery		5	Fifteenth

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

	Required textbooks (methodology, if any)
	Main references (sources)
	Recommended supporting books and references (scientific volumes, reports ….)
	Electronic ,References Websites

Course Description Form

1. Course Name	
Construction II	
2. Course Code	
ARC 303	
3. Semester / Year	
2023/2024	
4. The history of preparation of this description	
12/4/2024	
5. Available Attendance Forms	
The system is annual and consists of 15 weeks for each of the first semester and the second semester, and the student attends a day a week and full-time by three hours a day .	
6. Number of academic hours (total) / (total number of units)	
Three hours a week 90 hours a year	
7. The name of the course administrator(if more than one name is mentioned)	
Name: Dr. Omar Ismail Muhammad Email: omar.ismael@uodiyala.edu.iq	
8. Course Objectives	
The first part of the construction topic for the third academic year specializes in general coverage of the structural designs of buildings designed using reinforced concrete and by presenting general concepts in the origins of power distribution and the method of finding the stillness of the structure and the stress and strain calculations of iron and concrete used with an analysis of the origins of the designs of concrete thresholds, ceilings and columns. The second part specializes in the origins of the designs of iron structures, analysis of iron columns and tensile parts in the teeth, and designs of some types of lintels, and includes theoretical coverage of some scientific applications in a specialized laboratory for construction materials and through a set of experiments that include bricks, kashi Al-Mazaik, concrete, rebar, stone (cladding and packaging), alabaster, wood and coarse fine rubble.	**Course Objectives**
9. Teaching and Learning Strategy	
A- Knowledge Objectives A1 - Building imagination to support the conceptual framework of the idea A2 - Learn how to develop their ideas into a design project that can be implemented in reality A3. Develop their ability to develop a design that meets reasonable costs and efforts B - Course skills objectives It makes the student proficient in the calculations of the design of steel structure buildings, the analysis of iron columns, pressure parts in trusses, and the designs of some	Strategy

types of beams.	

10. Course Structure

First Semester 2022-2023

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
1.Tests Daily and weekly 2. Final Exam 3. Reports and homework	1.Lectures 2. Interactive lessons. 3. Duties and reports. 4. Tests and examinations. 5. Questions and discussions in the classroom. 6. The relationship between theory and practice. 7. Reports and presentations.	General introduction to the facilities and the distribution of power and types of forces imposed on them		3	First
		General introduction to the facilities and the distribution of power and types of forces imposed on them		3	Second
		Specific and non-static facilities and the method of finding a degree of static origin		3	Third
		Specific and non-static facilities and the method of finding a degree of static origin		3	Fourth
		Specific and non-static facilities and the method of finding a degree of static origin		3	V
		Introduction to reinforced concrete designs (concrete components and emotional stress diagrams for the neutrality and concrete used)		3	Sixth
		Introduction to reinforced concrete designs (concrete components and emotional stress diagrams for the neutrality and concrete used)		3	Seventh
		Analysis of the design of reinforced concrete beams (reinforcement in the tensile zone and pressure zone) for resisting bending moments		3	Eighth
		Analysis of the design of reinforced concrete beams (reinforcement in the tensile zone and pressure zone) for resisting bending moments		3	Ninth
		Analysis of the design of reinforced concrete beams (reinforcement in the tensile zone and pressure zone) for resisting bending moments		3	X
		Analysis of the design of reinforced concrete beams (reinforcement in the tensile zone and pressure zone) for resisting bending moments		3	Eleventh
		Design of concrete sill for shear resistance .		3	Twelfth
		Design of concrete sill for shear resistance .		3	Thirteenth
		Design of concrete sill for shear resistance .		3	Fourteenth
		examination		3	Fifteenth

10. **Course Structure**

Second Semester 2023-2024

Evaluation method	Method of education	Unit / Subject Name	Required Learning Outcomes	Hours	The week
Tests. - Final exam Classroom work and homework	Theoretical lecture Interactive lecture PowerPoint slides Work in the studio	Introduction to concrete ceilings and their types		3	First
		Design of concrete ceilings with mobile loads in one direction		3	Second
		Design of concrete ceilings with mobile loads in one direction		3	Third
		Concrete columns types and specifications. A - Axial force diagrams - bending moments of columns B- Design of short concrete columns		3	Fourth
		Concrete columns types and specifications. A - Axial force diagrams - bending moments of columns B- Design of short concrete columns		3	V
		Concrete columns types and specifications. A - Axial force diagrams - bending moments of columns B- Design of short concrete columns		3	Sixth
		Concrete columns types and specifications. A - Axial force diagrams - bending moments of columns B- Design of short concrete columns		3	Seventh
		General introduction to steel structures		3	Eighth
		General introduction to steel structures		3	Ninth
		General introduction to steel structures		3	X
		A - Design and analysis of individual iron columns B- Design of tensile parts in the toothbags C- Design of iron lintels by method (R - M) Method		3	Eleventh
		A - Design and analysis of individual iron columns B- Design of tensile parts in the toothbags C- Design of iron lintels by method (R - M) Method		3	Twelfth
		A - Design and analysis of individual iron columns B- Design of tensile parts in the toothbags C- Design of iron lintels by method (R - M) Method		3	Thirteenth
		A - Design and analysis of individual iron columns B- Design of tensile parts in the toothbags C- Design of iron lintels by method (R - M) Method		3	Fourteenth
		examination		3	Fifteenth

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

Ferdinand L. Singer "Engineering Mechanics". Hani Mohamed Fahmy"Reinforced Concrete Designs	Required textbooks (methodology, if any)
P. Papov “Strength of Material”. Pasala Dayaratnam “Design of Steel Structures” Nilson “Design of Concrete Structures”	Main references (sources)
	Recommended supporting books and references (scientific volumes, reports ….)
	Electronic ,References Websites

Course Description Form

1. Course Name	
History of Architecture III	
2. Course Code	
ARC 305	
3. Semester / Year	
Annual System 2023/2024	
4. The history of preparation of this description	
4/4/2024	
5. Available Attendance Forms	
The system is annual and consists of 15 weeks for each of the first semester and the second semester, and the student attends a day a week and full-time by two hours a day .	
6. Number of academic hours (total) / (total number of units)	
Two hours per week 60 hours per year	
7. The name of the course administrator (if more than one name is mentioned)	
Name: Dr. Semaan Majeed Yas	Email: samaan.yas@uodiyala.edu.iq
8. Course Objectives	
Reviews the vocabulary of the history of architecture subject based on the style of (comparative analysis) and differentiation between different architectural styles throughout history and on the basis of: Geographical location, historical values, climatic and geological description, approved construction methods, specifications of ceilings, walls and foundations, while addressing the history of art through different eras - such as decorations, plastic art, ornaments and other arts, with an emphasis on the origins of urban agglomerations of different civilizations.	**Course Objectives**
9. Teaching and Learning Strategy	
A- Knowledge Objectives A1 - Building imagination to support the conceptual framework of the idea A2 - Learn how to develop their ideas into a design project that can be implemented in reality A3. Develop their ability to develop a design that meets reasonable costs and	Strategy

efforts

B - Course skills objectives

The student should be able to identify the geographical location, historical values, climatic and geological description, approved construction methods , specifications of ceilings, walls and foundations, while addressing the history of art through its different eras

10. Course Structure

First Semester 2023-2024

Evaluation method	Learning method	Unit or subject name		Required Learning Outcomes	Hours	Week
Tests. - Final exam Classroom work and homework	Theoretical lecture Interactive lecture PowerPoint slides Work in the studio	Evolution	Greek architecture		2	First
		The most important urban structures and construction roads	Greek architecture		2	Second
		Hippodome urban planning	Greek architecture		2	Third
		Architectural theories created by the Greeks (golden ratio and optical illusions) and model	Greek architecture		2	Fourth
		Architectural features and their distinction from Greek architecture	Roman architecture		2	V
		Roman domes and how to create them	Roman architecture		2	Sixth
		Distinctive examples of Roman architecture	Roman architecture		2	Seventh
		examination			2	Eighth
		Experiments and attempts to transform existing Roman buildings into churches in which Christian rituals were practiced	Advanced Christian architecture		2	Ninth
		Roman basilica building and its transformation into a church	Advanced Christian architecture		2	X
		Taking the Greek cross as a model for the Byzantine church	Byzantine architecture		2	Eleventh
		The construction of domes on the crossed arms of the cross and the use of mosaic and thus gave Byzantine architecture its distinctive style.	Byzantine architecture		2	Twelfth
		The use of semicircular arches and huge supporting supports was in the advantages of this building	Romanesque architecture		2	Thirteenth

		The prevalence of building religious complexes (cathedrals, monasteries, and schools of monks and nuns).	Romanesque architecture		2	Fourteenth
		examination			2	Fifteenth
Second Semester 2023-2024						
Tests. - Final exam Classroom work and homework	Theoretical lecture Interactive lecture PowerPoint slides Work in the studio	Evolution	Gothic architecture		2	First
		The Latin cross and the form of the church.	Gothic architecture		2	Second
		Integration of the meaning of the church with content and content.	Gothic architecture		2	Third
		The problem of lack of natural light in the chapel.	Gothic architecture		2	Fourth
		Finding solutions resulting from the use of flying contracts in facades and quadruple and hexagonal contracts in the chapel.	Gothic architecture		2	V
		Outstanding examples of French and English churches.	Gothic architecture		2	Sixth
		Quarterly exam.			2	Seventh
		The reasons for the emergence of the Renaissance style.	Renaissance architecture		2	Eighth
		Florence Cathedral and Prolonski architecture.	Renaissance architecture		2	Ninth
		The style spread in Rome, Venice and Europe.	Renaissance architecture		2	X

		Palladio's writings and their impact on the New World.	Renaissance architecture		2	Eleventh
		The appearance of public buildings and pivot planning.	Renaissance architecture		2	Twelfth
		Examples of Renaissance buildings and its most famous architects.	Renaissance architecture		2	Thirteenth
		The decline and decay of the style and the emergence of the Baroque and Rococo movement later.	Renaissance architecture		2	Fourteenth
		examination			2	Fifteenth

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

World Architecture: A Cross-Cultural History 2nd Edition	Required textbooks ,methodology) (if any
	Main references (sources)
	Recommended supporting books and references (scientific volumes, reports ….)

	Electronic ,References Websites

Course Description Form

1. Course Name	
Planning Basics	
2. Course Code	
ARC 305	
3. Semester / Year	
Annual System 2023/2024	
4. The history of preparation of this description	
4/4/2024	
5. Available Attendance Forms	
The system is annual and consists of 15 weeks for each of the first semester and the second semester, and the student attends a day a week and full-time by two hours a day .	
6. Number of academic hours (total) / (total number of units)	
Two hours per week 60 hours per year	
7. The name of the course administrator (if more than one name is mentioned)	
Name: Assoc.Prof. Nabil Taha Ismail Email nabiltaha2001@uodiyala.edu.iq	
8. Course Objectives	
The topic aims to introduce the student to the developments that have occurred in the history of the development of cities and their growth over time, including the social, economic, and technical influences that led to growth and change in cities. Starting from ancient civilizations to contemporary cities.	**Course Objectives**
9. Teaching and Learning Strategy	
A- Knowledge Objectives A1 - Building imagination to support the conceptual framework of the idea A2 - Learn how to develop their ideas into a design project that can be implemented in reality A3. Develop their ability to develop a design that meets reasonable costs and efforts **B - Course skills objectives** The student will be able to familiarize himself with the developments that	Strategy

have occurred in the history of the development of cities and their growth over time, including the social, economic, and technical influences that led to the growth and change in cities. From ancient civilizations to contemporary cities.	

10. Course Structure

First Semester 2023-2024

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Tests. - Final exam Classroom work and homework	Theoretical lecture Interactive lecture PowerPoint slides Work in the studio	Utopias ideas proposed as city plans - the proposal of Buckingham - Owen - Le Corporia Frank - Lower Wright - Suyamana garden cities.		2	First
		Contemporary cities - their problems and most important features - superficially touched on spatial and population expansion and social problems residential - transportation - service		2	Second
		Population study The reasons for the housing increase and the methods involved in calculating the population forecast, the population pyramid and its implications - its effects and the method of its establishment		2	Third
		Land uses are what they are, the correct methods of distribution, their percentage within the city, the mixtures of land uses in contemporary cities, the means used to control them.		2	Fourth
		Housing in contemporary cities is a problem, methods of housing survey, causes of the housing crisis, methods of prevention, methods of conducting survey and future housing estimation.		2	V
		Commercial uses and ways of distributing them within cities - types of internal and external trade and their impact on the economic development of cities and demographic physics.		2	Sixth
		Try		2	Seventh
		Industrial uses, their requirements and their signature within the framework of the general plan of cities - recreational areas, their types, requirements and distribution within the city		2	Eighth
		Pollution in contemporary cities / types causes / ways to prevent visual pollution - air pollution - water pollution - social pollution.		2	Ninth
		Services in cities - types - requirements - standards followed to guess. Routes – Water – Sewers – Electricity – Telephone		2	X
		The comprehensive plan of cities - their written contents and smiles and the most important features and specifications - with an explanation of some comprehensive plans for cities.		2	Eleventh

		Planning Cycle - its structure - successive stages - its impact - its applications in various areas of life and planning		2	Twelfth
		Planning transportation - an applied case using the planning wheel - causes of the transportation crisis - transportation system		2	Thirteenth
		Iraqi planning and building laws and regulations and their impact on controlling the growth of cities - the comprehensive plan of the census		2	Fourteenth
		examination		2	Fifteenth
Second Semester 2023-2024					
Tests. - Final exam Classroom work and homework	Theoretical lecture Interactive lecture PowerPoint slides Work in the studio	The contemporary city - its diseases and causes of morbidity - land use mixtures - pollution Geographical extension, and societal disintegration.		2	First
		Beauty, human need for beauty, aesthetic experience, aesthetic taste Aesthetic experience Different aesthetic values Aesthetic response, criticism		2	Second
		Aesthetic considerations in the city, values and influences in determining form, meaning, semantics, text, reference form between simplicity and complexity.		2	Third
		Formation in the vocabulary of the city, values and influences in determining the form, meaning, semantics, text, sign, form between simplicity and complexity.		2	Fourth
		Sketchetic theory and physiological perception and its reflection on mass formations and formations and the resurgence of the urban landscape		2	V
		Urban spaces and their importance. Public squares, their forms, types and their relationship to blocks, public parks and their types, space in Islamic cities		2	Sixth
		Quarterly exam.		2	Seventh
		Development and modernization in cities and the position of heritage and contemporary in urban development decisions, the issue of neighborhoods (traditional) and development policies, and the meaning of context and contextuality in the urban system.		2	Eighth
		Privacy in architecture and planning and its importance in creating local identity and anti-globalization. And the elements of creating identity		2	Ninth

		and promoting tourism and communication within the framework of cities and neighborhoods.			
		Commercial streets and centers. Cities and the style of dealing with them Continuity, homogeneity, stability, clarity, significance and other considerations involved in drawing the features of commercial centers and streets		2	X
		Transportation and communication technologies and their impact on bringing about change and growth in cities - the cities of satellites and Meccapolis, Global Village		2	Eleventh
		City services and their impact on strengthening the urban entity and directing the axes of growth, development and spatial expansion Tools for limiting the spatial and population growth of contemporary cities		2	Twelfth
		Street and field furniture - surface finishes, lighting and advertising Phone cabins Trash pots Organization and layout plants		2	Thirteenth
		Building laws, reconstruction and planning and their impact on the growth of cities physically and spatially Exposure to each other Building controls F.C, O.S.R, F.A.R Building plans Islamic legislation in architecture and planning.		2	Fourteenth
		The impact of legislation on drawing the identity of the urban landscape - studies, models and renewal - Baghdad - Rome - Paris - London.		2	Fifteenth

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

- Spreiregen, Paul D., The Architecture of Towns and Cities, McGraw- Hill Book Company, 1965. - Gallion, Arthur B., The Urban Pattern City planning and Design, Van Nostrand N.Y.1975.	Required textbooks ,methodology) (if any
- Available websites related to the subject : Planning , Urban Design , Population , Housing , Transportation and Cities .	Main references (sources)
- Parfect, Michael and Gordan Power, Planning for Urban Quality, New York, 1997 . - Lynch, Kevin, The Image of City, M.I.T. Press Cambridge, Massachusettc, 1972 - Bacon, Edmund, N . Design of Cities, Thames and Hudson, London, 1975. - Cliff Moughtin, Urban Design, Street and Square Third Edition, Architectural Oxford, 2003.	Recommended supporting books and references

	scientific) ,volumes (…. reports
- Personal lectures prepared by the professor Data show about samples of Historic and Modern cities regarding morphology , Population , evolution , expansion .	Electronic ,References Websites

Course Description Form

1. Course Name	
Health Services	
2. Course Code	
ARC 306	
3. Semester / Year	
2023−2024	
4. The history of preparation of this description	
4/4/2024	
5. Available Attendance Forms	
The semester system consists of 15 weeks and the student attends a day in The week and full-time by two hours a day .	
6. Number of academic hours (total) / (total number of units)	
Two hours per week 30 hours per year	
7. The name of the course administrator (if more than one name is mentioned)	
Name: Yaser Ibrahim Email : yaser_ij@uodiyala.edu.iq	
8. Course Objectives	
A- Knowledge Objectives A1 - Building imagination to support the conceptual framework of the idea A2 - Learn how to develop their ideas into a design project that can be implemented in reality A3 - Develop their ability to develop a design that meets the costs and reasonable efforts , taking into account all the services needed by the building. **B - Course skills objectives** It makes the student proficient in the design of cold and hot water networks, drainage of ordinary and heavy water and rainwater, as	**Course Objectives**

well as the principles of waste collection and discharge for low-lying and multi-storey buildings.	

9. Teaching and Learning Strategy

1. Lectures- 2. Interactive lessons . 3. Tests and exams. 4. Questions and discussions in class. 5. The relationship between theory and practice	Strategy

10. Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
1.Tests Daily and weekly 2. Exam Final 3. Reports and duties Home	1.Lectures 2. Interactive lessons . 3. Duties and reports . 4. Tests and examinations. 5. Questions and discussions in the classroom. 6. The relationship between theory and practice. 7. Reports and presentations.	Design of cold and hot water networks for single-storey and multi-storey buildings		2	First
		Plumbing		٢	Second
		Water supply pipe sizing. (Hot and cold water)		٢	Third
		Health Foundation Structures, Types, Expenses Fixture		2	Fourth
		Rainwater drainage networks for buildings Drainage system		2	V
		Ventilation networks for sewer pipes for buildings Vent system		2	Sixth
		Types of pipes used in pipes material networks		2	Seventh
		All these paragraphs study their relationship to the architectural design of buildings of different uses.		2	Eighth
		Swimming pool: - Types - type		2	Ninth

		Elected examples through which the student learns about the principles of applied work		2	X
		Elected examples through which the student learns about the principles of applied work		2	Eleventh
		Elected examples through which the student learns about the principles of applied work		2	Twelfth
		Rapid Practical Exam		2	Thirteenth
		General discussion		2	Fourteenth
				2	Fifteenth

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

	Required textbooks (methodology, if any)
	Main references (sources)
Field and scientific visits Additional lectures by foreign guest lecturers, if any	Recommended supporting books and references (scientific volumes, reports ….)
	Electronic ,References Websites

Course Description Form

1. Course Name	
Air conditioning services	
2. Course Code	
ARC 307	
3. Semester / Year	
2023−2024	
4. The history of preparation of this description	
3/9/2023	
5. Available Attendance Forms	
The semester system consists of 15 weeks and the student attends a day in The week and full-time by two hours a day .	
6. Number of academic hours (total) / (total number of units)	
Two hours per week 30 hours per year	
7. The name of the course administrator (if more than one name is mentioned)	
Name: Dr. Wameed Turki Mohammed Email : wameedh.altameemi@uodiyala.edu.iq	
8. Course Objectives	
The objective is to develop knowledge of HVAC. The course will include the following topics of discussion: 1- Air and humidity calculations, physiological reactions for cooling and heating, thermal calculations and heating systems. 2- Air – conditioning and cooling calculations, classification of air ducts. 3- Design of air ducts for air distribution systems, ventilation and air cleaning •	Course Objectives

9. Teaching and Learning Strategy	
1. Lectures- 2. Interactive lessons . 3. Tests and exams. 4. Questions and discussions in class. 5. The relationship between theory and practice	Strategy

10. Course Structure					
Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
1.Tests Daily and weekly 2. Exam Final 3. Reports and duties Home	1.Lectures 2. Interactive lessons . 3. Duties and reports . 4. Tests and examinations. 5. Questions and discussions in the classroom. 6. The relationship between theory and practice. 7. Reports and presentations.	Principles of thermal ecological comfort	**A- Knowledge Objectives** A1- Professional communication skills: writing and speaking effectively and using representative media appropriate both within the profession and with the general public. A2- Design thinking skills: to ask clear and accurate questions, use abstract ideas to interpret information, consider diverse perspectives, reach logical conclusions, and test alternative	2	– First ٢٨/١/٢٠٢٤ ٢٠٢٤/٢/١
		Calculations of heating load and cooling load		2	Second ٤/٢- ٢٠٢٤/٢/٨
		Principles of heating and heating systems		2	Third ١١/٢- ٢٠٢٤/٢/١٥
		Principles of refrigeration		2	Fourth ١٨/٢- ٢٠٢٤/٢/٢٢
		Air conditioning residential floor		2	Fifth ٢٥/٢- ٢٠٢٤/٢/٢٩
		Air conditioning floor, medium and large buildings		2	Sixth ٣/٣-٧/٣/٢٠٢٤
		Air distribution and duct design		2	Seventh ١٠/٣- ٢٠٢٤/٣/١٤
		Hot and cold water pipes are designed for heating and cooling purposes		2	Eighth ١٧/٣- ٢٠٢٤/٣/٢١
		Approximate main areas of air conditioning works in buildings		2	Ninth ٢٤/٣- ٢٠٢٤/٣/٢٨
		Elected examples through which the student learns about the principles of applied work		2	Tenth ٣١/٣- ٢٠٢٤/٤/٤
		Elected examples through which the student learns about the principles of applied work		2	Eleventh ٧/٤- ٢٠٢٤/٤/١٢
		Elected examples through which the student learns about		2	Twelfth ١٤/٤- ٢٠٢٤/٤/١٨

		the principles of applied work	results against relevant standards and standards. A3. Investigation skills: Collect, evaluate, record and evaluate relatively relevant information and performance in order to support conclusions about a specific project or task.		
		Elected examples through which the student learns about the principles of applied work		2	Thirteenth ٢٠٢٤/٤/٢٥/٤/٢١
		Elected examples through which the student learns about the principles of applied work		2	Fourteenth ٢٨/٤-٢٠٢٤/٥/٢
		Elected examples through which the student learns about the principles of applied work		2	Fifteenth ٥/٥-٢٠٢٤/٥/٩
Compensatory week					
Final exams 19/5/2024 for two weeks					
Second round exams 16/6/2024 for two weeks					

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

PRINCIPLES OF HEATING VENTILATING AND AIR CONDITIONING by ASHRAE	Required textbooks methodology, if) (any
	Main references (sources)

	Recommended supporting books and references (scientific volumes, reports ….)
	Electronic ,References Websites

Course Description Form

1. Course Name	
Lighting Services	
2. Course Code	
ARC 308	
3. Semester / Year	
2023−2024	
4. The history of preparation of this description	
4/4/2024	
5. Available Attendance Forms	
The semester system consists of 15 weeks and the student attends a day in The week and full-time by two hours a day .	
6. Number of academic hours (total) / (total number of units)	
Two hours per week 30 hours per year	
7. The name of the course administrator (if more than one name is mentioned)	
Name: Dr. Mohamed Waleed Email :	
8. Course Objectives	
A- Knowledge Objectives A1 - Building imagination to support the conceptual framework of the idea A2 - Learn how to develop their ideas into a design project that can be implemented in reality A3 - Develop their ability to develop a design that meets the costs and reasonable efforts , taking into account all the services needed by the building. **B - Course skills objectives** Introducing the student to the most important basic principles of electrical systems, the lighting system, the electrical power	**Course Objectives**

distribution system, the fire system, the telephone system,the internal call system, and others	

9. Teaching and Learning Strategy	
1. Lectures- 2. Interactive lessons . 3. Tests and exams. 4. Questions and discussions in class. 5. The relationship between theory and practice	Strategy

10. Course Structure

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
1.Tests Daily and weekly 2. Exam Final 3. Reports and duties Home	1.Lectures 2. Interactive lessons . 3. Duties and reports . 4. Tests and examinations. 5. Questions and discussions in the classroom. 6. The relationship between theory and practice. 7. Reports and presentations.	Design of cold and hot water networks for single-storey and multi-storey buildings Plumbing Water supply pipe sizing. (Hot and cold water)		2	First
		Calculations of heating load and cooling load		2	Second
		Principles of heating and heating systems		2	Third
		The principles of calculating capacity relative to the requirements of different buildings		2	Fourth
		Air conditioning residential floor		2	V
		Monthly exam		2	Sixth
		Central services and calculating the spaces necessary to contain them		2	Seventh
		Hot and cold water pipes are designed for heating and cooling purposes		2	Eighth
		The principles of interior lighting		2	Ninth

		design, integration of natural lighting, interior lighting, and integration with the air conditioning system through a set of examples elected for this purpose			
		Elected examples through which the student learns about the principles of applied work		2	X
		Elected examples through which the student learns about the principles of applied work		2	Eleventh
		Elected examples through which the student learns about the principles of applied work		2	Twelfth
		Rapid Practical Exam		2	Thirteenth
		General discussion		2	Fourteenth
				2	Fifteenth

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

Proceedings of Building Science Insight Conference - National Research Conceal of 1992 - Ontario - Canada 2" - Sustainability Architecture and Building Design (SABD - Sustainability Reporting Program) - NAHB Center, Manual on Developing the Construction Program, National Association of Home Builders, United States of America, 2004. 3 -Lubny, Brand (et al.), "Design and Analysis", Van Nusertand Reinhold, New York, 1997. 4- Jessen, D., "The Great and the Green:" The Tenderness of Sustainable Architecture in the Twentieth Century, Princeton Architectural Press, New York. 2002 NAHB Center, Guide to Developing Evacuation Programs, National Association of Home Builders, 1999. 5- Rock, Annessy, "Daylight in the Building- Solar Heating and Turbiding Program (IEA), International Planning Group, Marialland, Alwayite United of America, 1998. 6. Gordon, J., J. Kubuck. "Ecosystem Management and Economic Development," Environmental Reflection: The Next Eagle of Environmental Policy, Yale University Press, New Haven. 1997. 7. Giffoyen, Abruch, Climate and Architecture, Rabbitanian Printing Press, Second Edition, London, 1976. 8. Egan, David, "Concepts in Architectural Lighting," McGraw Hill, New York, 1983.	Required textbooks (methodology, if any)
" Velux Grop , "Daylighting , Cap .F., Martin-1, Freance, Velux and the Red Velux logo Press, 2005, "Principles of Natural Lighting", J.A. Lynes, 1968, New York 2, Illinowood, Scott, "Daylight in the Design Process," AIA, California, 1985,	Main references (sources)

Field and scientific visits Additional lectures by foreign guest lecturers, if any	Recommended supporting books and references (scientific volumes, reports ….)
	Electronic ,References Websites

Course Description Form

1. Course Name	
Computers III	
2. Course Code	
ARC 309	
3. Semester / Year	
Annual System 2023/2024	
4. The history of preparation of this description	
4/4/2024	
5. Available Attendance Forms	
The system is annual and consists of 15 weeks for each of the first semester and the second semester, and the student attends a day a week and full-time by two hours a day .	
6. Number of academic hours (total) / (total number of units)	
3 hours per week 90 hours per year	
7. The name of the course administrator (if more than one name is mentioned)	
Name: Lect. Nabil Mohammed Saleh Email: nabil.ms@uodiyala.edu.iq	
8. Course Objectives	
Learn and professionalize the field of art and design work. Learn the basics of the field of engineering design in general through the set of tools provided by the program, and the environment provided by the program is very similar to the real environment, which makes the student more familiar with the basics of the field of design. Explain how to convert a two-dimensional drawing into a stereoscopic drawing or three-dimensional drawing Explain how clips are made and clarify the interior details of architectural blocks Giving the student the opportunity to unleash his creative imagination and create completely new ideas and designs, meaning that the student can design anything in his imagination and add special effects that he shows in the form of creative designs in every sense of the word (such as designs for anime and cartoon movie decorations, etc.).	**Course Objectives**
9. Teaching and Learning Strategy	

A- Knowledge Objectives A1- The program is mainly used in technical works and innovative engineering designs A2- Testing engineering plans and the possibility of implementing them on the ground. A3- Drawing perspective and converting diagrams from two-dimensional to three-dimensional drawings **B - Course skills objectives** B1 - The work of designs and decorations for various cartoon films, it gives the possibility of three-dimensional display, which gives the designs a real shape and a kind of realism. B2 – Learn to design three-dimensional shapes and characters and make adjustments to them with ease. B3 - Creating the best creative works unprecedented in the field of design, and this is the best thing provided by the program.	Strategy

10. Course Structure

First Semester 2023-2024

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
Discussions, class assignments, homework, semester and daily exams.	Explain the lecture using a number of modern means of illustration and open the door for question and discussion in a	Running the program (3D Studio Max) and identifying its components (command list, command boards, element platoon, active scene, movement and time control zone, viewer display control keys, jump control keys, determining the stage of selecting the element	- The architectural design of the building in light of global developments in particular. - Designing small buildings such as housing down to designing large	3	First
				3	Second
				3	Third
		Change the distribution of simple screen scenes to the viewer, zooming) browsing, spinning (rotation) item selection.		3	Fourth
				3	V
				3	Sixth
				3	Seventh
		Simple editing tools, merge forms, applications merge forms		3	Eighth
				3	Ninth

	practical and extensive manner.		strategic buildings such as hotels Hospitals, ports , airports and most other building patterns and urban environment design		
				3	X
		Duplicate objects and materials, import forms (import) Export forms (Export)		3	Eleventh
				3	Twelfth
		Creation of standard geometric elements Geosphere,Sphere cone, Box, ,Tube, cylinder, plane.Applications,Teapot, pyramid,tours		3	Thirteenth
				3	Fourteenth
				3	Fifteenth
Second Semester 2023-2024					
Discussions, class assignments, homework, semester and daily exams.	Explain the lecture using a number of modern means of illustration and open the door for question and discussion in a practical and extensive manner.	Advanced Engineering Elements Hydra, Oil Tank , Chamber , cylinder , Chamber box, Tours Knot , Gengen ,L – Ext, Spindle, Capsule, Prism , Ring wave , C – Ext انشاء موجة حلقية		3	First
				3	Second
		Line ,Circle , Spline , Ellipse , Arc, Daunt, Ngon)		٣	Third
				3	Fourth
		Text		٣	V
				3	Sixth
		Helix, Section Section, Modifications, Copying, Array, Melodic, Bend, Mirror		3	Seventh
				3	Eighth
		Boolean (Union , Intersection , Subtraction)		3	Ninth
				3	X
		Lighting Perspective, Cameras, Lighting , Material Addition, Principles of Movement and Shading		3	Eleventh
				3	Twelfth
		Giving preliminary principles for advanced architectural systems		3	Thirteenth
				3	Fourteenth
				3	Fifteenth

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

3ds-max tutorial	Required textbooks ,methodology) (if any
https://knowledge.autodesk.com/support/3ds-max	Main references (sources)
Diascientific Journal	Recommended supporting books and references scientific) ,volumes (…. reports
https://www.autodesk.com/products/3ds-max/overview?term=1-YEAR#3ds-max-intro	Electronic ,References Websites

Course Description Form

1. Course Name	
Conservation methods	
2. Course Code	
ARC 310	
3. Semester / Year	
Second Semester 2023/2024	
4. The history of preparation of this description	
12/4/2024	
5. Available Attendance Forms	
The semester system consists of 15 weeks and the student attends a day in The week and full-time by two hours a day .	
6. Number of academic hours (total) / (total number of units)	
Two hours per week 30 hours per semester	
7. The name of the course administrator (if more than one name is mentioned)	
Name: Assoc.Prof. Nabil Taha Ismail Email nabiltaha2001@uodiyala.edu.iq	
8. Course Objectives	
Introducing the student to an important and vital topic, which is the subject of preserving the architectural heritage, which is a specialized scientific field concerned with matters of protection, prevention and rehabilitation of buildings and sites of distinct archaeological, historical and heritage value.	**Course Objectives**
9. Teaching and Learning Strategy	
A- Knowledge Objectives A1- Professional communication skills: writing and speaking effectively and using representative media appropriate both within the profession and with the general public. A2- Design thinking skills: to ask clear and accurate questions, use abstract ideas to interpret information, consider diverse perspectives, reach logical conclusions, and test alternative results against relevant standards and standards. A3. Investigation skills: Collect, evaluate, record and evaluate relatively relevant information and performance in order to support conclusions about a specific project or task. B - Course skills objectives Introducing the student to the preservation of architectural heritage and its importance in the world, and accordingly the student learns how to deal with designs in heritage sites.	Strategy

10. Course Structure

First Semester 2022-2023

Evaluation method	Learning method	Unit or subject name	Required Learning Outcomes	Hours	Week
1.Tests Daily and weekly 2. Final Exam 3. Reports and homework	1.Lectures 2. Interactive lessons. 3. Duties and reports. 4. Tests and examinations. 5. Questions and discussions in the classroom. 6. The relationship between theory and practice. 7. Reports and presentations.	Preservation of architectural heritage – basic definitions, conservation objectives, origin and development of the concept		2	First
		Causes and sources of damage and loss in architectural and urban heritage		2	Second
		Dimensions of preserving architectural heritage: building selection criteria, efficiency of use and economic feasibility, social, planning, administrative, financial and legislative dimensions		2	Third
		Preparatory steps for conservation work: inventory, documentation, registration, historical and physical studies		2	Fourth
		Treatments and behavioral standards: treatment requirements, choice of treatment method, treatment levels, post-treatment protection		2	V
				2	Sixth
		Semester exam		2	Seventh
		Rehabilitation and Employment of Historic Buildings: Rehabilitation Criteria, Contemporary Job Election, Evaluation Criteria for Efficiency of Use		2	Eighth
		The role of rehabilitation in improving the urban environment – local and global examples		2	Ninth
		The Arab experience in architectural conservation: its applications and problems		2	X
		Global Experience in Architectural Conservation – Presentation of Distinguished Models		2	Eleventh
		Local experience in conservation: history of the experience, relevant authorities, basic dimensions of the experience, experiences of preserving historical centers in Iraq		2	Twelfth
		Experiences of preserving historical centers in Baghdad: the experience of Kadhimiya, Bab al-Sheikh, old Rusafa.		2	Thirteenth
		Experiences of preserving historic buildings in Baghdad		2	Fourteenth
				2	Fifteenth

11. Course Evaluation

Distribution of the grade out of 100 according to the tasks assigned to the student such as daily preparation and daily, oral and monthly exams
editorial and reports .... etc

12. Learning and Teaching Resources

Preservation of historic buildings Bernard Felden 1982	Required textbooks (methodology, if any)
	Main references (sources)
Many sources, websites and reports are available on the Internet.	Recommended supporting books and references (scientific volumes, reports ….)
	Electronic ,References Websites