



## Course Description

### Legend

Course Title [A – B – C]	Course #:	Prereq.:
--------------------------	-----------	----------

**A:** Theoretical hrs

**B:** Practical hrs

**C:** Credit hrs

Architectural Drawing[1 – 6 – 3]	Course #:0908000	Prereq.: 0905103
This course aims to focus on the basics and tools of drawing used in the field of architecture through a series of manual exercises that develop the abilities and skills of students through increasing their ability to imagine the architectural elements, drawing architectural plans, elevations, and sections through drawing a comprehensive project using pencils and inks.		
Practical Training for Architectural Engineering [0 – 0 – 3]	Course #:0908400	Prereq.:115
The student will explore the practical applications related to architecture in terms of professionalism and legislation through training in engineering offices, or contracting companies, or one of the concerned parties in the public and private sectors.		
Freehand Sketching (1)[0 – 3 – 1]	Course #:0908111	Prereq.:
This course aims to develop the student's ability to perceive various visual elements, their size, texture and color, besides paying attention to the aesthetic proportions through a series of manual exercises for the nature, masses, and human figure sketches using pencils and charcoal		
Freehand Sketching (2) [0 – 3 – 1]	Course #:0908112	Prereq.:0908111
This course aims to study the projection of shades and shadows on different architectural compositions, and presenting them in 2D and 3D composition, using pencils, inks, markers and watercolours.		
[Basic Design (1) [1 – 6 – 3]	Course #:0908122	Prereq.:0905103
This course aims to introduce the design principles and basic design elements, it develops the student's ideas and skills to design documentation and the study of architectural formations.		
Basic Design (2)[1 – 6 – 3]	Course #:0908123	Prereq.:0908122
The course aims to develop the design skills, form articulations, shape composition and the interaction between (form, space, enclosure, and spatial relationships), focusing on the third dimension in the composition. It also discusses how to transforms the space, shape, and order into a functional meaning.		
History and Theory of Architecture (1) [3 – 0 – 3]	Course #:0908211	Prereq.:
This course identifies the ancient civilizations Such as the Nile valley, the Mesopotamia, and the classical eras of Greeks and Romans, with indication to the various influences that affected the development of architectural thought and construction systems.		
History and Theory of Architecture (2) [3 – 0 – 3]	Course #:0908212	Prereq.: 0908211
This course discusses the development of architecture during the dawn of Christianity through the Byzantine period, the Middle Ages, the Renaissance, the Baroque and the Rococo with focusing on the main theoretical approaches and various influences that affected the development of architectural thought and construction systems.		



Computer Drawing (1)[1 – 6 – 3]	Course #:0908226	Prereq.:0908112
This course aims to introduce the use of computers in 2D architectural drawing. It begins with the theoretical explanation to the rules of basic drawing by identifying all the menus and commands that help in the process of drawing, editing and saving files by using different architectural programs.		
Computer Drawing (2)[1 – 6 – 3]	Course #:0908227	Prereq.: 0908226
The course aims at using the computer to prepare 3D drawings and models (solid and surface), processing materials, preparing objects and surfaces, in addition to the preparation of lighting, backgrounds and others.		
Architectural Design (1)[1 – 9 – 4]	Course #:0908223	Prereq.:0908123
This course aims at clarifying the concept of architectural design, its principles, its elements and different stages, with focusing on the functional side of the design. This could be achieved by designing simple architectural structures on flat site, with a floor area that does not exceed 150 m <sup>2</sup> . The student designs two projects during the semester		
Architectural Design (2)[1 – 9 – 4]	Course #:0908224	Prereq.:0908223
This course aims at developing the student's ability to understand and integrate the architectural philosophy with the architectural idea. The student will be able to design architectural projects with specific functional programs on a shallow slope site, with a floor area that varies from 250 m <sup>2</sup> to 350 m <sup>2</sup> . The student designs two projects during the semester		
Architectural Drawing and Presentation [1 – 6 – 3]	Course #:0908225	Prereq.:0908000
This course develops the student's skills in presenting architectural drawings and masses. It focuses on methods of perspective drawings - one and two vanishing points- through a series of exercises for drawing the interiors and the exteriors of buildings, studying shade and shadow and implementing them on plans and 3D masses using the graphic drawing tools.		
Structural Mechanics [3 – 0 – 3]	Course #:0908261	Prereq.:0300122
Introduction to Statics. Force vectors and force system resultants. Types of loads and structures. Load distribution and structural stability. Reaction of a rigid body, and analysis of beams, frames, and trusses. Drawing shear force and bending moment diagram of beams. Calculating the centroid and moment of inertia of a composite area. Introduction to mechanics of deformable bodies. Concepts of stress and strain. Axially loaded members.		
Building Construction(1) [2 – 3 – 3]	Course #:0908262	Prereq.:0908000
This course aims at understanding the construction works stages that include site preparation, soil testing, and excavation works. It studies the types of forces that affect the structural elements, the building materials (stone, brick, concrete, wood and metal), the types of foundations, the structural systems, and the structural elements (columns, beams, roofing, flooring, and walls).		
Building Construction (2)[2 – 3 – 3]	Course #:0908263	Prereq.:0908262
This course aims at studying the finishing techniques for ceilings, floors, and walls for kitchens, bathrooms, and other interior space. It focuses on the wood works, metal works, paintings, and insulation materials (damp proofing, heating, sound).		
Islamic Architecture [3 – 0 – 3]	Course #:0908312	Prereq.:0908212
The course focuses on the development of the Islamic architecture since the early foundation of the Islam to these days and shows its implementation in Architecture of houses, religious buildings, and public buildings. It also studies the characteristics of the Islamic architecture and how it could be reused in contemporary word.		



Environmental Control systems [3 – 0 – 3]	Course #:0908371	Prereq.:0908224
<p>This course studies various climate elements as a fundamental influence on the design process to reach the thermal balance of buildings and human beings. It discusses how to determine the periods of shade and sun necessary for buildings, design the sun-breakers, and study the wind directions inside and outside buildings, besides studying the traditional environmental solutions in the different climatic regions.</p>		
Architectural Design (3)[1 – 9 – 4]	Course #:0908321	Prereq.:0908224
<p>This course aims at designing a single, public building with specific nature and moderate complexity, with a floor area that varies from 250 m<sup>2</sup> to 350 m<sup>2</sup>, to be erected on shallow slopes. Emphasis is given to interior design, internal spatial arrangements, human needs, functional relationships. Social, psychological and economical aspects that influencing the architectural design should be considered as well.</p>		
Architectural Design (4)[1 – 9 – 4]	Course #:0908322	Prereq.: 0908321
<p>The course aims to focus on the exploration of architectural solutions through systematic analysis for the architectural concept based on analytical conclusions at different levels of the project. The student will design a project consisting of a building or a group of buildings, with a floor area that varies from 1000m<sup>2</sup> to 2000m<sup>2</sup>, he will also design the outdoor spaces, plazas, paths and all the required services. Applying the principles of environmental design and landscape architecture is essential.</p>		
Theories of Contemporary Architecture [3 – 0 – 3]	Course #:0908324	Prereq.: 0908312
<p>This course discusses the development of the contemporary architecture and its pioneers, from the industrial revolution to the current era. It emphasizes on the social, economic and political changes, and their effects on the trends of the modern architecture and their most important characteristics.</p>		
Landscape Architecture [3 – 0 – 3]	Course #:0908352	Prereq.:0908321
<p>This course explains the main principles of landscape architecture to assist in creating liveable spaces. It discusses the landscape design components, its philosophies, concepts, and main elements (soft and hard). The course also explores the design's procedures and the proper materials that are used locally and internationally.</p>		
Working Drawings [1 – 6 – 3]	Course #:0908326	Prereq.:0908263
<p>This course prepares the student to submit a complete package of construction drawings for an architectural project according to professional technical standards and official building codes and requirements of Jordan.</p>		
Technical equipment of building [3 – 0 – 3]	Course #:0908372	Prereq.:0908263
<p>The course aims to study the equipment of elevators, escalators, traffic corridors and fire fighting systems, and to discuss the environmental studies such as air and water purification, solar energy exploitation, sewage analysis, as well as the study of sewage, cold and hot water at buildings.</p>		
Architectural Design (5) [1 – 9 – 4]	Course #:0908421	Prereq.:0908322
<p>This course aims at finding comprehensive architectural solutions by designing a mixed-use building with a floor area that varies from 3000m<sup>2</sup> to 5000m<sup>2</sup>, studying its main components, understanding its functions, and integrating them with the surrounding urban environment. Applying the sustainability standards and meet the needs of users by studying the visual, functional, social and economic aspects.</p>		
Architectural Design (6) [1 – 9 – 4]	Course #:0908422	Prereq.:0908421
<p>The course aims at applying the theories of urban design, and understanding the methods of visual analysis by studying the social, economic and environmental impacts of the study area. The course consists of one main project, where the student will study and analyze the existing condition of a specific urban area and explore the most important urban problems, and then provide a range of solutions and treatments to reach an identified urban environment.</p>		



Illumination and Acoustics [3 – 0 – 3]	Course #:0908423	Prereq.:0908372
<p>This course studies the physical characteristics of the light and its main principles, the light calculations, natural and artificial lighting design principles and its implementation in architecture. It provides full understanding of the physical characteristics of acoustics and its main principles. Study acoustics resources inside the buildings, measure acoustics levels, acoustics design principles in building, acoustics control and isolation. Introduce the student to measurement tools and materials that are used in the practical implementations for the illumination and acoustics fields of architecture.</p>		
Contracts, Specifications and Quantity calculations[3 – 0 – 3]	Course #:0908433	Prereq.:0908326
<p>This course aims to study engineering contracts in general and FIDIC and detailed description of all architectural works items in the construction of buildings, and study of the technical specifications for the implementation of buildings in accordance with the specifications and conditions in Jordan and the preparation of technical specifications and the calculation of quantities for a project with a small area.</p>		
Planning and Urban Design[3 – 0 – 3]	Course #:0908443	Prereq.:0908322
<p>This course discusses the urban planning, its theories, objectives, levels, regulations, and types. It also focuses on the environmental, social and economic factors that affecting the distribution of the public facilities.</p>		
Architectural Criticism and Analysis [3 – 0 – 3]	Course #:0908511	Prereq.:0908322
<p>This course discusses the concept and history of architectural criticism. It introduces the significance of architectural analysis through analyzing case studies of architectural critics who influence contemporary architectural trends in the Arab and Western worlds. In addition, it studies principles and methods of architecture criticism, and provide training for the student to select architectural projects; local, regional and international, then analyzing them using selected phrases of criticism.</p>		
Building Legislation and Professional Practice[3 – 0 – 3]	Course #:0908531	Prereq.:0908433
<p>The course studies the most important legislations and laws that affect the architectural design. It consists of two main sections: The first section focuses on the Jordanian Buildings Legislation and Codes and its implementations throughout design stages. It discusses the specific regulations that are implemented in Amman Master plan of 2025, and in special projects such as Abdali development. The second section focuses on the professional architectural practices and the ethics to be demonstrated in the practice of engineering work, and how to obtain professional accreditation through the Jordanian Engineers Association</p>		
Graduation Project (1)[2 – 0 – 2]	Course #:0908581	Prereq.:0908422
<p>The course aims at creating the data base that the student needs to prepare the final report for the graduation project. This could be achieved by adopting the scientific method and process in the architectural thinking ,and exploring the relevant case studies that assist the student to prepare the project program. The student should submit three proposals and the best alternative will be chosen</p>		
Graduation Project (2)[1 – 9 – 4]	Course #:0908582	Prereq.:0908581
<p>This course aims at developing the design concept that was reached during the Graduation Project (1), then design an integrated architectural project based on the outcomes of the study and analysis. The student will present all the architectural drawings that express the project and a model with a suitable scale</p>		
Surveying [3 – 0 – 3]	Course #:0902209	Prereq.:0300102
<p>Basic Definitions in Surveying, Recording field data and notes, Error types and Sources. Units, Metric and English system. Plotting and Map Scale and types. Linear Measurements, Electronic Distance Measuring Instruments. Leveling, Datum, Bench Marks. Directions, Reduced Bearing, Geographic or True North, Azimuth. Theodolite, Measuring Horizontal and Vertical Angles. Contour Lines. Coordinates calculations and Traverses. Area and Volumes and earth work calculations.</p>		



Surveying lab[0 – 3 – 1]	Course #:0902210	Prereq.:0902209
Measurement of distance by ranging and tapes and EDM. Measurement of distance by pacing. Slope Distance measurements by tapes and ranging rods. Scale Measurements and representing of building on drawing. Tachometry Distance Measurements. Height of building measurements by using ranging rods. Determination of elevation of various points with level by HI method and rise & fall method. Contour lines and formation of contour map. Compass and Azimuth measurements. Measurement of horizontal and vertical angles with Theodolite instrument. Height of building measurements by using theodolite instrument. Open and closed Traverses and Coordinate calculations.		
Housing Issues[3 – 0 – 3]	Course #:0908444	Prereq.:0908443
This course discusses the development of housing definition on the local and international levels, how to organize the residential areas and its basic components, patterns of services distribution. It explores the impact of residential environment on the social relations, and the residential buildings types with the public characteristic for each type, in addition to studying the slums and how to deal with them in Jordan.		
Architecture and Sustainable Design[3 – 0 – 3]	Course #:0908523	Prereq.:0908324
The course deals with the main principles of sustainability that the architect should apply to achieve a sustainable design for the building and its surrounding environment. It discusses the environmental, social, and economic aspects and explains how it can be applied by presenting various case studies for sustainable projects.		
Interior Architecture[3 – 0 – 3]	Course #:0908525	Prereq.:0908423
Design the interior architectural environment and its impact on human comfort by perceiving the importance of place through focusing on the harmony of the interior elements, their shape, color, texture, lighting distribution and interior furniture; besides studying the ceilings, floors and walls treatments using different materials.		
High-Rises and Building Technology[3 – 0 – 3]	Course #:0908544	Prereq.:0908263
This course covers the Definition of high-rise buildings, and the principles of design with Emphasis on the technical, structural, and technology systems in high-rise buildings, in addition to study their impacts on urban fabric, infrastructure networks, and skyline of the city.		
Conservation of Heritage Environment [3 – 0 – 3]	Course #:0908546	Prereq.:0908312
The course aims at identifying the methods, standards and principles of the conservation processes of architectural heritage as defined by the international conventions. It also deals with the study of the most important techniques and methods used in managing the architectural heritage, classifying and restoring the buildings, In Jordan, the Arab world and the foreign countries.		
Special Topics in Architecture [3 – 0 – 3]	Course #:0908583	Prereq.:000000
This course studies the relation between architecture and other fields, then it focuses on the most important topics in the field of architecture and discusses them in-depth.		
Architecture and Human Behavior [3 – 0 – 3]	Course #:0908584	Prereq.:0908312
The course discusses the effect of the built environment on the human behavior, and how the user's behavior affects and is affected by the surrounding area. The course focuses on the most important methods used to study and analyze the built environment through understanding the process of perception, recognition, and creating the mental map.		
Planning and Project management [3 – 0 – 3]	Course #:0908562	Prereq.:0908433
Scientific methods of project management; Network analysis using arrows, nodes; Critical activities and critical path; Activity duration and project duration; Project time and cost control; Resource allocation and resource leveling.		