

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 407101 **Description:** Architectural Drawing

Full Course Description: The different terms used in architecture and its history. Focusing on developing the basic drawing skills used in designing and presenting the architectural work, which is done, through a series of theoretical lectures and practical exercises. The different ways and methods used in drawing lines, plains and forms. Basic principals used in architectural expression (plans, elevations, sections and 3D drawings).

Course ID: 407102 **Description:** Computer Applications in Architectural Design (2)

Full Course Description: Training students to apply the different computer techniques in presenting the different architectural drawings. This is done through a collection of practical exercises that deal with presenting the 2D drawings, and enrich the student's computer drawing skills through using many visual communication and presentation programs as a tool to implement their architectural concepts, ideas and drawings

Course ID: 407111 **Description:** Free Hand Drawing

Full Course Description: The different free hand drawing techniques focusing on training the students to acquire the basic free-hand drawing skills used in presentation. Developing the artistic sense when dealing with lines, plains, solids and voids, and the perception of different environments, forms and shapes. Providing students with some basic training on drawing plants, figures, perspectives, casting shades and shadows, and the presentation of 2D and 3D drawings using pencils and charcoal.

Course ID: 407112 **Description:** Architectural Communication and Presentation

Full Course Description: The different architectural expression methods and techniques used in presentations. Training on how to draw different perspectives (one- point perspective, two-points perspective, external and internal perspectives), and casting shades and shadows on the different architectural drawings (plans, elevations, sections and site plans).

Course ID: 407213 **Description:** Architectural Communication and Presentation (2)

Full Course Description: This course deals with graphic and visual presentation techniques for architectural students by using pencil, ink, collage, photography, water color, markers, zip-a-tone, air brush modeling and airbrush technique.

Course ID: 407231 **Description:** Building Construction (1)

Full Course Description: Basic information, which is related to building construction; basic building materials, produced materials major and minor building components. It includes the property of materials: strength, thermal conducting of the building materials such as stone, concrete brick, cement, concrete, wood, glass, metals, and plastic. Emphasis will be on construction terminology and major construction stages: site preparation, soil investigation, excavations, and footings and their types.

Course ID: 407241 **Description:** History and Theory of Architecture (1)

Full Course Description: Evolution of early architecture during prehistoric periods. Analysis of Ancient Architecture (Mesopotamian, Egyptian, Persian, Canaanite, Phoenician, and Hittite) in Ancient Middle East. Study of the civilizations and architecture of classical periods: Greek (preceded by Aegean), and Roman (precedent by Etruscan). Theoretical discussions upon the relevance and proper use of Ancient and Classical architecture in the design of buildings and sites today.

Course ID: 407323 **Description:** Interior Design

Full Course Description: The relation between the design of the architectural interior environment and human satisfaction and his perception to the space. Focusing on the compatibility between the different factors of the space such as color, style, texture, shade and shadow and selection of proper materials for roofs, floors and walls.

Courses Description

College: Engineering

Department: Architectural Engineering

Couse ID: 407331 **Description:** Building Construction (2)

Full Course Description: Skeleton construction systems from foundations to roofs, their materials, mechanisms, options, major and minor elements. It will focus also on major components of partitions, staircases, and elevators, windows and doors, insulation works.

Couse ID: 407332 **Description:** Building Construction(3)

Full Course Description: Building finishes and its related detailing. Major finishes of floors, roofs, walls and partitions by using modern materials in paintings, metal works. It contains the finishes of building services; kitchens, bathrooms, finishes for special functions, laboratories, auditoriums.

Couse ID: 407333 **Description:** Ancient Building Technology

Full Course Description: Analysis of building techniques and the materials used in ancient building construction. Its origin and development and the factors that affected its development. The intention is to find out the sources of the materials and to consider what the ancient craftsmen used them for and why. This will include the study of the construction techniques used in prehistoric until the modern architecture. Field trips to a historic building are important in order to analyze the structural, architectural, and functional elements.

Couse ID: 407334 **Description:** Building Workshop

Full Course Description: Some lab exercises on building construction techniques for both the skeleton and finishing stages of work. Site visits to some local pilot projects. Some skills in project supervision, technical report writing, and project management.

Couse ID: 407341 **Description:** History and Theory of Architecture (2)

Full Course Description: Analytical study and development of the Religious architecture from the end of the Roman Empire through Early Christian and Byzantine periods. The Medieval period (Romanesque and Gothic) in Social, religious, historical and cultural contexts. Influences on the development of structure and space. Analytical study of the Renaissance period. Social, cultural, scientific and economic dimensions and influences on buildings and cityscapes. The study of Renaissance architecture as a Classical representation (Classical Revival). Ornate architecture of the Baroque and Rococo periods in Europe.

Couse ID: 407342 **Description:** Islamic Architecture

Full Course Description: The development of Architecture in the Islamic world from the dawn of Islam till recently. Analysis of elements, methods and functions of Islamic architecture including contemporary development in various Islamic regions. Emphasis on recent experiments which intend to achieve the continuity of Islamic architecture.

Couse ID: 407343 **Description:** Theory of Modern Architecture

Full Course Description: Study the development of approaches and schools in architectural theory and criticism, it examines the competent influential ideologies and values underlying diverse contemporary movements, with some focus on the character of Jordan architecture. The course is illustrated with examples chosen from the works of influential architects and critics

Couse ID: 407344 **Description:** Local Contemporary Architecture

Full Course Description: Investigation of the evolution of architecture from the industrial revolution up to the present. Analysis covers the impact of political, social, economic, and cultural changes on architecture. Influences and ideologies of architectural schools and certain pioneers on architecture. Cultural, technical, and territorial transformations during the 19th and the first quarter of the 20th centuries.

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 407361 **Description:** Surveying and Building Documentation

Full Course Description: The basic concepts of surveying and architectural documentation and their different methods and techniques. Presenting the different archiving systems according the existing international standards. Explaining the role of new technologies in surveying and documentation, through introducing the development and evolution of the different surveying and architectural documentation methods and techniques. Through a series of exercises, the students will be able to perform practical applications using surveying and documentation instruments, methods and techniques and field studies. This also includes the process of preparing the different architectural and engineering documentation drawings.

Course ID: 407362 **Description:** Landscape Design

Full Course Description: Studying the relation between human beings and the environment around, and how they are integrated to each other. Study of the Jordanian environment and plants. The evolution of modern landscape. Design and planning of site with consideration to sites influences on the forms of buildings ordering systems, aspects of perception and spatial development are bases for project design

Course ID: 407381 **Description:** Conservation of the Architectural Heritage

Full Course Description: Review of the definition of the architectural heritage and the history of evolution for its conservation. It reviews the international efforts and organizations that are concerned about the protection of the architectural heritage on international and local level. It reviews the main principles in conservation projects.

Course ID: 407382 **Description:** Restoration and Rehabilitation of Historic Buildings

Full Course Description: Methods of analyzing, studying and evaluating historic buildings. Figuring out all causes of decay. Train students on all scientific methods used for conservation intervention. Analysis of the concept of rehabilitation and its socio-economic impacts on local communities. A case study of a pilot project will be presented.

Course ID: 407431 **Description:** Working Drawings

Full Course Description: This course includes a production of complete set of working drawings sheets in order to expose students to actual and practical projects, and facilitates understanding of architectural details by contractors during the construction stage. individual and group works experience will be enhanced through some projects on studio.

Course ID: 407442 **Description:** Perception of Architectural Form

Full Course Description: The course covers human perception of form (2-dimensional and 3-dimensional) Focuses on visual Perception of architectural form including objects, spaces and surfaces. It also includes sensory, format and symbolic aspects of architectural form.

Course ID: 407461 **Description:** Urban Planning

Full Course Description: An overview of basic theories, principles and skills involved in planning the physical environment. Its main objective is to provide students with a basic understanding of physical planning, its concepts and its impacts on the socio-economic issues of people. The course is partly theoretical and partly taught in a studio format in which the students learn by undertaking real or applied problems.

Course ID: 407462 **Description:** Urban Design

Full Course Description: This course is an introduction to theories of urban design. It examines theories and processes within an urban design and planning context, which affect the physical design of the urban environment concentrating on contemporary design issues.

Course ID: 407470 **Description:** Practical Training

Full Course Description: Training for 8 weeks inside Jordan or 6 weeks outside Jordan in related offices or companies that are subject to approval of the training committee of the department.

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 407471 **Description:** Lighting and Acoustics

Full Course Description: The course concentrates on the physical characteristics of sound waves, propagation of sound, intensity, sound power units and measurement equipment's, standing wave, reverberation time, sound absorption materials, speech privacy, noise and vibration, applications in architecture. The lighting part concentrates on effect of light on architecture, color and light, the functional requirements of lighting, measurements and calculation of day lighting and artificial lighting, lighting sources and energy conservation, and application in architectural

Course ID: 407472 **Description:** Desert Habitation

Full Course Description: Review and analysis of the ecological impact on architectural in a desert context. Traditional and vernacular design and construction influences should be reviewed at the architectural, environmental, landscape and urban planning levels. Understanding of the local and national needs is emphasized through the case studies and fieldwork.

Course ID: 407481 **Description:** Specifications and Contracts

Full Course Description: a

Course ID: 407482 **Description:** Management of Historic Sites

Full Course Description: Planning process for the protection of historic areas and sites within the urban form of cities. The importance of including historic areas and sites within the master plan of the city as sustainable development approach. Interpretation of the correlation of historic events and the value of historic sites. The integration between historic sites and their surrounding settings including the fauna and flora, the geology, climate, aesthetic, traditional life features.

Course ID: 407483 **Description:** Photogrammetry

Full Course Description: The concept of Photogrammetry as one of the main modern basic methods used in architectural documentation. Addressing the concept of digital photogrammetry, which aims at extracting measurements through geometric analysis of digital images. The student will learn how to apply this method using a collection of techniques, instruments and specialized computer softwares.

Course ID: 407561 **Description:** Geographic Information Systems

Full Course Description: This course introduces the students to the principles of GIS applied to problems encountered in urban design, landscape architecture, planning and conservation. The course deals with various existing GIS software's emphasizing their use as aiding tools in problem solving

Course ID: 407593 **Description:** Special Topics in Architecture

Full Course Description: A course dealing with diverse special new topics in architecture, it can be substituted as a Department requirement.

Course ID: 2407112 **Description:** Architectural Communication and Presentation (1)

Full Course Description: a

Course ID: 2407201 **Description:** Computer Applications in Architectural Design (2)

Full Course Description: a

Course ID: 2407362 **Description:** Landscape Design

Full Course Description: a

Course ID: 3407112 **Description:** Architectural Communication and Presentation (1)

Full Course Description: a

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 110407101 **Description:** Architectural Drawing

Full Course Description: This course seeks to teach the students the fundamental skills that used as traditional architectural drafting techniques and principles of graphic communication effectively in design. The course includes developing students' architectural drawing techniques using different drawing tools and equipment and developing students' abilities of deducing elevations and sections from three-dimensional drawings and vice versa. The fundamental techniques and methods used include basic orthographic projection, paraline and axonometric (plans, elevations, sections and 3D drawings). The teaching and learning methods focuses on a series of theoretical lectures and practical exercises.

Course ID: 110407102 **Description:** Computer Applications In Architectural Design (1)

Full Course Description: 1

Course ID: 110407111 **Description:** Free Hand Drawing

Full Course Description: This subject focuses on practical experience in freehand drawings and presentation and seeks to teach the students the different free hand drawing techniques focusing on training the students to acquire the basic free-hand drawing skills used in presentation. Developing the artistic sense when dealing with lines, plains, solids and voids, and the perception of different environments, forms and shapes. Providing students with some basic training on drawing plants, figures, perspectives, casting shades and shadows, and the presentation of 2D and 3D drawings using pencils and charcoal.

Course ID: 110407112 **Description:** Architectural Communication and Presentation (1)

Full Course Description: Students of architecture must acquire a set of skills that enable clear communication of architectural ideas. This course seeks to teach the students the different architectural expression methods and techniques used in presentations. Training on how to draw different perspectives (one- point perspective, two-point perspective, external and internal perspectives), and casting shades and shadows on the different architectural drawings (plans, elevations, sections and site plans).

Course ID: 110407121 **Description:** Basic Design (1)

Full Course Description: This course seeks to introduce the different architectural design elements (point, line, direction, shape, size, texture, color and form) along with the study of visual design principles (unity/harmony, balance, hierarchy, variety, scale/proportion, rhythm, movement, sequence, dominance/emphases, repetition, and similarity/contrast. Additionally this course concentrates on the gestalt principles (closure, symmetry, order, figure and ground, uniform connectedness, common regions, proximity, continuation, parallelism, focal point, past experience). This is done through analyzing and designing 2D and 3D forms and compositions. The students express their main concepts through abstract geometric forms by means of models and then converting it to architectural drawings, and vice versa. These training assignments are also used as a means for practice on model making using various mediums.

Course ID: 110407122 **Description:** Basic Design (2)

Full Course Description: 1

Course ID: 110407201 **Description:** Computer Applications In Architectural Design (2)

Full Course Description: The course structure focuses on 3D modeling, composition and rendering with AutoCAD 2010. The course will explore the use of computer-aided design and drafting software for the documentation of building designs. It will provide the students with the opportunity to develop their skills in producing architectural construction documents, and creating three-dimensional models using the CAD system.

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 110407213 **Description:** Architectural Communication & Presentation (2)

Full Course Description: This course is a lecture/studio course aims to deal at developing architectural students' graphic communication skills verbally and graphically and using rendering techniques. It includes the applications of different tools - Techniques and materials used for producing appropriate architectural rendering such as pencil, ink, collage, photography, watercolor, markers, zip-a-tone, airbrush modeling and airbrush techniques.

Course ID: 110407221 **Description:** Architectural Design (1)

Full Course Description: First design studio to introduce students to the perception of architectural spaces and develop abilities to design simple spaces and compositions by considering the architectural form, functional activities and circulation of simple requirements. This course aims to train students to develop their architectural sense and to use specific methodology that leads to design evolvment and development. This methodology can be summarized as following: Case-study analysis; programme design; site analysis; conceptual thinking (2D and 3D); design development and final design drawings. Each student requires designing three different small architectural projects and addresses the basic design concerns of form, function, circulation, orientation, privacy, spatial design compositions, etc. □
Example projects include furniture for one hotel room, kindergarten, schools, nursery, mosque, church, etc.□

Course ID: 110407222 **Description:** Architectural Design (2)

Full Course Description: This course aims at developing the student's architectural design capacities related to the design of repetitive elements, and studying the distribution of these elements on the architectural site layout and the relations between them, taking into consideration environmental surroundings and elements of landscape. It aims also at training the students to develop their architectural designing sense, to use a methodology as a reference in the design process, and to know how to implement the use of geometric shapes and free forms in the design. Each student requires addressing the basic design concerns of form, function, circulation, orientation, privacy, spatial design compositions, etc. through three major projects. □
Example projects include multistory residential building, Islamic complex center, residential complex, small hotels, office buildings, etc.□

Course ID: 110407232 **Description:** Building Materials

Full Course Description: This course deals with the basic geology construction materials such as concrete, timber, steel, polymers and ceramics and its terminology. This course covers manufacturing process of various engineering materials, basic ingredients, structure and mechanical properties of engineering materials, material degradation and failure modes, construction behavior, durability, mix procedures, failure modes and materials selection; and mechanical testing of construction materials. This course is divided into two parts: theoretical and practical. The theoretical part contains an overview of the various materials used in construction. The students will learn about materials and their physical chemical and mechanical properties. In addition to the product manufacturing techniques and how they relate to the properties of the various materials. Furthermore, material applications in structural and non-structural building components are explored. The practical part will include lab tests to know the different tests that can be conducted on the building materials in order to gauge their properties. The students will undertake task, and field trips to enhance their actual ability to take on real construction projects. Resulting from this course, students will gain a comparative knowledge of material properties and possible applications in construction and architecture.

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 110407241 **Description:** History & Theory of Architectur (1)

Full Course Description: This course seeks to teach the students the evolution of early architecture during prehistoric periods by explaining, clarifying and analyzing between architectural concept, the philLOsophy of design and construction through different ages and the effects of geographical, geological, climatic, physical, social, cultural, and religious influences on different civilizations and their inter-related architecture; through comparative analytical study of art and architecture of various ancient civilization: (Mesopotamian, Egyptian, Persian, Canaanite, Phoenician, and Hittite) in Ancient Middle East Persian and the Classical periods: and Greek (preceded by Aegean). This course focuses on theoretical discussions upon the relevance and proper use of Ancient and Classical architecture in the design of buildings and sites today.

Course ID: 110407321 **Description:** Architectural Design (3)

Full Course Description: This course focuses on design of multi-function buildings on a complex scale of functions and site using the comprehensive logical design method to integrate different functions taking into consideration, the context, landscape, and environmental, economical, behavioral and structural factors. Expression and language of design will be in terms of values, images, patterns, systems of horizontal and vertical circulation and space flow through two major projects. Each student requires addressing the basic design concerns of form, function, circulation, orientation, privacy, spatial design compositions, structural and environmental issues, socio cultural values, etc. □
Example projects include Hospital, Cultural center, Library, Museum, SOS Village, University, Tourist village, etc□

Course ID: 110407322 **Description:** Architectural Design (4)

Full Course Description: This course seeks to teach the students design buildings on broader scale of philLOsophical and intellectual bases. The aim is mainly to understand how contemporary schools of thinking influenced the formation of forms and the built environment through two projects. Additionally, This course aims to develop students' skills in solving architectural composite problem with different functions, circulation and construction systems. The design is concerned with public buildings, taking into consideration site limitations and context, the application of specified codes, form, function, circulation, orientation, privacy, spatial design compositions, structural and environmental issues, socio cultural values, etc. □
Example projects include Hospital, Cultural center, Library, Museum, SOS Village, University, Tourist village, etc□

Course ID: 110407335 **Description:** Building Construction

Full Course Description: This course is concentrated on architectural structural systems, construction drawing details and methods of erecting buildings and putting the elements of a building together in the most proper constructional way. Therefore, this course divided into two parts: theoretical and practical. The intention is that learning by doing, rather than just by looking or listening. The theoretical part contains the basic information and major components of Skeleton structural systems from foundation to roof, wood construction systems, steel construction systems, shell construction systems,....., their materials, and load transfer mechanisms. The practical part aims to train students to draw constructional details and architectural symbols. The students in practical part will produce detailed drawings and cast models for the major components of structural systems. The practical part includes field trips to real construction projects to bridge the gap between the theoretical and practical parts.

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 110407336 **Description:** Building Finishing

Full Course Description: This course seeks to teach the students about design, materials, and methods of finishing systems and its related detailing that used in the building construction industry. This course is divided into two parts: theoretical and practical. The theoretical part contains the basic information, which is related to major finishes of floors, roofs, walls and partitions, doors and windows by using modern materials in paintings, metal works. It will focus also on major components of partitions, staircases, elevators, insulation works, and the finishes of building services; kitchens, bathrooms, finish for special functions, laboratories, auditoriums. The practical part will include several tasks, in which detailed drawings (design studio) will be produced, and field trips to create their actual ability to take on real construction projects

Course ID: 110407341 **Description:** History & Theory of Architecture (2)

Full Course Description: This course seeks to teach the students about the analytical study and development of the Religious architecture from the end of the Roman Empire through Early Christian and Byzantine periods. The Medieval period (Romanesque and Gothic) in Social, religious, historical and cultural contexts. Influences on the development of structure and space. Analytical study of the Renaissance period. Social, cultural, scientific and economic dimensions and influences on buildings and cityscapes. The study of Renaissance architecture as a Classical representation (Classical Revival). Ornate architecture of the Baroque and Rococo periods in Europe.

Course ID: 110407342 **Description:** Islamic Architecture

Full Course Description: This course seeks to teach the students about the development of Architecture in the Islamic world from the dawn of Islam until recently. Analysis of architectural elements, methods and functions of Islamic architecture including contemporary development in various Islamic regions. Emphasis on recent experiments that intend to achieve the continuity of Islamic architecture.

Course ID: 110407343 **Description:** Theory of Modern Architecture

Full Course Description: Study the development of approaches and schools in architectural theory and criticism, it examines the competent influential ideologies and values underlying diverse contemporary movements, with some focus on the character of Jordan architecture. The course is illustrated with examples chosen from the works of influential architects and critics

Course ID: 110407345 **Description:** Theory & Methods of Architectural Design

Full Course Description: This course aims at introducing students to the different theories and methods of architectural design, and how to make use of these methods in designing responsive designs that cope with the natural, social and cultural contexts. The course is based on number of case studies representing different civilizations and time eras. The course is strongly connected with the theoretical stream of Architectural Design 3 course presenting the theoretical base for it.

Course ID: 110407421 **Description:** Architectural Design (5)

Full Course Description: This course introduces students to the field and practice of architectural mixed-use and high-rise buildings within the urban context throughout one full semester project. The objective is to provide a foundation for understanding the various dimensions, requirements, limitations, and regulation roles of architectural mixed and high-rise building projects in Jordan. This course employs a professional approach where the students will formulate the brief and requirements of the project as a result of existing architectural and socio-economical analysis of the study area. The project's site will be realistic one located on flat area. The focus will be on programming, conceptual design, design development, final architectural design (aesthetic values as well as functionality and constructability). Additionally, the environmental considerations should be taken into your consideration when you design project; for example, material selection, life cycle impacts, energy needs, orientation, local specific environmental concerns (if any).

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 110407422 **Description:** Architectural Design (6)

Full Course Description: This course introduces students to the field and practice of urban design project throughout one full semester project (Housing Project for Hashemite University Employees). Urban design is the process of designing and shaping cities, towns and villages. Whereas architecture focuses on individual buildings, urban design address the larger scale of groups of buildings, of streets and public spaces, whole neighborhoods and districts, and entire cities, to make urban areas functional, attractive, and sustainable (to create the “public realm”). Urban design blends architecture, landscape architecture, and city planning together to make the urban areas functional, attractive, comfortable, animated, stimulating, and safe and to create the community identity. □
Urban design involves place making - the creation of a setting that imparts a sense of place to an area. This process is achieved by establishing identifiable neighborhoods, unique architecture, aesthetically pleasing public places, identifiable landmarks and focal points, and a human element established by compatible scales of development and ongoing public stewardship. Other key elements of place making include lively commercial centers, mixed-use development with ground-floor retail uses, human-scale and context-sensitive design; safe and attractive public areas; image-making; and decorative elements in the public realm.

Course ID: 110407423 **Description:** Working Drawings

Full Course Description: This course is practical one introduces the knowledge, skills, and abilities that necessary to prepare a complete and comprehensive set of construction drawing documents; for obtaining construction permits and facilitating understanding of architectural details for the construction stage. The focus of this course will be on the preparation and drafting (using Manual and AutoCAD) the typical construction drawing set, which consists of the following generic categories of drawings: Cover page, Contents, Site Plan, Area plan, Deck slope plan (rain water plan), Floor Plan(s) & Partial Plans, Exterior Elevations, Building Sections, Wall Sections, Details, Interior Elevations, Schedules.

Course ID: 110407424 **Description:** Interior Design

Full Course Description: This course seeks to teach the students the relation between the design of the architectural interior environment and human satisfaction and his perception to the space. Focusing on the compatibility between the different factors of the space such as color, style, texture, shade and shadow and selection of proper materials for roofs, floors, walls, windows, doors, furniture and accessories. Additionally, this course aims to introduce the main principles of interior design to the students to enhance their design skills within interior spaces, and understand the impact of their design decisions of the interior spaces on the human comfort and perception of the interior spaces.

Course ID: 110407432 **Description:** Ancient Building Technologies

Full Course Description: This course seeks to teach the students about analysis of building techniques and the materials used in ancient building construction. Its origin and development and the factors that affected its development. The intention is to find out the sources of the materials and to consider what the ancient craftsmen used them for and why. This will include the study of the construction techniques used in prehistoric until the modern architecture. Field trips to a historic building are important in order to analyze the structural, architectural, and functional elements.

Course ID: 110407444 **Description:** Local Contemporary Architecture

Full Course Description: This course seeks to teach the students about the evolution of architecture from the industrial revolution up to the present. Analysis covers the impact of political, social, economic, and cultural changes on architecture. Influences and ideologies of architectural schools and certain pioneers on architecture. Cultural, technical, and territorial transformations during the 19th and the first quarter of the 20th centuries.

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Course ID: 110407451 **Description:** Specifications & Contracts

Full Course Description: This course seeks to teach the students about legal status of building contracts among other building construction documents such as construction drawings, specifications and quantities tables, focus of interrelations between clients, contractors, and engineer and responsibilities of each party. In addition, some aspects of construction management directly relevant to legal systems in the Jordan and Middle East.

Course ID: 110407452 **Description:** Quantity Surveying

Full Course Description: A Quantity surveying is a detailed description of the items that make up the component parts of a building. The primary functions of quantities surveying are to assist the builder in the preparation of the tender price; to provide a frame of reference/check document of drawings and specification; to establish cost of total building value, trade costs, individual building items/components, materials ordering, scheduling of construction work, preparation of progress payments, cost control, and preparation of cash flow. Quantity surveying course requires an understanding of construction technology i.e. construction details and methodology, materials science, construction costs, and construction sequencing. The course aims at introducing the student to the fundamentals of quantity surveying and cost estimating associated with general conditions, site Work, concrete and framework, masonry works, and different building finishing.

Course ID: 110407463 **Description:** Urban Planning & Design

Full Course Description: This course seeks to provide the students about basic theories, principles and skills involved in planning the physical environment. Its main objective is to provide students with a basic understanding of physical planning, its concepts and its impacts on the socio-economic issues of people. The course is partly theoretical and partly taught in a studio format in which the students learn by undertaking real or applied problems.

Course ID: 110407464 **Description:** Housing

Full Course Description: Definition of housing and its different level, the environmental impact on different housing types. This course deals with Managing and financing housing projects people participation in housing projects. Definition, Needs and selection criteria for different target groups, Development phasing for housing clusters, Design criteria and constrains for grouping the residential units and services. □
Housing is a fundamental aspect of human life. It is a key factor in delivering healthy and attractive communities as it serves to define the life space of individuals. Without appropriate shelter, people cannot meet their basic needs and participate adequately in society. □
This course intends to introduce the subject of housing in a holistic view that provides architectural students with the basic knowledge they might need about the subject. It investigates the various concepts, theories and practices related to housing and residential use to help students comprehend this vital field of architectural research and practice. □

Course ID: 110407465 **Description:** Conservation of Architectural Heritage

Full Course Description: This course seeks to review the definition of the architectural heritage and the history of evolution for its conservation. It reviews the international efforts and organizations that are concerned about the protection of the architectural heritage on international and local level. It reviews the main principles in conservation projects.

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 110407470 **Description:** Practical Training

Full Course Description: Architectural Professional Practice course is a lecture and discussion course that introduces students to aspects of professional practice in architectural field. Students will develop a working knowledge of architectural licensing procedures and requirements, professional development (life-long learning), the nature of architectural practice including office organizational structures, the architect's administrative role, construction cost control, professional organizations, the architect's professional, legal and ethical responsibilities (including life-safety and accessibility), leadership in the profession and the community as well as alternative architectural / design related careers. The course examines matters that are common to most forms of architectural practice.

Course ID: 110407471 **Description:** Lighting & Acoustics

Full Course Description: The course concentrates on the physical characteristics of sound waves, terminologies, propagation of sound, intensity, sound power units and measurement equipment's, standing wave, reverberation time, sound absorption materials, sound reflections, sound isolation, the acoustical defects, speech privacy, noise and vibration, and applications in architecture. The lighting part concentrates on Lighting terminology and definitions, effect of light on architecture, color and light, the functional requirements of lighting, measurements and calculation of day lighting and artificial lighting, lighting sources and energy conservation, and application in architectural.

Course ID: 110407472 **Description:** Desert Habitation

Full Course Description: This course reviews and analyzes the ecological impact on architectural in a desert context. Traditional and vernacular design and construction influences should be reviewed at the architectural, environmental, landscape and urban planning levels. Understanding of the local and national needs is emphasized through the case studies and fieldwork.

Course ID: 110407473 **Description:** Building and Energy

Full Course Description: An introduction on the conception and importance of environmental control and its influence on the design of buildings and energy. The course introduces the aims of energy efficient buildings through understanding and studying the requirements of thermal comfort and visual comfort. First, Thermal Comfort: Solar radiation, sun path diagram, design of shading devices. Thermal exchange between the building and the environment, ventilation and building envelop.. Second, Visual comfort (Daylighting): Importance and components of daylighting indoors. Influence of architectural parameters on daylighting performance quantitatively and qualitatively Methods of analyzing daylighting. Daylighting systems and techniques. Evaluation and enhancing thermal behavior and daylighting performance in applied examples.

Course ID: 110407521 **Description:** Graduation Project (2)

Full Course Description: This course is a continuation of graduation project design 1 in which the previously prepared architectural program. The goal of Graduation Project is to train students to deal with complex architectural design problems from a practical and comprehensive point of view starting from problem definition, context analysis, function and utility requirements study, structural, and environmental integrated solutions and aesthetic considerations. Therefore, this course seeks to transform the conceptual and preliminary design into a complete design solution through a defined philosophical direction and a clear vision. This is achieved by stressing the use of analytical logic in presenting the main design problem(s), methods of evaluation, and the formulation and selection of the most appropriate design alternatives. The student should progress through different design phases to suggest solutions and implementation strategies and present of complete set of projects drawings including three-dimensional presentation and model building. The Graduation project is a comprehensive experience similar to professional practice after graduation.

Course ID: 110407523 **Description:** Special Topics in Architecture

Full Course Description: 1

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College: Engineering

Department: Architectural Engineering

Course ID: 110407524 **Description:** Methodologies of Architectural Design

Full Course Description: This course aims at introducing students to the different theories and methods of architectural design, and how to make use of these methods in designing responsive designs that cope with the natural, social and cultural contexts. The course is based on number of case studies representing different civilizations and time eras. The course is strongly connected with the theoretical stream of Architectural Design 3 course presenting the theoretical base for it.

Course ID: 110407541 **Description:** Human Behavior in Architecture

Full Course Description: This course will explore Social and behavioral factors in the built and natural environment; environmental perception and spatial cognition; social-environmental processes such as privacy and crowding; setting-oriented discussion on residences, education, and the workplace; the psychology of nature and natural resources management; social design and social science contribution to architectural design.

Course ID: 110407542 **Description:** Graduation Project (1)

Full Course Description: The Graduation Project is considered the vehicle of demonstrating the students' accumulation of knowledge and experiences throughout their undergraduate education in the department of architecture. It is the last step in preparing the student for professional practice after graduation. This course seeks to stimulate the students towards various practical approaches in choosing project topics, presenting a comprehensive proposal for it, and formulating design brief and requirements; to introduce them with different techniques for preparing technical reports; to orient them to adapt and conduct a total methodology in programming project requirements, goals and objectives, the analysis and synthesis aesthetics, and the continuous evaluation of various factors of aesthetics form, philLOsophy of project, upgrading of students ability of technical writing

Course ID: 110407551 **Description:** Professional Practice

Full Course Description: Architectural Professional Practice course is a lecture and discussion course that introduces students to aspects of professional practice in architectural field. Students will develop a working knowledge of architectural licensing procedures and requirements, professional development (life-long learning), the nature of architectural practice including office organizational structures, the architect's administrative role, construction cost control, professional organizations, the architect's professional, legal and ethical responsibilities (including life-safety and accessibility), leadership in the profession and the community as well as alternative architectural / design related careers. The course examines matters that are common to most forms of architectural practice.

Course ID: 110407561 **Description:** Restoration & Rehabilitation of Historic Buildings

Full Course Description: This course seeks to review the definition of the architectural heritage and the history of its evolution for its conservation. It reviews the international efforts and organizations that are concerned about the protection of the architectural heritage on international and local level. It reviews the main principles in conservation projects.

Course ID: 110407562 **Description:** Architecture & Identity

Full Course Description: 1

Course ID: 110407563 **Description:** Landscape Design

Full Course Description: This course seeks to teach the students about the relation between human beings and the environment around, and how they are integrated to each other. This course seeks also to study of the Jordanian environment and plants; the evolution of modern landscape; Design and planning of site with consideration to sites influences on the forms of buildings ordering systems, aspects of perception and spatial development are bases for project design.

Courses Description

College: Engineering

Department: Architectural Engineering

Course ID: 110407571 **Description:** Green Architecture

Full Course Description: Introduction of the history and development of green architecture, and its implications for the design of built environments. The course introduces the main principles of green architecture and its strategies for application in buildings. The course concentrates on defining passive and active cooling principles and considerations, and how to control the flow of heat energy into the internal spaces of a building. The course includes also the study of building systems and their component technologies. In addition, the latest tools, techniques, and materials, industry regulations and codes, green certifications, and nonprofit organizations involved with green architecture are defined.

Course ID: 150407470 **Description:** Practical Training

Full Course Description: |

Course ID: 170407750 **Description:** Theories and Methods in Arban Planning and Design

Full Course Description: This course examines the different ideologies of urban planning and design process. It defines the basic terminologies in the field and the different socio-cultural, economic, political and geographic factors that govern the process. The case studies examined in the course will focus on the developing countries in general, and Jordan in specific.

Course ID: 2004071470 **Description:** Practical Training

Full Course Description:

Course ID: 2104071552 **Description:** Construction project management

Full Course Description: