



. Architectural Department - B.Sc. Course Description

0902113 Free Hand Sketching (1)

1 Credit Hour

Prerequisite: None

Perception of architectural and artistic objects, volumes, textures, colours and materials. Means of expression in free hand sketching of forms and natural settings. Training by individuals and group work on the projection and enlargement of different images. Sketches including different plants, objects and people using pencil and other presentation media with special emphasis on the aesthetic proportions of objects.

0902114 Free Hand Sketching (2)

1 Credit Hour

Prerequisite: 0902113

Basic techniques of graphics and painting which render means of documenting visual, artistic and architectural compositions. Principles of composing and structuring two and three-dimensional configurations. Abstract plastic models of architectural and structural compositions. Rendering techniques including pencil, ink and water colours.

0902115 Architectural Drawing & Presentation

3 Credit Hours

Prerequisite: 0904131 (or concurrent)

Various techniques of drafting, architectural expressions and projection. Perspective drawings using one and two vanishing points. Techniques of structuring interior and exterior perspectives of buildings, using various means of architectural presentation. The effect of shade and shadow on architectural drawings. Projection of different forms and shapes of buildings.

0902121 Basic Design

4 Credit Hours

Prerequisite: None

An introduction to principles of aesthetic appreciation, plastic art and architecture. Basic methods of design. Two and three-dimensional configurations. Model building using different experimental materials to implement imaginative and conceptual forms.



0902201 Computer Architectural Drawing

2 Credit Hours

Prerequisite: 0902115

The role of computer in architectural applications. The use of cad and acad software in the production of 2D design and detailed drawings and applications.

0902213 Architectural Communication Skills

2 Credit Hours

Prerequisite: 0902115

Contemporary means of architectural communication so as to develop, the artistic ability and capability of handling visual compositions. Applications using computer software and means of information technology in architectural communication. Applying contemporary techniques and expressions including virtual reality on examples of plastic art and other design concepts.

0902223 Architectural Design (1)

4 Credit Hours

Prerequisite: 0902121

Introduction to architectural design principles. Applications including different visual forms. Emphasising the role of function and structure on architecture. Design of an elementary architectural project on a plain plot of land.

0902224 Architectural Design (2)

4 Credit Hours

Prerequisite: 0902223

Design of buildings with an integrated programme and moderate site requirements. Emphasis shall continue on the effects of functional, visual and structural aspects on architecture. The role of environmental and climatic implications on buildings. Physical means of building climatisation.

0902233 Building Construction (1)

3 Credit Hours

Prerequisite: None

Properties of natural materials (strength, tenacity, porosity, heat conductivity, etc.). Building materials (stone, concrete, bricks, timber, metals, glass, plastic, etc.). Building technology (site preparation, soil testing, excavation works, and types of foundation: raft, piles, footings, etc.). Systems of structures: post and lintel, slabs, roofs, internal and external walls, etc. Types of damp proofing in buildings.



0902234 Building Construction (2)

3 Credit Hours

Prerequisite: 0902233

Building components, construction techniques and finishing details. Walls, partitions, slab roofs (flat and slanted), floors, staircases, and fenestration. Advanced damp proof courses and materials. Heat and noise insulation systems. Prefabricated construction and building elements.

0902243 History & Theory of Architecture (1)

3 Credit Hours

Prerequisite: None

Introduction to history of art and architecture, and their development through the ancient civilisations of Egypt, Mesopotamia, Greece and Rome. Analysis of historical monuments and buildings and their architectural characteristics. Emphasis on the architectural principles, theories, and impact on the development of buildings throughout ancient times. Examining ancient historical patterns. View points of various progressive theoreticians.

0902244 History & Theory of Architecture (2)

3 Credit Hours

Prerequisite: 0902243

The development of art and architecture through Early Christian era, Byzantine, Romanesque, Gothic and Renaissance. Comparative analysis of historical building types from Byzantine through classical revivalism in Europe and the United States. Relevant theories of architecture and arts.

0902311 Computer Application in Architecture

3 Credit Hours

Prerequisite: 0902201

Two and three-dimensional architectural drawings. Production of architectural presentation and rendering of drawings with static and animated images using relevant computer software. Examples of basic architectural details and workshop drawings.

0902323 Architectural Design (3)

4 Credit Hours

Prerequisite: 0902224

Design of a building or a group of buildings with moderate complexity to be erected on gentle slopes. Buildings with multi-functions. Interior design and internal spatial arrangements. Social, psychological and economic aspects influencing architecture and design.



0902324 Architectural Design (4)

4 Credit Hours

Prerequisite: 0902323

Design of a building or a group of buildings to be erected on a site with moderate undulated topography. Interior design techniques, taking into consideration the types of building function. Aesthetic and social values encountered in the design of the built environment.

0902335 Building Construction (3)

3 Credit Hours

Prerequisite: 0902234

Types of modern materials for cladding and finishing of buildings. Kitchen fitments, bathroom appliances, wood works, metal works and different fixtures in buildings. Means of protection from extreme climatic conditions. Modern materials used in plastering and painting. Grid system and contemporary systems of structure.

0902336 Workshop Drawings

3 Credit Hours

Prerequisite: 0902335

Production of an appropriate set of working drawings. Preparation of a complete set of workshop drawings of a design project as a principal part of the tender documents. Application of the Jordanian building codes. Presentation techniques including computer workshop drawings.

0902337 Building Workshop

3 Credit Hours

Prerequisite: 0902234

Building sites under construction. Preparation of technical reports with analysis of local construction technology and implementation techniques. Application of small-scale projects.

0902339 Building Construction (for Civil Eng'g.)

3 Credit Hours

Prerequisite: None

Basic materials of building construction. Characteristics of buildings. Building materials (stone, bricks, concrete, timber, metals, etc.). Site preparation and stages of the building process (soil testing, excavation works, foundations, damp proofing courses, etc.). Architectural drawings and examples of architectural details.



0902343 History & Theory of Architecture (3)

3 Credit Hours

Prerequisite: 0902244

Development of Islamic art and architecture since the dawn of Islam. Analysis of architectural characteristics and Islamic heritage. Social, environmental and functional implications on the architecture in the Moslem World, which yield a suitable habitat for Moslem people. Analysis of selected examples of historical monuments from Islamic countries.

0902344 History & Theory of Contemporary Architecture 3 Credit Hours

Prerequisite: 0902343

The formation of modern theories and trends in contemporary art and architecture since the industrial revolution until the 20th century. Analysis of works by the pioneers of modern movements in architecture. Regional and vernacular architecture with special regards to environmental, social and technological issues. Selected examples of characteristic contemporary architecture in Jordan.

0902371 Illumination and Acoustics

3 Credit Hours

Prerequisite: None

Basic principles of lighting and acoustics and their effect on the design of buildings. Noise abatement and insulation of buildings against noise pollution. Applications using instruments for measurement of illumination and acoustics.

0902423 Architectural Design (5)

4 Credit Hours

Prerequisite: 0902324

Design of projects with multi-function. Comprehensive design methodology including the integration of Electro-mechanical systems and supporting services in architectural design. Developing new structural systems that match new concepts of architecture. Complex functions, the urban context, and the local identity of the built environment.

0902424 Architectural Design (6)

4 Credit Hours

Prerequisite: 0902423

Contextual design of groups of buildings in a specific urban environment. Upgrading of existing environmental and building conditions. Applications including urban infill and reuse of preserved heritage buildings. Functional, socio-economic and aesthetic issues. Improvement of the quality of life of users and the local population. An integrated framework of urban design.



0902427 Interior Architecture

3 Credit Hours

Prerequisite: None

The interior environment of buildings and its impact on users. Provision of comfort and enjoyment. Factors of harmony and matching among internal components: form, colour, texture, lighting as well as interior furniture. Choice of colour scheme and materials for walls, ceilings and floors.

0902441 Architectural Analysis & Criticism

3 Credit Hours

Prerequisite: None

Introduction to the history of architectural criticism, its principles and methods. Application of such methods on examples of buildings. Case studies with emphasis on international examples of contemporary architects who contributed to the recent movements.

0902445 Design and Psychology

3 Credit Hours

Prerequisite: None

The relationship between the built environment and human behavior. Basic methodologies of perception, cognition and the schemata. Human adaptation of the built environment and the meaning and sense of place in architecture.

0902453 Building Legislation & Planning

3 Credit Hours

Prerequisite: 0902324

Introduction to building legislation, regulations and codes governing building in cities and villages in Jordan. Impact of the application of norms and codes on the architectural design. Environmental, social and economic constraints on the planning process. Principles and methods of planning. Land use planning applied in cities and its relationship with legislation and building bylaws.

0902454 Urban Planning

3 Credit Hours

Prerequisite: 0902453

Introduction to the environmental, social and economic aspects necessary in the formation of an urban planning process. The characteristics of the urban fabric and the development of towns and cities and their urban elements into integrated, harmonious and functional unity. Social services and infrastructure and their necessary provision according to norms and standards. Analysis of deteriorated urban areas to measure shortage of services.



0902455 Urban Design

3 Credit Hours

Prerequisite: None

Principles of urban design, initiation, and development. Relations between urban design, planning, architecture, landscaping, building legislation and human behavior. Factors affecting the formation and development of urban built environment within physical, social and economic contexts. Design application on an urban site with specific identity using contemporary criteria in problem solving.

0902456 Housing Issues

3 Credit Hours

Prerequisite: None

Social and economic aspects influencing housing availability for different income groups. The role of public and private sectors in the provision of housing. Problems of coordination between the different agents involved in housing. Case studies including deteriorated urban housing to provide realistic approaches to socio-economic and human issues.

0902459 Conservation of Historic Environment

3 Credit Hours

Prerequisite: None

Basic principles of architectural conservation of traditional sites and buildings in historic contexts with special reference to the social role in conservation process. Documentation, field survey, listing of heritage buildings, conservation techniques and methods. Case studies from Jordan, Arab, and non-Arab countries.

0902463 Landscape Architecture

3 Credit Hours

Prerequisite: 0902324

The eco-system and environmental equilibrium. Natural forces affecting small and large-scale sites. History of gardens and their evolution through civilisations of the Mediterranean region. Plant species of Jordan and Palestine. Spatial arrangements of external landscape in gardens and parks. Landscaping application of actual sites as gardens, open spaces, and gathering areas.

0902473 Environmental Control

3 Credit Hours

Prerequisite: None

Introduction to renewable energy resources (sun, wind, biogas, etc.) and their implication on sustainable development. Application of energy conservation measures in buildings. Relationship between architecture, ecosystem and the built environment. The strategy of conservation of natural resources. Artificial Means of environmental control. Existing examples of buildings applying soft energy.



0902482 Specifications and Quantities

3 Credit Hours

Prerequisite: 0902335

Introduction to quantity surveying, preparation of bill of quantities, and technical specifications for construction stages. General and specific technical terms of references applied in Jordan. Examples of documents and contracts related to project implementation. Preparation of specifications and quantities of a small-scale project.

0902485 Professional Practice

3 Credit Hours

Prerequisite: None

Aspects of professional practice in architecture and their relationship with other engineering practices. Professional, legislative, administrative and organisational factors. Means of coordination between the architect and different institutions involved in the building process and city planning.

0902487 Project Management & Economics

3 Credit Hours

Prerequisite: None

Concepts of project management. Management cycle and strategic planning for construction works. Institutional and organisational framework of large-scale architectural projects. Organisation structure of projects. Implementation scheme, procedure networks, scheduling stages of design and construction, finishing and maintenance. Management of material, equipment and personnel. Quality control and safety measures. Project feasibility study and project financing in Jordan.

0902523 Architectural Design (7)

4 Credit Hours

Prerequisite: 0902424

Design of a building complex with multi-function to fit in a particular urban context. Structural concepts and technical services within the architectural design. Integration between internal and external environment of the building compound. Unity, harmony and improvement of the urban image in project design.

0902595 Thesis Research

2 Credit Hours

Prerequisite: 0902424

Research methodologies. Data collection, analysis, synthesis, and thesis report writing of a selected project. Definition of project theme, goals, objectives, preparation of detailed space programme and area requirements. Choice and analysis of a site and production of thesis report including case studies.



0902597 Design Thesis

6 Credit Hours

Prerequisite: 0902595

Design of the thesis project based on an architectural concept. The design involves analysis of programme, site planning with respect to the urban context. Detailed design of the building compound or group of buildings with emphasis on the integration of structural and technical aspects in a comprehensive architectural project. Presentation of a complete set of project drawings including three-dimensional presentation and model building.

E/architectural plan