

1.	School	Faculty of Engineering
2.	Department	Department of Architecture
3.	Program title (Arabic)	البكالوريوس في هندسة العمارة
4.	Program title (English)	B.Sc. in Architecture Engineering

5. Components of Curriculum:

The curriculum for the bachelor's degree in **Architecture** consists of (178) credit hours distributed as follows

Number	Type of requirement	credit hours
First	University Requirements	27
Second	Faculty Requirements	27
Third	Department Requirements	124
Total		178

6. Numbering System:

A- Department number

Number	Department
1	Civil Engineering
2	Architectural Engineering
3	Electrical Engineering
4	Mechanical Engineering
5	Chemical Engineering
6	Industrial Engineering
7	Computer Engineering
8	Mechatronics Engineering

B- Course number

Domain number	Domain title
0	General
1	Principles & Fundamentals of Architecture
2	Architectural Design
3	Construction Technology
4	Theory and History of Architecture
5	Planning
6	Landscape Architecture
7	Environmental Control
8	Professional Practice

C- Course number consists of 7 digits

School	Department	Level	Serial number
0 9	0 2	3	2 1

First: University Requirements:

Preparation Program Requirements

All students admitted to the university must apply for a degree examination in Arabic and English and the computer is prepared or approved by the university to determine their level. Based on the results of the examinations, either the student will study one or more of the requirements of the preparatory program

(0 - 15 Credit Hours)

No.	Course Title	Course No.	Credit Hours	Prerequisites	Notes
1	Basics of Arabic	3201099	3		Pass/Fail
2	Arabic Languages Skills	3201100	3	3201099	Pass/Fail
3	Basics of English	3202099	3		Pass/Fail
4	English Language Skills	3202100	3	3202099	Pass/Fail
5	Basics of Computing	1932099	3		Pass/Fail

Compulsory Requirements

(18.Credit Hours)

No.	Course Title	Course No.	Credit Hours	Prerequisites	Notes
1	Military Science	2220100	3		
2	National Culture	3400100	3		
3	Learning & Research Skills	3400101	3	3202099 3201099 1932099	
4	Communication Skills	3400102	3	3400101	
5	Introduction to Philosophy and Critical Thinking	3400103	3	3400101	
6	Human Civilization	3400104	3		

Electives

(9 Credit Hours)

Elective courses: (9) credit hours to be chosen from the first, second and third groups mentioned below. The student has to choose one course from each of the groups.

(First Group)

No.	Course Title	Course No.	Credit Hours	Prerequisites	Notes
1	Great Books	3400107	3		
2	Islam and Current Issues	0400101	3		
3	Arab-Islamic Civilization	2300101	3		
4	Jordan: History and Civilization	2300102	3		
5	Jerusalem	3400108	3		

Electives

(Second Group)

No.	Course Title	Course No.	Credit Hours	Prerequisites	Notes
1	Legal Culture	1000102	3		
2	Environmental Culture	0300102	3		
3	Physical Fitness Culture	1100100	3		
4	Islamic Culture	0400102	3		
5	Health Culture	0720100	3		

Electives

(Third Group)

No.	Course Title	Course No.	Credit Hours	Prerequisites	Notes
1	Entrepreneurship & Creativity	3400109	3		
2	Foreign Language	2200103	3		
3	Electronic Commerce	1600100	3		
4	Social Media	1900101	3		
5	Appreciation of Arts	2000100	3		
6	Special Subject	3400106	3		
7	Administrative skills	1601105	3		

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Second: School courses: distributed as follows:

A. Obligatory school courses: (27) credit hours

B. Elective school courses: (None)

A. Obligatory school courses: (27) credit hours:

Course Number	Course Title	Contact Hours		Credit Hours	Pre-requisite
		Theoretical	Practical		
0301101	Calculus (1)	3	-	3	-
0301102	Calculus (2)	3	-	3	0301101
0301201	Calculus (3)	3	-	3	0301102
0302101	General Physics (1)	3	-	3	-
0302111	Physics Lab. (1)	1	3	-	0302101 or Co-requisite
0302102	General Physics (2)	3	-	3	0302101
0302112	Physics Lab. (2)	1	3	-	0302102 or Co-requisite
0901420	Engineering Economy	3	-	3	Finished 90Cr. hr.
0904131	Engineering Drawings & Descriptive Geometry	3	2 Drawing 2 Computer	2	-
0966111	Engineering Workshops	1	3	-	-
0907101	Computer Skills for Engineers	3	-	3	1902099

Third: Specialty courses: (124) credit hours distributed as follows:

B. Obligatory specialty courses: (103) credit hours

C. Elective specialty courses: (21) credit hours

A. Obligatory specialty courses: (103) credit hours:

Course Number	Course Title	Contact Hours		Credit Hours	Pre-requisite
		Theoretic al	Practical		
0942113	Free Hand Sketching (1)	1	-	3	-
0932114	Free Hand Sketching (2)	1	-	3	0942113
0992115	Architectural Drawing & Presentation	3	1	4	0904131 *
0992121	Basic Design (1)	4	-	8	-
0972122	Basic Design (2)	4	-	8	0992121
0932201	Computer Architectural Drawing	2	1	2	0992115 *
0932213	Architectural Communication Skills	2	1	2	0992115
0932223	Architectural Design (1)	4	-	8	0972122
0932224	Architectural Design (2)	4	-	8	0932223
0932233	Building Construction (1)	3	2	2	-
0932234	Building Construction (2)	3	2	2	0932233
0902243	History & Theory of Architecture (1)	3	3	-	-
0902244	History & Theory of Architecture (2)	3	3	-	0902243
0942323	Architectural Design (3)	4	-	8	0932224
0942324	Architectural Design (4)	4	-	8	0942323
0902335	Building Construction (3)	3	2	2	0932234
0902336	Working Drawings	3	2	2	0902335
0962341	Architectural Analysis & Criticism	3	3	-	0902244
0902343	History & Theory of Architecture (3)	3	3	-	0902244
0902344	History & Theory of Contemporary Architecture	3	3	-	0902343
0902353	Building Legislation	3	3	-	0942324
0932371	Illumination and Acoustics	3	2	2	-
0902423	Architectural Design (5)	4	-	8	0942324
0902424	Architectural Design (6)	4	-	8	0902423
0932454	Urban Planning (1)	3	2	2	0902353
0932455	Urban Planning (2)	3	2	2	0932454
0902463	Landscape Architecture	3	2	2	0942324
0932523	Architectural Design (7)	4	-	8	0902424
0941283	Principles of Surveying for Architecture	2	1	2	-
0901242	Structural Mechanics	3	3	-	-
0901253	Introduction to Structural Design	3	3	-	0901242
0902595	Graduation Project Thesis Research	2	1	2	0902424
0902597	Graduation Project Design	6		12	0902595

*Prerequisite or Co-requisite.

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B. Elective specialty courses: (21) credit hours:

Course Number	Course Title	Contact Hours		Credit Hours	Pre-requisite
		Theoretical	Practical		
0902137	Building Workshop	3	1	4	-
0902427	Interior Architecture	3	3	-	-
0932447	Design & Psychology	3	3	-	-
0902457	Urban Design	3	3	-	-
0902456	Housing Issues	3	3	-	-
0902459	Conservation of Historic Environment	3	3	-	-
0902473	Environmental Control	3	3	-	-
0952481	Local Architecture	3	3	-	-
0902482	Specifications & Quantities	3	3	-	-
0902485	Professional Practice	3	3	-	-
0932487	Project Management	3	3	-	-
0934349	Technology of the Built Environment	3	3	-	-
0902137	Building Workshop	3	1	4	-

*Prerequisite or Co-requisite.

Fourth: Advisory Study Plan

First Year

First Semester			Second Semester		
Course Number	Course Title	Credit Hours	Course Number	Course Title	Credit Hours
0301101	Calculus (1)	3	0301102	Calculus (2)	3
0302101	General Physics (1)	3	0907101	Computer Skills for Engineers	3
0302111	Physics Lab (1)	1	0966111	Engineering Workshop	1
0942113	Free Hand Sketching (1)	1	0932114	Free Hand Sketching (2)	1
0904131	Engineering Drawings & Descriptive Geometry	3	0992115	Architectural Drawing & Presentation	3
0992121	Basic Design (1)	4	0972122	Basic Design (2)	4
	University Elective	3		University Elective	3
0301101	Calculus (1)	3	0301102	Calculus (2)	3
Total		18	Total		18

Summer Semester		
Course Number	Course Title	Credit Hours
1501100	Communication Skills / Arabic	3
1502100	Communication Skills / English	3
0301201	Calculus (3)	3
Total		9

Second Year

First Semester			Second Semester		
Course Number	Course Title	Credit Hours	Course Number	Course Title	Credit Hours
0932223	Architectural Design (1)	4	0932224	Architectural Design (2)	4
0932233	Building Construction (1)	3	0932234	Building Construction (2)	3
0902243	History & Theory of Architecture (1)	3	0902244	History & Theory of Architecture (2)	3
0932201	Computer Architectural Drawing	2	0932213	Architectural Communication Skills	2
0901242	Structural Mechanics	3	0901253	Introduction to Structural Design	3
			2300100	National Education	3
Total		15	Total		18

Summer Semester		
Course Number	Course Title	Credit Hours
	Department Elective	3
0941283	Principles of Surveying for Architecture	2
0302102	General Physics (2)	3
0302112	Physics Lab. (2)	1
Total		9

Third Year

First Semester			Second Semester		
Course	Course Title	Credit	Course	Course Title	Credit

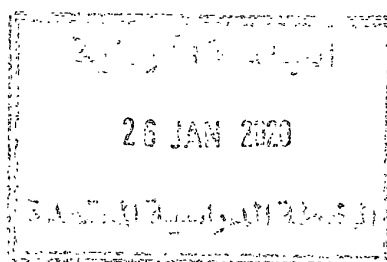
Number		Hours	Number		Hours
0942323	Architectural Design (3)	4	0942324	Architectural Design (4)	4
0902335	Building Construction (3)	3	0902336	Working Drawings	3
0902343	History & Theory of Architecture (3)	3	0902344	History & Theory of Contemporary Architecture	3
0932371	Illumination and Acoustics	3		Department Elective	3
0902353	Building Legislation	3		Department Elective	3
Total		16	Total		16

Summer Semester		
Course Number	Course Title	Credit Hours
	University Elective	3
	University Elective	3
Total		6

Fourth Year

First Semester			Second Semester		
Course Number	Course Title	Credit Hours	Course Number	Course Title	Credit Hours
0902423	Architectural Design (5)	4	0902424	Architectural Design (6)	4
0932454	Urban Planning (1)	3	0932455	Urban Planning (2)	3
0902463	Landscape Architecture	3	0962341	Architectural Analysis & Criticism	3
	Department Elective	3	0901421	Engineering Economics	3
	Department Elective	3		Department Elective	3
Total		16	Total		16

Summer Semester
The student is required to undertake practical training for 8 weeks after finishing the total of 120 credit hours.



Fifth Year

First Semester			Second Semester		
Course Number	Course Title	Credit Hours	Course Number	Course Title	Credit Hours
0932523	Architectural Design (7)	4	0902597	Graduation Project Design	6
0902595	Graduation Project Thesis Research	3		Department Elective	3
2200100	Military Sciences	3			
	University Elective	3			
Total		12	Total		9

Course Description

0942113	Course Title: Free Hand Sketching (1)	1 Credit Hour
Prerequisite: (None)		
Course Description: 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.		
0942114	Course Title: Free Hand Sketching (2)	1 Credit Hour
Prerequisite: (0942113)		
Course Description: 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.		
0992115	Course Title: Architectural Drawing & Presentation	3 Credit Hours
Prerequisite: (0904131) or concurrent		
Course Description: 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.		
0992121	Course Title: Basic Design(1)	4 Credit Hours
Prerequisite: (None)		
Course Description: 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.		
0972122	Course Title: Basic Design(2)	4 Credit Hours
Prerequisite: (0992121)		
Course Description: An introduction to architectural design. Relation between architectural spaces and the surroundings. Entrances and in-out relation. Relation between 2D and 3D .		
0932201	Course Title: Computer Architectural Drawing	2 Credit Hours
Prerequisite: (0992115)		
Course Description: The role of computer in architectural applications. The use of CAD software in the production of 2D design and detailed drawings and applications.		
0932213	Course Title: Architectural Communication Skills	2 Credit Hours
Prerequisite: (0992115)		
Course Description: 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.		
0932223	Course Title: Architectural Design (1)	4 Credit Hours
Prerequisite: (0972122)		
Course Description: 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.		
0932224	Course Title: Architectural Design (2)	4 Credit Hours
Prerequisite: (0932223)		
Course Description:		

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.

0932233	Course Title: Building Construction (1)	3 Credit Hours
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Prerequisite: (None)

Course Description:

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.

0932234	Course Title: Building Construction (2)	3 Credit Hours
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Prerequisite: (0932233)

Course Description:

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	Course Title: History & Theory of Architecture (1)	3 Credit Hours
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Prerequisite: (None)

Course Description:

Introduction to history of art and architecture, and their development through the ancient civilizations 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. Viewpoints of various progressive theoreticians.

0902244	Course Title: History & Theory of Architecture (2)	3 Credit Hours
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Prerequisite: (0902243)

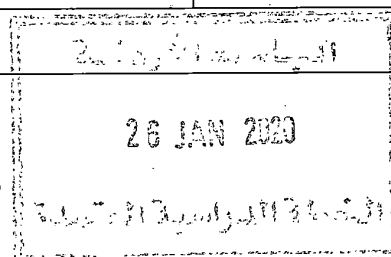
Course Description:

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.

0942323	Course Title: Architectural Design (3)	4 Credit Hours
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Prerequisite: (0932224)

Course Description:



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.		
0942324	Course Title: Architectural Design (4)	4 Credit Hours
Prerequisite: (0942323)		
Course Description: 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	Course Title: Building Construction (3)	3 Credit Hours
Prerequisite: (0932234)		
Course Description: 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	Course Title: Working Drawings	3 Credit Hours
Prerequisite: (0902335)		
Course Description: 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.		
0962341	Course Title: Architectural Analysis & Criticism	3 Credit Hours
Prerequisite: (0902244)		
Course Description: 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.		
0902343	Course Title: History & Theory of Architecture (3)	3 Credit Hours
Prerequisite: (0902244)		
Course Description: 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	Course Title: History & Theory of Contemporary Architecture	3 Credit Hours
Prerequisite: (0902343)		
Course Description: 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.		
0902353	Course Title: Building Legislation	3 Credit Hours
Prerequisite: (0942324)		
Course Description: 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.		
0932371	Course Title: Illumination and Acoustics	3 Credit Hours
Prerequisite: (None)		
Course Description: 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	Course Title: Architectural Design (5)	4 Credit Hours
Prerequisite: (0942324)		
Course Description: 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	Course Title: Architectural Design (6)	4 Credit Hours
Prerequisite: (0902423)		
Course Description: 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.		
0932454	Course Title: Urban Planning (1)	3 Credit Hours
Prerequisite: (0902353)		

Course Description: Introduction to the environmental, economic and social aspects necessary in the formation of an urban planning process, definition of the characteristics of the urban fabric, and the evolution of the city and its components as an organic interdependent and complementary functions unit. Social services and infrastructure in the city and develop planning standards. Measure the effectiveness of social services and infrastructure through reality study of one existing urban areas.		
0932455	Course Title: Urban Planning (2)	3 Credit Hours
Prerequisite: (0932454)		
Course Description: Application on realistic projects from local environment and their relationship to modern theories in the planning, Introduction to methods of statistical analysis, documentation of buildings, analysis of the physical and social characteristics as well as to identify the specific planning software, such as geographic information systems GIS.		
0902463	Course Title: Landscape Architecture	3 Credit Hours
Prerequisite: (0942324)		
Course Description: 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.		
0932523	Course Title: Architectural Design (7)	4 Credit Hours
Prerequisite: (0902424)		
Course Description: Design of building or mixed use complex within urban Fabric. Focus on building systems and design within context. Impact of the building design on the urban fabric.		
0902595	Course Title: Graduation Project Thesis Research	2 Credit Hours
Prerequisite: (0902424)		
Course Description: Student chooses an integrated architectural project and collect and analyze statistical , physical and architectural data for the preparation of program and area calculations of the different elements of the project. Also doing the site analysis and case studies that helps in preparing the final thesis of the project		
0902597	Course Title: Graduation Project design	6 Credit Hours
Prerequisite: (0902595)		
Course Description:		

Completing the design for the project that been studied in the graduation Project thesis. From the conceptual design stage to the final complete architectural design. Comprehensive design for interior and exterior of the project. Design should include all the building systems and the landscape design. Complete architectural drawings and models should be delivered at the final submission.		
0902427	Course Title: Interior Architecture	3 Credit Hours
Prerequisite: (None)		
Course Description: 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.		
0932447	Course Title: Design & Psychology	3 Credit Hours
Prerequisite: (None)		
Course Description: Environmental psychology issues. Relation between built environment and user behavior. Different aspect of perception.		
0902457	Course Title: Urban Design	3 Credit Hours
Prerequisite: (None)		
Course Description: 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	Course Title: Housing Issues	3 Credit Hours
Prerequisite: (None)		
Course Description: 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	Course Title: Conservation of Historic Environment	3 Credit Hours
Prerequisite: (None)		
Course Description: 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.		

0902473	Course Title: Environmental Control	3 Credit Hours
Prerequisite: (None)		
Course Description: Introduction to renewable energy (solar, wind, biogas, etc ...) and their role in the sustainable design. utilization of natural ventilation and lighting in the building.. Smart buildings principles. Implantation of renewable energy in the building .		
0952481	Course Title: Local Architecture	3 Credit Hours
Prerequisite: (None)		
Course Description: The course deals with study of vernacular and regional architecture in the Arab countries; forces of effecting forms, physical, social, economic, technological and aesthetic; emphasis on vernacular architecture in Arab word and Jordan in particular to assess constants in architecture language: contemporary attempts to achieve identity.		
0902485	Course Title: Professional Practice	3 Credit Hours
Prerequisite: (None)		
Course Description: Different aspects of architectural practice. professional , legal, and administrative issues related to architecture.		
0932487	Course Title: Project Management	3 Credit Hours
Prerequisite: (None)		
Course Description: Principles of project management, the role of planning and management in construction. Introduction to Project stages and phasing, schedule of work, cost control, quality insurance, safety, feasibility studies and finance.		
0902137	Course Title: Building Workshop	3 Credit Hours
Prerequisite: (None)		
Course Description: Building sites under construction. Preparation of technical reports with analysis of local construction technology and implementation techniques. Application of small-scale projects.		
4840090	Course Title: Specifications & Quantities	3 Credit Hours
Prerequisite: (None)		
Course Description: Detailed description of all architectural works and specifications, preparing bill of quantities according to general specifications and conditions.		