

Curriculum
Bachelors Degree in Urban Planning
Department of City Planning & Design, College of Architecture and Design
Jordan University of Science and Technology

The bachelor's degree in urban planning requires the fulfillment of **(160)** Credit Hours (CH) comprising the university, college and department requirements as table no. (1) shows, and after the fulfillment of the following requirements.*

First:

Requirements to be granted a Bachelor of Urban Planning at Jordan University of Science and Technology issued by the Deans` Council abiding by the regulation concerned with issuing scientific degrees and diplomas at Jordan University of Science and Technology for 1987 (Revised Edition).

Table 1
Distribution of credit hours to fulfill the requirement of the Bachelor's degree in the Department of Urban Planning

Requirements	Compulsory Credit Hours (CH)	Elective Credit Hours (CH)	Total
University Requirements	16	9	25
College Requirement	29		29
Department Requirements	100	6	106
Total	145	15	160

* Visit our website: <http://www.just.edu.jo>

Second: University requirements

The Bachelor's degree requires the fulfillment of (25) Credit Hours; (16) Credit Hours as compulsory courses as Table (2) shows and (9) Credit Hours as elective courses which are chosen from the university elective courses, Table (3).

Table 2
University Requirements; 25 credit hours of Compulsory and Elective classes.

Course No.	Course Name	CH (Lecture-Practical)	Pre-requisites
CIS 100 ¹	Computer skills	3 (2-3)	
MS 100 ²	Military sciences	3 (3-0)	
ARB 101 ³	Arabic language	3 (3-0)	
HSS 100	Culture and university behavior	1 (1-0)	
Eng 111 ⁴	English language I	3 (3-0)	Passing Eng 099 or acquiring $\geq 50\%$ in the English language level exam.
Eng 112	English language II	3 (3-0)	Taking Eng 111 or acquiring $\geq 80\%$ in the English language level exam.
....	Univ. Elective	3 (3-0)	
....	Univ. Elective	3 (3-0)	
....	Univ. Elective	3 (3-0)	
Total		25	

¹ Students who obtain 50% or more in the computer language level are exempted from studying this course.

² Military Science is requested only from Jordanian students on a basis of a pass or fail course. Students who are graduates of the Royal Military College and other equivalent centers and colleges are exempt from this course. Non-Jordanian Students have to register for another course in return chosen from the list of University Elective Courses; the grades for this course are calculated in the overall accumulative average of the student

³ Non-native Arabic speakers have to finish one course in the Arabic language namely: Fundamentals of Arabic Language for Non-Native Speakers ARB 101A (3 credit hours) instead of ARB 101.

⁴ Students who obtain less than 50% in the English language level exam must study the following course: Eng 099; preparatory English language (3 credit hours). However, students who obtain 80% or more in the English language level are exempted from studying this course. Those who obtain 500 or more in the TOEFL exam are also exempt from studying Eng 111.

Table 3
University Elective Courses (9 credit hours) may be selected from this table

Course Symbol & No.	Course Name	CH(Lecture-Practical)
HSS 112	Haddeth Shareef	3 (3 – 0)
HSS 113	Al-Akedah	3 (3 – 0)
HSS 114	Al-Fikeh	3 (3 – 0)
HSS 115	Islam and Contemporary Issues	3 (3 – 0)
HSS 116	Islamic Economic System	3 (3 – 0)
HSS 121	Introduction to Sociology (not for students studying English)	3 (3 – 0)
HSS 126	Introduction to Psychology (not for Nursing or Midwifery)	3 (3 – 0)
HSS 127	Educational Technology	3 (3 – 0)
HSS 128	National Education (compulsory for Jordanian students and elective for non-Jordanians)	3 (3 – 0)
HSS 131	Islamic Culture	3 (3 – 0)
HSS 132	The History of The City of Jerusalem	3 (3 – 0)
HSS 133	Civilization and Contemporary Cultures	3 (3 – 0)
HSS 141	Introduction to Economics (not for Information Technology Systems students)	3 (3 – 0)
HSS 142	Library , Information and Research	3 (3 – 0)
HSS 151	Introduction to Administration (not for Information Technology Systems students)	3 (3 – 0)
HSS 161	Contemporary Problems	3 (3 – 0)
HSS 166	Human and Science	3 (3 – 0)
HSS 182	Women studies	3 (3 – 0)
HSS 211	Sociology (in English language)	3 (3 – 0)
HSS 212	Arab Society (in English language)	3 (3 – 0)
HSS 213	individual and Society (in English language)	3 (3 – 0)
HSS 216	International Global System (in English language)	3 (3 – 0)
HSS 221	Introduction to Psychology (in English language)	3 (3 – 0)
HSS 222	Creativity and Problem Solving	3 (3 – 0)
HSS 224	Leadership and Communication Skills	3 (3 – 0)
HSS 231	The History of Science for Islam	3 (3 – 0)
HSS 241	Economy in Third World	3 (3 – 0)
HSS 242	Information and Research (in English language)	3 (3 – 0)
HSS 250	The History of music (in English language)	3 (3 – 0)
HSS 429	Behavior Management	3 (3 – 0)
NUR 100	Health Promotion	3 (3 – 0)
PHAR 104	Drugs & Medicinal Plants in Jordan (not for Medical & Pharmatic Students)	3 (3 – 0)
ES 103	Environment Protection (not for Environment students)	3 (3 – 0)
PH 104	Community Health & Nutrition	3 (3 – 0)
PH 200	Principles of First Aid (not for Medical & Pharmatic students)	3 (3 – 0)

PP 200	Home Gardens (not for Agriculture students)	3 (3 – 0)
PP 201	Bees keeping (not for Agriculture students)	3 (3 – 0)
VM 211	Animal Health (not for Veterinary Medical & Agriculture students)	3 (3 – 0)
VM 212	Pet Animal Care	3 (3 – 0)
ME 211	Fundamentals of Automobile Engine (not for Mechanical Engineering students)	3 (3 – 0)
NR 200	Natural Resources and Man (not for Agriculture students)	3 (3 – 0)
ADS 100	Dental & Oral Health (not for Dental & Allied Dental Sciences)	3 (3 – 0)
PT 100	Wellness and Lifestyle (not for Physical and Occupational Therapy)	3 (3 – 0)
AP 200	Farm Animal Products and Production (not for Agriculture or Veterinary students)	3 (3 – 0)
NF 177	Food Preservation (in English language)	3 (3 – 0)

***Third :* College Requirements**

The number of College requirements are (29) Credit Hours shown in Table 4: ♦

**Table 4
College Requirements (29 credit hours)**

Course No.	Course Name	No. of Credit Hours	Distribution of Hours			Prerequisite, PQ
			Lecture	Practical		
				Studio	lab	
Math 101	Calculus I	3	3	-	-	
Phy 101	General Physics I	3	3	-	-	
Arch 101	Architectural Drafting	3	-	6	-	
Arch 102	Visual Communication I	3	-	6	-	
Arch 111	Basic Design I	3	-	6	-	
Arch 112	Basic Design II	3	-	6	-	Arch 111* + Arch 101
Arch 201	Computer Aided Design I	3	1	4	-	Arch 112 + CIS 100
Arch 202	Visual Communication II	3	-	6	-	Arch 102 + Arch 101
Arch 301	Technical Writing and Verbal Communication	2	2	-	-	Eng 112
Arch 343	Surveying	3	2		3	Arch 101
Total		29				

♦ For Meaning of abbreviations, see Table 8 on page 7.

* Passing the course.

Fourth: Department Requirements

The department requirements consist of (106) credit hours distributed as follows:

1. Compulsory courses: (100) credit hours for the major degree in urban Planning shown in Table (6).
2. Elective courses: (6) credit hours to be selected by the students from the list of elective courses shown in Table (7).

Fifth: Urban Planning Training

The Urban planning and landscape training is a department requirement which consists of 8 weeks within a compulsory course (3 CH) after passing (110) credit hours, and according to College of Architecture and Design training instructions.

Table 5
Indicator of the tenths digit in the course numbers

0	Basic urban Planning courses
1	Urban design and architecture courses
2	Basic landscape, environment and townscape courses
3	History, theory, conservation and ecology courses
4	Community, behavior, housing and sustainability courses
5	Transportation, infrastructure and urban geography courses
6	GIS, computing, technology and building construction courses
7	Planning law, professional practice and management courses
8	Statistics, economics and regional planning courses
9	Graduation project, Special topics and training courses

Table 6
Department Compulsory Courses in Urban Planning (100 hours)

Course No.	Course Name	No. of Credit Hours	Distribution of Hours			Pre-requisite PQ
			lecture	Practice		
				Studio	lab	
Arch 211	Architectural design I	5		10		Arch 112*
Arch 212	Architectural design II	5		10		Arch 211*
Arch 481	Human behavior in built environments	3	3			URP 341
URP 202	Introduction to urban planning	3	3			Arch 211
URP 222	Landscape architecture	3	2	2		Arch 202+ URP 261
URP 231	History of town planning	3	3			Arch 112
URP 242	Sustainable development	3	3			URP 231
URP 261	Building construction	3	3			Arch 112
URP 301	Urban planning studio I	4		8		URP 202+ Arch 212*
URP 302	Urban planning studio II	4		8		URP 301*+URP

* Passing the course.

						311
URP 303	Theories and methods of urban planning	3	3			URP 202
URP 311	Urban design	3	3			Arch 212
URP 341	Urban sociology and community development	3	3			URP 242
URP 352	Urban infrastructure	3	3			URP 301
URP 381	statistics	3	3			URP 202
URP 382	Urban economics	3	3			URP 303
URP 401	Urban planning studio III	4		8		URP 222+ URP 302*
URP 412	Urban design studio I	3		6		URP 401*+ URP 311
URP 432	Planning and management of conservation areas	3	3			URP 231+ URP 311
URP 451	Transportation I	3	3			URP 302
URP 452	Transportation II	3	3			URP 451
URP 461	Geographic Information Systems I	3	2	2		URP 202
URP 462	Geographic information systems II	3	2	2		URP 461
URP 471	Planning law	3	3			URP 202
URP 482	Regional planning I	3	3			URP 302
URP 491	Urban Planning Training	3	8 weeks			Passing 110 Credit hours
URP 511	Urban design studio II	3		6		URP 302*
URP 541	Housing	3	3			URP 412+URP 202
URP 572	Professional Urban Planning practice	2	2			URP 511
URP 591	Urban planning graduation project I	2	2			URP 412*
URP 592	Urban planning graduation project II	5		10		URP 591*+ URP 511*
Total		100				

Table 7
Elective Courses offered by the Dep. of Urban Planning (6 credit hours)

Course No.	Course Name	No. of Credit Hours	Distribution of Hours			Prerequisite PQ
			lecture	Practice		
				Studio	lab	
Arch 572	Project management	2	2			URP 412
URP 503	Planning models	2	2			URP 202
URP 512	Morphology of urban form	2	2			URP 311
URP 523	The design of urban recreation areas	2	2			URP 311
URP 526	Townscape	2	2			URP 311
URP 528	The landscape of parks and	2	2			URP 222+

* Passing the course.

	greenways					URP 451
URP 531	Urban ecology	2	2			URP 202
URP 542	Urbanization in contemporary Jordanian and Arab countries	2	2			URP 341
URP 551	Urban geography	2	2			URP 202
URP 561	Computer aided design II	2	1	2		Arch 201
URP 562	Digital visualization	2	1	2		Arch 201
URP 563	Geographic information systems & remote sensing	2	1	2		URP 462
URP 581	Micro economics	2	2			URP 382
URP 582	Regional planning II	2	2			URP 482
URP 595 A	Special topics in urban planning	3				Department Approval
URP 595 B	Special topics in urban planning	2				Department Approval
URP 595 C	Special topics in urban planning	1				Department Approval

Table 8
Meaning of abbreviations

URP	Urban Planning
Arch	Department of Architecture course
PQ	Prerequisite course
CH	Credit hour
H	Lecture
S	Studio
L	Lab

Recommended Academic Plan for the Bachelor of Urban Planning

FIRST YEAR

Semester (1)			Semester (2)		
Course No.	Course Name	CH	Course No.	Course Name	CH
Eng 111	English language I	3	Eng 112	English language II	3
Math 101	Calculus I	3	ARB 101	Arabic language	3
Phy 101	General physics I	3	Arch 112	Basic design II	3
Arch 101	Architectural drafting	3	Arch 102	Visual communication I	3
CIS 100	Computer skills	3	MS 100	Military science	3
Arch 111	Basic design I	3	HSS 100	Culture and university behavior	1
Total		18			16

SECOND YEAR

Semester (1)			Semester (2)		
Course No.	Course Name	CH	Course No.	Course Name	CH
Arch 211	Architectural design I	5	Arch 212	Architectural design II	5
Arch 202	Visual communication II	3	Arch 201	Computer aided design I	3
URP 231	History of town planning	3	URP 202	Introduction to urban planning	3
Arch 343	Surveying	3	URP 242	Sustainable development	3
URP 261	Building construction	3	URP 222	Landscape architecture	3
Total		17			17

THIRD YEAR

Semester (1)			Semester (2)		
Course No.	Course Name	CH	Course No.	Course Name	CH
URP 301	Urban planning studio I	4	URP 302	Urban planning studio II	4
URP 303	Theories and methods of urban planning	3	URP 352	Urban infrastructure	3
URP 311	Urban design	3	URP 382	Urban economics	3
URP 341	Urban sociology and community development	3	University elective	3
URP 381	Statistics	3	University elective	3
Arch 301	Technical writing and verbal communication	2			
Total		18			16

FOURTH YEAR

Semester (1)			Semester (2)		
Course No.	Course Name	CH	Course No.	Course Name	CH
URP 401	Urban planning studio III	4	URP 412	Urban design studio I	3
URP 451	Transportation I	3	URP 452	Transportation II	3
Arch 481	Human behavior in built environments	3	URP 432	Planning and management of conservation areas	3
URP 461	Geographic information systems I	3	URP 462	Geographic information systems II	3
URP 471	Planning law	3	URP 482	Regional planning I	3
.....	Department elective	2			
Total		18			15

Summer			
Course No.	Course Name	CH	Prerequisites
URP 491	Urban Planning Training	3	Passing 110 credit hours
Total		3	

FIFTH YEAR

Semester (1)			Semester (2)		
Course No.	Course Name	CH	Course No.	Course Name	CH
URP 591	Urban planning graduation project I	2	URP 592	Urban planning graduation project II	5
URP 511	Urban design studio II	3	URP 572	Professional urban planning practice	2
URP 541	Housing	3	University elective	3
.....	Department elective	2			
.....	Department elective	2			
Total		12			10

Total credit hours distributed according to academic years and semesters for the major Bachelors degree in Urban Planning

Year	Semester (1)	Semester (2)	Summer Semester	Total
First Year	18	16	—	34
Second Year	17	17	—	34
Third Year	18	16	—	34
Fourth Year	18	15	3	36
Fifth Year	12	10	—	22
Total				160

Courses Description for College Requirements

Arch 101 Architectural Drafting (3 CH; 6S)

The course is designed to enable students acquire basic skills in architectural drawings and hand writing, and to have first step experience in Architectural presentation and projections to express ideas and conceptions in the design process in the form of plans, elevations, sections and other 3rd illustrations.

Arch 102: Visual Communication 1 (3CH; 6S)

Basic skills of free hand drawing as a means of expressing perceptions, ideas and images. Exercises are intended to develop the student's sense of abstraction through line drawings, and sense of volume through surface treatment; such as textures and tonal values. Exercises include both fast sketches and slow drawings of variety of objects and environments; architectural, exterior, interior and natural. The course also includes colored sketching.

Arch 111: Basic Design I (3CH; 6S)

Introduction to formal attributes of visual design. Elements and principles of visual design. Analysis of two dimensional visual compositions. Exercises on elements and principles of visual design through the creation of two dimensional visual compositions using basic shapes and forms. The course ends with basic two dimensional architectural exercises.

Arch 112: Basic Design II (3CH; 6S)

Formal attributes of three dimensional visual design. Analysis of three dimensional visual compositions. Exercises on elements and principles of 3-D visual design through the creation of 3-D visual compositions. Exercises on mass compositions. Exercises on spaces composition. Exercises on interplay between mass and space. Introduces students to more contextual and formal complexity in space design. The course ends with basic three dimensional architectural exercises.

PQ: Arch 101+ Arch 111*

Arch 201: Computer Aided Design I (3CH; 1H, 4S)

Systematically introduces computer-aided architectural design applications commonly encountered during professional practice. Develops basic familiarity and proficiency with principles of computer-aided architectural design using the Windows operating system. Presentation and training focuses on AutoCAD software. Includes 2D & 3D modeling of existing buildings. Topics include objects, layers, classes, annotation methods, dimensions, units, scales, groups, symbols, blocks and graphic database library storage & retrieval techniques. Presents new methods of moving from 2D planes to 3D masses. Architectural graphic presentation with added values of audio, video, rendering, lighting & basic motion effects.

PQ: Arch 112+CIS 100

Arch 202: Visual Communication II (3 CH; 6S)

Basic technical methods and proximate methods of perspective construction. Standard technical perspective drawing (one, two, and three point perspective). Shadow projection and shading in two and three-dimensional drawings. Shade and shadows in perspective drawings. Exercises on all of the above are required.

* Passing the course.

PQ: Arch 101+Arch 102

Arch 301: Technical Writing & Verbal Communication (2CH; 2H)

Trains students to professionally prepare academic reports & effectively present expressive speeches. Both types are needed in pre-design & design report writing as well as in jury presentations.

PQ: Eng 112

Arch 343: Surveying (3CH; 2H, 3L)

Principles of surveying; linear measurements, chain surveying, leveling and its application in contouring, profiles and cross-sections. Areas, volumes, and earthwork. Measurement of angles; traverse surveys, tachometry and electronic distance measurements (EDM). Theory of errors and adjustments. Principles of triangulation.

PQ: Arch 101

Courses Description for Department Requirements

Arch 211: Architectural design I (5CH; 10S)

Studio-based investigation of the fundamentals of making architectural form and space with an emphasis on human-based inquiry and exploration. Design generation with reference to human-environment interaction through exploring the principles of anthropometrics & ergonomics and applying these principles on interior design of simple spaces. Two projects at least.

PQ: Arch 112*

Arch 212: Architectural design II (5CH; 10S)

Understanding and exploring function in architectural design. Form as an aesthetic response to function. Design methodology and simple strategies for integrating form and function. Using basic pre-design studies for exploring primary design forces. Exterior-interior interaction or integration in architectural design. Exercises on architecture that consists of a limited variety of functions. Two projects at least.

PQ: Arch 211*

Arch 481: Human behavior in built environments (3CH; 3H)

Environment as a context for human behavior. Basic concepts of mental, affective, spatial and social behavior. The concept of behavioral setting as the basis for designing responsive environments. Topics of perception, cognition, meaning, proxemics, privacy and social interaction.

PQ: URP 341

Arch 572: Project management (2CH; 2H)

Introduces the basic and advanced concepts of running design projects. Explores the whole project phases and processing, analyzing them in detail under the project management concept of delivering projects, “on time, on budget, every time.”

PQ: URP 412

* Passing the course.

URP 202: Introduction to urban planning (3CH; 3H)

The main and basic element of urban planning are defined in the conceptual, hierarchical and contextual levels. Also, the nature of planning as a process of interrelated stages should be emphasized and other elements including land use, population, socio-economic and environmental issues are introduced in this basic elementary course.

PQ: Arch 211

URP 222: Landscape architecture (3CH; 2H, 2S)

This course is comprised of both lecture classes and design problems. The lecture material should cover: an introduction to landscape architecture as a discipline; theoretical views of landscape architecture; review of selected historical markers; review of renowned landscape architects; survey of landscaping plants focusing on plants of the region; plant as a design material; and principles of space design. Within the design studio, students should design 2-3 projects ranging in size and functions in order to acquire fundamental training and experience in landscape and plant design. This class is equal to Arch 341 (Landscape Architecture).

PQ: Arch 202+URP 261

URP 231: History of town planning (3CH; 3H)

Studying the informal evolution of urban planning through the practices of old and classical civilizations; Jericho, Mesopotamia, old Egyptian, Greek and Roman to arrange the distribution of activities and uses. Renaissance era's contribution on city planning, the recent history of planning by the industrial revolution and its impact on the city, the country and the regions, emphasis on the accelerated development of urban planning by the 20th century and the evolution of modern town planning and approaches which played a major role in the recent theories of urban planning nowadays.

PQ: Arch 112

URP 242: Sustainable development (3CH; 3H)

Introduction to the concept of sustainable environment, its definitions, elements, aspects and principles. Defining the multi level forces that create the concept of sustainable planning and architecture; ecological factors, green concepts, social and economical parameters, the role of sustainable development in real planning practices and intervention through case studies analysis.

PQ: URP 231

URP 261: Building construction (3CH; 3H)

The course covers the issues of building construction in order to strength students skills in the major construction applications; materials and their major characteristics ,basic uses and implementation, the major construction systems and their requirements, soil investigation, bearing walls, post and beam systems, major skeleton works and their applications.

PQ: Arch 112

URP 301: Urban planning studio I (4CH; 8S)

This studio is an introductory course focusing on the analysis, content and spatial distribution of land use through practical local case studies to study and understand the formulation of urban areas in qualitative, quantitative and spatial contexts. The outcomes should serve as basis for the forthcoming planning studios.

PQ: URP 202+Arch 212*

* Passing the course.

URP 302: Urban planning studio II (4CH; 8S)

This studio course covers the future urban change of the city as a dynamic entity. This should take the form of physical, demographic, economic, social and environmental analysis arriving at the most optimal spatial growth of the study area based on estimation and forecasting assessments of qualitative and quantitative requirements.

PQ: URP 301*+URP 311

URP 303: Theories and methods of urban planning (3CH; 3H)

Examines the theories and techniques related to urban planning. Earlier and recent theories of land use distribution, system operation and change and city form should be explored. Also examining the uses and concepts of different quantitative and qualitative methods and techniques for the plan formation, analysis, forecasting and evaluation stages of the urban planning process.

PQ: URP 202

URP 311: Urban design (3CH; 3H)

Introducing the concept of urban design as a moderator between architecture and planning, discussing its history, elements and principles, the evolution of urban design in the 50`s of the 20th century and its impact on the cityscape and development. The course covers the current trends and theories, strategies and levels of intervention; development, redevelopment, infill on different scales varied from the city center to the city as a whole.

PQ: Arch 212

URP 341: Urban sociology and community development (3CH; 3H)

The course examines the structure, processes, changes and problems of urban areas including migration, poverty and welfare, economic trend, group relations, social life and how urban settings directly impacts the social interaction. The course also focuses on social groups and communities in whom people act to achieve various interests and goals. The course provides sociological input for planning, design and policy making; and introduces basics of community development.

PQ: URP 242

URP 352: Urban infrastructure (3CH; 3H)

The study and planning of urban infrastructure in terms of physical infrastructure including the required services such as water supply, electricity and sewage networks and social infrastructure including the necessary amenities and facilities such as educational, recreational and retailing. The courses also introduce the students in addition to the planning side of the provision of these services to the required standards and the evaluation of environmental Impacts of urban growth.

PQ: URP 301

URP 381: Statistics (3CH; 3H)

An integrated course enables the students to understand and learn basic elements of descriptive and inferential statistics such as; sampling techniques, methods of data collection, analysis of time series data, display and presentation of statistical data in addition to the methods of hypothesis and significance tests, correlation linear regression, analysis of variance and the basic concept of probability.

PQ: URP 202

* Passing the course.

URP 382: Urban economics (3CH; 3H)

Exposes students to the importance and role of market forces in the development of cities. This takes the examination of different aspects such as the economics of land use patterns and locations, transportation, housing, land rent, public sector and local government accounts, urban labor market, city size and urban problems in terms of crimes and poverty.

PQ: URP 303

URP 401: Urban planning studio III (4CH; 8S)

This studio guides students to assess and arrive at the required future form and land use distribution of the study area. This future formulation could take the form of proposed generalized master plan or structure plan. It is expected that students will employ the standards, concepts and techniques acquired earlier with regards to recent theories of city form, sustainability and optimization to arrive at the best decisions.

PQ: URP 222+ URP 302*

URP 412: Urban design studio I (3CH; 6S)

Applications on urban design concepts and strategies, concentrating on urban design problems in locations in need for regeneration, infill or redevelopment, particularly inner city parts or other deteriorated districts with regards to their environmental and socio-economic standards where actions in the form of design strategies and plans are required.

PQ: URP 401* +URP 311

URP 432: Planning and management of conservation areas (3CH; 3H)

The class covers the latest notions of planning for urban historical centers and sites integrating heritage theory, sustainability, and revitalization. It investigates approaches to planning and sustainable conservation of urban heritage resources and examines the principles of sustainability, covering social, cultural, economic, and environmental challenges of planning: such as social equity, development, heritage management, revitalization, gentrification, and environmental effects. The course introduces the students to professional tools such as urban revitalization planning. Conversation Management Plans and sustainable heritage conservation systems. Students are required to apply their learned skills on a local case study in Jordan or the region.

PQ: URP 231+URP 311

URP 451: Transportation I (3CH; 3H)

The course introduces the students to the elements and requirements of traffic engineering and management which should cover road highway design, parking requirement, road hierarchy and functions, public and private transportation systems road safety environmental protection and enhancement, urban traffic control and traffic consideration for new development in different land uses .

PQ: URP 302

URP 452: Transportation II (3CH; 3H)

This course examines the transportation planning process and its development in which recognizes the interrelationships between urban land use and transportation. The process begins with the stage of data collection and ends with evaluation and implementing the best attractive transportation proposal. The students are expected to understand the nature, element, and methods of estimations of the transportation demand and how this is fulfilled and related to comprehensive urban planning.

* Passing the course.

PQ: URP 451

URP 461: Geographic information systems I (3CH; 2H, 2S)

This course provides an introduction to Geographic Information Systems (GIS) and related technologies. It introduces students to the major principles and concepts pertinent to utilizing those systems in a variety of urban planning projects. The course covers basic principles and concepts of GIS, theory and tools of spatial analysis, and broad exposure to GIS applications. Contents include map visualization, nature of spatial data, data sources and acquisitions, spatial analysis and models, presentation of output and reports. The Course exposes students to wide-spread GIS software (ESRI Arch GIS) and provides hands-on practice in basic GIS functionalities.

PQ: URP 202

URP 462: Geographic information systems II (3CH; 2H, 2S)

This course builds on the basic GIS knowledge and covers additional GIS and related technologies such as remote sensing and Global Positioning System (GPS). The objectives of the course are to provide spatial information and analysis capabilities for urban planners and those in related disciplines. The course will cover advanced principles and concepts of GIS, theory and tools of spatial analysis with a focused exposure to GIS applications. The course provides hands-on practice in applications of GIS in urban planning.

PQ: URP 461

URP 471: Planning law (3CH; 3H)

The course presents an overview of the various laws and regulations most pertinent to the planning practice and the limitations on local agencies. Also, an account of local administration and organizations and the powers and responsibilities they have on the planning process is introduced. The course, in addition, examines other urban planning laws and regulations from other experiences.

PQ: URP 202

URP 482: Regional Planning I (3CH; 3H)

The course discusses the necessity of regional planning and its impact on creating well distributed services, benefits and balanced regional development. The principles of regional planning and the parallel factors of social, economical, administrative and legislative aspects are considered. The course discusses the interrelationship between national planning, urban planning and regional planning, and the main theories of regional growth models.

PQ: URP 302

URP 491: Urban Planning Training (for 8 weeks) (3CH)

Training introduces and incorporates students in real planning specialized firms and organizations, in order to bridge and facilitate their academic background in real planning projects with varied scales and scopes. Students are to train for 8 weeks in accredited firms and organization accredited firms.

PQ: passing 110 credit hours

URP 503: Planning models (2 CH; 2H)

Examines the concepts, prosperities and uses of urban planning models in the quantitative and the qualitative levels, particularly linear models, spatial interaction gravity models, and optimization linear programming models. Practical case study application and students' assignments should be introduced in association with the theoretical side of the course.

PQ: URP 202

URP 511: Urban design studio II (3CH; 6S)

Focusing on the design and redevelopment of residential areas by applying the theoretical concepts and thoughts of the neighborhood idea and its recent developments, sustainability, new urbanism and other contemporary urban design theories to arrive at an integrated design solutions of particular case studies taking into account the provision of necessary urban infill interventions, provision of amenities, safety circulation, legibility, landscaping and other environmental and design requirements.

PQ: URP 302*

URP 512: Morphology of urban form (2CH; 2H)

Examination and analysis of the structure and form of towns and cities as to their urban fabric, street pattern, densities and land uses which entails focusing on the form and contain of urban structure as in its cultural and socio-economic context.

PQ: URP 311

URP 523: The design of urban recreation areas (2CH; 2H)

Special studies in metropolitan, urban, and neighborhood recreation areas; the design, policies, and behavioral studies of existing parks, public places, and commercial areas. It concentrates on developing urban and recreational areas.

PQ: URP 311

URP 526: Townscape (2CH; 2H)

Studying and analyzing towns and cities as an urban scene, concentrating on; firstly visual studies including studies of urban space, architecture and secondly; permeability of the environment and the choice of access it presents to the user and thirdly; the legibility of the urban structure and the way people perceive and react to the environment.

PQ: URP 311

URP 528: The landscape of parks and green ways (2CH; 2H)

The course concentrates on six interdependent "human dimensions" of parks and greenways: cleanliness, naturalness, aesthetics, safety, access, and appropriateness of development. Together, these dimensions form a core set of concerns relating to how people perceive and use such places for recreation, conversation, social interface, and other related experiences.

PQ: URP 222+URP 451

URP 531: Urban ecology (2CH; 2H)

Examines cities as natural systems, combining ecological analyses with historical, anthropological, and sociological studies of the urban nature. Addresses sociological sustainability, growth management, biodiversity, ecology of parks, zoos and aquariums, environmental justice. Required field trip.

PQ: URP 202

URP 541: Housing (3CH; 3H)

Introduction to the different aspects of urban housing, mainly those related to the physical and policy issues such as; housing types, standards and densities, affordable housing needs, the effect of housing policies and market forces, basic lay out design principles and neighborhood amenities.

* Passing the course.

URP 542: Urbanization in contemporary Jordanian and Arab countries (2CH; 2H)

This course focuses on contemporary Jordanian and Arab culture linked issues related to urbanization as a significant concept. It involves the study of various urbanization aspects such as: the city, jobs and professions in urban societies, family and social life, women and their role in the society, religion, and the civil society. It focuses on these aspects as they affect urbanization concept and the signs and symbols of representation in urbanization. Theories of sociology, anthropology, and planning, in social life are incorporated in the class material.

PQ: URP 341

URP 551: Urban geography (2CH; 2H)

Analyzing cities as systems, to understand how factors interact over space, and what function they serve and their interrelationships. Also to look at the development of settlement to understand the human and environmental impacts of urban change, and spatial distribution of cities and their inner city structure.

PQ: URP 202

URP 561: Computer aided design II (2CH; 1H, 2S)

Systematically applies CAD system to the different phases of planning: pre–design, design & construction documents. Focuses on data exchange between different software including the extraction of volumetric data and transfer them to spreadsheet and / or database management software, rendering software, post-rendering work in pixel-editing software, animated walkthroughs in motion-supporting software .Presentation and training focuses on advanced AutoCAD, Photoshop &3DMax software, with the intent to develop basic familiarity and proficiency with the digital rendering and multi-media techniques. Highlights motion & animation enchantment to architectural presentations.

PQ: Arch 201

URP 562: Digital visualization (2CH; 1H, 2S)

Introduces students to visualization tools that have been developed and applied in the environmental disciplines to facilities better land use planning decisions. Through land use hands-on exercises, students will learn Arch GIS 3D Analyst, Geo database, and Community Viz. Guest lectures will be incorporated to expose student to actual urban simulation projects.

PQ: Arch 201

URP 563: Geographic information systems and remote sensing (2CH; 1H, 2S)

This course is oriented to students that are interested in more advanced applications of GIS and remote sensing in urban planning. The course covers the following topics: spatial metrics and geostatic in urban planning, identifying spatial characteristics of sprawl at the building-unite level, urban socio-economic analysis, molding sustainable urban growth management, place –based urban vulnerability analysis.

PQ: URP 462

URP 572: Professional Urban Planning practice (2CH; 2H)

Introduction to the planning profession, in terms of market demand and planners duties and responsibilities. Analysis of the relationship between the planners and client. Emphasis on the principles of ethics of the profession.

PQ: URP 511

URP 581: Micro economics (2CH; 2H)

The course examines the behavior of small economic units, such as individual consumers or households. It analyses the market behavior of those households and attempt to understand the decision-making process and the factors that influence the demand and supply of goods and services particularly in individual markets such as; the housing market, the retailing market, and the urban employment market.

PQ: URP 382

URP 582: Regional planning II (2CH; 2H)

Concentrates on the theories and techniques of regional planning including input-output models, the attraction model, economic impact analysis, shift-share analysis, regional econometric models, optimization and evaluation models of the effect of regional policies on regional growth, prosperity, equality and the environment.

PQ: URP 482

URP 591: Urban planning graduation project I (2CH; 2H)

Stimulating students towards various practical approaches in choosing planning project topics. Orientation of student to adapt and conduct total methodology in programming project requirements, goals and objectives, the analysis and alternatives and the continuous evaluation of various factors of urban planning consideration philosophy of project, and upgrading of students ability of technical writing.

PQ: URP 412*

URP 592: Urban planning graduation project II (5CH; 10S)

Presentation of final planning work and requirements for the graduation project. The adaptation and development of planning and design concept and the final development stage is accomplished in coordination with student supervisor. The projects require concentration on planning, design and environmental integrated solutions.

PQ: URP 591*+ URP 511*

URP 595 (A, B, C): Special topics in urban planning (3CH or 2CH or 1CH)

PQ: Departmental Approval

* Passing the course.