



**KING SAUD UNIVERSITY**  
**DEAN OF GRADUATE STUDIES**

# **Master of Science in Urban Design**

**College of Architecture and Planning**  
**Department of Urban Planning**

**Updated on 10-12-2021**

## **Master of Science in Urban Design.**

### **Program Vision**

Leadership in teaching and disseminating knowledge in the field of urban design, and establishing frameworks for positive interaction with the community.

### **Program Mission**

To achieve excellence in "city building and design" by graduating highly qualified researchers and professionals, advancing research, and developing the profession in urbanism (career development), in order to achieve quality of life and support authenticity and identity.

### **The Program's Objectives:**

In pursuit of achieving the goals of development in the Kingdom and responding to the requirements of the overall urban renaissance, and the subsequent urban expansion and population growth in all cities of the Kingdom, and given the importance of educational investment in human construction, the program aims to meet the growing need of the local market of urban designers and planners. It also aims to provide the opportunity for university degree holders with the appropriate competencies to pursue their higher studies and provide the appropriate opportunity for them to carry out scientific research and learn about modern methods and methods suitable for designing and improving the urban environment and dealing with various design problems of cities resulting from the rapid expansion of cities to accommodate the As part of its quest to play a leading role and contribute effectively to national development, the Department of urban planning has developed a postgraduate program (Master of Science in urban design) as an extension of The Bachelor's degree in the department in order to improve and develop the urban knowledge in accordance with the general principles and foundations set by the college. Through its program, the Department of urban planning aims to achieve:

- A. To meet the needs of the local market in the kingdom of specialists in the field of urban design.
- B. To contribute to the development of knowledge and science related to the field of urban design by providing students with the opportunity to carry out scientific research.
- C. Addressing the current problems of urban design in Saudi cities, offering solutions to them, and working to strengthen the Arab and Islamic identity of these cities.
- D. To enhance the professional level of the Urban Designer by providing him with modern knowledge, training and technical

- know-how, and by developing his capabilities and skills.
- E. To develop the Urban Design profession and to provide the necessary concepts and frameworks needed for its success.

### **Programme beneficiaries**

The beneficiaries of the program are graduates with a bachelor's degree from colleges offering specialties in urban planning, design, architecture, and engineering who meet the Department's admission requirements.

### **Recruiters available**

Graduates of the urban design program in the urban planning department can work in the following sectors:

- 1- Government sectors: Ministry of municipal and Rural Affairs, Ministry of Housing, Ministry of Transport, Ministry of economy and planning.
- 2- Semi-governmental sectors: higher bodies for the development of cities in the kingdom, Tourism Authority, Industrial Cities Authority.
- 3- Military sectors: military works, project departments of the Armed Forces, Ministry of Interior, military surveying departments.
- 4- Private sector: consulting offices, real estate developers.
- 5- Research centres and universities.

### **Admission requirements**

#### **A- Admission requirements in the standard regulations for graduate studies:**

1. The applicant must be Saudi or hold an official scholarship for graduate studies if he or she is a non-Saudi
2. Applicants should have a university degree from a Saudi university or of other recognized universities.
3. Have good conduct and medical decency
4. To submit two scientific recommendations from professors who have already taught them.
5. Reference approval to study if he is an employee
6. The Department may require passing a number of supplementary courses from an earlier level.

#### **B- King Saud University general admission requirements:**

1. Obtain a minimum score of (70) in the general aptitude test for graduates.

#### **The DUP Admission requirements:**

1. The applicant must have a bachelor's degree with attendance system.

2. Minimum duration of study in undergraduate for four years in the disciplines (Urban Planning, Urban Design, Landscape Architecture, Architecture, Design drachma)
3. Bachelor Degree must be from King Saud University or any other university recommended by Ministry of Education, with a grade should not less than “good”with rate (3.25 of 5) or equivalent

**Degree requirements:**

1. First option (courses and thesis) requires studying 28 credit hours of postgraduate courses and MSc, thesis.
2. Second option (courses and research project) requires studying 42 credit hours of postgraduate courses including research project.

**Program learning outcomes (PLOs)**

The urban design graduate attributes are reflected in the program learning outcomes (PLOs) as well as in the Program Specification. The table below indicates the PLOs of the Urban Design Program.

<b>1- Knowledge</b>
1-1 Critically interpreting knowledge in Urban Design education or in the professional field.
1-2 Understanding of advanced concepts and practices in Urban Design field.
1-3 Recognizing, determining and correlating immanent complex issues and conceptualizing solutions.
<b>2- Skills</b>
2-1 Assessing and employing the latest skills and digital techniques in developing practices in Urban Design.
2-2 Linking between knowledge, skills and strategic planning and creatively integrating them into the discipline.
2-3 Creating solutions that maintain and enhance the concept of quality of urban life locally and reinforce the Arab-Islamic identity.
2-4 Ability and persistence on providing solutions to complex challenges.
<b>3- Values</b>
3-1 Committing to competence, honesty and integrity in Urban Design education and professional practice.
3-2 Instigating the spirit of leadership, management, teamwork and initiative in academic and professional activities.

## Program Structure:

### Courses and Thesis Option:

Number & Type of Courses	Credit Hours
9 Core Courses	28
Thesis	----
Total	28

### Courses and Research Project Option:

Number & Type of Courses	Credit Hours
9 Core Courses	28
3 Essential Courses	9
1 Selected Courses	3
1 Research Project	3
Total	42

## Courses

### (Thesis Track)

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours
Level 1	PLN 540	Advanced Readings in Planning Theory	Required	None	3
	PLN 541	Research Methods and Methodologies	Required	None	3
	PLN 542	Urban legislation	Required	None	3
Level 2	QUA 502	Statistics in Business Administration	Required	None	3
	URD 560	Theories and History of Urban Design	Required	None	3
	URD 561	Presentation Techniques in Urban Design (Project-1)	Required	None	3
Level 3	URD 562	Advanced Methods and Techniques in Urban Design	Required	None	3
	URD 563	Urban Design in Society and the Local Environment	Required	None	3
	URD 564	Urban Design in New Cities (Project -2)	Required	None	3
	PLN 598	Prepare research plan	Required	50% of credit hours	1
Level 4	URD 600	Thesis	Required	All the above courses	

### Non-thesis - Research Project track

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours
Level 1	PLN 540	Advanced Readings in Planning Theory	Required	None	3
	PLN 541	Research Methods and Methodologies	Required	None	3
	PLN 542	Urban legislation	Required	None	3
Level 2	QUA 502	Statistics in Business Administration	Required	None	3
	URD 560	Theories and History of Urban Design	Required	None	3
	URD 561	Presentation Techniques in Urban Design (Project-1)	Required	None	3
Level 3	URD 562	Advanced Methods and Techniques in Urban Design	Required	None	3
	URD 563	Urban Design in Society and the Local Environment	Required	None	3
	URD 564	Urban Design in New Cities (Project -2)	Required	None	3
	***	Elective Course	Elective	None	3
Level 4	URD 565	Landscape Architecture in Urban Design	Required	None	3
	URD 566	Practical Applications in Urban Design (Project-3)	Required	None	3
	URD 567	Urban Formation	Required	None	3
	URD 599	Research Project	Required	None	3

#### \*\* list of elective courses

Course Code	Course title	Credit Hours
RED 502	Real Estate Land Planning	3(3+0)
RED 503	Real Estate Land Development	3(3+0)
ECON 508	Feasibility and Property Valuation	3(3+0)
ADM 510	Property Management	3(3+0)
PLN 543	Land Use Planning	3(3+0)
PLN 544	Transportation Planning	3(3+0)
PLN 545	Housing	3(3+0)
PLN 546	Urban Management	3(3+0)
PLN 548	Workshop (planning project)	3(0+3)
PLN 549	Regional planning and development	3(3+0)
PLN 550	Advanced applications in	3(3+0)
PLN 551	Urban Renewal	3(3+0)

## **Courses' Description**

### **URD 560 Theories and History of Urban Design 3(3+0)**

This course is designed to examine both the existing structure of cities and the ways in which they can be changing in the future. Its scope extends to include historical factors and forces that have produced cities, models of urban analysis, contemporary theories of urban design, and implementation strategies. Core lectures are supplemented by discussion sessions focusing on student work and field trips. Guest speakers present cases involving current projects illustrating the scope and methods of urban design practices.

### **URD 561 Presentation Techniques in Urban Design (Project -1) 3(0+3)**

This course concentrates on presentation techniques in urban design. It uses infill development projects as the main means for these porous. The process of developing design schemes in this project involves utilizing computer simulation and community participation. While developing design alternatives, students address and focus on issues related to environmental sustainability and social compatibility. This project includes a one-week intensive workshop hosting selected well known professionals and public figures.

### **URD 562 Advanced Methods and Techniques in Urban Design 3(3+0)**

This course seeks to develop a logical understanding of the advanced methods and techniques required to assess the urban environment based on carrying out a technical analysis of the context (observational and representational methods), evaluation of urban form, development of urban, architectural and landscape patterns, and understanding methods of implementation. During the course duration, relevant readings are critically reviewed and discussed and local and international case studies are analyzed and evaluated.

### **URD 563 Urban Design in Society and the Local Environment 3(3+0)**

The course addresses elements and items of the local environment, local community and their impact on urban design. It also emphasizes the key elements and concepts of urban design that form the guiding principles for new developments in city centers in order to protect and enhance pedestrian movement in public spaces. Additionally, it addresses design street network and squares, street character, space enclosure, massing and impact of tall buildings, building line, and critical densities. The course deals with the mutual influence between environmental considerations and the customs and values of the local community on the one hand, and human behavior and its reflections on the identity of urban design

projects on the other, through ideas that consider current and future physical needs of the local community, establishing its image as a Muslim and Arab community.

**URD 564 Urban Design in New Cities (Project -2) 3(0+3)**

The second project in the Urban Design Master's Program concentrates on topics related to the design and development of communities in new cities. The project focuses on developing concepts that promotes compact developments in cities' centers and districts, pedestrian-friendly, mixed-use, transit-oriented schemes that are suitable for different income groups and within the context of the local economic and social environment.

**URD 565 Landscape Architecture in the Urban Design 3(3+0)**

The main objective of the course is to acquaint students with the concepts of landscape architecture, its theories, and application in design on different at scales of the urban environments. The course will focus on Landscape design theories and their application in the urban fabric. Special concern will be dedicated to the urban design elements, such as, site structure relationships, private buildings, urban open spaces, plazas, pedestrian malls and other public spaces. Case studies will be used to apply and develop these principles in respect to the local, social and climatic environment.

**URD 566 Practical Applications in Urban Design (Project-3) 3(0+3)**

The final project in the master's program aims to enhance professional and practical abilities and skills of students in the field of urban design. The project is therefore, oriented towards developing real projects. For this porous, students team up and work with professional urban designers to develop highly-detailed urban design real projects.

**URD 567 Urban Formation**

Analysis of urban formation and its patterns with an emphasis on its relationship with the community and prevailing conditions (social, political and economic). Historical development of settlements, with emphasis on cultural forces, geographic location and technology and their influence on the development and growth of types of settlements' forms and spaces. Students will deeply examine the features of the various urban levels. The course will also deal with urban design and planning choices, human relationships and spaces in order to achieve the ultimate urban form.



**URD 599 Research Project** **3(2+1)**

Brief studying paper deals with any of current urban problems and show student's research and analytical skills. The research will be supervised and evaluated by a specifically appointed faculty member.

**PLN 540 Advanced Readings in Planning Theory** **3(3+0)**

Principles and basic theories of urban planning. Urban planning's objectives and goals within the philosophical framework of planning. Circumstances that influenced the field of specialization's development. Legitimacy and nature of the role of planning and planners in the society.

**PLN 541 Research Methods and Methodologies** **3(3+0)**

Basic research methods and experimental methods in research areas: field survey, case study design, comparisons of different methods, application of techniques in the selection of sample, data collection and analytical tools.

**PLN 542 Urban legislation** **3(3+0)**

Laws, systems and controls that are related to urban planning. The degree of influence of these legislations on urban planning practice in the following areas: land use planning, zoning, property rights, and land subdivision controls. Analysis of historical planning practices, and the way they shaped traditional urban development. Shariah and Islamic controls as a dynamic and changing process, and its superiority in comparison with other principles. The effect of contemporary urban legislation applications on the urban environment's formation and its evaluation in the light of recent circumstances.

**STAT 503 PROBABILITY & MATHEMATICAL STATISTICS 3 (3,0)**

Postulates of probability, random variable, probability distributions, mathematical expectation, probability densities. Sampling distribution, point estimation, interval estimation, confidence intervals. Correlation and regression analysis, analysis of variance. Tests of hypothesis, tests based on count data, nonparametric tests.

**Selected Course** **3(3+0)**

Depending on the proposed research topic, an selected course is offered by the Department in order to enrich the student's knowledge. This is implemented by selecting one of master degree programs' courses in King Saud University or (attached No. -1-). Selected course must have same credit hours (3) or more.

## **Attached No. -1- list of elective courses**

### **RED 502 RealEstate Land Planning 3(3+0)**

Principles and techniques of land planning. Land surveying, land grading, property demarcation, land improvement, and execution of the development.

### **RED 503 Real Estate Land Development 3(3+0)**

Process of land development including: concept inception and development, basic feasibility analysis, design and follow up with the municipal sector, construction, formal opening and the operation of asset management.

### **ECON 508 Feasibility and Property Valuation 3(3+0)**

Basics of Feasibility studies. Example of local feasibility studies of actual development. Introduction of international principles of property valuation...including valuation based on similar sell price, development cost, f and property income.

### **ADM 510 Property Management 3(3+0)**

Principles of property management. Management of properties according to land uses such as residential , commercial , and industrial uses.

### **PLN 543 Land Use Planning 3(3+0)**

Techniques and procedures for urban growth management and effective land use control. Presentation of the most important experiences and best practices in urban planning in Saudi Arabia. Fundamentals of land use planning and systems of urban development management. Presentation of tools, models and techniques used at the local, regional and national levels that are related to land use types in the urban environment, activities sites and urban form. Appropriate limits and ratios in order to achieve a balance between the various uses. Land use planning utilization and future directions of urban growth in the kingdom's cities.

### **PLN 544 Transportation Planning 3(3+0)**

Analysis of the relationship between transportation means and routes and infrastructure lines in urban areas. Impact of investment in transportation and infrastructure on travel behavior, urban activity sites, urban form and families decisions relating to residence locations choices. Future urban trends in the light of transportation and infrastructure development, and the use of mathematical integrated urban models.

**PLN 545 Housing** **3(3+0)**

International principles and theories of housing. Study and analysis of housing methods and programs in the Kingdom of Saudi Arabia, and discussion and analysis of issues and problems related to its housing sector. Concepts and types of housing and the relationship between household income and housing possession. Affordable housing concept and low-income housing issues. Required financial methods in order to achieve housing projects and programs. Types and forms of housing markets, and the methods of assessing housing needs in the existing and future areas. Public participation in planning, designing, and implementing and monitoring housing policies and programs.

**PLN 546 Urban Management** **3(3+0)**

Study and analysis of the role of urban management in shaping cities. Review of the experiences of western nations and some developing nations in that respect. Presentation of the urban policy of the Kingdom of Saudi Arabia, with an introduction to the public administrative system and its relationship to urban development in addition to the role of major government institutions in the planning and development process. Review of planning agencies and planning and control system and its implementation procedures and their correlation to theoretical trends. Study of policies implementation in reality in of positive initiatives or negative dealings with plans, urban controls, the planning controls mechanism, and the legal framework for government interventions.

**PLN 548 Workshop (planning project)** **3(0+3)**

Review and analysis of current issues and ideas in local and international planning projects through hosting practitioners and professional planners. Identification of new and potentially applicable planning ideas and experiences. Solutions and innovative ideas to solving planning problems during holding brainstorming sessions.

**PLN 549 Regional planning and development** **3(3+0)**

Review and analysis of regional planning theories and regional development, and exploration of a range of different approaches and methods in order to understand regional development and planning. Review of a broad collection of topics including: introduction to the theories of location economic activity, trade, different forms of contact between regions, process of regional development growth and decline, reasons for existence of different levels of urban and economic development and relations between most or least developed regions. Presentation of regional case studies drawn from around the world as

examples in order to explore the regional development processes and their theoretical and implementation frameworks.

**PLN 550 Advanced applications in Geographic Information Systems (GIS) 3(3+0)**

Lab-based practical applications of Geographic Information Systems (GIS), in addition to a workshop in order to develop students computer skills and allow for a proper understanding of the geographic information systems applications in the public urban planning management agencies and so to enable highly efficient use of GIS in their planning activities. Focus on spatial analysis of planning information and data that affect urban planning work at the level of the city and the region.

**PLN 551 Urban Renewal 3(3+0)**

Study of urban renewal within its historic and institutional contexts, with emphasis on selected physical and socio-economic aspects highly relevant to city redevelopment. Concepts and general ideas and historical background, development of urban renewal through methods and techniques taking into account effective planning, design principles, socio – economic characteristics and legal dimensions (such as subsidies, property expropriation and right transfer, public participation). Critical evaluation of landmark case studies of urban renewal.