Department of City & Regional Planning,
School of Architecture & Planning,
University of Management and Technology

Course Outline – Architectural Design

UMT Vision

OUR VISION IS LEARNING!

It defines our existence, inspires all stakeholders associated with us, creates a powerful momentum inside, and responds to the challenges outside. It continues to evolve as present captures new realities and foresight unfolds new possibilities.

All in an incessant attempt to help individuals and organizations discover their God-given potentials to achieve ultimate Success actualizing the highest standards of efficiency, effectiveness, excellence, equity, trusteeship and sustainable development of global human society.

UMT Mission

OUR MISSION IS LEADING!

We aspire to become a learning institution and evolve as the leading community for the purpose of integrated development of the society by actualizing strategic partnership with stakeholders, harnessing leadership, generating useful knowledge, fostering enduring values, and projecting sustainable technologies and practices.

Vision and Mission Statements of the City & Regional Planning Department

The vision statement of the Department of City & Regional Planning is:

- To be a leading City & Regional Planning Department aiming for excellence in learning, research and innovation with integrity and equity.

The mission of the Department of City & Regional Planning is:

- The mission is to establish a very important program concerning the development and management of the built environment. This is entitled as Bachelor of Science in City and Regional Planning. The studies will be focused on needs of the nation in the field of built environment of our regional, urban and rural settlements. The students are required to be equipped with knowledge of advanced skills, latest knowledge and technology used in the planning and management of various settlements. They need to be fully aware of the current world, new trends and direction of the developments in future.

Program Educational Objectives (PEOs)

Five years after graduating, the graduates of the program should be characterized by the following three features:

PEO-1:

The graduates will apply learnt knowledge and skills of spatial, temporal, and physical planning.

PEO- 2:

The graduates will propose and execute appropriate solutions to complex planning and urban

issues and adapt recent developments in planning focusing on research, creativity, and innovation.

PEO-3:

The graduates will reflect core ethical values in their professional conduct and become responsible members of society.

Program Learning Outcomes (PLOs) / Graduate Attributes

Graduates of the BS CRP program at UMT are expected to have acquired and developed the following set of knowledge, skills, and personality traits (these are also referred to as graduate attributes)

PLO 1: Planning Knowledge

An ability to demonstrate knowledge of contemporary planning theories and conceptual ideologies and models.

PLO 2: Designing Analysis

An ability to identify and investigate problems, construct theoretical framework through literature review and case studies and synthesize information.

PLO 3: Professional Skills

Apply planning knowledge in design/planning process to synthesize and articulate multi-faceted variables to generate an integrated solution based on societal and environmental considerations.

PLO 4: Usage of IT

An ability to select and apply appropriate techniques and resources, including prediction and modelling, to complex planning activities.

PLO 5: Communication

Convey ideas and solutions of planning/urban problems in verbal, written and graphical modes, effectively.

PLO 6: Leadership

Ability to opt a role for affective coordination within the team & collaboration with the community.

PLO 7: Professional Ethics

An ability to apply ethical principles and professional codes following the social norms to the best interest of the society.

PLO 8: Lifelong Learning

Capable of acquiring knowledge, skill, and information self-reliantly from diverse sources and appreciating new ideas and concepts.

Course Learning Outcomes:

After studying this course, the learners will be able to:

- Explain the processes of architectural design
- Explain the architectural elements of buildings
- Develop architectural design of a housing unit with detailed design of Kitchen and Bathroom.
- Develop approval/submission drawings for residential units.

CODE	NAME	CLO	CLO Type
230.1	230.C1	Explain the processes of architectural design	C2
230.2	230.C2	Explain the architectural elements of buildings	C2
230.3	230.C3	Develop architectural design of a housing unit with detailed design of Kitchen and Bathroom.	C6
230.4	230.C4	Develop approval/submission drawings for residential units.	C3

Tittle	Course Learning Outcomes	PLO 1: Planning Knowledge	PLO 2: Designing Analysis	PLO 3: Professional Skills	PLO 4: Usage of IT	PLO 5: Communication	PLO 6: Leadership	PLO 7: Professional Ethics	PLO 8: Lifelong Learning
Architectural Design	Explain the processes of architectural design	✓							
	Explain the architectural elements of buildings	✓							
	Develop architectural design of a housing unit with detailed design of Kitchen and Bathroom.			✓					
	Develop approval/submission drawings for residential unit.			✓					

Proposed Teaching Methodology

- Lectures
- Videos
- Assignments
- Field Visits
- Case studies

Proposed Assessment (theory, 100%)

Mid Term (40%)

- Written long/short questions, quizzes etc.

Final Term (60%)

- Written long/short questions, quizzes etc.

Proposed Assessment (practical, 100%)

- Presentations, assignments, report writing, viva voce, field visits etc.

Recommended Text Book

- Ching, Francis D K (2007), Form, Space and Order, New Jersey, John Wiley & Sons Inc.
- Ching, Francis D K (2011), A Visual Dictionary of Architecture, New Jersey, John Wiley& Sons Inc.
- Unwin, Simon (2009), Analyzing Architecture, Routledge.
- Davies, Nikolas and Erkil, Jokiniemi (2008), Dictionary of Architecture and Building Construction, Oxford, Architectural Press.
- Calendar, John Hancock et al. (1997),Time Saver Standards for
- Architectural Design Data, McGraw-Hill Professional
- De chiara, Joseph de and Michael J. Crosbie (2001), Time Saver Standards for Building Types, McGraw-Hill Professional.
- Rasmussen, Steen Eiler (1964), Experiencing Architecture, Massachusetts, MIT Press.
- Jefferies, Alan (2010), Architectural Drafting and Design, Dalman Cengage Learning
- Mumtaz, K. K. (1986), Architecture in Pakistan, Singapore, Butterworth-Heinemann

COURSE CALENDAR

Week	Theory	CLO	Reading
1	**Introduction to the architectural design** Different Terms used in Architecture and Building Design **Design of a site plan of the own house of participant Location Plan**	1	**Class Notes**
2	**Architectural Elements of Buildings** **Drawing of Existing House plan of the participant** Evaluation of the house design	1	//
3-4	**Structural ingredients of buildings** Foundation, Slab, Column, Beam and Lintel **Field Survey**	2	//
5	**Types of Buildings Elements** Types of walls, windows, roofs and stairs **Case study of different buildings** Study of architectural elements of buildings and plan preparation	2	//
6-7	**Site analysis/Orientation of building** Importance and inclusion of solar and wind analysis into design Techniques and methods to perform analysis of selected site on multiple parameters **Study of solar gains of buildings**	3	//
8	**Types of Drawing** (Different concept of drawing types and their practical implementations)	3	//
9	**Mid Term Exam**		
10-12	**Residential Design** Design of residential unit with due consideration to the functionality of the unit	3	//
13-14	**Kitchen & Bathroom design** Working Triangle, bathroom flow **Exercises** Plans, Elevation and Section	3	//

15	**Services design and foundation detail** Drawing of Foundation, Working and construction Details	4	//
16-17	**Submission Drawings** Components of Submission Drawing and compilation **Preparation of submission drawing** (The generation of different types of drawing and project plans and their importance in the profession)	4	//
18	**Final Term Exam**		