**Department of Architecture**

**School of Architecture and planning**

**University of Management and technology**

**Course Outline (on OBE)**

## UMT’s 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 to unfold 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.

### Mission of the School

The mission of the School is to provide the best leadership in the fields of the built environment; particularly in the development, management and innovation in the fields of architecture, urban planning and related specializations and sub-specializations

### Mission of the Department

At the Department of Architecture our mission is to challenge the participants to develop their abilities in solving complex problems by thinking creatively & informed decision making as a core of their professional schooling. Offering them a diverse interdisciplinary and meticulous program of studies led by an adroit faculty in a comprehensive studios or class environment and preparing them for leadership roles in the field of Architecture, Construction, Landscape, Built Environment and community development.

**Course Outline**

**Course code - AR-123 Course title - BASIC DESIGN – II**

|  |  |
| --- | --- |
| Program | B.ARCH |
| Credit Hours | 0+6 |
| Duration | **Course: Spring Semester 2023**15 Weeks + Examination |
| Prerequisites | Basic Design-I |
| Resource Person | Dr. Danyal Ahmed + Madiha Ghafoor   |
| Counseling Timing(Room# ) | As per timetable |
| Contact | madiha\_ghafoor@umt.edu.pkdanyal.ahmed@umt.edu.pk |

**Chairman/Director signature………………………………….**

**Dean’s signature…………………………… Date………………………………………….**

**Program educational objectives (PEO’s)**

**PEO-1:** Able to interpret and elaborate architectural knowledge, communication, graphical and computer skills.

**PEO- 2:** Able to develop building and architectural plans through design coordination selecting suitable materials and construction techniques.

**PEO-3:** Able to propose appropriate solution to complex building issues and adapt recent developments in architecture focusing on research, creativity and innovation.

**PEO-4:** Able to maximize ethics by keeping spirit of discipline and respecting the professional codes and society.

**Program Learning outcomes PLO’s)**

Graduates of the B-Architecture 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 Architectural Knowledge:** An ability to illustrate, architectural fundamentals through verbal and graphical Techniques

**PLO 2 Design Analysis and development:** An ability to identify literature and analyze architectural problems reaching substantiated conclusions to meet specified needs with appropriate societal and environmental consideration.

**PLO 3 Case study analysis:** An ability to analyze architectural issues in a methodical way including design, field surveys, interpretation of field data, and synthesis of information to derive valid conclusions.

**PLO 4 Digital Tool Usage:** An ability to create, select and apply appropriate techniques, resources, and modern architectural computer simulations, including prediction and modeling, to complex activities, with an understanding of the limitations.

**PLO 5 Environment and Sustainability:** An ability to propose sustainable solutions to environmental problems through architectural design thinking.

**PLO 6 Project Management:** An ability to demonstrate management skills and leadership qualities in individual and teamwork capacity.

**PLO 7 Design Coordination:** An ability to coordinate effectively across different sectors of construction industry. (Material suppliers, Electrical plumbing, HVAC and Civil works).

**PLO 8 Ethics and the society:** An ability to apply ethical principles and professional codes of the profession following the social norms to the best interest of the mankind.

**Course Learning outcomes (CLO’s)**

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

1. Demonstrate perception of spaces w.r.t human scale and proportions. (C2)
2. Compilation and interpretation of data relevant to architectural brief. (C5)
3. Formulate the functional relationship of spaces propose solution to architectural brief. (P6)

**Course learning outcomes (CLO’s)**

|  |  |  |  |
| --- | --- | --- | --- |
| **CODE** | **NAME** | **CLO** | **CLO Type** |
| 123.1 | 123.C1 | Demonstrate perception of spaces w.r.t human scale and proportions. (C2) | C2 |
| 123.2 | 123.C2 | Compilation and interpretation of data relevant to architectural brief. (C5) | C5 |
| 123.3 | 123.C3 | Formulate the functional relationship of spaces propose solution to architectural brief. (P6) | P6 |

**Mapping of CLO’s to Program’s Learning outcomes (PLO’S)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester** | **Course Code** | **Title** | **Course Learning outcomes** | **PLO 1: Architectural Knowledge** | **PLO 2: Design Analysis and development** | **PLO3: Case study analysis Design/Development of Solutions Design/Development of Solutions Design/Development of Solutions** | **PLO 4: Digital Tool Usage**  | **PLO 5: Environment and Sustainability** | **PLO 6: Project Management** | **PLO 7: Design Coordination** | **PLO 8: Ethics and the society**  |
| **2nd** | **AR-123** | **BASIC DESIGN – II**  | Demonstrate perception of spaces w.r.t human scale and proportions. (C2) | √ |  |  |  |  |  |  |  |
| Compilation and interpretation of data relevant to architectural brief. (C5) | √ |  |  |  |  |  |  |  |
| Formulate the functional relationship of spaces propose solution to architectural brief. (P6) |  | √ |  |  |  |  |  |  |

**Learning Methodology:**

 In accordance with HEC curriculum **outcomes**, students at the end of the course should be able to

* Develop an attitude towards creative design thinking process.
* Understand the functional relationship of spaces and be able to transform them into a schedule of areas of spaces.
* Develop an attitude towards 3D Architectural thinking process of design.
* Explore the importance of user of designed spaces and that the basic objective of all designs is to create a comfort zone for users in their personalized domains.
* Describe and evaluate the use of line, color, space, light etc. in architecture.
* Acquire an ability to express their design intentions through oral, written and graphic presentation skills.
* Explore how an architect could play with shape, form, space, mass and volume in his projects

**Grade Evaluation Criteria**

Following is the criteria for the distribution of marks to evaluate final grade in a semester.

# Marks Evaluation Marks in percentage

Assignments 65%

Mid 15%

Final Project 20%

**Total 100%**

**Recommended Text Books:**

**Reference Books:**

1. Foundations of Landscape Architecture- Integrating Form and Space Using the Language of Site Design by Norman K. Booth
2. Bath Planning – Guidelines, Codes, Standards (2nd Edition) by Julia Beamish & Kathleen Parrot
3. Kitchen Planning – Guidelines, Codes, Standards (2nd Edition) by Julia Beamish & Kathleen Parrot
4. Time-Saver Standards for Building Types by Joseph De Chiara And John Hancock Callender
5. Site Analysis by James A LaGro. Jr.
6. Smart Approach to Kitchen design by Susan Maney Lovett
7. 50 Great Kitchen Design ideas by Centaur Media
8. - Anthropology by Wulf, Christophe, 2004
9. Studio Apartments: Big Ideas for Small Spaces by James Grayson Trulove, Il Kim,2000.
10. Therapy's Big Book of Small, Cool Spaces by Maxwell Ryan Published By Potter/Ten Speed/Harmony/Rodale, 2011

**Calendar of Course contents to be covered during semester**

**Course code** - **AR – 123 Course title** - **BASIC DESIGN – II**

|  |  |  |  |
| --- | --- | --- | --- |
|  **Week** |  **Course Contents**  | **CLOs** | **Reference Chapter(s)** |
| 1-2 | Study of ergonomics/anthropometrics by drawing (given in architectural standards) a variety of human postures in relation to the work environment keeping in view the standard safe clearances of circulation space. Introduction lecture of Architect Vitruvius and Leonardo Da Vinci’s creation Vitruvian Man in relation to proportions of a human body. | C2 | Time-Saver Standards for Interior Design and Space Planning by Joseph De Chiara And Julius PaneroChapter-1: Planning and Design of Interior Spaces: Residential SpacesDetailed briefing of the course content and expected outcome from the students and the rules and regulations applicable to assessments. |
| 3 | Development of design proposal of a study table w.r.t the human scale  | C2 | Form, Space and Order” by D.K.Ching. |
|  4 | Briefing about bathroom and Kitchen Design followed by **Showroom Visits** **to Kale/ Interwoood /Dimension/ S. Abdullah.**Data Collection on bathroom and kitchen layout, fixtures and their execution corresponding to given sizes and shapes of spaces and using basic principles of bathroom and kitchen layouts. Study of bathroom and kitchen fixtures. Study of different types of kitchen and bathroom layouts in different buildings (minimum 3 cases) with correct layout dimensions, clearances and presence of natural light and ventilation. | C5 | Time-Saver Standards for Building Types by Joseph De Chiara And John Hancock CallenderChapter-1: Residential- Bathrooms & KitchensTime-Saver Standards for Interior Design and Space Planning by Joseph De Chiara And Julius PaneroChapter-1: Planning and Design of Interior Spaces: Residential Spaces |
|  5-6 | Proposed Design of bathrooms (Architectural Plans, Elevations and Sections). | P6 | Bath Planning – Guidelines, Codes, Standards (2nd Edition) by Julia Beamish & Kathleen ParrotChapter 4- Human Factors and Universal Design FoundationChapter 6- Bathroom Planning |
|  7-8 | Draw layouts of kitchens according to given sizes, shapes and types.Proposed Design of Kitchen (Architectural Plans, Elevations and Sections). | P6 | Kitchen Planning – Guidelines, Codes, Standards (2nd Edition) by Julia Beamish & Kathleen ParrotChapter 4- Human Factors and Universal Design FoundationChapter 6- Kitchen Planning |
| 9 |  | Mid Term Exam |
|  10-11 | * Design of “Studio apartment”
* The apartment must offer the intelligent use of space with the characteristics of uniqueness in terms of aesthetics, views and environmental considerations.
* Spatial requirements:
1. A bed with bath and dress
2. Living
3. Kitchenette + Dining
4. Study area
 | C5 | Time-Saver Standards for Building Types by Joseph De Chiara And John Hancock CallenderChapter-1: Residential  |
| 12-14 | * Ideas, Concept, Concept development, relationship diagram
* Layout Planning
* Study Model
 | P6 | Drawing Architecture and the Urban by Sam JacobyChapter 2: AnalysisDrawing Architecture and the Urban by Sam JacobyChapter 2- Comparative Matrices |
|  15 | Elevation + Sections + Isometric Views  | P6 | Drawing Architecture and the Urban by Sam JacobyChapter 2- Architecture |
|  16 | Final Submission Final Viva | P6 |  |