**ARCHITECTURE DEPARTMENT**

**School of Architecture & Planning**

**University of Management & Technology Lahore**

**title:** Architecture Design Studio-1

**Course code:**AR-211

**CLASS:** Batch-12,  **SEMESTER:** Fall 2022

**RESOURSE PERSONS:ZahidTauqeer, Usman Muhammad Buksh, Hassan Jafri,**

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**FIRST PROJECT TITLE:**

**15 Marla JOINT FAMILY HOUSE**

**Duration: 8Weeks**

**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.

**Program Educational Objectives (PEO’s)**

**PEO 1:** Ability to think creatively and identify new trends in Architectural design

**PEO 2:** Critical learning for a broad function in various areas of Architectural sciences including structural, mechanical, electrical, environmental, earthquake, and construction management

**PEO 3:** Ability to keep themselves abreast with recent developments in the relevant Architecture.

**PEO 4:** Spirit of discipline and respect for the code of ethics of the profession.

**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 1Architectural Knowledge:** An ability to apply knowledge of mathematics, science, architectural fundamentals and an architectural specialization to the solution of complex architectural problems.

**PLO 2Design Analysis:** An ability to identify, formulate, search literature, and analyze complex architectural problems reaching substantiated conclusions using principles of natural sciences and architecture.

**PLO 3Design/Development of Solutions:** An ability to design solutions for complex architecture problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

**PLO 4Case study analysis:** An ability to investigate complex architecture problems in a methodical way including literature survey, design and conduct of experiments, analysis and interpretation of experimental data, and synthesis of information to derive valid conclusions.

**PLO 5Modern 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 6The Architect and Society:** An ability to apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional architectural practice and solution to complex problems.

**PLO 7Environment and Sustainability:** Ability to understand the impact of professional architectural solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

**PLO 8Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of architectural practice.

**PLO 9Individual and Team Work:** An ability to work effectively, as an individual or in a team, on multifaceted and/or multidisciplinary settings.

**PLO 10Communication:** An ability to communicate effectively, orally and written, on complex architectural activities with the architectural community and with society at large, such as being able to comprehend and write effective reports, design documentation and make effective presentations. To develop an understanding of architectural language through manual and digital ways, in order to make working drawings and presentable sheets using different rendering modes.

**PLO 11Project Management:** An ability to demonstrate management skills and apply architectural principles to one's own work as a member and/or leader in a team and to manage projects in a multidisciplinary environment.

**PLO 12Lifelong Learning:** Ability to recognize the importance of, and pursue lifelong learning in the broader context of innovation and technological developments.

**Course learning outcomes (CLO’s)**

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

1. How to resolve a complex project brief and produce a piece of architecture.(C1)
2. To understand the issues involved in functional and environmental planning of a general hospital.(C2)
3. To develop master plan of a project comprising various functions/components.(C3)
4. To carry out space planning and linkages of various functions of a general hospital. .(C4)
5. To develop understanding about structural and services details of the hospital building.(C5)
6. To be able to prepare and present the project in comprehensive form.(C6).

**Mapping of CLO’s to Program’s learning outcomes (PLO’S)**T

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester** | **Course Code** | **Title** | **Course Learning outcomes** | **PLO 1: Architectural Knowledge** | **PLO 2: Design Analysis:** | **PLO3: Design/Development of Solutions Design/Development of Solutions Design/Development of Solutions Design/Development of Solutions** | **PLO 4: Case study analysis** | **PLO 5: Modern Tool Usage** | **PLO 6: The Architect and Society** | **PLO 7: Environment and Sustainability** | **PLO 8: Ethics** | **PLO 9: Individual and Team Work** | **PLO 10: Communication** | **PLO 11: Project Management** | **PLO 12: Lifelong Learning** |
| **3thSEMESTER** | **AR-211** | **Architecture Design Studio-II** | 1. How to resolve a complex project brief and produce a piece of architecture.(C1)
 |  | √ |  |  |  |  |  |  |  |  |  |  |
| 1. To understand the issues involved in functional and environmental planning of a general hospital.(C2)
 |  |  | √ |  |  |  |  |  |  |  |  |  |
| 1. To develop master plan of a project comprising various functions/components.(C3)
 |  |  | √ |  |  |  |  |  | √ |  |  |  |
| 1. To carry out space planning and linkages of various functions of a general hospital. .(C4)
 |  |  |  |  |  |  | √ |  |  |  | √ |  |
| 1. To develop understanding about structural and services details of the hospital building.(C5)
 |  |  |  |  |  |  |  |  |  | √ |  |  |
|  |  |  | 1. To be able to prepare and present the project in comprehensive form.(C6).
 |  |  |  |  |  |  |  |  |  |  | √ | √ |

**PROJECT INTRODUCTION:**

All Humans have the capacity to express their emotions in verity of ways like a poet expresses himself through words and the painter through canvas etc. The students are expected to take it as a challenge and try to organize the required spaces through creative and innovative techniques and Design Concepts learned in the previous semester.Emergence of such a dwelling shall be expected to possesses not only an interesting and strong Architectural Form but also a feeling of comfort and coziness.

**OTHER CONSIDERATIONS**

A house is a [building](https://en.wikipedia.org/wiki/Building) that functions as a [home](https://en.wikipedia.org/wiki/Home), ranging from simple [dwellings](https://en.wikipedia.org/wiki/Dwelling) such as rudimentary [huts](https://en.wikipedia.org/wiki/Hut) of [nomadic tribes](https://en.wikipedia.org/wiki/Nomadic_tribes) and the improvised [shacks](https://en.wikipedia.org/wiki/Shack) in [shantytowns](https://en.wikipedia.org/wiki/Shantytown) to complex, fixed structures of wood, brick, concrete or other materials containing plumbing, ventilation and electrical systems. Houses use a range of different [roofing](https://en.wikipedia.org/wiki/Roofing) systems to keep precipitation such as rain from getting into the dwelling space. Houses may have [doors](https://en.wikipedia.org/wiki/Door) or [locks](https://en.wikipedia.org/wiki/Lock_%28security_device%29) to secure the dwelling space and protect its inhabitants and contents from burglars or other trespassers. Most conventional modern houses in Modern cultures will contain one or more [bedrooms](https://en.wikipedia.org/wiki/Bedroom) and [bathrooms](https://en.wikipedia.org/wiki/Bathroom), a [kitchen](https://en.wikipedia.org/wiki/Kitchen) or cooking area, and a [living room](https://en.wikipedia.org/wiki/Living_room). A house may have a separate [dining room](https://en.wikipedia.org/wiki/Dining_room), or the eating area may be integrated into another room. Some large houses in North America have a [recreation room](https://en.wikipedia.org/wiki/Recreation_room). In traditional agriculture-oriented societies, [domestic animals](https://en.wikipedia.org/wiki/List_of_domesticated_animals) such as chickens or larger livestock (like cattle) may share part of the house with humans.

**DESIGN CONSIDERATIONS:**

The students must design the project with some THEME, STYLE i.e. Mughal, Moorish, Spanish, Straight Line etc, the methodology would be,

* 50% would be Permissible Foot Print Built-up area
* First opt the design project style
* Make case studies for Opted Style
* Read the design elements of selected styles
* Interior floor Space Schedule / Planning
* Final Product would be similar as opted style.

**SITE AND SITE ANALYSIS:**

The students are given a hypothetical site measuring 15 marlas, having known context and located in a planned Housing Society in Lahore.All the norms and conditions of the site need to be kept in mind before starting the project like access roads, front elevation, and maximum site views along with natural conditions like wind direction, sun direction etc. The students have to understand all the site parameters and their impact on the house design by collecting, analyzing and compiling all the relevant data and presenting in the form a comprehensive drawing.

**CASE STUDIES**

Presentation on selected housing layouts/design elements:

* Houses in Bahria Town
* Houses in DHA
* Houses in Model Town
* Houses Burki Road
* Other areas may also be selected in consultation with the instructors.

**SPATIAL REQUIREMENTS:**

Students will define and determine the joint family members and will prepare a schedule of ALL the type of spaces required by them, their size, shape , number, preferable location in the building eg. Basement, Ground, 1st. 2nd. Flooras well as a simplified brief of Interior Space Finishing.

**RECOMMENDED READINGS:**

1. **TSS** Building types**,**
2. Wright sized houses,
3. Twentieth century houses,
4. 99 theme houses

**Project learning:**

* For the students to understand working on a live project.
* To help them revise whatever learnt in the previous year.
* Conducting the site analysis and working on conditions of a chosen not given site and working under special requirements.
* Learning how to build up one’s own project.
* Development and learning of a cognitive approach how to ***think out of the box.***

**SUBMISSION REQUIREMENTS:**

All plans properly drafted accordingly to scale

1. Complete set of properly drafted plans sections and elevations
2. Free hand 3d sketches and model on scale as decided by the course instructors.
3. One page write up describing the phenomenon behind the design philosophy
4. Presentation sheets

**Weekly Action Plan**:

 6 weeks of project life and the 7th week for final submission and jury.

***Week 1-2***

* Development of Design concept/Criteria & functional relationship/bubble diagram

Design Development. Site inventory & Analysis. Study/Analysis of Environmental issues (kindly refer to the course schedule)

***Week 3:***

* Single line floor plan w.r.t site on scale 1/8”=1’-0”
* Consider all issues related to site conditions and client’s special requirements.

**(Submission stage 1, marks25%)**

***Week 3-4:***

Development of Design concept/Criteria

* **Double line floor plan** (scale 1/8”=1’-0”)

Showing sizes of spaces, doors, windows, stairs with proper notations, interior layouts of spaces including kitchen and washrooms.

* **Two cross-sections** (scale 1/8”=1’-0”)

Showing finish floor levels ( if any), buildings/ceiling heights, all levels, structural systems e.g walls/columns, beams/slabs, building form/structures etc.

* **Two elevations** (scale 1/8”=1’-0”)

Front and side (showing building heights, exterior finishes, roof form, doors/windows, sill/lintel heights, steps, human figures, trees, cars etc.

* **Study model** (scale 1/4”=1’-0”)

Showing building/roof form

**(Submission stage 2, marks35%)**

***Week 5-7:***

**STAGE 3Final submission.**

* **Site plan**: 1/16”=1’-0”

Showing driveway/pathway/landscaping/ parking (cars, motorcycles)

Building with roof plan as well as shadows.

* **ALL Floor plans:** 1/8”=1’-0”

Showing walls/columns/doors/windows /interior layout of all spaces with furniture, equipment, appliances, fixtures etc.

* **Two elevations:** 1/8”=1’-0”

 Showing exterior finishes rendering shadows, building heights, sill/lintel heights, steps/stairs, trees, cars,Human figure etc.

* **Two Building Cross Sections:** 1/4”=1’-0”
* **One exterior wall section** 1/2”=1’-0”

Showing all details from foundation to the top of the building e.g. foundation depth/steps, plinth height, window sill, lintel height, flooring, steps/stairs with tread and riser dimensions, ceiling heights, slab thickness, roofing materials, parapet wall etc.

* **TWO 3D Views –Two point perspective view of Building Exterior and One Interior View -**

Properly rendered using Ink, Lead / color pencils etc.

* **Study model :** 1/4”=1’-0
* **FINAL JURY**

**(Date to be provided during the session)**

**Submission stage 3, marks40%**

***TOTAL=***

***STAGE-1+STAGE-2+STAGE-3=***

***25%+35%+40%=100%***

**Note:** Relevant data will be provided at different stages

**STUDIO POLICY:**

**APPLICABLE FROM 01 OCT 2022**

**FALL 2022 ON ALL BATCHES**

 Architecture Studios will practice code in order to ensure the respect of others in terms

of color, gender, religion, race and cadre and also to discourage cheating, lying, stealing

etc.

 Students are instructed to come and leave the studio as per scheduled time and any

deviation prior to the studio instructor’s consent will not be entertained.

 The studio and counseling hours schedule will be mentioned on course outlines and also

communicated through email.

 All progress or other studio activity missed must be completed according to the terms

clarified by the individual instructor.

 It is the responsibility of students, instructors and administrative staff to ensure studio

decorum, cleanliness and safety of equipment.

 Every student can use the allocated space in studio comfortably with respect to his/her

surroundings in terms of sound levels, language and humor used etc.

 Only authorized members (students, instructors and administrative staff) will be allowed

to enter the studio.

 Architecture Studio instructors should establish the transparent assessment methods in

order to ensure quality and excellence.

Student Attendance and Process of Studio Work

1. The attendance is a serious concern in Architecture Studios. The students only adhering

to the following conditions will qualify for Final Examination.

2. A student is considered absent if he comes above 15 minutes late after the scheduled

time.

3. No student is exempted from submission of assignments and projects in any case. The

submission are considered Late if the following conditions apply.

a. Student must meet the deadline, specified by the teacher, for “Late Submission”.

For each Studio Project Work Maximum 6 absences are allowed

Minimum & Preferred Attendance Level 80%

b. A deduction of up to 10% (as decided by the resource person and batch advisor)

is applicable on the grades given in the case of all “Late Submissions”.

4. The hand drafting / manual drawings are mandatory for students up till 4th semester.

From

5 th semester onwards, preliminary work should be manual and mode of final presentation

is digital.

**Assessments and Evaluation Criteria**

1. Two projects are given in a semester. Total 4 projects in a year.

2. In each studio, discussion and debate among students is generated. Each student is

required to bring innovative ideas of his/her own.

The following assessment and evaluation criteria for studio learning shall be followed:

Dimension Internal Evaluation External Jurors

Basic Studio – 1st Year 90% 10%

2 nd Year 80% 20%

3 rd Year 70% 30%

4 th Year 60% 40%

9 th Semester 50% 50%

10th Semester 40% 60%

Requirements for promotion or repetition of failed course/s

To pass a precedent design studio course will be mandatory to be considered eligible for taking

up the design studio course in the next semester. The following policy will apply for promotion

in design studio courses:

1. Basic design studio - Architectural design studio-VI:

i) The student has passed the pre-requisite studio course.

2. Thesis Design:

i) The student has passed all the pre-requisite studio courses till eighth semester.

ii) He/ she has cleared all the theory courses till eighth semester.

Approved by:

CoD Architecture, SAP Dean SAP

Dr Sana Malik Dr Fariha Tariq

**ATTENDANCE POLICY:**

**APPLICABLE FROM 01 OCT 2022**

**FALL 2022 ON ALL BATCHES**

1. The student will be marked ABSENT whose portal is blocked due to fee or any other reason.

2. Students scoring less than 80% attendance will be marked S.A (SHORT ATTENDANCE) and will

be intimated before Mid and Final term examinations.

3. Participant leaving the mid/end term exams/assessment without approval shall result in the

award of an ‘F’ grade.

4. Students with previous F, SA or W grades will not be allowed to study subjects with time clash in

the next semester.

5. Students from gulf countries are allowed to go for Iqama renewal, as per UMT policy. The Iqama

renewal is possible 6 months in advance. Iqama renewal for expats is possible while they are

outside Saudi Arabia and UAE. No one will be accommodated at the eleventh hour.

6. Late arrivals are allowed only till 15 minutes. Afterwards the student will be graded absent for

the whole session.

7. Students with only 50% (or less) attendance, before midterm, will be graded as SA and will not

be allowed to sit in midterm exam. Especially for final year students who are attempting their

thesis project, they will not be allowed to display their project.

8. All medical issues will be referred to UMT Medical center, psychological issue to UMT clinical

psychology department for verification. The final decision will be by the teachers in charge as

following:

i) In case of prolonged health issues the student will be awarded W-GRADE.

ii) If any medical issue is faced just before the final exam, the student will be awarded I-

grade.

iii) Maternity cases are advised to freeze their semester till the Mid-term exam. They will

be graded I-GRADE if they apply after given Mids and before Finals.

Approved by:

CoD Architecture, SAP Dean SAP

Dr Sana Malik Dr Fariha Tariq

INTERNSHIP POLICY:

APPLICABLE FROM 01 OCT 2022

FALL 2022 ON ALL BATCHES

 Students enrolled in the 3

rd and 4rth year are entitled to undergo an internship

evaluation process at any point during the said time.

 Students can use their personal sources or through OCLP and SAP for internships.

 For Internships 6-8 weeks/ 3-6 Credit hours (20 hours minimum, per week) time is

mandatory with any reputed yet PCATP accredited Firm/ Architect having a minimum

experience of 10 years/ good 10 years standing with PCATP.

 A minimum of 1500 words internship report is mandatory at the end of the Internship

by the student.

 Students doing internship will get the benefit (IN any evaluation) upon satisfactory

performance on the Internship Evaluation Sheet/Report “duly signed by the firm head.

 The department will mark the status of Internship form, with employer.

Approved by:

CoD Architecture, SAP Dean SAP

Dr Sana Malik Dr Fariha Tariq