**University of Management and Technology**

**School of Architecture & Planning**

**Department of Architecture**

**Semester Spring 2023**

**Course Outline**

Course code **AR-602** Course title **Research Methodolgy**

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| Program | M. ARCH |
| Credit Hours | 3+0 |
| Duration | Spring Semester-2023 |
| Pre requisites | - |
| Resource Person | **Arch. Prof. Dr. Saima Gulzar** |
| Counseling Timing  (Room# ) | See office window |
| Contact | [saima.gulzar@umt.edu.pk](mailto:saima.gulzar@umt.edu.pk) |

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

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

**Learning Objective:**

The main focus of this course is to immerse students in a range of research approaches and methods that enable students in an academic or professional setting to explore relevant questions and generate reliable knowledge to solve diverse design research problems. It addresses issues of relevance, soundness, scope and innovation in research design and methods, and clarity, accuracy, precision, consistency, relevance and depth in the analysis and presentation of research findings. In discussing the ethics of research and the regulatory frameworks around data collection from human subjects, students are challenged to exercise sound judgment, fair-mindedness and intellectual integrity in the conduct of research. The main objective of this course is to prepare students to understand research requirements of doctoral research degree.

* To increase the student's understanding of the role of research in architecture.
* To increase the student's abilities to interpret and evaluate research.
* To increase the student's abilities to conduct architecture research.
* To increase the student's abilities to present research results.
* To increase the student's understanding of data, information, and knowledge.

**Learning Methodology:**

Lectures as provided in the schedule of the semester activities

Study of available Literature and recommended books for understanding the research paradigms

Written exercises for improving the writing skills

Understanding the recent architectural research trends through attending seminars and meetings with the researchers

Presentations to improve the presentation skills

**Grade Evaluation Criteria**

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

**Marks Evaluation Marks in percentage**

Class Activity 05%

Assignments 05%

Presentations 05%

Mid Term 20%

Attendance & Class Participation 05%

Paper/ Project 10%

Final exam 50%

Total 100%

**Recommended Text Books:**

**Reference Books:**

* Nicholas Walliman “Research Methods: The Basics”
* Laurel, Brenda. “Design Research: Methods and Perspectives”
* Robert K, Yin. “Case Study Research: Design and Methods (Applied Social Research Methods)
* Creswell, John W. “Research Design: Qualitative, Quantitative, and Mixed Methods Approaches”
* Curedale, Robert. Design Research Methods
* Kumar, Ranji. “Research Methodology”
* Kothari, B.L. “Research Methodology – Tools and Techniques”
* Krathwohl, David. “How to Prepare a Research Proposal”
* Holliday, Adrian. “Doing and Writing Qualitative Research”
* Kirk, Jerome and Marc Millar. “Reliability and Validity in Qualitative Research”
* Cochran. “Sampling Techniques”
* All relevant books and internet website related to the course

**New Reference Books:**

* Patrica Leavy, *“Research Design”* The Gull Ford Press, New York-London
* Sharlene Nagy Hesse-Biber and Patricia Leavy “*Handbook of Emergent Methods*” The Gull Ford Press, New York-London
* Patricia Leavy “*Method Meets Art*”, Second Edition : *Arts-Based Research Practice*
* C. R. Kothari. *Research Methodology: Methods and Techniques*, New Age International Publishers.
* Robert. A. Hanneman, Augustine J. Kposowa and Mark Riddle. “Research Methods for Social Sciences”

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

**Course code AR-602**  **Course title Research Methodology**

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| **Week** | **Course Contents** | **Reference Chapter(s)/ Books** |
| 1 | Foundations of Research: Meaning, Objectives, Motivation, Utility. | Patrica Leavy, *“Research Design”* The Gull Ford Press, New York-London |
| 2 | Research Theory:  Concept of theory, empiricism, deductive and inductive theory. | Nicholas Walliman “Research Methods: The Basics” |
| 3 | Characteristics of scientific method – Understanding the language of research – Concept, Construct, Definition, Variable. | Laurel, Brenda. “Design Research: Methods and Perspectives” |
| 4 | Research Process  Quiz-I  Assignment-I | Nicholas Walliman “Research Methods: The Basics” |
| 5 | Research Ethics  Organizations and ethics committees  Intellectual ownership and plagiarism  Acknowledgement and citation  Responsibility and accountability of the researcher | Nicholas Walliman “Research Methods: The Basics” |
| 6 | Research Ethics  Organizations and ethics committees  Intellectual ownership and plagiarism  Acknowledgement and citation  Responsibility and accountability of the researcher  Paper/ Project Submission Introduction | Nicholas Walliman “Research Methods: The Basics” |
| 7 | Finding and Reviewing the Literature  Library Catalogue  Journals and newspaper  Electronic Databases | Laurel, Brenda. “Design Research: Methods and Perspectives” |
| 8 | Nature of Data:  Theory – abstract statements that make claims about the world and how it works. Research problems are usually stated at a theoretical level.  Quiz-II  Assignment-II |  |

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|  | MID TERM EXAMINATION |  |
| 9 | Nature of Data:  Concepts – building blocks of the theory which are usually abstract and cannot be directly measured. | Creswell, John W. “Research Design: Qualitative, Quantitative, and Mixed Methods Approaches” |
| 10 | Nature of Data:  Indicators – phenomena which point to the existence of the concepts. | Bryman, Alan. “Social Research Methods”  Booley, David. “Social Research Methods” |
| 11 | Nature of Data:  Variables – components of the indicators which can be measured.  Values – actual units of measurement of the variables. These are data in their most concrete form. | Holliday, Adrian. “Doing and Writing Qualitative Research”  Kirk, Jerome and Marc Millar. “Reliability and Validity in Qualitative Research” |
| 12 | Collecting and Analyzing the Secondary Data | Kothari, B.L. “Research Methodology – Tools and Techniques” |
| 13 | Primary Data  Sampling  Data Collection Methods  Quiz-III  Assignment-III | Kothari, B.L. “Research Methodology – Tools and Techniques” |
| 14 | Qualitative Data Analysis | Creswell, John W. “Research Design: Qualitative, Quantitative, and Mixed Methods Approaches”  Holliday, Adrian. “Doing and Writing Qualitative Research” |
| 15 | Quantitative Data Analysis | Creswell, John W. “Research Design: Qualitative, Quantitative, and Mixed Methods Approaches” |
| 16 | Writing the Research Paper  Paper/ Project Submission | Cash, Phyllis. “How to write Research Paper – Step by Step”  Class Activity |