**University of Management and Technology**

**School of Architecture & Planning**

**Department of Architecture**

**Semester Fall-2021**

**Course Outline**

Course code **AR-702** Course title **Advance Research Methods-II**

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| Program | PhD. ARCH |
| Credit Hours | 3+0 |
| Duration | Fall Semester 2021 |
| Pre requisites | AR-701 |
| Resource Person | **Prof. Dr. Saima Gulzar** |
| Counseling Timing  (Room# Faculty Office ) | As Per Time Table |
| Contact | [saima.gulzar@umt.edu.pk](mailto:saima.gulzar@umt.edu.pk) |

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

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

**Learning Objectives:**

This course is developed in continuation to the prior research courses for graduate scholars aiming to prepare them to undertake the architectural research. Academic research is difficult and challenging especially in the professional fields like Architecture. This course will further enhance the capabilities of the students in taking complex architectural issues and providing solutions through appropriate adoption of the selected research methods and interpretation of results. The main focus is on the software’s necessary to interpret the data collected and logical writing for the thesis. The thesis format will also be focused to develop the writing skills in additions to the interpretation and analysis through different techniques.

• To develop skills of critical thinking, quality research, and clear communication

• To appreciate the components of scholarly writing and evaluate its quality

• To develop a wide range of strategies for data collection and analysis including observational and participatory techniques, interviewing skills, survey design, cognitive tasks, sampling, content analysis and coding

• To focus on research thesis writing

**Learning Methodology:**

* Lectures
* Readings and Class Discussions
* Presentations
* Latest Research Papers Review
* Assignments related to studied topics
* Case studies
* Discussion with relevant experts

**Grade Evaluation Criteria**

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

**Marks Evaluation Marks in percentage**

Quizzes 05%

Assignments 10%

Term Paper 10%

Mid Term 25%

Final exam 50%

**Total 100%**

**Recommended Text Books:**

1. Groat, L., and Wang, D., (2013). Architectural Research Methods, 2nd ed., Hoboken, NJ:

John Wiley & Sons.

1. Hensel, M., and Nillson, F., eds., (2016). The Changing Shape of Practice: Integrating

Research and Design in Architecture, New York: Routledge.

1. Owen, R., Macnaghten, P., and Stilgoe, J., (2012). “Responsible Research and Innovation: From Science in Society to Science for Society, with Society”, Science and Public Policy, Vol. 39, No. 6, pp. 751–760.
2. Emmit, S. , ed., (2013). Architectural Technology: Research and Practice, Chichester, UK: John Wiley & Sons.
3. Machi, L. , and McEvoy, B. , (2016). The Literature Review: Six Steps to Success, 3rd ed., Thousand Oaks, CA: Corwin.
4. Bryman, Alan & Bell, Emma (2011). Research Methods (Third Edition), Oxford University Press.
5. Linda Niehaus(2009)Mixed, Method Design: Principles and Procedures. Walnut Creek, CA: Left Coast Press. Chapters 1 and 2..
6. John W Creswell. Research Design, Qualitative, Quantitative and mixed method approaches
7. Bordens, Kenneth and Bruce Abbot. “Research Design and Methods”
8. Kothari, B.L. “Research Methodology – Tools and Techniques”
9. Krathwohl, David. “How to Prepare a Research Proposal”
10. Holliday, Adrian. “Doing and Writing Qualitative Research”
11. Kirk, Jerome and Marc Millar. “Reliability and Validity in Qualitative Research”
12. Cochran. “Sampling Techniques” Cash, Phyllis. “How to write Research Paper – Step by Step” Ranjit Kumar, Research Methodology.
13. Aksamija, A. , (2016). Integrating Innovation in Architecture: Design, Methods and Technology for Progressive Practice and Research, Chichester, UK: John Wiley & Sons.
14. Merriam, S. , and Tisdell, E. , (2016). Qualitative Research: A Guide to Design and Implementation, 4th ed., San Francisco, CA: Jossey-Bass.

**Calendar of Course Contents to be covered during Semester**

Course Code – **AR-702** Course Title – **Advanced Research Methods-II**

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| **Week** | **Topics** | **Reference** |
| 01 | Research in Architecture | **John W Creswell**,  “Research Design, Qualitative, Quantitative and mixed method approaches” |
| Assignment-01 | As per Resource Person | Resource Person |
| 02 | Research in Academic Contexts  Research in Professional Contexts | **Geofrey R Marchzyk.**  **“**Essentials of Research Design and Methodology”  **Ranjit Kumar.**” Research Methodology. A step by step guide for beginners” |
| 03 | Research Process  Understanding the Research Process  Research Objectives  Scope and Limitations  Identification of Research gaps  Synthesis of Research Questions  Criteria for Research Methods  Collection of Data  Analysis and Interpretation of Results  Concluding Research | **Booley, David.** “Social Research Methods” **Chawla, Deepak & Sondhi, Neena** (2011). Research methodology: Concepts and cases, Vikas Publishing House Pvt. Ltd. Delhi. |
| 04 | Architectural Research Methods  Qualitative | **Bryman, Alan & Bell, Emma** (2011). Research Methods (Third Edition), Oxford University Press. |
| Quiz-01 | First quiz after 4 weeks | Resource Person |
| 05 | Architectural Research Methods  Quantitative | **John W Creswell**,  “Research Design, Qualitative, Quantitative and mixed method approaches” |
| 06 | Architectural Research Methods  Experimental | **John W Creswell**,  “Research Design, Qualitative, Quantitative and mixed method approaches”  **Morse, Janice M., and Linda Niehaus** (2009)Mixed, Method Design: Principles and Procedures. Walnut Creek, CA: Left Coast Press. Chapters 1 and 2. |
| 07 | Architectural Research Methods  Mixed-Mode Research Methods | **Morse, Janice M., and Linda Niehaus** (2009)Mixed, Method Design: Principles and Procedures. Walnut Creek, CA: Left Coast Press. Chapters 1 and 2. |
| 08 | Interpretation of Results  Participant Observations and Case Studies, Questionnaires | **George, Alexander L. and Andrew Bennett.** (2004). Case Studies and Theory Development in the Social Sciences. MIT Press. Chapters 1, 3 and 12. **Krosnick, Jon** (2009) "Question and Questionnaire Design" Stanford University and. Stanley Presser. University of Maryland. |
| Assignment-02 | As per Resource Person | Resource Person |
| **09-MID TERM EXAMINATION** | | |
| 10 | Interpretation of Results  Survey  Interviews | **Saris, W., Revilla, M., Krosnick, J. A., and Shaeffer, E.** (2010). Comparing questions with agree/disagree response options to questions with item-specific response options. Survey Research Methods, 4, 61-79.  **Bordens, Kenneth and Bruce Abbot.** “Research Design and Methods”  **Kothari, B.L**. “Research Methodology – Tools and Techniques” |
| 11 | Software’s for Analysis like SPSS, N VIVO | Resource Person |
| 12 | Formulation of Results and Logical Writing | Resource Person |
| Quiz-02 | Second quiz after 8 weeks | Resource Person |
| 13 | Thesis Format Discussion-I (UMT Format) | Resource Person |
| 14 | Thesis Format Discussion-II | Resource Person |
| 15 | Final Presentation/ Submission of Term Paper  Warp-Up Session | Resource Person |
| **16-FINAL TERM EXAMINATION** | | |

**GOOD LUCK**