ARC7103: RESEARCH METHODOLOGY AND SCIENTIFIC WRITING [45 CH]

Description

In this course, guidance is given to students on how to identify a research problem. Instructions are provided which enable students to perform effective literature reviews. Students are presented with various research paradigms and models of methodology and assist with designing an appropriate method for their research. Students are trained in the analysis and presentation of results, exposition of processes and methods used and conclusions drawn. Guidelines outlining the preparation and writing of a research dissertation and or a project are provided at the conclusion of the course.

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Objectives

1. To provide students with a firm foundation/underpinnings of research from which they can undertake a research problem
2. To provide students with an understanding and appreciation of the importance of advanced research in the area of architecture

Course Content

The course will cover the following topics:

1. Definition of Research Methodology **[05 CU]**
2. Research Paradigms in Architecture **[05 CU]**
3. Research Planning and Management **[05 CU]**
4. Types of Research Methods **[05 CU]**
5. Scientific writing including **[15 CU]**
   5.1 abstracts;
   5.2 identifying research problems,
   5.3 research objectives and questions;
   5.4 Interpretation of technical literature (literature reviews);
   5.5 Selection of overall methodological approach;
   5.6 Selection of suitable data collection and analysis techniques;
   5.7 Interpretation and conclusion of the research; and Presentation of research findings
6. Research Ethics and plagiarism **[05 CU]**

Learning Outcomes

At the end of the course the students should be able to:

1. Carry out high quality basic and applied research
2. Select appropriate methods and tools for a specific research work
3. Develop a needs assessment strategy
4. Understand the systematic methodology for developing, implementing, monitoring and evaluating a development programme

Teaching and Learning Pattern

The course will be delivered through a mixture of lectures, seminars, tutorials, illustrations, and group discussions. Lecture material will be supplemented by individual reading by students.

Mode of Assessment
Assessment will be done through continuous coursework and final written examination. Continuous assessment will include assignments, tests and research exercises. A final examination will be offered at the end of the semester. Coursework will carry a total of 40% and a written examination will carry 60%.

Mode of delivery
Lectures (30 hours), Practicals (0 hours). The total contact hours are 30

Recommended Reference Books/ Literature

1. Robert K. Yin, 2003) *Case Study Research: Design and Methods,* 3rd ed. Thousand Oaks. CA: Sage,
2. Creswell, J. W. (2008) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches
3. Graziano, A. M. (2009) Research Methods: A Process of Inquiry (7th Edition)
4. Smith, R. V. (1988) Graduate research: A guide for Students in the sciences