

# NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

This course outline template acts as a guide for writing your course outline. As every course is different, please feel free to amend the template/ format to suit your requirements.

COURSE OUTLINE TEMPLATE			
<b>Course Title</b>	AR 712 Research Methods		
<b>Course Code</b>	AR712	<b>No. of Credits</b>	2
<b>Department</b>	Architecture	<b>Faculty</b>	Dr. K.Thirumaran
<b>Pre-requisites Course Code</b>	Nil-----		
<b>Course Coordinator(s) (if, applicable)</b>	Nil-----		
<b>Other Course Teacher(s)/Tutor(s) E-mail</b>		<b>Telephone No.</b>	9894018599
<b>Course Type</b>	✓ <b>Elective course</b>		

## COURSE OVERVIEW

This course will provide an opportunity for students to establish or advance their understanding of research through critical exploration of research philosophy, paradigms and approaches. This course introduces students to a number of research methods useful for academic and professional investigations of information practices, texts and technologies. Students will use these theoretical underpinnings to begin to critically review literature relevant to their field or interests and determine how research findings are useful in forming their understanding of their work, social, local and global environment. This course permits an understanding of the various decisions and steps involved in writing and publishing a paper, as well as a critically informed assessment of published research.

## COURSE OBJECTIVES

- To Understand Research Philosophy.
- To Describe quantitative, qualitative and mixed methods approaches to research.
- To Identify the components of a literature review process.
- Critically analyze published research To provide students with the tools and skills required to understand research terminology and assess published research.
- To identify the types of methods best suited for investigating different types of problems and questions.

<b>COURSE OUTCOMES (CO)</b>			
<b>Course Outcomes</b>		<b>Aligned Programme Outcomes (PO)</b>	
<p>By the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Apply a range of quantitative and / or qualitative research techniques to various social problems / issues and scientific interventions.</li> <li>2. Understand and apply research approaches, techniques and strategies in the appropriate manner for decision making</li> <li>3. Demonstrate knowledge and understanding of data analysis and interpretation in relation to the research process.</li> <li>4. Conceptualize the research process.</li> <li>5. Develop necessary critical thinking skills in order to evaluate different research approaches utilized in their specializations.</li> </ol>		<p>To get knowledge about the statics tools.</p> <p>To get integrated with social research and scientific techniques.</p>	
<b>COURSE TEACHING AND LEARNING ACTIVITIES</b>			
<b>S.No.</b>	<b>Week</b>	<b>Topic</b>	<b>Mode of Delivery</b>
1.	1 <sup>st</sup> – 4 <sup>th</sup>	Define research, research aim and philosophy; Explain and apply research terms.	Classroom inputs, discussion, seminar presentation, assignments observation of Research papers.
2.	5 <sup>th</sup> -8 <sup>th</sup>	Describe the research process and the principle activities, skills and ethics associated with the Research process.	Classroom inputs, discussion, seminar presentation, assignments observation of Research papers.
3.	9 <sup>th</sup> – 12 <sup>th</sup>	Literature review introduction. Significance of literature review. Writing and publishing a paper and presenting a conference paper	Classroom inputs, discussion, seminar presentation, assignments observation of environmental display, everyday settings.
4.	13 <sup>th</sup> – 16 <sup>th</sup>	Various types of research methods. Over view of field surveys and questionnaire surveys.	Classroom inputs, discussion, seminar presentation, assignments observation of environmental display, everyday settings.

<b>COURSE ASSESSMENT METHODS</b>				
<b>S.No.</b>	<b>Mode of Assessment</b>	<b>Week/Date</b>	<b>Duration</b>	<b>% Weightage</b>
1.	Cycle test -1	6 <sup>th</sup> week	1 hour	10 marks.
2.	Cycle test -2	14 <sup>th</sup> week	1 hour	10 marks.
3.	Seminar	5 <sup>th</sup> week		10 marks
4.	Assignment	13 <sup>th</sup> week		20 marks
5.	End semester examination	End of 16 <sup>th</sup> week	3 hours	50 marks

**ESSENTIAL READINGS : Textbooks, reference books Website addresses, journals, etc**

**References:**

- Linda Groat, "Contextual Compatibility in Architecture: An Issue of Personal Taste?" in J.Nasar (ed.), The Visual Quality of the Environment: Theory, Research, and Application (Cambridge, UK: Cambridge University Press, 1998), 228–253.
- Creswell, J. W. Research design: Qualitative, quantitative and mixed methods approaches. 4th Ed. Thousand Oaks, CA: Sage, 2014.
- Robert C. Meir, William T. Newell and Harold L. Dazier, Simulation in Business and Economics, p.1.
- Marie Jahoda, Morton Deutsch and Stuart W. Cook, Research Methods in Social Relations, p. 4.
- Information Technologist Professor dr.ir. F.W. Jansen, speaking at the faculty of Architecture, TU Delft, May 2000.
- Francis Duffy: "The kind of architectural research I value most fits uncomfortably with academic models of what research ought to be." Duffy,F. (1996) The Value of a Doctorate in Architectural Practice.
- Schön, D. (1992) the theory of inquiry, Dewey's legacy to education. Habraken, N. and M.Gross (1988) Concept Design Games.

**COURSE EXIT SURVEY (mention the ways in which the feedback about the course is assessed and indicate the attainment also)**

Assessment will be based on completion of written coursework and set of seminars and presentations.

Students will develop and run a statistical model analyzing a 'specified problem' then write a data analysis preparation report describing data, steps in developing the model, and methodology. Students will formulate a set of 3 research questions and explain why these

questions are of interest, relevant, and constitute a methodologically viable topic.

The coursework requires students to create a "mock" proposal tailored to a chosen grant or scholarship opportunity, including a description of the project, outline of research design including question, context, objectives, methodology, and contribution to the advancement of knowledge.

**COURSE POLICY (including plagiarism, academic honesty, attendance, etc.)**

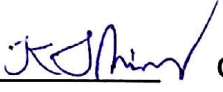
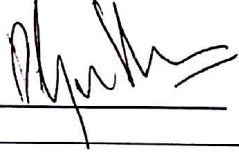
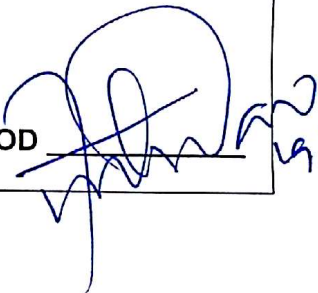
Attendance and participation in the demonstration sessions of practical activities will enable students to receive focused support and formative feedback.

The coursework will provide enough journals and thesis reports of researchers for the students reference.

**ADDITIONAL COURSE INFORMATION**

The faculty is available for consultation at department. Queries may also be e-mailed directly at [ktm@nitt.edu](mailto:ktm@nitt.edu).

**FOR SENATE'S CONSIDERATION**

Course Faculty  CC-Chairperson  HOD  19/11/20