

NIRMA UNIVERSITY

Institute:	Institute of Architecture and Planning
Name of Programme:	Bachelor of Architecture
Course Code:	2AR963
Course Title:	Architectural Design Thesis-II
Course Type:	Core
Year of introduction:	2025

Credit Scheme

L	T	Practical component				C
		LPW	PW	W	S	
-	-	-	-	-	15	15

Syllabus: 15 weeks (15 hours/week)

Total Teaching hours: 225 Hrs.

Course Learning Outcomes (CLO):

At the end of the course, students will be able to –

- Develop an architectural design concept informed by literature, case studies, site analysis, and programmatic requirements. **[BL3]**
- Synthesize spatial, structural, environmental, and regulatory considerations into a cohesive architectural proposal. **[BL4,5]**
- Effectively convey design intent through drawings, models, and visual representations for critique and evaluation. **[BL6]**

Unit	Content	Teaching hours	BL
I	Review of Design Research Findings, Case reviews and its relation with design, theory and practice (Literature, case studies, site analysis, and program requirements) Formulating the Design Concept (Identifying key themes, objectives, and narratives, Spatial Organization) Contextual Integration (Site responsiveness, environmental, social, cultural, historical considerations) Preliminary Design Explorations (Sketches, massing studies, and zoning diagram)	75 Hrs	BL3
II	Architectural Programming & Spatial Development (Translating ideas into functional spatial arrangements) Structural & Material Considerations (Selection of materials based on context, sustainability, and innovation) Environmental & Regulatory Compliance (Adhering to building codes, accessibility norms, and safety regulations) Iterative Design Process (Refining conceptual design through faculty & peer critiques)	75 Hrs	BL4,5
III	Architectural Drawings & Representation (Development of site plans, floor plans, sections, and elevations, physical models, digital models, simulations) Technical Drawings & Documentation (Construction details, services layout, and material specifications, MEP systems, HVAC systems) Final Presentation & Report (Application of Verbal, visual, and written presentation techniques)	75 Hrs	BL6

Suggested Readings:

Books on Architectural Design & Research Methodology	1. Groat, L., & Wang, D. (2013). <i>Architectural Research Methods</i>. Wiley. 2. Ching, F. D. K. (2014). <i>Architecture: Form, Space, and Order</i>. Wiley. 3. Watson, D., & Crosbie, M. J. (2017). <i>Time-Saver Standards for Architectural Design: Technical Data for Professional Practice</i>. McGraw-Hill.
Case Study & Precedent Analysis Resources	4. Hertzberger, H. (2009). <i>Lessons for Students in Architecture</i>. 010 Publishers. 5. Unwin, S. (2010). <i>Analysing Architecture</i>. Routledge. 6. Lynch, K. (1960). <i>The Image of the City</i>. MIT Press. 7. Alexander, C. (1977). <i>A Pattern Language: Towns, Buildings, Construction</i>. Oxford University Press.
Standards, Codes, and Guidelines	8. National Building Code (NBC) of India – BIS, India. 9. Universal Accessibility Guidelines – CPWD, India. 10. Environmental & Sustainability Standards – IGBC, GRIHA, LEED Manuals. 11. Local Development Control Regulations (DCRs) – City-specific guidelines. 12. Ministry of Labour & Employment. (1948). <i>The Factories Act, 1948</i>. Government of India 13. Indian Council of Medical Research. (2017). <i>National ethical guidelines for biomedical and health research involving human participants</i>. Government of India
Design Process & Communication	14. Laseau, P. (2001). <i>Graphic Thinking for Architects and Designers</i>. Wiley. 15. Ching, F. D. K. (2015). <i>Design Drawing</i>. Wiley. 16. Lupton, E., & Phillips, J. (2015). <i>Graphic Design: The New Basics</i>. Princeton Architectural Press
Note: The mentioned references are suggestive; students should refer to design thesis-related sources or follow their guide's recommendations.	

NIRMA UNIVERSITY

Institute:	Institute of Architecture and Planning
Name of Programme:	Bachelor of Architecture
Course Code:	2AR962
Course Title:	Research Proposal
Course Type:	Core
Year of introduction:	2023

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Credit Scheme

L	T	Practical component				C
		LPW	PW	W	S	
1	-	-	-	2	-	3

Course Learning Outcomes (CLO):

At the end of the course, students will be able to -

- Define the nuances of organizing Research Thought. [BL2]
- Identify what instigates research interest in a subject. [BL3]
- Take part in detail Literature Review of the World of Knowledge of specific subject. [BL4]
- Evaluate and analyze the research methods for application to specific research. [BL5]
- Develop a Research Proposal in the field of architecture and allied fields. [BL6]
- Formulate a Research idea and method that they will pursue in the following semester. [BL6]

During the course, students will be able to -

Syllabus: 15 weeks (3 hours/week)

Total Teaching hours: 45 Hrs.

Sr. No	Syllabus: Topic	Content	Teaching hours:	BL
1	Introduction and Reflection	• Introduction to Research Proposal • Similarities and Differences between Design and Research... Why is it needed?	3 hours	BL2
2	Retrospection and Introspection	• Reflection on the learning from the previous semesters • Self-skills and inclination SWOT: • Exploration into research interests	3 hours	BL2,3
3	Know the World of the Subject-I	• Identify Research Area. • Epistemology, Ontology and Etymology of Research. • Paradigms of Research • Literature Review • Attempting Draft Proposal	3 hours	BL2,3
4	Know the World of the Subject-II	• Documentation Research in Undergraduate. • Research trends in architecture. Lens to observe: multi-disciplinary research - core versus ancillary • Attempting Draft Proposal	3 hours	BL3,4
5	Writing the First Draft	• Research Questions/ Aim/ Objectives, • Rationale for Intervention • Scope and Limitation • Selection of Theory and Methods • Structure	9 hours	BL5
6	Finetuning First Draft	• Fine tuning Research Area. • Critical Thinking and Creative Thinking. • Looking at Frameworks, Theories, Models and Concepts.	3 hours	BL5,6

		Referencing.		
7	Second Draft	- Case Study Research. - Looking for Theoretical Underpinnings - Looking at similar Research work. - Formulating a Research Program. - Research Design: Methodology and Method. - Scoping. Proposal Studies from various sources.	6 hours	BL3,4
8	Finetuning Second Draft	- General Methodology. - Inductive-Deductive-Abductive Research. - Exploratory-Descriptive-Explanatory Research. - Understanding Research. - Content Analysis. Interviewing. Ethnographic Survey. Field Survey. Questionnaire Survey.	6 hours	BL5,6
9	Final Draft Stage	- Action/Applied vis a vis Desk Research. Comparative/ Cumulative Research. Design Thesis. Research Thesis. - Operationalization of the Proposal with a Methodology and Theoretical Framework. - Getting published and writing reviews. Presentation. Introduction to Research Grants.	9 hours	BL5,6

Suggested Readings:

1. Raymond Lucas, 2016. Research Methods for Architecture.
2. Creswell, J.W. and Creswell, J.D., 2017. *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
3. Groat, L.N. and Wang, D., 2013. *Architectural research methods*. John Wiley & Sons.
4. Hammond, M. and Wellington, J., 2012. *Research methods: The key concepts*. Routledge.
5. Lucas, R. (2016). Research Methods for Architecture. Laurence King.
6. Mitrovic, B. (2011). Philosophy for architects. New York: Princeton Architectural Press.
7. Moses, J. and Knutsen, T., 2012. *Ways of knowing: Competing methodologies in social and political research*. Palgrave Macmillan.
8. Sanoff, H., 2016. *Visual Research Methods in Design (Routledge Revivals)*. Routledge.
9. Sarvimäki, M. (2018). Case study strategies for architects and designers: integrative data research methods. New York, NY: Routledge.
10. Smith, K. H. (2012). Introducing architectural theory: debating a discipline. New York: Routledge.
11. Snyder, J.C., 1984. Architectural Research. Environmental Design Series; v. 6; Variation: Environmental Design Series (Stroudsburg, Pa.); v. 6.
12. Todd, A.L., 1979. *Finding facts fast*. Ten Speed Press.
13. Turabian, K.L., 2018. *A manual for writers of research papers, theses, and dissertations: Chicago style for students and researchers*. University of Chicago Press.
14. Warburton, N., 2006. *The basics of essay writing*. London: Routledge.
15. Wehrli, R., 1986. *Environmental design research: How to do it and how to apply it*. New York: Wiley.
16. Zeisel, J., 1984. *Inquiry by design: Tools for environment-behaviour research* (No. 5). CUP archive.