SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMAKURU
School of Architecture

Vision

To establish as a pioneer institute in planning and design of built environment through excellence in teaching, research, consultancy and design innovation.

Mission

- To create conducive academic ambience that nurtures aesthetic attitude, technical confidence, and critical thinking among students.

- To develop research and design innovation skills in students to address various societal needs.

- To inculcate professional ethics based on values and entrepreneurial skills among students.

Program Educational Objectives (PEO's)

Graduates from school of Architecture will achieve the following Program Educational Objectives within few years of graduation

- Graduates will showcase capabilities for competent practice of Architecture and enhance career by pursuing higher education
- Graduates will exhibit strong design skills to solve complex real-time problems through high technical skills and strong communication along with the knowledge of various domains of architecture including landscape, architectural conservation, interior design, energy conscious architecture, urban design and planning, construction project management, alternative building techniques, building information modeling and digital architecture
- Graduates will demonstrate professionalism, ethical conduct, societal concerns, effective team work and adapt to dynamic global and local needs engaging in lifelong learning

Program Specific Outcomes (PSO's)

PSO1: Develop critical thinking to analyze, evaluate, synthesize and generate appropriate design solutions for varying scales and levels of complexity.

PSO2: Explore possibilities and application of various building materials, construction techniques, building systems and services.

PSO3: Draw inspiration from divergent architectural theories and history along with varied indigenous and vernacular settings.

PSO4: Demonstrate effective communication skills to present architectural works and comprehend professional practice.

Programme Outcomes (PO's)

1. **Architectural Knowledge:** Apply the knowledge of design principles, building systems & technologies, humanities and environmental aspects in design, planning and construction.
2. **Problem Analysis**: Identify, formulate, review research literature and analyse various scales of architectural projects to arrive at tangible conclusions.
3. **Design/ Development of solutions:** Design solutions to integrate interdisciplinary approach for contextual issues pertaining to built-environment.
4. **Conduct investigations of complex problems:** Use research-based knowledge and methodologies including context analysis, case studies, project requirements and synthesis of the information to provide context sensitive solutions.
5. **Modern tool usage:** Identify, select and apply the appropriate tools, techniques and resources to predict, design and simulate qualitative and quantitative outcomes with an understanding of its limitations.
6. **The Architect and Society:** Apply reasoning to address socio-cultural, legal and safety aspects relevant to the professional practice and social responsibility.
7. **Environment and Sustainability:** Understand the importance of the architectural design solutions in environmental and social contexts to demonstrate the need for sustainable built environment.
8. **Ethics:** Apply ethical principles and commit to professional ethics, responsibilities and norms of Architectural profession.
9. **Individual and teamwork:** Function effectively as an individual as well as a team member or a leader in diverse interdisciplinary settings.
10. **Communication:** Comprehend and effectively communicate issues related to architecture, community and society at large through documentation, graphical and verbal presentations.
11. **Project management and Finance:** Demonstrate knowledge and understanding of professional and management principles to apply to individual work, as a team member and as a leader, to manage projects in multidisciplinary environments.
12. **Life-Long learning:** Recognize the need for, have the preparation and ability to engage in independent and lifelong learning in the changing domain of societal and technological advancement and adopt it in individual's professional practice.

SYLLABUS

FOR

IX and X semester B.ARCH

2025 -2026

School of Architecture

Siddaganga Institute of Technology

(An Autonomous Institution affiliated to V.T.U., Belagavi, Approved by AICTE, New Delhi Accredited by NAAC with 'A++' Grade and ISO 9001:2015 Certified)

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SIDDAGANGA INSTITUTE OF TECHNOLOGY, TUMAKURU

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B.ARCHITECTURE

SCHEME OF TEACHING AND EXAMINATION (270 Credits Scheme)

(Applicable to the students admitted during 2021-22)

IX Semester

Sl. No.	Course and Course Code		Course Title		Teaching / Paper setting Dept.	Teaching hrs/week					Examination					Credits
						Lecture	Studio		Practical	Self-Study Component	Duration in hrs.	Mode of Exam	CIE Marks	SEE Marks	Total Marks	
							Core	Applied								
						L	S		P	SS						
1.	PCC	9ATDP	Architectural Design Project				12	6				Viva	50	50	100	**18**
2.	PEC	9ARE	Professional Elective-V	Digital Architecture (9ARE2) Architecture Journalism (9ARE3) Disaster Management (9ARE4)				2				Term Work	50	50	100	**2**
3.	PEC	9ATPO	Professional Elective-VI (Online)			Any online course of NPTEL, MOOC etc. To be completed before IX SEE						-	100	-	100	**2**
	Total						12	8					**200**	**100**	**300**	**22**

Note: PCC: Professional Core Course, **BSAE**: Building Science and Applied Engineering Course, **HSMC**: Humanity and Social Science & Management Course, **SEC** –Skill Enhancement Course, **AEC**- Ability Enhancement Course, **PEC**- Professional Elective Course, **NCMC**- Non-Credit Mandatory Course, **OC**- Online Course

L –Lecture, **S**- Studio, **P**-Practical, **SS** – Self-Study Component, **CIE**: Continuous Internal Evaluation, **SEE**: Semester End Examination

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B.ARCHITECTURE

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X Semester

Sl. No.	Course and Course Code		Course Title	Teaching / Paper setting Dept.	Teaching hrs/week				Examination					Credits
					Lecture	Studio	Practical	Self-Study Component	Duration in hrs.	Mode of Exam	CIE Marks	SEE Marks	Total Marks	
					L	S	P	SS						
1.	AEC	10ATP	Professional Training		16 Weeks					Viva	50	50	100	**22**
			Total								**50**	**50**	**100**	**22**

Note: PCC: Professional Core Course, **BSAE**: Building Science and Applied Engineering Course, **HSMC**: Humanity and Social Science & Management Course, **SEC** –Skill Enhancement Course, **AEC**- Ability Enhancement Course, **PEC**- Professional Elective Course, **NCMC**- Non-Credit Mandatory Course, **OEC**- Open Elective Course

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SIDDAGANGA INSTITUTE OF TECHNOLOGY
Tumakuru-572103

(An Autonomous Constituent Institution of Visvesvaraya Technological University, Belagavi)

SCHOOL OF ARCHITECTURE

DETAILED SYLLABUS FOR
NINTH SEMESTER
B. ARCHITECTURE

ARCHITECTURAL DESIGN PROJECT

Contact Hours/Week	:	12	Credits	:	18
Total Lecture Hours	:	--	SEE Marks	:	50
Total Studio Hours	:	180	CIE marks	:	50
Course Code	:	9ATDP	Exam mode:	:	Viva

Course Objectives: This course will enable students to:

1. Enhance their ability to comprehend the nature of the architectural problem
2. Prepare a brief or program which can set the framework for the design solution
3. Propose appropriate solutions to the issues raised through architectural design.
4. Detail the architectural systems and facilities according to the objectives of the project

COURSE OUTLINE:

Architectural Design projects can be of any scale and size (in terms of built areas) as long as the student demonstrates the required rigor and depth to merit consideration as a final project. It is expected that all genres of projects (study or design) would end with a design solution; in fact, all projects should be grounded in some critical inquiry.

The stages can be fine-tuned depending on the resources. This project is expected to be run as a studio with individual guidance under a project coordinator and assisted by guides.

1. Project seminar – The student shall present a seminar on the project topic which would include the following;

i. Precedents of similar projects, either actual visits to such projects or through literature reviews.

ii. Cultural, contextual, historical, technological, and programmatic concerns of the project.

iii. Prevalent or historical models of an architectural approach to such projects and a critique of such models and

iv. A rhetorical or speculative statement that would be the basis of further investigation. (For example, Architecture in the information age: Design of libraries in the new virtual reality regime). Documentation that is a part of this presentation shall be taken as completion of the "case study" part of the final requirement

2. **Mid Reviews** – There shall be a review to clarify the conceptual statements and assumptions of the students. Students shall present a clearly articulated response to context, program, and users. The conceptual framework and preliminary architectural scheme shall be the end products of this stage.
3. **Final Review** – Final review should consist of all the works that would be presented at the viva.

NOTE:

a. Completion of Research skills and project introduction (IX Sem) is mandatory to carry Architectural Design Project.
b. The final output shall include a report, all drawings, study models, and a presentation model.
c. The report in the printed form shall discuss the program, site- analysis, literature review, case studies, design criteria, concept, and detailed design.
d. Two copies of the reports shall be submitted along with drawings and models.
e. At the time of the Viva examination, the student shall show the jurors the portfolio containing the evolution of his/her design from the beginning to the final output.
f. All the drawings and reports shall be certified by the Head of the Department as bonafide work carried out by the student during the semester.

REFERENCE BOOKS:

1.	All references will be project specific and include a wide range of subjects (history, theory, services, material, and construction) from architecture and allied fields addressed through critical papers, essays, documented studies, and books.

Course Outcomes: After the completion of this course, students will be able to:

1. **Formulate** a unique architectural thesis topic that addresses contemporary or future challenges in the built environment.
2. **Conduct** structured research using qualitative or quantitative methods to support and inform the design thesis.

3. **Translate** research findings into a coherent architectural program, clearly defining user needs, spatial requirements and functions.
4. **Demonstrate** a thorough understanding of site context including physical, social, cultural and environmental factors and respond through appropriate design interventions.
5. **Develop** a comprehensive architectural solution that synthesis form, function, structure, construction systems and sustainability.
6. **Integrate** building technologies, material, services and environmental strategies in a way that enhances performance, safety and user comfort.
7. **Communicate** the design process and final proposal effectively through architectural drawings, diagrams, physical models and digital media.
8. **Demonstrate** autonomy, initiative and critical thinking in decision making throughout all stages of the thesis project.
9. **Present** and defend the thesis project professionally and prepare complete documentation that needs academic standards.

Mapping of Course Outcomes (COs) to Program Specific Outcomes (PSOs)

		POs											PSOs			
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
COs	CO1	1	3											3			
	CO2		3		3	1										3	
	CO3		3	3	3							1		3			
	CO4				3		3							3			
	CO5			3				3							3		
	CO6			3		3		3							3		
	CO7					1					3						3
	CO8									3							3
	CO9								3		3		3				3

PROFESSIONAL ELECTIVE - V

Contact Hours/Week	:	02	Credits	:	2.0
Total Lecture Hours	:	-	CIE Marks	:	50
Total Studio Hours	:	30	SEE Marks	:	50
Course Code	:	9ARE	Exam Mode	:	Viva

9ARE2: Digital Architecture

Course Objectives: This course will enable students to:

1. Get introduced to the application of Digital Architecture.

COURSE OUTLINE:

This course will enable students to allow a diverse range of complex forms to be created with great ease using computer algorithms. The new genre of "scripted, iterative, and indexical architecture" produces a proliferation of formal outcomes, leaving the designer the role of selection and increasing the possibilities in architectural design.This has "re-initiated a debate regarding curvilinearity, expressionism and role of technology in society" leading to new forms of non-standard architecture by architects such as Zaha Hadid, Kas Oosterhuis and UN Studio.

9ARE3: Architecture Journalism

Course Objectives: This course will enable students to:

1. Introduce writing on architecture as a method to study and interpret the built environment through analysis, criticism and review.
2. Equip the students with the fundamentals, relevant skills and techniques of various genres of architectural writing and journalism.

COURSE OUTLINE:

Overview and objectives of role of writing and journalism in architecture; Writing and Journalism skills: research, writing, editing and criticism. Introduction, scope and constraints of print, audio and visual architectural journalism in the context of newspapers, radio, film, and television. Roles of an architectural journalist as a reporter, reviewer, cartoonist, interviewer, feature writer and specialist writer. Techniques and methods of expressing an architectural narrative or description through forms of creative writings such as fiction, poetry, travel writing, blogging which are based on architecture or employ architecture as a context. Researching, analyzing and critiquing architecture through forms of analytical writings such as research papers, journal writings and critical essays. Methods of recording, authenticating and examining architecture through documentation and technical writings. Role of an architect as a writer and journalist in scripting the narrative of architecture; Topics relevant and needed in an architectural journals and current issues; Mass Media and Public Opinion – critique of architecture through new age journalism and technology; Issues of code of ethics, copyright, royalty, publishing rights and policies; Citation and plagiarism.

9ARE4: Disaster Management

Course Objectives: This course will enable students to:

1. Familiarize students with the disaster management cycle
2. Create awareness about natural disasters and factors that cause them
3. Foster knowledge about strategies for disaster prevention and management
4. Familiarize students with various disaster resistant construction techniques according to the type of disaster or natural hazard

COURSE OUTLINE:

Introduction to disaster management, understanding terminologies like hazards, risk and vulnerability, Types of disasters like Earthquake, Tsunami, Cyclone, Flood and Landslide, their causes, adverse effects, distribution patterns, Disaster management cycle, Indian scenario. Case studies on above mentioned disasters (National and international), inferences derived from such case studies and actions taken in post disaster scenarios. Guidelines for management of Floods, River Erosion, Cyclones Tsunami, Landslides & Avalanches, Forest Fires. Disaster Management Act, Guidelines, NDMA (National Disaster Management Authority). Vulnerability Assessment & Warning systems for above said disaster types, Programmes and strategies for disaster reduction, Pre disaster, emergency, transition, and recovery. Disaster management plan, National and state crisis management groups/committees. Risk reduction measures through land use control, site planning and land management, design and construction of structures for above mentioned disasters.

Course Outcomes: After completion of course, Students would be able to:

1. **Apply** desired knowledge and skill in a particular domain of Architecture.
2. **Analyze** the processes required for the particular subject.
3. **Develop** an expertise in the chosen field for career enhancement.

Mapping of Course Outcomes (COs) to Program Specific Outcomes (PSOs)

		POs												PSOs			
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
COs	CO1	3											3	3			
	CO2	3											3	3			
	CO3	3											3	3			

PROFESSIONAL ELECTIVE-VI (ONLINE)

Contact Hours/Week	:	-	Credits	:	2.0
Total Lecture Hours	:	-	CIE Marks	:	100
Total Studio Hours	:	-	SEE Marks	:	-
Course Code	:	9ATPO	Exam Mode	:	-

Course Objectives: This course will enable students to:

1. Explore new areas of their interest.

COURSE OUTLINE:

Exploring new areas of interest and different fields is vital for students as it helps them discover passions, develop diverse skills, and make informed decisions about their future. By stepping outside their comfort zones through varied courses, extra-curricular, and real-world experiences like internships, students broaden their horizons, foster creativity, and become more adaptable individuals prepared for a dynamic world. This proactive exploration ultimately contributes to a richer, more fulfilling educational journey and sets the foundation for successful future endeavors.

Sl. No	NPTEL Courses	Duration (Weeks)	Credits
1.	Architectural Approaches to Decarbonization of Buildings	12 weeks	3
2.	Understanding and Reducing Ghg Emissions – Focus On Scope 1 and 2 Emission Reduction through Building Design and Construction	08 weeks	2
3.	Bioclimatic Architecture: Futureproofing with Simple and Advanced Passive Strategies, School of Planning and Architecture Vijayawada	12 weeks	3
4.	Role of Craft and Technology in Interior - Architecture	08 weeks	2
5.	Building Energy Systems and Auditing	08 weeks	2
6.	Culturally Responsive Built Environments	08 weeks	2
7.	Understanding Ethnography	08 weeks	2
8.	Disaster Recovery And Build Back Better	08 weeks	2
9.	Understanding Incubation and Entrepreneurship	12 weeks	3
10.	System Design for Sustainability	12 weeks	3
11.	Research Methodology for Planning and Architectural Studies	12 weeks	3

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SCHOOL OF ARCHITECTURE

DETAILED SYLLABUS FOR
TENTH SEMESTER
B. ARCHITECTURE

PROFESSIONAL TRAINING

Contact Hours/Week	:	-	Credits	:	22
Total Lecture Hours	:	-	SEE Marks	:	50
Total Practical Hours	:	-	CIE marks	:	50
Course Code	:	10ATP	Exam mode:	:	Viva

Course Objectives: This course will enable students to:

1. Equip with a practical approach to implementing building projects, basic knowledge about the construction industry, and project management techniques needed for managing and coordinating building projects in a professional manner.

COURSE OUTLINE:

- The aim of introducing one complete term for the students to undergo practical training is to expose them to the world of Professional Practice and get hands-on training under the guidance of a professional who is actively engaged in Architectural Practice. It will give the students first-hand experience of dealing with live projects of various natures and also the site experience to see how the projects get built on the site.
- The students will also be able to learn about Office Management, Project Management, Contract Management, Human Resource Management, new techniques of construction, advanced building services, landscape, and environmental designing etc. This rich experience is expected to enhance the student's ability to think comprehensively and better prepare them for undertaking the Architectural Project work in the final semester.

Guidelines:

(1) The term of Practical Training will commence after the examination of VII semester and will continue till the end of VIII semester or thereabout. The students are expected to work in the organization where architecture and its related practice are carried out and under the guidance of the professional who is registered with Council of Architecture. In case the student opts to go abroad he / she will work under the guidance of the professional who is registered with the council / any other organization controlling the profession of Architecture in the respective country. The students will decide very carefully about their placement venue as it is expected that they learn best ethics in Professional Practice and which produces quality architecture.

(2) Student will have to maintain a weekly record of their engagement for the period of training. This will be recorded in an authorized log-book to be counter-signed by architect at the end of each month.

(3) At the end of the training period, student will have to procure a certificate of training and satisfactory performance from the concerned office in the prescribed form.

(4) Certificate of satisfactory completion of training same shall be submitted the College, along with the report and drawings made during the training period and appear for Viva-voce.

(5) The total duration of the training will be minimum 16 working weeks / 90 working days

Submission of Portfolio:

Students shall present a portfolio containing the following works before the examiners for Viva-Voce Examination:

a. **Training Report:** This shall contain copies of various drawings done by the student either drafted or designed. It shall also contain other works like photographs of sites visited, models done, computer output produced etc.,

b. **Building Study:** This shall be a detailed critical study of a building designed by the architect with whom the student has worked. It shall include the study of function, aesthetics, context, structure etc., this shall be presented through drawings, photographs, write ups etc.

c. **Building Material Study:** This shall be a detailed study of a new or relatively new building material available in the market. A study of its properties, uses, cost, maintenance etc., is expected to be done. Samples of materials shall also be obtained and presented.

d. **Detailing study:** This shall be a study of interesting details done in the firm where the student has undertaken the training. This shall include sketches and photographs of the detail.

NOTE:

a. Students shall work only in architectural firms functioning over 5 years and headed by an Architect registered with Council of Architecture, New Delhi.

b. In case of architectural firms abroad, the Principal Architect of the firm should hold the title of architect under the law of that country.

c. A candidate failing in the viva examination shall repeat the training afresh for 16 weeks, the starting date coinciding with the beginning of a subsequent semester.

d. There is no Continuous Internal Evaluation Marks for this subject. However students to send their appointment order and joining letter to HOD/Coordinator as record.

e. The students need to submit a portfolio of work done by them in an Architect's office as per the details given in the submission portfolio above.

Course outcomes: After the completion of the course, students will be able to:

1. **Involve** in professional work and field work.
2. **Relate** the academic work with professional work.
3. **Appreciate** the pace of the work in profession and learn to work as a team member.

Mapping of Course Outcomes (COs) to Program Specific Outcomes (PSOs)

		POs												PSOs			
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
COs	CO1						3		3	3	3	3	3				3
	CO2	1											3				3
	CO3								3	3			3				3