

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI													
Scheme of Teaching and Examinations – 2024													
<b>M.Arch.DIGITAL ARCHITECTURE SCHEME B</b>													
Choice Based Credit System (CBCS) and Outcome-Based Education(OBE)													
<b>I SEMESTER- (SCHEME B)</b>													
Sl. No	Course	Course Code	Course Title	Teaching Hours per Week			Examination					Credits	
				Theory	Studio/Seminar	Tutorial/ Skill Development Activities	Duration in hours	CIE Marks	SEE Marks				Total Marks
				L	P/S	T/SDA			TH	VIVA	TW		
1	ISC with PCC and PCCL (Integrated Studio Course)	MDAC101	Computational & Parametric Design Studio	01	05	01	00	50	-	50	-	100	6
2	PCC	MDAC102	Analytical Diagramming Architectural Representation	02	02	00	00	50	-	50	-	100	4
3	PCC	MDAC103	Digital Architecture Process Theories & History -I	03	00	01	03	50	50	-	-	100	3
4	PSC	MDAC104	Digital Fabrication & Construction - I	02	00	01	00	50	-	-	50	100	3
5	PEC	MDAC115	Professional Elective -I	02	00	01	00	100	-	-	--	100	3
6	PCCL	MDAC106	BIM Fundamentals	02	00	02	00	50	-	50	-	100	3
7	NMC	MRMI107	<b>Research Methodology for Planning &amp; Architectural Studies</b>	Online courses (online.vtu.ac.in)								PP	
<b>Total</b>				<b>12</b>	<b>07</b>	<b>06</b>	<b>03</b>	<b>350</b>	<b>50</b>	<b>150</b>	<b>50</b>	<b>600</b>	<b>22</b>
Note: <b>ISC</b> -Integrated Studio Course, <b>NMC</b> - None Credit Mandatory Course, <b>PCCL</b> -Professional Core Course lab, <b>PEC</b> - Professional Elective Course <b>AUD/AEC</b> –Audit Course / Ability Enhancement Course, <b>L-Lecture</b> , <b>S-Studio</b> , <b>T/SDA-Tutorial / Skill Development Activities</b> (Hours are for Interaction between faculty and students)													
	Professional Elective course code 1 under MDAE15	Professional Elective course title											
1	MDAE115A	Digital Materiality & Tectonics											
2	MDAE115B	Performative Design											
3	MDAE115C	Techniques & Technologies in Morphogenetic Design											
<b>Integrated Studio Course (ISC):</b> Refers to a Professional Studio Core Course Integrated with the theories/software relating to the studio. The theory part of the ISC shall be evaluated by CIE with regular assignment. The studio part shall be evaluated by both CIE & SEE (Viva-Voce with the external examiner).													
<b>Professional Core Course (PCC):</b> Refers to a Course, which constitutes a major theory part of the particular specialization.													

**PSC:** Professional Supportive Course to the Specialisation

**PEC: Professional Elective Course:** Elective courses will provide some of the most valuable and additional knowledge. The students will benefit from electives as they imply additional knowledge. Students may select courses from a large array of subjects that enhance their knowledge.

**1. Studio:**

- (i) Students and studio coordinators to be involved individually in groups to interact to enhance learning and application skills.
- (ii) The students should involve with Industry/ Professional bodies/ Stakeholders in issue identification followed by research/ case studies/ testing that results in creative and innovative solutions to the identified problems.
- (iii) The students will gain real-world experience by working with industry professionals
- (iv) Students must work on different software/s(tools)to simulate, analyze, and authenticate the output to interpret and conclude.
- (v) Students must be involved in case studies and field visits/fieldwork.
- (vi) Students must familiarize themselves with codes of standards to narrow the gap between academia and the industry.

2. All activities should enhance student's abilities for employment and /or self-employment opportunities, management skills, Statistical analysis, fiscal expertise, etc.

3. **Skill Development Activities:** They may be in the form of periodic site visits, guest lectures, and webinars and seminars, not a fixed slot in timetables.

**Under Skill development, the activities must orient towards**

1. Interaction with industry (construction/consultancy/product oriented).
2. Involvement in research/testing/projects to understand their problems and help creative and innovative methods to solve the problem.
3. Involvement in case studies and field visits/ fieldwork.
4. Exposure to the use of standards/codes/byelaws/zoning regulations etc., to narrow the gap between academia and industry.

All activities should enhance student's abilities to employment and/or self-employment opportunities, management skills, statistical analysis, fiscal expertise, etc. Students and the course faculty are to be involved either individually or in groups to interact together to enhance the learning and application skills of the study they have undertaken. The students with the help of the course teacher can take up relevant technical activities that will enhance their skills. The prepared report shall be evaluated for CIE marks.

**4. Vivavoce:**

The viva voce shall be conducted for a duration of 20 minutes (per student including if any group presentation) for the subjects listed under viva voce for all the semesters with one external examiner and one internal examiner.

**MRMI107-Research Methodology and IPR- Non-Credit Mandatory Course (NMC )** The student has to take this course at

**<http://online.vtu.ac.in>** and qualifying in this course is compulsory before completion of the minimum duration of the program (Two years), however, this course will not be considered for vertical progression.

**Online Course:** These are the MOOC courses that the relevant stream's Board of Studies has recommended; you can access them at [www.online.vtu.ac.in](http://www.online.vtu.ac.in). To qualify for those courses, the students must complete 8-12 weeks duration courses. The courses chosen have not to be the same as that of the courses or subjects covered in the preceding semesters. Depending on the needs of the degree program, the BOS may recommend interdisciplinary courses. It is required to pass the course and qualify

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<b>II SEMESTER- (SCHEME B)</b>													
Sl. No	Course	Course Code	Course Title	Teaching Hours /Week			Examination						Credits
				Theory	Studio/ Seminar	Tutorial/ Skill Development Activities	Duration in hours	CIE Marks	SEE Marks			Total Marks	
				L	S	T/SDA			TH	VIVA	TW		
1	ISC with PCC and PCCL (Integrated Studio Course)	MDAC201	Sustainable Design Studio	02	06	00	00	50	-	50	-	100	9
2	PCC	MDAC202	Interactive Architecture	02	00	02	00	50	-	50	-	100	4
3	PCC	MDAC203	Digital Architecture Process Theories &History -II	03	02	00	03	50	50	-	-	100	3
4	PSC	MDAC204	Digital Fabrication & Construction -II	02	00	02	00	50	-	-	50	100	3
5	PEC	MDAC215	Professional Elective -II	02	00	02	00	100	-	-	--	100	3
6	PSC	MDAC206	Advanced Computational Methods	00	02	01	00	50	-	50	-	100	3
<b>Total</b>				<b>11</b>	<b>10</b>	<b>07</b>	<b>03</b>	<b>300</b>	<b>50</b>	<b>150</b>	<b>100</b>	<b>600</b>	<b>25</b>
Note: <b>ISC</b> -Integrated Studio Course, <b>NCMC</b> - None Credit Mandatory Course, <b>PCCL</b> -Professional Core Course lab, <b>PEC</b> - Professional Elective Course <b>AUD/AEC</b> –Audit Course / Ability Enhancement Course, <b>L-Lecture, S-Studio, T/SDA-Tutorial / Skill Development Activities</b> (Hours are for Interaction between faculty and students)													
Professional Elective code under MDAE25		Professional Elective course title											
MDAE215A		Biomimetic Architecture											
MDAE215B		Digital Heritage Preservation											
MDAE215C		Optimizing Built Structures											

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III SEMESTER (SCHEME B)													
Sl. No	Course	Course Code	Course Title	Teaching Hours /Week			Examination					Credits	
				Theory	Practical/ Mini-Project/ Internshin	Tutorial/ Skill Development Activities	Duration in hours	CIE Marks	SEE Marks				Total Marks
									L	P	SDA		
1	ISC/IDC (Integrated studio/Dissertation course)	MDAC301	Generative Urban Design	02	06	02	00	50	-	50	-	100	8
2	PSC	MDAC302	Dissertation Phase I	00	02	01	00	50	-	50	-	100	3
4	PEC	MDAC314x	Professional Elective -III	03	00	00	00	100	-	-	--	100	3
5	INT	MINT385	Industry Internship ( 3 months, Viva-Voce to be conducted))	00	00	00	00	50	-	-	50	100	7
6	PCC	MDAC306	BOS Recommended online course	Online courses (online.vtu.ac.in)								PP Mandatory	
<b>Total</b>				<b>05</b>	<b>08</b>	<b>03</b>	<b>00</b>	<b>200</b>	<b>00</b>	<b>100</b>	<b>100</b>	<b>400</b>	<b>21</b>
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	Professional Elective course code under MDAE314x	Professional Elective course title											
1	MDAE314A	Parametric Landscape Urbanism											
2	MDAE314B	Sustainable Urban Design											
3	MDAE314C	Generative Algorithm											

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<b>IV SEMESTER (SCHEME B)</b>												
Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination					Credits	
				Theory	Practical / Field work	Duration in hours	CIE Marks	SEE Marks Viva voce				Total Marks
								L	P	TH		
1	Dissertation	MDAC481	Thesis	-	08	00	50	-	50	-	100	12
			<b>Total</b>	<b>00</b>	<b>08</b>	<b>00</b>	<b>50</b>	<b>00</b>	<b>50</b>	<b>00</b>	<b>100</b>	<b>12</b>
<p><b>DISSERTATION (MPROJ41):</b> The objective of the Dissertation is</p> <ul style="list-style-type: none"> <li>To encourage independent learning and innovative solutions.</li> <li>To develop communication skills, organization, time management, and presentation skills.</li> <li>To impart flexibility and adaptability.</li> <li>To inspire teamwork.</li> <li>To expand intellectual capacity, credibility, judgment, and intuition.</li> <li>To adhere to punctuality, goal setting, and meeting deadlines.</li> <li>To instill responsibilities to oneself and others.</li> <li>To train students to present the topic of project work in a seminar confidently, with enhanced communication skills, contribute to and exchange ideas in group discussions, and foster the ability to receive positive criticism</li> </ul> <p><b>CIE procedure for Project Work:</b></p> <p>The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department one of whom shall be the Guide, or external reviewer whoever takes mid-review on invitation by the department. The CIE marks awarded for the dissertation work shall be based on the evaluation of the dissertation design/project Report, presentation skill, and question and answer session in the periodic reviews. 50% weightage to be given to strategies and solutions developed, 25% to the report and presentation, and 25% to question answers.</p>												

**SEE procedure for Dissertation:** SEE for dissertation work will be conducted by the two examiners appointed by the University. The SEE marks awarded for the project work shall be based on the evaluation of the thesis work Report, project presentation skill, and question and answer session in the ratio 50:25:25.

**Scheme B: TOTAL CREDITS: 22+25+21+12=80 (with 3 months vacation internship after 2<sup>nd</sup> semester).**