

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI.**



Scheme of Teaching and Examinations and Syllabus  
**M.Arch-DIGITAL ARCHITECTURE**  
(Effective from the academic year 2022-23)

**AS PER COA:**

PCC: Professional Core Courses: 50-55%

PSC: Professional supporting Course 20-25%

PCE: Professional Core Elective 15-20%

PAE: Professional Ability Enhancement:10%

OE: Open Elective: 2-5%

**NEP 2020 Principles:**

Main features:

1. Broad-based
2. Multi-disciplinary
3. Holistic Graduate education with a flexible curriculum
4. Creative combinations of subjects
5. Integration of vocational education
6. Self-learning process
7. Student-centric learning process rather than teaching

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI												
Scheme of Teaching and Examinations – 2022 – 23												
M.Arch- DIGITAL ARCHITECTURE												
Choice Based Credit System (CBCS) and Outcome Based Education(OBE)												
I SEMESTER												
Sl. No	Course	Course Code	Course Title	Teaching Hours per Week			Examination				Credits	
				Theory	Practical/Studio	SDA	Duration of examination in hours	CIE Marks	SEE Marks			Total Marks
				L	P	SDA			Theory	Viva /TW		
1	PCC	22DAC 1.1	Digital design studio -I	2	8	-	-	50	-	50	100	10
2	PCC	22DAC 1.2	Analytical diagramming and architectural representation	3	1	-	-	50	-	50	100	4
3	PCC	22DAC 1.3	Digital architecture process theories and history - I	2	-	2	3	50	50	-	100	3
4	PSC	22DAS 1.4	Digital Fabrication - I	-	1	2	-	50	--	50	100	2
5	PSC	22DAS1.5	Parametric software	-	1	2	-	50	-	50	100	2
6	MC	22DAS 1.6	Research methods & IPR	1	-	2	3	50	50	-	100	2
7	AUD	22DA AUD16	BOS Recommended online course	Classes and evaluation procedures are as per the policy of the online course providers								PP
8	PEC	22DAE1.71	Digital materiality and tectonics	00	02	-	--	50		50	100	2
		22DAE1.72	Performative Design	00	02	-	--					
		22DAE1.73	Techniques & technologies in Morphogenetic Design	01	01	-	--					
<b>TOTAL</b>				<b>09</b>	<b>13</b>	<b>08</b>	<b>06</b>	<b>350</b>	<b>100</b>	<b>250</b>	<b>700</b>	<b>25</b>
<b>Note:</b> PCC: Professional Core Course, PSC: Professional Support Course, PEC: Professional Elective Course. AUD- Audit Course												
1L-1 Credit, 1P-1 Credit, and <b>SDA</b> , 02hours SDA=1 credit, Skill Development Activities (hours include self-exploration, library hours, workshops.												
Audit Course/APEC will be an online course recommended from Swayam/MOOC/ Coursera recommended by BOS.												
<p>1. <b>Studio:</b> Students and course instructor/s to be involved individually or in groups to interact to enhance learning and application skills. The students should interact with the construction industry (small, medium, and large), understand their problems or foresee what can be undertaken for study in the form of research/ case study testing projects, and for creative and innovative methods to solve the identified problem. Students will:</p> <ol style="list-style-type: none"> <li>Gain confidence in working along with construction industry professionals.</li> <li>Work on different software/s(tools)to simulate, analyze and authenticate the output to interpret and conclude.</li> <li>Handle advanced construction equipment and materials to enhance technical talent.</li> <li>Involve in case studies and field visits/fieldwork.</li> <li>Accustom with codes of standards to narrow the gap between academia and the construction industry.</li> </ol> <p>All activities should enhance students' abilities for employment and/or self-employment opportunities, management skills, Statistical analysis, fiscal expertise, etc.</p> <p>2. <b>Skill Development Activities:</b> They may be in the form of conferences, webinars and webinars, not a fixed slot in timetables.</p> <p>3. <b>Viva-voce:</b> The viva voce shall be conducted for a duration of 20 minutes (per student) for the subjects listed under viva voce for all the semesters.</p> <p>4. <b>Audit course:</b> Online courses which enhance student ability, help in the project, and overall development. May be selected from the list provided and approved by BOS, Architecture.</p>												

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI**  
**Scheme of Teaching and Examinations –2022 -23**  
**M.Arch - DIGITAL ARCHITECTURE**  
**Choice Based Credit System (CBCS) and Outcome Based Education(OBE)**

**II SEMESTER**

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week			Examination				Credits	
				Theory	Practical/ Studio	SDA	Duration in hours	CIE Marks	SEE Marks			Total Marks
									Theor y	Viva /TW		
L	P	SDA										
1	PCC	22DAC2.1	Digital design studio -II	2	8	-	-	50	-	50	100	10
2	PCC	22DAC2.2	Digital architecture process theories	3	-	2	3	50	50		100	4
3	PCC	22DAC2.3	Application of digital architecture study on real-time project	-	-	2		50	-	50	100	1
4	PCC	22DAC2.4	IoT( Internet of Things)	1	1		-	50	-	50	100	2
5	PSC	22DAS2.5	Analysis software	-	2	-	-	50	-	50	100	2
6	PSC	22DAS2.6	Digital Fabrication - II	2	2		3	50	50	-	100	4
7	PEC	22DAE2.71	Biomimetic Architecture	2	-	-	-	50	-	50	100	2
		22DAE2.72	Product Design+ Robotics									
		22DAE2.73	Optimizing Built Structures									
<b>TOTAL</b>				<b>10</b>	<b>13</b>	<b>04</b>	<b>06</b>	<b>350</b>	<b>100</b>	<b>250</b>	<b>700</b>	<b>25</b>

Note: PCC: Professional Core Course, PEC: Professional Elective Course.

**Note:**

**1. Internship:** All the students shall have to undergo a mandatory internship of 6 weeks during the vacation of II and III semesters. A University examination shall be conducted during III semesters and the prescribed internship credit shall be counted in the same semester. The internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do take up/complete the internship shall be declared as fail in the internship course and have to complete the same during the subsequent University examination after satisfying the internship requirements.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI												
Scheme of Teaching and Examinations – 2022– 23												
M.Arch- DIGITAL ARCHITECTURE												
Choice Based Credit System (CBCS) and Outcome Based Education(OBE)												
III SEMESTER												
Sl. No	Course	Course Code	Course Title	Teaching Hours /Week			Examination					Credits
				Theory	P/S/Seminar	SDA	Duration in hours	CIE Marks	SEE Marks		Total Marks	
				L	P	SDA			Theory	TW/ Viva		
1	PCC	22DAC3.1	Digital design studio - III	2	8	-	-	50	-	50	100	10
2	PCC	22DAC3.2	Parametric urban mapping	1	2	-	-	50	-	50	100	3
3	PCC	22DAC3.3	Parametric urbanism	2	-	2	3	50	50	-	100	3
4	PCC	22DAC3.4	Application of digital architecture on real time project III	-	-	4	-	50	-	50	100	2
5	PSC	22DAS3.5	Pre- Thesis	2	-	1	-	50	-	50	100	2
6	PSC	22DAS3.6	Digital Fabrication - III	-	3	-	-	50	-	50	100	2
7		22 DAE 3.71	Parametric Landscape Urbanism	2	-	-	-	100	-	--	100	2
		22 DAE 3.72	Sustainable Urban Design									
		22 DAE 3.73	Generative Urban Design									
8	INT	22DAE 3.8	(Completed during the intervening vacation of the II and III semesters.)06 weeks duration	-	-	-	-	50	--	50	100	3
<b>TOTAL</b>				<b>09</b>	<b>13</b>	<b>07</b>	<b>03</b>	<b>450</b>	<b>50</b>	<b>300</b>	<b>800</b>	<b>27</b>
Note: PCC: Professional Core Courses, PEC: Professional Elective Course. INT-Internship, PSC Professional Supportive Course, AUD- Audit Course, and PP-Passing is mandatory.												

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI											
Scheme of Teaching and Examinations – 2022 – 23											
M.Arch- DIGITAL ARCHITECTURE											
Choice Based Credit System (CBCS) and Outcome Based Education(OBE)											
IV SEMESTER											
Sl. No	Course	Course Code	Course Title	Teaching Hours /Week			Examination				Credits
				Theory	P/S/FW/SM	SDA	Duration in hours	CIE Marks	SEE Marks Viva voce	Total Marks	
				L	P						
1	PCC	22DAC4.1	Project/ Dissertation phase -2	2	16	04	-	50	50	100	20
2	OE	22DAOE3.9	OPEN Elective offered by other departments offline/or online OE	02	01		-	50	-	50	3
3	AUD	22DAOE	BOS Recommended online course	Classes and evaluation procedures are as per the policy of the online course providers							PP
<b>TOTAL</b>				<b>02</b>	<b>16</b>	<b>04</b>	<b>-</b>	<b>50</b>	<b>50</b>	<b>100</b>	<b>23</b>

**Note:**  
**1. Dissertation Phase-2:**  
 CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide if any, and a Senior faculty of the department. The CIE marks awarded for project work phase -2, shall be based on the evaluation of Project Report subjected to plagiarism check, Project Presentation skill and performance in the Question and Answer session in the ratio 50:25:25.  
 SEE shall be at the end of IV semester. Project work evaluation and Viva-Voce examination (SEE), after satisfying the plagiarism check, shall be as per the University norms.  
**Open Elective**  
 Open elective to be chosen by students based on their interest offered by other departments/schools or from Swayam/Mooc/Coursera etc, permission for pursuing these courses to be sought from the school. (Minimum of 12 weeks course)  
 Open elective should be an interdisciplinary course which will help to learn another area of study and also helps in project work.

I semester	25
II Semester	25
III Semester	27
IV Semester	23
Total credits	100.

