

**2015 PATTERN -SYLLABUS  
COURSE STRUCTURE  
B.ARCH**

**SAVITRIBAI PHULE PUNE UNIVERSITY**

**COURSE STRUCTURE**

**FIVE YEAR DEGREE COURSE IN ARCHITECTURE**

**[B.ARCH.]**

**TO BE IMPLEMENTED FROM 2015-16**

**BOARD OF STUDIES IN ARCHITECTURE**

**FACULTY OF ENGINEERING**

# SAVITRIBAI PHULE PUNE UNIVERSITY

## BACHELOR OF ARCHITECTURE

### COURSE STRUCTURE AND RULES

#### Preamble

The New Syllabus of the B.Arch course hence forth to be referred as the 2015 Pattern, to be implemented from the year 2015-16, is designed to address and update the knowledge about the field. The course focuses to develop the design ability, impart knowledge about various aspects of architecture and develop various skill sets. Considering this certain subjects are reduced in scope while certain new subjects are added.

As per the University guidelines, the course is structured upon the Credit System Based Assessment. In semester and End semester assessment is introduced for theory paper subjects and at end of the semester sessional assessment for studio based subjects.

Following are the salient features of the course content.

- To bridge the gap between learning Basic Design and its application in Architectural Design, a comprehensive subject titled as “Design” is introduced where in there is simultaneous and synchronized learning of basic design and architectural design fundamentals in the first two years of the course.
- “Introduction to Architecture” a one semester (first semester) course would give an overview of the discipline of architecture as well as the structure of five-year course.
- “Humanities” as a separate subject is introduced to enable the understanding of human culture, society and civilisations and prepare a base for learning the history of architecture in the later semesters. The subject should be taught from the perspective of architecture.
- “Urban Studies” in the fourth year (both the semesters) is a comprehensive subject integrating urban planning, urban design, architectural conservation & byelaws. An introduction to building economics is also included in the course content.
- “Research in Architecture I” would introduce the students to the research methodology and research methods while in “Research in Architecture II” the students would undertake a research project to employ the knowledge they gained in the first leg of this subject.
- “Electives” are introduced from sixth semester onwards. The subjects / topics of the elective are thematically grouped: Sixth semester Elective I (Interior design elective), Seventh semester Elective II (Design and Technology

elective), Eighth semester Elective III (Allied elective) and Tenth semester Elective IV (Management Elective).

**Rule no.1: ELIGIBILITY FOR ADMISSION.**

Eligibility Criteria: Students seeking admission to First year of Bachelor's degree course in Architecture must fulfill the eligibility criteria laid down by University of Pune / Govt. of Maharashtra / Council of Architecture as applicable from time to time.

**Rule no.2: SCHEME OF ASSESSMENT.**

A candidate to be eligible for the degree of Bachelor of Architecture will be required to appear for and pass examinations as under:

**Examination Consisting of**

**STAGE I (Total credits of Stage I = 144)**

1. I B.Arch. Semester I & II exams
2. II.B.Arch Semester III & IV exams
3. III.B.Arch. Semester V & VI exams

**STAGE II (Total credits of Stage II = 70)**

4. IV B.Arch. Semester VII & VIII exams
5. V B.Arch. Semester IX & X exams

**Total Credits of the Course = Stage I + Stage II = 214**

**Rule no. 3: GRANTING OF TERM.**

Academic year shall consist of two semesters of 90 teaching days each. Sessional work completed by the students shall be continuously assessed internally during the term and assessed at the end of the academic term jointly by the internal and external examiners. The candidate will be permitted to appear for examination **only** if he/she produces testimonials from the Principal of the College for :

1. 75% attendance in each head of passing of theory and/ or sessional work as prescribed by the University.
2. Satisfactory completion of the sessional work prescribed for each subject and securing minimum 45% marks in the Internal assessment for the same.
3. Good Conduct.

**Rule no. 4: PREREQUISITES FOR ADMISSION TO HIGHER CLASSES.**

A student shall be promoted to higher class only if he/she has scored minimum 45 % marks in each theory / sessional / sessional and viva-voce head and minimum 50% aggregate.

### **For admission to Stage II of the course:**

1. Candidates admitted to the course shall complete the first stage within five years of admission to the course.
2. The aggregate marks of F.Y, S.Y., and T.Y. at the end of Stage I should not be less than 50%.

### **Rule no. 5 : Rules of Passing**

5.1 To pass sessional and /or oral, the student has to earn minimum 45% marks in each head.

5.2 To pass the theory subject head the student has to earn minimum of 45% marks in the End semester exam and minimum 45% average marks (In semester + End semester).

**5.3** The failing student can repeat the end semester exam to pass the head in any semester and the In semester exam marks will be retained as it is. Or the failing student can repeat for end semester exam as well as in semester exam for the head of even semester in the even semester only and for the head of odd semester in the odd semester only for the theory head.

5.4 To earn credits of a course (paper/sessional/oral) student must pass the course with minimum passing marks / grade.

5.5 Student can apply only for the revaluation / photocopying / verification of answer sheets of End semester exam only.

### **Rule no. 6: RULES OF A.T.K.T.**

1. A student can be admitted for the third semester if he/she earns minimum **50%** credits of the total of first and second semester.
2. A student can be admitted for the fifth semester if he/she earns minimum **50%** credits of the total of third and fourth semester and all the credits (**100%**) of the first and second semester and passing grade of aggregate for first year.
3. A student can be admitted for the seventh semester if he/she earns minimum **50%** credits of the total of the fifth and sixth semesters and all the credits (**100%**) of the third and fourth semesters and passing grade of aggregate for second year.
4. Fourth Year and Final Year are considered as integrated Stage II of the course and hence students will be allowed to take admission to Fifth year irrespective of the credits earned by the student in seventh and eighth semesters.
5. A student would be awarded B.Arch. only if he/she earns 214 (100%) credits and clears all the courses specified in the syllabus and gets passing grade of aggregate.

## Rule no. 7: ASSESMENT AND GRADE POINT AVERAGE

**7.1** A grade assigned to each head based upon marks obtained by the student in examination of the course.

**Table 1**  
**GRADING SYSTEM FOR PASSING HEADS (theory / sessional / sessional-viva)**

Grade	Grade Points	% of Marks Obtained	Remarks
O	10	90-100	Outstanding
A	9	80-89	Very good
B	8	70-79	Good
C	7	60-69	Fair
D	6	50-59	Average
E	5	45-49	Below average
F	0	Below 45	Fail

**Table 2**  
**GRADING SYSTEM FOR AGGREGATE**

Grade	Grade Points	% of Marks Obtained	Remarks
O	10	90-100	Outstanding
A	9	80-89	Very good
B	8	70-79	Good
C	7	60-69	Fair
D	6	50-59	Average
F	0	Below 50	Fail

**7.2 Passing grades for various heads:** The grades O,A,B,C,D & E are passing grades for various heads (paper / sessional / sessional viva voce). A candidate acquiring any one of these grades in a course shall be declared as pass only in that particular subject head. And student shall earn the credits for a course only if the student gets passing grade in that course (which includes paper and/or sessional and/ or sessional viva voce).

**7.3 Passing grades for Aggregate :** The grades O,A,B,C & D are passing grades in the aggregate.

**7.4 F grade for various heads:** The grade F is a failure grade. The student with F grade will have to pass the concerned course by reappearing for the examination.

**7.5 F grade for aggregate:** The grade F is a failure grade for aggregate. The student with F grade will have to appear for paper &/ or sessional & /or session viva voce for improvement of aggregate.

## **Rule no. 8: EXAMINATIONS.**

i. Paper **and/ or**

ii. Sessional / Sessional and Viva-voce based on sessional work, as prescribed in the subjects will be treated as **separate heads of passing.**

### **8.1 Structure of Theory Paper Examinations**

The theory Examination shall be conducted in two phases for the subjects as indicated in the structure viz.: In Semester Examination and End Semester examination. The structure detailing the time, mode of syllabus coverage, maximum marks etc is given below. This structure of examinations shall be followed by the regular candidates :-

Phase of examination	Time	Mode	Syllabus Coverage	Duration	Max. Marks
In semester	End of 6 <sup>th</sup> week	Written	Unit I & II	60 minutes	30
End Semester	End of Semester	Written	All Units	150 minutes	70

The detail examination schedule shall be decalred at the beginning of the semester by the Savitribai Phule Pune University.

## **Rule no. 9: CONDUCT OF EXAMINATIONS.**

9.1 All the examinations will be conducted at University level.

9.2 In-Semester Examination : Shall be carried out at concerned college by appointing examiners from the panel given by the 32/5 committee of the University and the result to be conveyed to the University.

9.3 End-Semester Examination : Shall be carried out at concerned college as per the University schedule of examination program and the question paper will be made available by the University.

## **Rule no. 10: Assesment**

10.1 **In-semester Examination Assessment** will be done at the College by the expert who is appointed as the examiner for the subject as per 32/5 Panel of the In-semester exam.

10.2 **End-Semester Examination Assessment** will be done at the CAP center by the Expert(s) appointed as the examiner for the subject as per 32/5 Panel of the End-semester exam for Third to Fifth Yr.

### 10.3 SESSIONAL WORK ASSESSMENT.

- a. The sessional and /or oral examinations is to be conducted and assessed jointly by external and internal examiner approved by the University.
- b. In respect of Sessional work at F. Y. B.Arch., S. Y. B.Arch., T. Y. B.Arch. Fourth Yr. B.Arch and Fifth Year B.Arch. target date shall be fixed for the completion of each assignment and the same shall be completed and collected on the fixed target date. All assignments shall be continuously assessed by the teacher during semester.
- c. At the end of each semester sessional work shall be assessed jointly by the internal and external examiners from amongst the panel approved by the University.
- d. Performance of Sessional / Viva-voce Examination shall be assessed on the basis of understanding of the principles involved and not on the basis of mere correctness or results and ornamental or colourful presentation.
- e. Drawings and reports / notes shall be manually prepared. Students may use computers for sessional work under the guidance of the teachers where nature of work is individual and stress is on content rather than skill. The work done by the students has to be authenticated for its originality by the concerned teachers.
- f. At all the examinations **except** for the SEMESTER X : ARCHITECTURAL PROJECT, external assessment shall be carried out by Internal teachers from other college in the University not teaching that or any other subject in the institute where the examination is being conducted.
- g. For tenth semester Architectural Project an external examiner means a professional not teaching in any of the colleges under University of Pune.
- h. Internal Examiner : Internal Examiner is one who is teaching that particular subject in the same/any other college under University.
- i. An Examiner for any of the subjects of examination from 1st year to 3rd. Year Architecture, shall have a minimum of 3 years teaching / professional experience in his/her field of study.
- j. An Examiner for any of the subjects of examination for 4th year and Final Year Architecture, shall have a minimum of 5 years teaching / professional experience in his/her field of study.
- k. To qualify for the External Examiner at the tenth semester Architectural Project, the professional shall have a minimum of five years professional experience.

### Rule no.11 : PERFORMANCE INDICES



1. The semester end grade sheet will contain grades for the course along with titles and SGPA. Final grade sheet and transcript shall contain CGPA.
2. **SGPA** : The performance of a student in a semester is indicated by a number called the semester grade point average (SGPA). The SGPA is the weighted average of grade points obtained in all the courses registered by the student during the semester.

Semester Grade Point Average (SGPA) =

$$\begin{aligned}
 \text{SGPA} &= \frac{\sum_{i=1}^p C_i G_i}{\sum_{i=1}^p C_i} \\
 &= \frac{\sum \text{Grade Points earned} \times \text{Credits for each course}}{\text{Total Credits}}
 \end{aligned}$$

For example : Suppose in a given semester a student has registered for five courses having credits C1, C2, C3, C4, C5 and his / her grade points in those courses are G1, G2, G3, G4, G5 respectively,

Then the SGPA would be

$$\begin{aligned}
 \text{SGPA} &= \frac{C_1 G_1 + C_2 G_2 + C_3 G_3 + C_4 G_4 + C_5 G_5}{C_1 + C_2 + C_3 + C_4 + C_5}
 \end{aligned}$$

**SGPA** is calculated up to two decimal places by rounding off.

3. **CGPA** : The CGPA is the weighted average of the grade points obtained in all the courses (theory /sessional /vivavoce) of **seventh, eighth, ninth and tenth** semesters. It is calculated in the same manner as the SGPA. It is calculated based upon the SGPA of the concerned semesters.

### Rule no. 12: RESULT

Based on the performance of the student in the semester examinations, the Savitribai Phule Pune University will declare the results and issue the Semester grade sheets.

The class shall be awarded to a student on the CGPA calculated in rule no. 11(3). The award of the class shall be as per the table no. 3 below.

**Table 3**

<b>Sr.No.</b>	<b>CGPA</b>	<b>Class of the degree awarded</b>
1	7.75 or more than 7.75	First class with distinction
2	6.75 or more but less than 7.75	First class
3	6.25 or more but less than 6.75	Higher second class
4	5.5 or more but less than 6.25	Second class

**Rule no. 13: EXEMPTIONS**

In case a candidate fails in an examination but desires to appear again,

- a) Examinations will be held in Oct. / Nov. & Apr / May.
- b) He/ She may be exempted from appearing in the head/s of passing in which he/she has passed.
- c) The students failing to get minimum passing grade for aggregate in a year can also appear for the examinations (paper and/or sessional and/or sessional-vivavoce) to enhance their marks in maximum four heads.

**Rule no. 14: INTRODUCTION OF THIS CURRICULUM.**

The new curriculum for the Degree course in Architecture B.Arch will be introduced gradually as under:

- a) First Yr. B. Arch. course from June 2015
- b) Second Yr. B. Arch. course from June 2016
- c) Third Yr. B. Arch. course from June 2017
- d) Fourth Yr. B. Arch. course from June 2018
- e) Final Yr. B. Arch. course from June 2019

**Note :** The B.Arch. course introduced in June 2015 would be conducted by the University for 10 consecutive years since inception for the Students admitted between June 2015 to June 2019. However the student has to pass the first stage of this course in maximum five years since admission.

**Rule no. 15: OTHER RULES.**

University may frame additional rules and regulations or modify these regulations if needed and once approved by the University they would be binding on the students.

# COURSE STRUCTURE

## FIVE YEARS DEGREE COURSE

### BACHELOR OF ARCHITECTURE

As per the Council of Architecture guidelines approx. 75% course curriculum is prescribed. While remaining may be as per the individual philosophy of the institute. A total of 40 periods (45 min duration) per week per term shall be conducted for the course. Out of these 36 periods are specified below. 4 periods per week are given to the institutions to orient the course as per their own philosophy. Intensive study as per the institution's philosophy may also be done in addition to the detail syllabus in each subject.

The periods considered for calculating the teaching load are of 45 min duration. The credit calculation is based upon 60 minutes amounting to one credit.

Considering the peculiarity of Architecture Education, the studio load is considered equal to the lecture load as one to one contact with the students is desirable and hence credits are calculated by considering full load of lecture and studio periods.

The detail structure of the syllabus for the ten semesters course is given below.

**(Note : SS= Sessional work ; PP=theory Paper ; SV = Sessional + Viva voce)**

#### FIRST YEAR B.ARCH. SEM. I

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semester	Sessional	Oral	End Semester		
1201501	Design I	3	7	--	200	50	--	250	7
1201502	Building Technology & Materials I (SV)	3	4	30			70	200	5
1201503	Building Technology & Materials I (PP)				50	50			
1201504	Theory of Structures I (PP)	1	2	30			70	100	2
1201505	Arch Drawing & Graphics I	2	5	--	100	--	--	100	4
1201506	Humanities	2	1	--	50	--	--	50	2
1201507	Introduction to Architecture	2	1	--	50	--	--	50	2
1201508	Workshop I	1	2	--	50	--	--	50	2
		14	22					<b>800</b>	<b>24</b>

### FIRST YEAR B.ARCH. SEM. II

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semester	Sessional	Oral	End Semester		
1201509	Design II	3	7	--	200	50	--	250	7
1201501 0	Building Technology & Materials II(SV)	3	4	30			70	200	5
1201501 1	Building Technology & Materials II (PP)				50	50			
1201512	Theory of Structures II	1	2	30			70	100	2
1201513	Arch Drawing & Graphics II	2	5	--	100	--	--	100	4
1201514	History of Architecture I	2	1	--	50	--	--	50	2
1201515	Climatology	2	1	--	50	--	--	50	2
1201516	Workshop II	1	2	--	50	--	--	50	2
		14	22					<b>800</b>	<b>24</b>

### SECOND YEAR B.ARCH. SEM. III

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semeste r	Sessional	Oral	End Semester		
2201517	Design III	3	8	--	200	50	--	250	7
2201518	Building Technology & Materials III(SV)	3	4	30			70	200	5
2201519	Building Technology & Materials III(PP)				50	50			
2201520	Theory of Structures III	1	2	30			70	100	2
2201521	Building Services I (SS)	2	2		50			150	3
2201522	Building Services I (PP)			30			70		
2201523	History of Architecture II	2	1	--	50	--	--	50	2
2201524	Arch Drawing & Graphics III	2	3	--	100	--	--	100	3
2201525	Surveying & Levelling	1	2	--	50	--	--	50	2
		14	22					<b>900</b>	<b>24</b>

### SECOND YEAR B.ARCH. SEM. IV

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semest er	Sessional	Oral	End Semester		
2201526	Design IV	3	8	--	200	50	--	250	7
2201527	Building Technology & Materials IV(SV)	3	4	30			70	200	5
2201528	Building Technology & Materials IV (PP)				50	50			
2201529	Theory of Structures IV	1	2	30			70	100	2
2201530	Building Services II (SS)	2	2		50			150	3
2201531	Building Services II (PP)			30			70		
2201532	History of Architecture III	2	1	--	50	--	--	50	2
2201533	Technical Communication	1	2		50			50	2
2201534	Working Drawing I	2	3		100			100	3
		<b>14</b>	<b>22</b>					<b>900</b>	<b>24</b>

### THIRD YEAR B.ARCH. SEM. V

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semeste r	Sessional	Oral	End Semester		
3201535	Design V	3	8	--	200	50	--	250	7
3201536	Building Technology & Materials V(SV)	3	4	30			70	200	5
3201537	Building Technology & Materials V (PP)				50	50			
3201538	Theory of Structures V	1	2	30			70	100	2
3201539	Landscape Architecture I	1	3		50			50	2
3201540	Building Services III (SS)	2	2		50			150	3
3201541	Building Services III (PP)			30			70		
3201542	History of Architecture IV	2	1	--	50	--	--	50	2
3201543	Working Drawing II	2	2		100			100	3
		<b>14</b>	<b>22</b>					<b>900</b>	<b>24</b>

### THIRD YEAR B.ARCH. SEM. VI

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semester	Sessional	Oral	End Semester		
3201544	Design VI (SV)	3	8	--	200	50		350	7
3201545	Design VI (PP)			--	--	--	100		
3201546	Building Technology & Materials VI(SV)	3	4	30			70	200	5
3201547	Building Technology & Materials VI (PP)				50	50			
3201548	Theory of Structures VI	1	2	30			70	100	2
3201549	Landscape Architecture II	1	3		50			50	2
3201550	Building Services IV(SS)	2	2		50			150	3
3201551	Building Services IV (PP)			30			70		
3201552	Contemporary Arch Seminar	1	3	--	50	--	--	50	3
3201553	Elective I	1	2		50			50	2
		12	24					<b>950</b>	<b>24</b>

### FOURTH YEAR B.ARCH. SEM. VII

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semester	Sessional	Oral	End Semester		
4201554	Design VII	3	9		200	50		250	8
4201555	Advanced Building Technology and Services I	3	4		150	50		200	5
4201556	Professional Practice I	1	2	30			70	100	2
4201557	Urban Studies I	1	2		50			50	2
4201558	Research in Architecture I	1	2		50			50	2
4201559	Quantity Surveying and Estimation I	1	2	30			70	100	2
4201560	Specification Writing I	1	2	30			70	100	2
4201561	Elective II	1	1		50			50	1
		12	24					<b>900</b>	<b>24</b>

#### FOURTH YEAR B.ARCH. SEM. VIII

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semester	Sessional	Oral	End Semester		
4201562	Design VIII	3	9		200	50		250	8
4201563	Advanced Building Technology and Services II	3	4		150	50		200	5
4201564	Professional Practice II	1	2	30			70	100	2
4201565	Urban Studies II	1	2		50			50	2
4201566	Research in Architecture II	1	2		50			50	2
4201567	Quantity Surveying and Estimation II	1	2	30			70	100	2
4201568	Specification Writing II	1	2	30			70	100	2
4201569	Elective III	1	1		50			50	1
		12	24					<b>900</b>	<b>24</b>

#### FIFTH YEAR B.ARCH. SEM. IX

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semester	Sessional	Oral	End Semester		
5201570	Practical Training	--	--	--	150	50	--	200	8
		--						<b>200</b>	<b>8</b>

#### FIFTH YEAR B.ARCH. SEM. X

Code	Subject	Teaching Scheme Periods/Week		Examination Scheme				Total Marks	Credits
		Lecture	Studio	In Semester	Sessional	Oral	End Semester		
5201571	Architectural Design Project	4	16	--	350	100	--	450	12
5201572	Elective IV	1	2		50			50	2
		5	18					<b>500</b>	<b>14</b>

**2019 PATTERN -SYLLABUS  
COURSE STRUCTURE  
B.ARCH**



# **SAVITRIBAI PHULE PUNE UNIVERSITY**

**[Formerly the University of Pune]**



## **COURSE STRUCTURE**

**FIVE YEAR DEGREE COURSE IN ARCHITECTURE**

**[B.ARCH.]**

**TO BE IMPLEMENTED FROM 2019-20**

**BOARD OF STUDIES IN ARCHITECTURE  
FACULTY OF SCIENCE AND TECHNOLOGY**

# BACHELOR OF ARCHITECTURE COURSE STRUCTURE AND RULES

## PREAMBLE

The New Syllabus of the B.Arch. course hence forth to be referred as the 2019 Pattern, to be implemented from the year 2019-20, is designed to address the rising expectations of knowledge to be borne by an architect. The interdisciplinary nature of the field of architecture demands integration of knowledge domains from various disciplines such as humanities, art, and technology and so on. However, what distinguishes an architect is the design knowledge and ability to employ the knowledge from the various disciplines for arriving at a solution to a problem.

Hence the syllabus has been designed such that the professional core subjects are supported by building science and technology courses, professional ability enhancement courses and the elective courses. The professional ability enhancement courses and the practical training of one semester focus on connecting the students with the practice. The elective courses enable an exposure to some other domain or nurtures the students' proficiency or skill. The Audit courses are introduced to acknowledge the knowledge that the student seeks in his/her area of interest but not directly contribute to the CGPA.

At the end of the course the graduating student shall be able to methodically approach a problem of creating a built environment be it a small house or a township by employing knowledge from various domains and at the same time making it safe, equitable, feasible and environment friendly. Education needs to equip the student to face the challenges and demands in the field by imbibing first principles.

As per the University guidelines, the course is structured upon the Credit System Based Assessment. The syllabus is structured with the following objectives and expected outcomes

## PROGRAM EDUCATIONAL OBJECTIVES[PEO]-

1. **Theoretical Base**—To establish strong theoretical base and understanding of Architecture and work of an architect.
2. **Knowledge and Skills**—To inculcate design sensitivity and ability, as well as knowledge in the domains of humanities, technology & art and impart skills so as to equip the graduate student to undertake work of an architect.
3. **Values** - Sensitize the students to the universal values of equity, environmental care, accessibility, and respect for heritage and equip them to address these through design.
4. **Research** -Train the students to methodically research a issue or a situation to find a creative solution to meet the contextual challenges in the realm of changing technologies, socio economic and cultural changes.
5. **Practice and Ethics**- To enable the students to practice as architects and imbibe them with the knowledge of the professional practice and ethics.
6. **Changes and Diversification**- To expose the students to the changes in architectural practice, diversifications and evolving role of an architect.

## PROGRAM OUTCOMES [PO]

1. **Knowledge** -Understanding about role of various knowledge domains such as humanities, technology, and environment in design of built environment.
2. **Principles & Theory**- Knowledge of principles of architecture & theoretical knowledge and its application in design.
3. **Creativity** - Creative and design thinking ability.
4. **Practice** - Ability to understand real life situation of Architectural Practice and to work with ethical and professional responsibilities.
5. **Collaborative Working** -Ability to communicate effectively and work in interdisciplinary groups.
6. **Inclusivity** -Sensitivity in design for inclusivity, equity, environment, diverse cultures, and heritage.
7. **Technological Knowhow**-Ability to review, comprehend and report technological developments in the profession of architecture and construction.
8. **Ability to choose Area of Specialisation or Practise**- Able to judge one's area of interest and accordingly choose the field of practice.

### Rule no.1: ELIGIBILITY FOR ADMISSION.

Eligibility Criteria: Students seeking admission to First year of Bachelor's degree course in Architecture must fulfil the eligibility criteria laid down by Savitribai Phule Pune University / Govt. of Maharashtra / Council of Architecture as applicable from time to time.

### Rule no.2: SCHEME OF ASSESSMENT.

A candidate to be eligible for the degree of Bachelor of Architecture will be required to appear for and pass examinations as under:

	<b>Semester Numbers</b>	<b>Credits</b>
1	Semester 1	28
2	Semester 2	28
	<b>Total credits for First Year B.Arch.</b>	<b>56</b>
3	Semester 3	28
4	Semester 4	28
	<b>Total credits for Second Year B.Arch.</b>	<b>56</b>
5	Semester 5	28
6	Semester 6	28
	<b>Total credits for Third Year B.Arch.</b>	<b>56</b>
7	Semester 7	28
8	Semester 8	28
	<b>Total credits for Fourth Year B.Arch.</b>	<b>56</b>
9	Semester 9	14
10	Semester 10	24
	<b>Total credits for Fifth Year B.Arch.</b>	<b>38</b>
	<b>Total credits</b>	<b>262</b>

**Total Credits of the Course = 262**

Colleges may offer the students audit courses one per semester [Sem I to Sem VIII]. The students may choose to opt these courses. The passing in audit courses is by clearance and they are non-credits courses and are not part of the SGPA / CGPA calculation.

### **Rule no. 3: GRANTING OF TERM.**

Academic year shall consist of two semesters of minimum 90 teaching days each. The candidate will be permitted to appear for examination **only if** he/she produces testimonials from the Principal of the College for:

1. 75% attendance in each head of passing of theory and/ or sessional work as prescribed by the University.
2. Satisfactory completion of the sessional work prescribed for each subject and securing minimum required marks in the internal assessment for the same.
3. Good Conduct.

### **Rule no. 4: RULES OF PASSING**

- 4.1 To pass sessional [SS] / sessional viva [SV], the student has to earn minimum 50% marks.
- 4.2 To pass the theory subject head the student has to earn minimum of 45% marks in the End semester exam and minimum 45% average marks (In- Semester Assessment + End semester).
- 4.3 A student shall be promoted to higher class only if she/he scores 50% marks in the aggregate of the total marks of the year.
- 4.4 **For theory subjects** the failing student can repeat the end semester exam to pass the head in any semester and the In-semester assessment exam marks will be retained as it is. Or the failing student can repeat end semester exam as well as In-semester assessment for the head of even semester in the even semester only and for the head of odd semester in the odd semester.
- 4.5 To earn credits of a course (paper/SS/SV) student must pass the course with minimum passing marks / grade.
- 4.6 Student can apply only for the revaluation / photocopying / verification of answer sheets of End semester theory exam only.

### **Rule no. 5: RULES OF A.T.K.T.**

- 5.1 A student can be admitted for the third semester if he/she earns minimum **50%** credits of the total of first and second semester.
- 5.2 A student can be admitted for the fifth semester if he/she earns minimum **50%** credits of the total of third and fourth semester and all the credits (**100%**) of the first and second semester and passing grade of aggregate for first year.
- 5.3 A student can be admitted for the seventh semester if he/she earns minimum **50%** credits of the total of the fifth and sixth semesters and all the credits (**100%**) of the third and fourth semesters and passing grade of aggregate for second year.
- 5.4 A student can be admitted for the ninth semester if he/she earns minimum **50%** credits of the total of the seventh and eighth semesters and all the credits (**100%**) of the fifth and sixth semesters and passing grade of aggregate for third year.

5.5A student would be awarded B.Arch. only if he/she earns **262 (100%) credits** and gets passing grade in all the courses specified in the syllabus and gets passing grade of aggregate within the time permissible by the University.

**Rule No. 6: PREREQUISITES FOR ENROLLING FOR THE SUBJECT OF ARCHITECTURAL DESIGN and ARCHITECTURAL DESIGN PROJECT**

**6.1** A candidate shall not be permitted to enrol for the Architectural Design course in a semester unless he/ she has completed [*attended the course, submitted the work*] of the Architectural Design course of the previous semester and satisfied prerequisites as per 6.2.

**6.2 Prerequisites for appearing in Examination**

Sr.No.	Appear for examination in	Passing grade to be obtained in
01	Architectural Design III	Architectural Design I[SV]
02	Architectural Design IV	Architectural Design II[SV]
03	Architectural Design V	Architectural Design III[SV]
04	Architectural Design VI	Architectural Design IV[SV]
05	Architectural Design VII	Architectural Design V[SV]

**6.3** A candidate shall not be permitted to enrol for the tenth semester Architectural Design project course unless he/ she has successfully completed [*passed*] and received passing grades in Practical Training/ Internship and Architectural Design VI & Architectural Design VII.

**The rules of Passing, ATKT and Prerequisites have to be read in conjunction with each other and not in isolation.**

**Rule no. 7: ASSESMENT AND GRADE POINT AVERAGE**

**7.1** A grade assigned to each head based upon marks obtained by the student in examination of the course.

**Table 1  
GRADING SYSTEM FOR PASSING HEADS (THEORY)**

Grade	Grade Points	% of Marks Obtained	Remarks
O	10	90-100	Outstanding
A	9	80-89	Very good
B	8	70-79	Good
C	7	60-69	Fair
D	6	50-59	Average
E	5	45-49	Below average
F	0	Below 45	Fail

**Table 2**  
**GRADING SYSTEM FOR [SESSIONAL/ SESSIONAL VIVA and AGGREGATE]**

Grade	Grade Points	% of Marks Obtained	Remarks
O	10	90-100	Outstanding
A	9	80-89	Very good
B	8	70-79	Good
C	7	60-69	Fair
D	6	50-59	Average
F	0	Below 50	Fail

- 7.2 Passing grades for various heads:** The grades O, A, B, C, D & E are passing grades for theory papers. The grades O, A, B, C & D are passing grades for sessional and/or sessional viva voce heads. A candidate acquiring any one of these grades shall be declared as pass only in that particular head.
- 7.3 Passing grades for Aggregate:** The grades O, A, B, C & D are passing grades in the aggregate.
- 7.4 F grade for various heads:** The grade F is a failure grade. The student with F grade will have to pass the concerned course by reappearing for the examination.
- 7.5 F grade for aggregate:** The grade F is a failure grade for aggregate. The student with F grade will have to appear for paper &/ or sessional &/or sessional viva voce for improvement of aggregate.

**Rule no. 8: EXAMINATIONS.**

The type of examination / assessments are as follows

- I. In Semester Examinations for Theory conducted and assessed at the college
- II. End Semester Theory Paper conducted by the University and assessed at the CAP by the University.
- III. Continuous Assessment for Sessional to be maintained and record to be kept by the subject faculty. The progressive work done by a student through out the semester to be maintained for architectural design course. The weightage of this continuous internal assessment [CIA] shall be 50% of the total marks allocated for the sessional work. The remaining marks to be given by the external examiner referred as External assessment [EA]. CIA and EA will be entered as aggregate at the time of external examination. Break up of marks is mentioned in detailed syllabus at respective subjects.
- IV. Viva voce to be jointly conducted by internal and external examiner at the end of the semester and the weightage for internal and external examiner's assessment will be equal [50:50] and break up of marks is mentioned in detailed syllabus at respective subjects.
- V. For subjects having both sessional assessment and viva voce the marks to be entered as an aggregate of sessional and viva voce.

## Structure of Theory Subject Assessment

8.1 The theory subject assessment shall be conducted in two phases for the subjects [Except Architectural Design V paper] as indicated in the structure viz.: In Semester assessment and End Semester examination. This structure of assessment/examinations shall be as below: -

	Time	Mode	Syllabus Coverage	Duration	Max. Marks
In semester Assessment	After the End of 6 <sup>th</sup> week but before the end of 8 <sup>th</sup> week	As mentioned in point 8.2 below	Unit I & II	60 minutes	30
End Semester Examination	End of Semester	Written	All Units	150 minutes	70

8.2 The in semester assessment can be in one of the following format- Tutorial / Class test/ Open book test/Time bound assignment/MCQ type Quiz/ and any other innovative time bound assignment to assess the learning of the student. The assessment record to be kept with the college and submitted to the University as and when demanded.

## Rule no. 9: CONDUCT AND ASSESSMENT OF EXAMINATIONS.

### Theory Assessment

- 9.1 In-Semester Assessment: Shall be carried out at concerned college by the subject faculty as per rule no. 8 above.
- 9.2 End-Semester Examination: Shall be carried out at concerned college as per 8.1 above and schedule of examination program and the question paper for theory exam will be made available by the University.
- 9.3 End-Semester Examination Assessment: Will be done at the CAP centre by the examiners appointed by the University.

### Sessional Work Assessment.

- 9.4 The sessional and /or viva examinations is to be conducted and assessed by external and internal examiner approved by the University.
- 9.5 In respect of Sessional work at F. Y. B.Arch., S. Y. B.Arch., T. Y. B.Arch. Fourth Yr. B.Arch. and Fifth Year B.Arch. it shall be continuously assessed by the teacher during semester. The progressive work done by a student in architectural design through out the semester to be maintained.
- 9.6 Performance of Sessional / Viva-voce Examination shall be assessed on the basis of understanding of the concepts and principles of the content and not on the basis of mere completeness of results and ornamental or colourful presentation.
- 9.7 Drawings and reports / notes shall be manually prepared. Students may use computers for sessional work under the guidance of the teachers where nature of work is individual and stress is on content rather than skill. The work done by the students has to be authenticated for its originality by the concerned teachers.

- 9.8 At all the examinations **except** for the SEMESTER X : ARCHITECTURAL DESIGN PROJECT, external assessment shall be carried out by teachers from other college in the University not teaching that subject in the institute where the examination is being conducted.
- 9.9 For tenth semester Architectural Design Project an external examiner means a professional/ academician not teaching in any of the colleges under the University and Internal Examiner is one who is teaching that particular subject in the same/any other college under the University.
- 9.10 Any examiner shall have a minimum of three years teaching/professional experience in a field of study relating to the subject of examination. However an external examiner for 10<sup>th</sup> Semester Architectural Design Project Shall have minimum of 10 years teaching/professional experience.

### Rule no.10: PERFORMANCE INDICES

- 10.1 The semester end grade sheet will contain grades for the course along with titles and SGPA. Final grade sheet and transcript shall contain CGPA.
- 10.2 SGPA: The performance of a student in a semester is indicated by a number called the semester grade point average (SGPA). The SGPA is the weighted average of grade points obtained in all the courses registered by the student during the semester.

Semester Grade Point Average (SGPA) =

$$\begin{aligned}
 \text{SGPA} &= \frac{\sum_{i=1}^p C_i G_i}{\sum_{i=1}^p C_i} \\
 &= \frac{\sum \text{Grade Points earned} \times \text{Credits for each course}}{\text{Total Credits}}
 \end{aligned}$$

For example : Suppose in a given semester a student has registered for five courses having credits C1, C2, C3, C4, C5 and his / her grade points in those courses are G1, G2, G3, G4, G5 respectively, Then the SGPA would be

$$\begin{aligned}
 \text{SGPA} &= \frac{C_1 G_1 + C_2 G_2 + C_3 G_3 + C_4 G_4 + C_5 G_5}{C_1 + C_2 + C_3 + C_4 + C_5}
 \end{aligned}$$

**SGPA** is calculated up to two decimal places by rounding off.

1. **CGPA** : The CGPA is the weighted average of the grade points obtained in all the courses (theory /sessional / sessional vivavoce) of **all the ten** semesters. It is calculated in the same manner as the SGPA. It is calculated based upon the SGPA of the concerned semesters.



### **Rule no. 11: RESULT**

Based on the performance of the student in the semester examinations, the Savitribai Phule Pune University will declare the results and issue the Semester grade sheets. The class shall be awarded to a student on the CGPA calculated in rule no. 10(3). The award of the class shall be as per the table no. 3 below.

**Table 3**

<b>Sr.No.</b>	<b>CGPA</b>	<b>Class of the degree awarded</b>
1	7.75 or more than 7.75	First class with distinction
2	6.75 or more but less than 7.75	First class
3	6.25 or more but less than 6.75	Higher second class
4	5.5 or more but less than 6.25	Second class

### **Rule no. 12: EXEMPTIONS**

In case a candidate fails in an examination but desires to appear again,

- a) Examinations will be held in Oct./Nov.& Apr/May.
- b) He/She may be exempted from appearing in the head/s of passing in which he/she has passed.
- c) The students failing to get minimum passing grade for aggregate in a year can also appear for the examinations (paper and/or sessional and/or sessional-viva-voce) to enhance their marks in maximum four heads.
- d) The above a, b and c are subject to the provisions of passing, ATKT and pre-requisites rules mentioned in these rules and regulations.

### **Rule no. 13: INTRODUCTION OF THIS CURRICULUM.**

The new curriculum for the Degree course in Architecture B.Arch. will be introduced gradually as under:

- a) First Yr. B. Arch. Course from June 2019
- b) Second Yr. B. Arch. Course from June 2020
- c) Third Yr. B. Arch. Course from June 2021
- d) Fourth Yr. B. Arch. Course from June 2022
- e) Final Yr. B. Arch. Course from June 2023

### **Rule no. 14: OTHER RULES.**

University may frame additional rules and regulations or modify these regulations if needed and once approved by the University they would be binding on the students.

**COURSE STRUCTURE**  
**BACHELOR OF ARCHITECTURE [B.Arch.]**

The syllabus structure is based upon 28 clock hours per week for 1<sup>st</sup> to fourth year. Additionally 2 clock hours per week are assigned for utilisation for the lectures / allied activities focussing on the individual philosophy of the institute in form of audit courses / site visits / special lectures / workshops / seminars etc offering choice based activities for the institutes / students. The periods considered for calculating the teaching load are of 60 min duration. The architectural design / architectural design project and building construction studio credits are calculated as 1 hour = 1.5 credits, allied studios/labs/workshops are calculated as 1 hour = 0.5 credits and theory lectures are calculated as 1 hour = 1 credit. The detail structure of the syllabus for the ten semester course is given below.

**(Note: SS= Sessional work; In Sem = In Semester exam ; End Sem = End semester exam; SV= Sessional and Viva voce; L= Lecture, S=Studio, T=Total ; Theory Paper -P**

**FIRST YEAR B.ARCH. SEMESTER I**

CourseCode	CourseTitle	L	S	T	Theory		Sessional and / Viva		Total Marks	Credits
					In Sem	End Sem	SS	SV		
1201901	Basic Design	1	6	7			250		250	10
1201902	Building Construction & Materials I[P]	2		2	30	70			100	2
1201903	Building Construction & Materials I[SV]		3	3				100	100	5
1201904	Theory of Structures I	2		2	30	70			100	2
1201905	Architectural Graphics and Drawing I	1	4	5			100		100	3
1201906	History of Arch & Culture I	1	2	3			50		50	2
1201907	Communication Skills	2	1	3			50		50	2
1201908	Workshop I	1	2	3			100		100	2
		10	18	28					850	28
1201917	Audit Course									

**FIRST YEAR B.ARCH. SEMESTER II**

Course Code	Course Title	L	S	T	Theory		Sessional and / Viva		Total Marks	Credits
					In Sem	End Sem	SS	SV		
1201909	Architectural Design I	1	6	7				250	250	10
1201910	Building Construction & Materials II[P]	2		2	30	70			100	2
1201911	Building Construction & Materials II[SV]		3	3				100	100	5
1201912	Theory of Structures II	2		2	30	70			100	2
1201913	Architectural Graphics and Drawing II	1	4	5			100		100	3
1201914	History of Arch & Culture II	1	2	3			50		50	2
1201915	Fundamentals of Architecture	2	1	3			50		50	2
1201916	Workshop II	1	2	3			100		100	2
		10	18	28					850	28
1201918	Audit Course									

**SECOND YEAR B.ARCH. SEMESTER III**

Course Code	Course Title	L	S	T	Theory		Sessional and / Viva		Total Marks	Credits
					In Sem	End Sem	SS	SV		
2201917	Architectural Design II	1	6	7				250	250	10
2201918	Building Construction & Materials III[P]	2		2	30	70			100	2
2201919	Building Construction & Materials III[SV]		3	3				100	100	5
2201920	Theory of Structures III	2		2	30	70			100	2
2201921	Computer Aided Drawing and Graphics	1	3	4			50		50	2
2201922	History of Arch & Culture III	1	2	3			50		50	2
2201923	Building Services I[P]	2	0	2	30	70			100	2
2201924	Building Services I[SS]	0	2	2			50		50	1
2201925	Climatology	1	2	3			50		50	2
		10	18	28					850	28
2201935	Audit Course									

**SECOND YEAR B.ARCH. SEMESTER IV**

Course Code	Course Title	L	S	T	Theory		Sessional and / Viva		Total Marks	Credits
					In Sem	End Sem	SS	SV		
2201926	Architectural Design III	1	6	7				250	250	10
2201927	Building Construction & Materials IV[P]	2		2	30	70			100	2
2201928	Building Construction & Materials IV[SV]		3	3				100	100	5
2201929	Theory of Structures IV	2		2	30	70			100	2
2201930	Environmental Science	1	2	3			50		50	2
2201931	History of Arch & Culture IV	1	2	3			50		50	2
2201932	Building Services II[P]	2	0	2	30	70			100	2
2201933	Building Services II[SS]	0	2	2			50		50	1
2201934	Site Survey and Analysis	1	3	4			50		50	2
		10	18	28					850	28
2201936	Audit Course									

**THIRD YEAR B.ARCH. SEMESTER V**

Course Code	Course Title	L	S	T	Theory		Sessional and / Viva		Total Marks	Credits
					In Sem	End Sem	SS	SV		
3201935	Architectural Design IV	1	6	7				250	250	10
3201936	Building Construction & Materials V[P]	2		2	30	70			100	2
3201937	Building Construction & Materials V[SV]		3	3				100	100	4
3201938	Theory of Structures V	2		2	30	70			100	2
3201939	Landscape Architecture	1	3	4			100		100	3
3201940	Elective I [Contemporary Architecture]	1	2	3			100		100	2
3201941	Building Services III[P]	2	0	2	30	70			100	2
3201942	Building Services III[SS]	0	1	1			50		50	1
3201943	Working Drawing I	1	3	4			100		100	2
		10	18	28					1000	28
3201953	Audit Course									

**THIRD YEAR B.ARCH. SEMESTER VI**

Course Code	Course Title	L	S	T	Theory		Sessional and / Viva		Total Marks	Credits
					In Sem	End Sem	SS	SV		
3201944	Architectural Design V[SV]		5	5				250	250	8
3201945	Architectural Design V*[P]	2		2		100			100	2
3201946	Building Construction & Materials VI	2	3	5				150	150	6
3201947	Theory of Structures VI	2		2	30	70			100	2
3201948	Research In Architecture I	1	2	3			50		50	2
3201949	Elective II	1	3	4			100		100	3
3201950	Building Services IV[P]	2		2	30	70			100	2
3201951	Building Services IV[SS]		1	1			50		50	1
3201952	Working Drawing II	1	3	4			100		100	2
		11	17	28					1000	28
3201954	Audit Course									

\*The Architectural Design V [Paper] will be of 12 hours duration spread over two days of 6 hours a day. The first day will be 6 hours without break. The second day will be 6 hours with a break after 3 hours.

**FOURTH YEAR B.ARCH. SEMESTER VII**

Course Code	Course Title	L	S	T	Theory		Sessional and / Viva		Total Marks	Credits
					In Sem	End Sem	SS	SV		
4201953	Architectural Design VI	1	7	8				300	300	11
4201954	Advanced Building Construction & Services I	1	2	3				150	150	4
4201955	Urban Studies I	2	2	4			100		100	3
4201956	Research In Architecture II	1	2	3			50		50	2
4201957	Elective III	1	2	3			50		50	2
4201958	Quantity Surveying & Specification Writing I	2	2	4	30	70			100	3
4201959	Professional Practice	2	1	3	30	70			100	3
		10	18	28					850	28
4201967	Audit Course									

**FOURTH YEAR B.ARCH. SEMESTER VIII**

Course Code	Course Title	L	S	T	Theory		Sessional and / Viva		Total Marks	Credits
					In Sem	End Sem	SS	SV		
4201960	Architectural Design VII	1	7	8				300	300	11
4201961	Advanced Building Construction & Services II	1	2	3		100		150	150	4
4201962	Urban Studies II	2	2	4			100		100	3
4201963	Elective IV	1	2	3			50		50	2
4201964	Elective V	1	2	3			50		50	2
4201965	Quantity Surveying & Specification Writing II	2	2	4	30	70			100	3
4201966	Project Management	2	1	3	30	70			100	3
		10	18	28					850	28
4201968	Audit Course									

**FIFTH YEAR B.ARCH. SEMESTER IX**

Course Code	Course Title	L	S	T	In Sem	End Sem	Sessional and / Viva		Total Marks	Credits
							SS	SV		
5201967	Practical Training							250	250	14

**FIFTH YEAR B.ARCH. SEMESTER X**

Course Code	Course Title	L	S	T	In Sem	End Sem	Sessional and / Viva		Total Marks	Credits
							SS	SV		
5201968	Architectural Design Project	3	10	13				550	550	18
5201969	Entrepreneurship Development	2	2	4			100		100	3
5201970	Elective VI*	1	3	4			100		100	3
		6	15	21						24

\*Elective VI is preferably offered as an open elective. In case it is not possible to offer open elective colleges should offer any elective from the list of electives which the student has not undertaken earlier.

## ANNEXURE A : AUDIT COURSES

The student can opt for one audit course in a semester. A student can opt for a particular course from the list below only once and cannot repeat the same course. The courses may be offered based upon the availability of resources in a college. The method of conduct of course could be based on lectures, site visits, small projects, online sources etc. and can be devised by individual colleges. The course outline given is only suggestive and colleges can expand or modify it for enrichment of the course.

FIRST YEAR B.ARCH. [ANY ONE COURSE TO BE OFFERED PER SEMESTER FROM THE FOLLOWING]			
Sr. No.	Code	Title	Brief Course Outline
1	A	Crafts	Introduction to crafts across the world through history. Types of Indian crafts. Study of any one craft of India.
2	B	Creative Writing	Writing as an art. Fictional and non fictional writing. Poetry, short stories, playwriting. Famous Indian writers, poets and play wrights and their works.
3	C	Performing Arts	Introduction to performing arts across the world through history. Types of Indian performing arts. Introduction to Natya-Shastra. Classical, folk, traditional performing arts. Dance, Music, Drama, Cinema.
SECOND YEAR B.ARCH. [ANY ONE COURSE TO BE OFFERED PER SEMESTER FROM THE FOLLOWING]			
4	D	Foreign Language	Basic introduction to German or Japanese language or a language which a college may choose to offer – syllables, pronunciations, words, simple sentences, grammar.
5	E	Cyber security	Introduction to cyber crime. Types of cyber crimes. Do and don'ts while using computers, smart phones, internet. Security measures to protect from crime. Crime detection mechanism and legislation.
6	F	Yoga	Introduction to Yoga. Benefits of Yoga. Types of yogasanas.
THIRD YEAR B.ARCH. [ANY ONE COURSE TO BE OFFERED PER SEMESTER FROM THE FOLLOWING]			
7	G	Basics of Accounting and Book keeping	Introduction to accounting and various terminologies. Maintaining books of account. Debit and credit.
8	H	Electrical Maintenance	Basic electrical gadgets in home and offices. Introduction to problems related to electricity supply in home environments. Precautions while handling electrical gadgets and wiring. Mechanism of protection from electrical hazards.
9	I	Culinary Art and Practices	Introduction to the basic need of food. Geographical and cultural factors affecting food. Various cuisines and culinary arts across the world. Social, health, dietary, aspects of cuisines. Food cultures in modern times. Places of food.
FOURTH YEAR B.ARCH. [ANY ONE COURSE TO BE OFFERED PER SEMESTER FROM THE FOLLOWING]			
10	J	Civics	Constitution of India. Indian democracy. Citizenship and Rights and responsibilities of citizens. Legislative framework.
11	K	Right to Information	Right to Information Act in India. Its need, scope and significance. Use of right to information. Responsibilities of using RTI. Limitations of using RTI. Case studies and legal precedents of using RTI.
12	L	Sign Language	Introduction to need and significance of inclusive social environment. Communication with the persons who have hearing and speech disabilities. Learning sign language.

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## **ANNEXURE B : LIST OF ELECTIVE COURSES.**

Following are the broad streams and electives under them which can be offered in a college. A student can select any one elective from any stream for **electives II to V each**. A student may adhere to a particular stream of elective of his/her choice and **nurture his/her area of interest and develop his/her expertise**. However colleges have to ensure that the student does not repeat a particular elective.

**Elective VI** is preferably offered as an **open elective**. In case it is not possible to offer open elective colleges should offer any elective from the list of electives which the student has not undertaken earlier.

<b>Codes for stream A</b>	<b>Stream A Art / Design</b>	<b>Codes for Stream B</b>	<b>Stream B Technology / Management</b>	<b>Codes for stream C</b>	<b>Stream C Social/Humanities/History</b>
A1	Product Design	B1	Architecture using Glass	C1	Gender and Architecture
A2	Furniture Design	B2	Architecture using Steel	C2	Architecture of South Asia
A3	Interior Design	B3	Mud Architecture	C3	Architectural Anthropology
A4	Architectural Conservation	B4	Pre fabricated construction	C4	Vernacular Architecture
A5	Universal Design	B5	Pre stressed construction	C5	Culture and Design
A6	Advanced Landscape Design	B6	Disaster Mitigation and Management	C6	Sociology and Architecture
A7	Graphic Design	B7	Green Buildings and Rating Systems	C7	Colonial Architecture
A8	Architectural Photography	B8	Sustainable Cities and Communities	C8	Regional Architecture
A9	Art in Architecture	B9	Building Performance and Compliance	C9	Cultural Landscapes
A10	Theory of Design	B10	Appropriate Building Technologies	C10	Slum Rehabilitation
A11	Urban design	B11	Earthquake Resistant Architecture	C11	Basics of Archaeology
A12	Architectural	B12	Tensile Structures	C12	Introduction to Anthropology



<b>Codes for stream A</b>	<b>Stream A Art / Design</b>	<b>Codes for Stream B</b>	<b>Stream B Technology / Management</b>	<b>Codes for stream C</b>	<b>Stream C Social/Humanities/History</b>
	Journalism				
A13	Music and Space	B13	Facility Management	C13	Environmental Psychology
A14	Healthcare Design	B14	Geographic Information System	C14	Ekistics
A15	Hospitality Design	B15	Parametric modelling	C15	Ecology
A16	Industrial Buildings Design	B16	BIM (Building Information Modelling)	C16	Politics and Architecture
A17	Way finding and Navigation	B17	Introduction to Programming and Embedded Design for Architects	C17	Indology
A18	User experience design	B18	Intelligent Building Systems	C18	Affordable Housing

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# **COURSE STRUCTURE**

## **M.ARCH**

**Dr. Babasaheb Ambedkar Technological University,  
Lonere, Raigad**

**Syllabus for**

**Master of Architecture - Construction Management**

**Date: 23<sup>rd</sup> March 2018**

## **PREAMBLE**

The Academic Council of Dr. Babasaheb Ambedkar Technological University aims at bridging the gap between the Industry and the Institute by framing a syllabus on the Guidelines of Council of Architecture, India and fine tuning the same with respect to the requirements of the building industry at the international and national level.

The students have been made sound enough through the Graduation Program, to proceed to Masters in any part of the World and be suitable enough to support any good Architectural office across the globe or raise his / her professional practice.

The Education at Masters Level is oriented to develop students with modern Skills and Techniques, in specialist field of Architecture i.e. Construction Management, Environmental Architecture and General (aspects in Architecture).

The Education is desired to orient and to equip students with modern skills and techniques of designing structures and detail them further with precise constructional details, use of most suitable materials, examine the sustainability attributes and further specify the process of implementation with the value addition of conservation of energy flavoured with modern architectural concepts giving justice to the various spaces in their chosen field of specialisation (within and around the built form), they are meant to perform.

The architectural institutes shall also educate the students on their responsibility as a professional, to create designs that shall adhere to all the local regulations and laws of the land and should provide updated knowledge of procedures to be followed from work commencement to completion.

The graduate course (B.Arch) shall be of Ten semesters (stage I & stage II) and the detailed subject wise pattern shall be strictly adhered to.

The Masters Course (M. Arch) shall be of 4 semesters and detailed subject wise pattern enclosed along with this preamble shall be strictly adhered. The Universities stipulates that maximum students in each class be 20 only and sections may be added for additional intakes

### **M.Arch (Construction Management):**

The Masters Course on Construction Management shall make the student conversant with the modern technique of Construction Management through various systems as well as technology to convert successful design into executed project that shall be cost effective, time bound and highly qualitative.

The libraries shall be equipped with internet facility with a computer lab to provide students networking opportunities with other Institutes/Universities across the world. Facebook /Twitter/Blogs/any other social media tool shall be used to create data that may be required time and again as student/faculty flow year on year.

The Institution shall encourage exchange programs of faculty and students with other Universities in India and abroad to help develop them.

Emphasis shall be given to live site visits, interactions with the client's promoters, contractors and also approving authorities and project managers to get feedback on drawings, details, specifications, selection of materials, techniques of constructions.

The institutes are expected to conduct seminars on newer technologies and materials by inviting players from the market/industry and faculty and the students should take it further through interactive workshops. The institutes shall also encourage students to attend conference and conventions of architectural organizations within India and Abroad.

The Institute shall guide students to leading architectural offices within and outside the Country for the internship course and shall conduct interactive feedback workshops for exchange of ideas and experience of the building industry and professional office working. The subject of Professional training shall be constantly updated based on changing trends and their expectation from professional architect's. Inviting leading architects to share on the above subject within the institute may help in building confidence within out-going graduates.

The BATU syllabus is composed by team of experts after thorough examination and comparative analysis of syllabi of colleges of architecture in India and intends to further modify or amend that maybe required by the foreign universities offering BATU their accreditation in order to respond to rapidly changing industry, society and environment, national and international economic dimensions.

The Above architectural technology benchmark statement shall/may reflect these changes in the context of the building Industry, including the need to produce graduates that are employable yet adaptable, agile and flexible to respond to future challenges and changes.

## List of Abbreviations

Sr.No.	Acronym	Full form
1	TH	Theory
2	STW	Sessional Term Work with Assessment
3	SV	Sessional Work with Viva
4	L	Theory Lecture
5	S	Studio
6	IA	Internal Assessment
7	MSE	Mid Semester Exam
8	ESE	End Semester Exam

### Teaching Scheme:

Each Lecture to be conducted should be of 60 min duration.

Each Studio to be conducted should be of 60 min duration.

1 Credit Point = 1 Hour Lecture (For Theory subject)

1 Credit Point = 2 Hour Studio

### Mandatory Passing Criteria:

All the rules and regulations for Allowed To Keep Terms (ATKT) from Dr. Babasaheb Ambedkar Technological University (DBATU) shall be applied to the M.Arch. course.

All semesters will be counted towards the Final Class of the student i.e. Semester 1, Semester 2, Semester 3 and Semester 4.

Performance of these 4 semesters will together determine the Final Class of the student with Absolute Grading system.

Each student should publish a Research Paper in recognised National / International Journal with impact factor 1 and above, during the Second Year of Master of Architecture course. The research paper should be related to the Dissertation topic selected for Semester-4 of the Second year.

### Reporting of Submissions by the students and Institutes:

All students should mandatorily submit the course work to the college, completed in the class at the end of the day through the servers to the college / university.

The evaluation of the work done in the class by the student should be done by the teacher on the same day and data to be maintained on the server.

### Use of Computers:

The institutes should facilitate and encourage use of computers from 1<sup>st</sup> semester itself.

### Site Visits / Study Tours:

Site Visits / Study tours should be organised by the institutes to make the students aware of latest technologies in construction. At least 1 site visit / study tour per year should be organised.

### Industrial Exposure – Guidelines for selection of Office for Industrial Exposure:

1. The practical training through Industrial Exposure of 8 weeks duration should be carried out after Semester-3 and finalization of Dissertation topic, and shall end when Semester-4 begins.
2. The practical training should be carried out in the office of an experienced and practicing Architect registered with the Council of Architecture OR practicing Civil Engineer OR practicing Project Management Consultant OR successful Construction Company.
3. The practical training can be done in India in any city as is suitable for the student.
4. The practical training can also be done in any foreign country as is suitable for the student. The firm has to fulfil all the criteria of and be similar to the Indian counterpart.
5. The firm chosen for practical training should be preferably working on type and scale of recently completed and/or ongoing construction projects similar to those stated in the Studio subjects of the course and with minimum professional experience of 10 years in good standing.
6. The student should be exposed to all aspects of construction and management practices along with project documentation during the training period. The training shall be able to help the student develop and evolve the dissertation topic.

### Teaching and learning Process Matrix:

This matrix is to be used by the teachers and students to understand subject in detail.

It will unfold the desired skill sets required along with identification of teaching and learning process approach indicators.

It will also help teachers and students to evolve concepts and module development.

This is a tool recommended to be followed by subject teachers. It will create learning and understanding process of the subject.

Sr. No.	Subject Heads →	Subject -1	Subject -2	Subject-3	Subject -4
	Definitive questions for learning subjects ↓				
1	How does learning occur?				
2	What factors influence learning?				
3	What is role of learning?				
4	How does transfer occur?				
5	What type of learning is best explained by theory / graphics / visuals?				
6	How is technology used for learning in Construction Management?				

**Dr. Babasaheb Ambedkar Technological University**  
**First Year Master of Architecture - Construction Management**  
**Semester -1**

Subject Code	Subject	Teaching Scheme		Evaluation Scheme						Credits
		L	S	CA1	CA2	MSE	ESE-Paper	ESE-SV/STW	Total	
AR6CM1001	Construction Project Studio – 1	1	8	50	50	0	0	150 (SV)	250	5
AR6CM1002	Principles of Management and Business Organisations	2	0	10	10	20	60	0	100	2
AR6CM1003	Project Account Management	2	0	10	10	20	60	0	100	2
AR6CM1004	Project Planning and Scheduling Methods	1	4	30	30	0	0	90	150	3
AR6CM1005	Advanced Construction Technology & Services	2	0	10	10	20	60	0	100	2
AR6CM1006	Building Information Modelling Applications	1	4	30	30	0	0	90	150	3
AR6CM1007	Elective-1 (any 1)	1	4	30	30	0	0	90	150	3
A	Marketing Strategies									
B	Communication Skills									
C	Disaster Management									
D	Alternative Construction Technologies									
	<b>Total</b>	<b>10</b>	<b>20</b>	<b>170</b>	<b>170</b>	<b>60</b>	<b>180</b>	<b>420</b>	<b>1000</b>	<b>20</b>



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**Semester -2**

Subject Code	Subject	Teaching Scheme		Evaluation Scheme						Credits
		L	S	CA1	CA2	MSE	ESE-Paper	ESE-SV/STW	Total	
AR6CM2001	Construction Project Studio - 2	1	8	50	50	0	0	150 (SV)	250	5
AR6CM2002	Project Logistics and Resource Management	2	0	10	10	20	60	0	100	2
AR6CM2003	Financial Management & Project Formulation	2	0	10	10	20	60	0	100	2
AR6CM2004	Computer Aided Project Scheduling & Control	1	4	30	30	0	0	90	150	3
AR6CM2005	Research Methodology	2	0	10	10	20	60	0	100	2
AR6CM2006	Sustainable Construction Practices	1	4	30	30	0	0	90	150	3
AR6CM2007	Elective-2 (any 1)	1	4	30	30	0	0	90	150	3
A	Project Site Feasibility									
B	Intelligent Building Systems									
C	Green Building Performance & Compliance									
D	Standardisation and Certification									
	<b>Total</b>	<b>10</b>	<b>20</b>	<b>170</b>	<b>170</b>	<b>60</b>	<b>180</b>	<b>420</b>	<b>1000</b>	<b>20</b>

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**Semester -3**

Subject Code	Subject	Teaching Scheme		Evaluation Scheme						Credits
		L	S	CA1	CA2	MSE	ESE-Paper	ESE-SV/STW	Total	
AR7CM3001	Construction Project Studio - 3	1	8	50	50	0	0	150 (SV)	250	5
AR7CM3002	Legalities in Construction Projects	2	0	10	10	20	60	0	100	2
AR7CM3003	Contract Administration and Management	2	0	10	10	20	60	0	100	2
AR7CM3004	Quality Control and Quality Management	1	4	30	30	0	0	90	150	3
AR7CM3005	Safety Management	2	0	10	10	20	60	0	100	2
AR7CM3006	Dissertation Stage -1 - Topic with Research Paper	1	4	30	30	0	0	90	150	3
AR7CM3007	Elective – 3 (any 1)	1	4	30	30	0	0	90	150	3
A	Risk Management									
B	Built Facility Management									
C	Repairs & Maintenance of Buildings									
D	Heritage Site Management									
	<b>Total</b>	<b>10</b>	<b>20</b>	<b>170</b>	<b>170</b>	<b>60</b>	<b>180</b>	<b>420</b>	<b>1000</b>	<b>20</b>

**Dr. Babasaheb Ambedkar Technological University****Second Year Master of Architecture - Construction Management****Semester -4**

Subject Code	Subject	Teaching Scheme		Evaluation Scheme						Credits
		L	S	CA1	CA2	MSE	ESE-Paper	ESE-SV/STW	Total	
AR7CM4001	Dissertation - Stage-2 - Research Methodology, Data	2	6	50	50	0	0	150 (SV)	250	5
AR7CM4002	Dissertation - Stage-3 - Data Analysis, Conclusion	4	12	100	100	0	0	300 (SV)	500	10
AR7CM4003	Industrial Exposure (8 weeks Practical Training after Sem-3)	0	0	50	50	0	0	150 (SV)	250	5
	<b>Total</b>	<b>6</b>	<b>18</b>	<b>200</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>600</b>	<b>1000</b>	<b>20</b>