



BHARATI VIDYAPEETH (DEEMED TO BE UNIVERSITY)
COLLEGE OF ARCHITECTURE, PUNE-43

REVISED
CBCS 2018 COURSE
FOR
POST GRADUATE DEGREE PROGRAMME
IN
M. ARCH. (Sustainable Architecture)
Under Faculty of Engineering

Rules Regarding Passing, Continuous Assessment and Award of Class:

Rule 1: Eligibility Criteria:

A student seeking admission to Master of Sustainable Architecture must have passed B.Arch. or equivalent streams from a recognized university securing minimum 50% or above, aggregate marks. Common Entrance Test (CET) shall be conducted as per rules and regulations of Bharati Vidyapeeth Deemed University.

Rule No. 2: Scheme of Assessment

The candidate eligible for Master's degree shall appear for and pass examinations as under:

First Year Masters: Semester I and II

Second Year Masters: Semester III and IV

Rule No. 3: Granting of Term

Academic year shall consist of two semesters of 18 weeks each (15 weeks teaching+3 weeks internal assessment work).

The student shall be permitted to appear for examinations at the end of each semester only if he/she meets the following:

- A. 75% attendance in each head of passing of as prescribed by the university.
 - B. Satisfactory completion of Sessional Work prescribed in the syllabus.
 - C. Good Conduct.
1. For all courses there shall be Internal Assessment (IA) conducted by the institution and at the end of term University Examination (UE) for the courses specified in the structure. UE and IA constitute two separate heads of passing.
 2. In order to pass and to earn the assigned credits:
 - a) The candidate must obtain a minimum grade point of 6.0 (50% marks) at UE and also a minimum of 6.0 (50% marks) at IA.

Or

If he/she fails in IA, the student passes in the course provided he/she obtains a minimum of 25% in IA and grade point average(GPA) for course is at least 6.0 (50% in aggregate).The GPA for a course will be calculated only if student passes at UE.

- b) A candidate who fails in UE in a course has to reappear only at UE as a backlog candidate and clear head of passing. Similarly a candidate who fails in a course in IA has to reappear only at IA as a backlog candidate and clear head of passing.

3. It is mandatory for the student enrolled for the M.Arch. Course to complete his/her degree within a maximum of 5 years from his/her date of joining the course. If he/she fails to complete within 5 years, candidate has to take re-admission to the course.

Rule No. 4: Examinations

Evaluation Criteria for University Examination (UE) and Internal Assessment (IA)

Contact Hours and Credits assigned under various heads are as follows:

For lectures	1hour of lecture	1 credit	(UE + IA)
For studio	1 hour of studio	1 credit	(UE +IA)
For subject with Internal Assessment	15 hour of lectures	1 credit	(IA)
<ul style="list-style-type: none"> • Total number of credits for four semesters M.Arch. Course will be: 120 • Total Marks for all semesters together = 2200 • Additional Credits: 05 (These are over and above total credits for the marks and will appear separately in the mark list) 			

- a. Internal Assessment (IA):** The performance of the students shall be assessed progressively by an internal teacher for IA during the semester. The distribution under Internal Assessment is as follows:

Sr. No	Parameter considered	Marks awarded for 40 marks	Marks awarded for 100 marks
1	Unit Tests / Research or design Proposals/Report	20	50
2	Tutorials / Assignments / Case-Studies/ Climatic Analysis	10	25
3	Attendance	10	25
Distribution for internal assessment: 20 + 10 + 10 = 40			50+25+25=100

b. University Examination (Viva Voce):

- For university examinations of all semesters, assessment shall be done jointly by internal and external examiners in equal weightage.

c. University Examination (Theory):

- The question paper for theory subject will carry **60 marks** and will be of **2 hours**.

Evaluation criteria for additional credits:

Participation in activities such as research publications, conferences, seminars, workshops, etc or professional development (passing GRIHA, ECBC, IGBC, Accredited Professional exam) can be claimed to earn maximum 5 extra credits which are over and above the minimum number of credits (total 120 credits) the student has to complete for award of the degree. These credits would be awarded for type of activity undertaken from the joining of course till end of course as mentioned in the table below. Students have to submit the necessary documents at the end of IV semester.

Award of extra credits

Sr.No	Type of Activity	Credits awarded per participation
1	Publication in International/ national Journal(for 1st or 2nd author only)	01
2	Participation with presentation in seminar, workshop, conference, etc (national/ international/state/ local))	01
3	Participation in seminar, workshop, conference, etc (national/ international /state/ local)	0.5
4	Sending entry to design competition held at state / national / international level	01
5	Winning award at the contest mentioned above	02
6	Passing professional exams like LEED-IGBC,GRIHA – Trainer, Energy Manager, ECBC-Master Trainer, etc.	01
7	MOOC Courses for period of minimum 4 weeks with certificate	0.5

The student has to accumulate and submit the respective documents to the PG coordinator, to become eligible for getting the credits as mentioned above.

Rule no. 5: Performances and grading system

Award of Grades (Ten point Grading systems):

The assignment of score obtained by the candidate (out of maximum 100) to a grade may be done as follows:

.Range of % of marks	Grade Point	Grade Letter
80<= Marks <100	10	O
70<= Marks <80	9	A+
60<= Marks <70	8	A
55<= Marks <60	7	B+
50<= Marks <55	6	B
Marks <50	0	D

Eligibility for Passing:

The University rules and standards define the result (Pass/Fail) of a candidate. It is in the form of obtaining minimum CGPA (Cumulative Grade Point Average) calculated across all the semesters at the end of the course. Also the SGPA (Semester Grade Point Average) is calculated separately after every end-semester examination which is reflected in the grade card issued to the student after the completion of the course.

Award of Honors at the End of the Course (CGPA):

Range of CGPA	Final Grade	Performance Descriptor
9.50<= CGPA <= 10.00	O	Outstanding
9.00<= CGPA <= 9.49	A+	Excellent
8.00<= CGPA <=8.99	A	Very Good
7.00<= CGPA <= 7.99	B+	Good
6.00<= CGPA <= 6.99	B	Average
5.00<= CGPA <= 5.99	C	Satisfactory
CGPA below 5.00	F	Fail

Grade Card:

The grade cards shall be issued to the students in a uniform format given by the University. The grade card will reflect the marks obtained by the student, Credit points of the individual paper as well as Semester, conversion of marks into grades, calculation of SGPA for each individual semester and the CGPA for the complete course at the end of the final semester.

SUMMARY OF M.ARCH (SA) -2018 CBCS COURSE

Semester I	
Sub. Code	Subjects
SA101	Sustainable Development
SA102	Energy management and Audit
SA103	Sustainable Design Studio-I
SA104	Energy Conservation I (Thermal)
SA105	Sustainable Materials and Technology
SA106	Elective I

Semester II	
Sub. Code	Subjects
SA201	Green Building Assessment & Certification
SA202	Energy Systems and Utilities
SA203	Sustainable Design Studio-II
SA204	Energy Conservation II(Luminous)
SA205	Research Design and Methods
SA206	Elective II

Semester III	
Sub. Code	Subjects
SA301	Advanced Simulation Modeling
SA302	Clean Technologies
SA303	Sustainable Design Studio-III
SA304	Energy Conservation III (Acoustics and Aqueous)
SA305	Dissertation I
SA306	Elective III

Semester IV	
Sub. Code	Subjects
SA401	Dissertation II
SA402	Self Study
SA403	Seminar
SA404	Internship

M.ARCH (SA) -2018 CBCS COURSE Semester I		Total Duration: 30 Hrs/Week Total Marks: 600 Total Credits: 30									
Sub. Code	Subjects/ Courses	Examination Scheme			Teaching Scheme			Credits			
		UE	IA	Total	Lecture per week	Studios per week	Total no. of classes / semester (week x 15)	Lecture	Studio	Total Credits	
		Theor y	Oral	Sessi onal							
SA101	Sustainable Development	60	-	40	100	04	00	60	4	0	4
SA102	Energy management and audit	60	-	40	100	04	00	60	4	0	4
SA103	Sustainable Design Studio-I	-	60	40	100	02	08	150	2	8	10
SA104	Energy Conservation I (Thermal)	60	-	40	100	06	00	90	6	0	6
SA105	Sustainable Materials and technology	60	-	40	100	04	00	60	4	0	4
SA106	Elective I	-	-	100	100	02	00	30	2	0	2
	Lectures/ week				600	22	8				30

M.ARCH (SA) -2018 CBCS COURSE Semester II		Total Duration: 30 Hrs/Week Total Marks: 600 Total Credits:30									
Sub. Code	Subjects/ Courses	Examination Scheme			Teaching Scheme			Credits			
		UE	IA	Tota l	Lecture per week	Studios per week	Total no. of classes / semester (week x 15)	Lecture	Studio	Total Credits	
		Theory	Oral	Sessional							
SA201	Green Building Assessment & Certification	-	60	40	100	04	00	60	4	0	4
SA202	Energy systems and Utilities	60	-	40	100	04	00	60	4	0	4
SA203	Sustainable Design Studio-II	-	60	40	100	02	08	150	2	8	10
SA204	Energy Conservation II(Luminous)	60	-	40	100	06	00	90	6	0	6
SA205	Research Design and Methods	60	-	40	100	04	00	60	4	0	4
SA206	Elective II	-	-	100	100	02	00	30	2	0	2
	Lectures/ week				600	22	08				30

M.ARCH (SA) -2018 CBCS COURSE Semester III		Total Duration: 30 Hrs/Week Total Marks: 600 Total Credits: 30									
		Examination Scheme			Teaching Scheme				Credits		
Sub. Code	Subjects/ Courses	UE		IA	Total	Lecture per week	Studios per week	Total no. of classes / semester (week x 15)	Lecture	Studio	Total Credits
		Theory	Oral	Sessional							
SA301	Advanced Simulation Modeling	-	60	40	100	04	00	60	4	0	4
SA302	Clean Technologies	60	-	40	100	04	00	60	4	0	4
SA303	Sustainable Design Studio-III	-	60	40	100	02	08	150	2	8	10
SA304	Energy Conservation III (Acoustic and Aqueous)	60	-	40	100	06	00	90	6	0	6
SA305	Dissertation I	-	60	40	100	04	00	60	0	4	4
SA306	Elective III	-	-	100	100	02	00	30	2	0	2
	Lectures/ week				600	22	08				30

M.ARCH (SA) -2018 CBCS COURSE Semester IV		Total Duration: 30 Hrs/Week Total Marks: 400 Total Credits: 30									
		Examination Scheme			Teaching Scheme				Credits		
Sub. Code	Subjects/ Courses	UE		IA	Total	Lecture per week	Studios per week	Total no. of classes / semester (week x 15)	Lecture	Studio	Total Credits
		Theory	Oral	Sessional							
SA401	Dissertation II	-	60	40	100	04	14	270	4	14	18
SA402	Self Study	-	-	100	100	01	03	60	1	3	4
SA 403	Seminar	-	-	100	100	01	03	60	1	3	4
SA404	Internship		60	40	100	*	*		0	0	4
	Lectures/ week				400	06	20				30

*Internship (40 working days;8 hours each) to be undertaken during intermediate time between I ,II & III Semester, details of which are mentioned in the detailed syllabus. The Assessment of the same will be held during Semester IV.

Annexure

A. Guidelines for Sessional work and Internal assessment

Sessional work prepared by students shall be continuously assessed by internal faculty members throughout the semester.

Theory Subjects

Internal Assessment shall be done on the basis of performance in the unit tests and assignments as follows.

a. Unit Tests

A minimum of 3 unit tests will be conducted of 20 marks each for theory subject preferably one test per two modules. The schedule for the same will be declared in the teaching schedule of that subject. To calculate final marks of the unit test for IA following procedure is followed:

- Out of the three unit tests conducted during the semester, the marks of only two unit tests in which the candidate has shown his/her best performance shall be considered. These marks will be averaged to convert out of 20 marks for IA.
- If the candidate appears only for two unit tests conducted during the semester, he/she will not be given the benefit of the best performance in the tests.
- If the candidate appears only for one unit test conducted during the semester, to calculate the marks obtained in the unit tests it will be considered that the candidate has got 0(zero) marks in other unit tests.

b. Awards for Tutorials / Assignments

Minimum two number of assignments in the form of tutorials/case-studies/ literature review/climatic analysis, etc should be submitted under the respective subject. The assignments should be designed to apply theory and explore the thinking and research ability of the student.

c. Awards for Attendance

The student will be eligible for acquiring the marks under this criterion, subject to fulfilling the minimum attendance in the respective subject required to grant the term.

Studio Subjects (Design and research project)

Internal Assessment shall be done on the basis of presentations and interim making done throughout the semester.

Three (3) nos. of intermediate juries and presentations shall be conducted throughout the semester at three stages for design development and review.

Stage 1 : Climate data collection, site selection and analysis

Stage 2: Design review and building strategies

Stage 3: Performance assessment with the help of manual calculations and simulation softwares

a. Design or research proposal

Work produced by the student should be assessed based on the performance to arrive at final design solution or research output.

b. Awards for Assignments / Case-Studies/ Climatic analysis/ Program analysis

Minimum two numbers of assignments in the form of case-studies/ literature review/climatic analysis, etc should be submitted.

c. Awards for Attendance

The student will be eligible for acquiring the marks under this criterion, subject to fulfilling the minimum attendance in the respective subject required to grant the term.

Allied subjects (Electives, seminar, self study)

Internal Assessment shall be done on the basis of presentations done throughout the semester and final report submitted.

B. List of Electives

The subject of electives is being introduced with an intention of an in depth study of a particular subject of students liking in greater detail but in larger context of overall scope of the course. It also helps the student to acquire expertise in his choice of subject.

Following is the list of topics from which the students would have an option to choose a topic and undertake study. Every semester student can opt from only one group. As far as possible the topics are

limited to below mentioned topics only. However under exceptional circumstances, if deemed necessary and opted for by minimum stipulated number of students and agreed to by the principal and the coordinator, any additional topic may also be chosen and undertaken for study.

Strength of any preferred subject to be minimum 10 per topic chosen.

Core Electives	Allied Electives	Open Electives
Energy efficient lighting of interiors	Building Information Modeling	Swachh Bharat
Urban Wetlands	Visual communication	Traditional knowledge systems related to conservation of resources
Zero energy development	Advanced HVAC systems	Humanities and social sciences
Energy Efficient Envelope Design	Disaster Management	Community Services
Vernacular architecture	Digital Architecture	Writing and verbal skills

C. Guidelines for structure of the research and dissertation report

Report should be submitted to the subject coordinator in A4 size portrait format as a hardbound copy (red color for RP and black for design dissertation) with title page embossed on Front cover and only title on the edge. The report must be accompanied by a CD containing full text pdf and MS word. All images should be saved in jpeg format in a separate folder. Use **Times New Roman 12 fonts** for main body and 14 bold for headings with 1.5 spacing. All references, quotes, images, graphs, tables should be cited properly and duly acknowledged. Permission should be taken for copyright material. Two numbers of copies should be submitted.

CONTENTS OF THE REPORT

1. Cover page: It should contain title of the course, name of the institute, title of the project, student's name, year of submission and guide's name
2. Certificate from the Institute
3. Declaration for authenticity
4. Acknowledgements
5. Abstract : A summary of report (not more than 150 words)
6. Table of contents- A numbered list of headings and subheadings with page numbers
7. List of figures and tables with page numbers
8. Main body of report arranged in various sections
 - a. Introduction
 - b. Aim and objectives
 - c. Scope and limitations
 - d. Methodology
 - e. Literature review
 - f. Case studies and data presentation
 - g. Analysis and conclusions
 - h. Program brief and analysis
 - i. Site analysis
 - j. Design solution
 - k. References (use APA 6)
9. Annexure

