AC 6/6/2012
Item No. 4.78

UNIVERSITY OF MUMBAI

Syllabus for the Bachelor of Architecture

Programe : B.Arch.

Course : Bachelor of Architecture
(Semester I & II)

(As per Credit Based Semester and Grading System with effect from the academic year 2012–2013)

Introduction

1.Notes for the creation of a new syllabus in architecture (Bachelor of Architecture, University of Mumbai)

> *"It is time that (we) remembered that schools were set up to challenge the wisdom of the world and its corruption, rather than to reinforce it."*
> Daniel Liebeskind

Architectural Education in India has been weighed down by the traditions of Architectural Practice that labor under the twin hegemonies of design and technology. In the past architectural curricula have developed as reactions to historical change, to immediately preceding narratives. We must appreciate that architecture today is more and more being informed by disciplines out of/other than architecture.

There is a need for redefining the Student of Architecture today. A student of architecture is not only a learner, but also a producer of knowledge. The student's tools include a critical, evaluative, conceptual mind, the ability to interconnect concepts/ facts, to use theory and argument and seek a higher level of explanation in the process of learning and its application to design. The student's initial challenges shall be to differentiate between objective and accepted reality, to appreciate architecture as a cultural process, and to perceive change as a series of discontinuities, more than cause/effect transitions. Only then can the student become relevant in today's world, rather than mindlessly repeat the dogma of the past.

In the creation of a new syllabus for the Bachelor of Architecture Course, certain adjustments to older mindsets must be made:

1. Architecture has to be appreciated as a 2nd Order Discipline. It is a Meta discipline, a critical attitude, not merely an empirical discipline like engineering that needs/seeks/works with data.
2. Architecture deals with fundamental issues of users, cities and societies, and not only materials, processes and aesthetics. It questions the presupposed, and seeks new and contemporary meanings.

Before a new syllabus is made, the makers (teachers) must recognize their own possible insidiousness in the curriculum making process, and objectively go beyond their own accepted knowledge beliefs and realities. Real learning will not emerge merely out of the didactic (which itself emerges out of biases, prejudices and ad-hoc choices). Peter Eisenmann has said: *"The only way to advance in a discipline is to displace knowledge, and the only discourses that remain healthy are those that are displacing discourses. The ones that cling to their theory and their tradition and their rationality, die."*

The following objectives for a new syllabus for architectural education are proposed:

1. The new syllabus should prepare a student to understand and locate himself/herself in the real world.
2. The new syllabus should appreciate and reconcile itself to the imperfect times that we live in.
3. The new syllabus should reflect, through application, upon the technological state-of-the-art of the world today and its relevance.
4. The new syllabus should give a direction or hope for the future.

In order to fulfill these objectives, the following questions may be asked first:

1. What is a work of architecture?
2. How is architecture different from nature?
3. How useful are our tools (curriculum) for evaluating these two questions (meta-questioning)?

Since the latter half of 2011, the Ad-hoc Board of Studies in Architecture (University of Mumbai) has called together the principals and senior faculty of all the colleges of architecture under the university for a series of deliberations on the nature of the new syllabus. Right from the very outset there has been an agreement that the syllabus should reflect the following objectives:

- Architecture is ‘discipline’/ meta-discipline, not merely an empirical process
- Critical thinking/ criticality is important. The student must be given the tools to critically evaluate the world he/she lives in
- The student needs to be redefined as more than a leaner, but a producer of knowledge
- In the spreading world of information technology and easily available knowledge, the teacher needs to be redefined as more than a giver of information, but one who can show the student how design is a critical process
- The architecture syllabus needs be flexible. Individual colleges should be given the means to interpret and expand on the syllabus in their own way
- Diversity must be appreciated and encouraged. Learning can be simultaneous and non-linear
- A student needs to inculcate the ability to question, ability to redefine technology, ability to question the relevance of technology
- Being informed by disciplines out of/other than architecture, Non technology subjects, particularly those from the liberal arts and the humanities may come into foreground
- Emphasis should be on theory also, not only on practice (empiricism)
- Encourage research and give direction to research

In addition to these agreed objectives, the following external requirements are also acknowledged. The first is the adoption of the Credit system for evaluation and grading, that the University of Mumbai has adopted for all future syllabi. This entails converting the current Annual pattern Syllabus to a Semester Pattern. Secondly, acknowledging the requirements given by the Council of Architecture, New Delhi; the course shall now be divided into two distinct stages- a Basic Course and Advanced Course. The Council has also encouraged individual colleges to be given both time and credits to develop their additional syllabi components so that diversity in directions for architectural education and practice shall be encouraged. As such 25% of the timetable shall be dedicated to projects, electives or coursework offered by the colleges themselves based on their philosophy and institutional objectives.

2-0
Explanatory notes on New Aspects in the Syllabus

Sessional work

Sessional work in the B. Arch. Course can be defined as mandatory assignments carried out by students in the classroom or the studio during the course of the semester (session).

Sesssional work will be detailed out in the course content for each subject, which may include drawings, sketches, reports, presentations, models as per the requirements. In the case of theory intensive subjects, sessional work may be in the form of class tests, seminars, presentation of reports or documentation.

In the design studio or for the technical subjects, sessional work shall consist of supervised design development, the working out of technical details, reports and documentation. All these assignments are marked in process and upon completion may be assessed in the form of Crits or Juries. Sessional work in
all subjects shall be designed, carried out and assessed by the subjects in charge and collated as Internal Marks.

Allied Design Studio

The Architectural Design Studio is the central subject in the architecture course; other subjects supplement knowledge, skills and critical understanding of the design of architecture. The **Allied Design Studio** is also a studio where subjects allied to Architectural Design can be taught and sessional work carried out in the form of design projects. These subjects are closely associated with the core of design and architecture.

In the previous syllabus, these subjects included Basic Design, Interior Design, Landscape Design and Urban Design/ Urban Planning. In the new syllabus, these subjects shall form part of a representative list that may include other design based subjects such as Visual Studies, Graphic Design, Product Design, Furniture Design, the Design of Outdoor Spaces and Public Places, or Town Planning.

Each college may determine the teaching modules and sessional work for these subjects, as also their location in the first three years. Each subject shall have both a Lecture as well as a Studio component. Credits for the Allied Design Projects will be given to each student as per his/her attendance, participation and contribution towards the projects. These Credits will be given by the respective Project teachers/ coordinators for the term.

College Projects
College projects form part of the 25% class time that shall be planned by the colleges according to their philosophy and institutional objectives. College Projects may include mixed group participation of students from different years, or may be dedicated to any one class. The College Project time and credits may also be used to supplement additional coursework to advance knowledge in the core subjects in the syllabus.

Credits for these projects will be given to each student as per his/her attendance, participation and contribution towards the projects. These Credits will be given by the respective project coordinators for the term.

The following is a representative list of what may constitute college projects: Seminars, Tutorials/ additional classes for any course, Guest Lectures, putting up Exhibitions, Workshops, participating in Architectural Competitions or conducting Site Visits or Study Tours.

Electives
Electives form part of the 25% class time that shall be planned by the colleges according to their philosophy and institutional objectives. Electives may include mixed group participation of students from different years, or may be dedicated to any one class. Electives shall be offered by the college to each class to supplement additional coursework or to advance knowledge in architecture and allied fields.

Credits for electives will be given to each student as per his/her attendance, participation and satisfactory completion of assignments. These Credits for the Electives shall be given by the respective elective teacher for the term.

Representative Lists for possible electives in architecture and allied fields can be referred to from the Council of Architecture's Document on Minimum Standards of Architectural Education. Each college can, of course, determine electives based on the needs of the day, and the availability of resource persons.

Scheme of Teaching and Examinations
Bachelor of Architecture (B. Arch.) Semester I

	Semester I Exam conducted by individual colleges	Teaching Scheme		Credits		
Sub. No.	SUBJECTS	Lecture	Studio	Theory	Studio	Total
101	Architectural Design Studio		4		4	4
102	Allied Design Studio		4		4	4
103	Architectural Building Construction & Materials	2	3	2	3	5
104	Theory & Design of Structures	3		3		3
105	Humanities	3		3		3
106	Environmental Studies	2		2		2
107	Architectural Representation & Detailing		3 +3		6	6
120	College projects		6		6	6
121	Elective		3		3	3
	Total	10	26	10	26	36

	Semester I Exam Exam conducted by individual colleges	Examination Scheme			
Sub. No.	SUBJECTS	Theory (paper)	Internal	External viva	Total
101	Architectural Design Studio		150		150
102	Allied Design Studio		150		150
103	Architectural Building Construction	70	80		150
104	Theory & Design of Structures	50	50		100
105	Humanities	50	50		100
106	Environmental Studies		50		50
107	Architectural Representation & Detailing		100+50		150
120	College projects		100		100
121	Elective		50		50
	Total				1000

Notes: Each period shall be of 50 minutes duration and each semester shall consist of 90 days of teaching programme.

The colleges are required to arrange the time table per semester as per the teaching scheme prescribed.

Syllabus (Course Content) for First Year B. Arch. course
Semester I

101 Achitectural Design Studio 1

Credits-4

Teaching Hours
Lectures- --------
Studio- 72 periods of 50 minutes duration -60 hours

Sessional marks-
Internal- 150 External ----**-**

Understanding the human body in space

Activities and their relation ship with spaces

Scales and proportions

Developing a language vocabulary, visualization

Exposure to architecture,

Exposure to architects and their works

Buildings, practices, site visits, meeting architects

Sessional work based on the basis of above.

102 Allied Design Studio 1

Credits-4

Teaching Hours
Lectures
Studio- 72periods of 50 minutes duration - 60hours

Sessional marks-
Internal- 150 External ------

The course content will be developed by the individual colleges as per their choice of Allied Design scheme.
The schemes may include Visual Studies, Basic Design, Graphic Design, Product Design, Furniture Design, Design of Outdoor Spaces

Visual Field & Practices *(given as an example)*
Visual practices visual compositions using real world materials

Similarity & self-similarity understanding diversity

Natural & artificial forms/colors/textures; inherent/applied

103 Architectural Building Construction & Materials 1

Credits-5

Teaching Hours-
Lectures-36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours

Scheme of examination
Theory one paper of three hours duration Max. marks- 70 Min marks for passing- 28

Sessional marks-
Internal- 80 marks External ----

Building Construction

Elements of buildings -Substructure/ Superstructure

Understanding role of building elements

Understanding construction built form & building practice

Paradigms: load bearing structures, frame structures

Study of Simple buildings from foundation to roof

Building construction drawing practices and conventions

Building details models

Building Materials

Contextual relevance- what are buildings made of

Natural and artificial materials- where they are used

Materials shall be studied by understanding their PROPERTIES viz. Density & Specific gravity, Strength, Thermal properties etc.

The study shall strongly emphasize the 'Selection Criteria' comprising various aspects viz. Technology, Aesthetic, Socio-Cultural, Socio-Economic, Ecology (green materials), etc.

104 Theory & Design of Structures 1

Credits- 3

Teaching Hours
Lectures- 54 periods of 50 minutes duration- 45 hours
Studio- --------
Scheme of examination
Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-
Internal- 50 External ----

Introduction to the subject and theory of structure:

a. Aims, objectives and scope of study of theory of structure for architects.
b. Technical names and function of various structural components from foundation to roof.
c. Fundamentals and mechanics.

d. S.i. system and units.
e. Understanding structure why things don't fall down

Structural systems- ways to create inner space
Under standing loads of various types

understanding the forces and Moments –

Definition, cause, effect, units
Types of forces,
Conditions of equilibrium
Beam reactions

105 Humanities 1

Credits- 3
Teaching Hours
Lectures- 54 periods of 50 minutes duration – 45 hours
Studio- ------
Scheme of examination
Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20
Sessional marks-
Internal- 50 External ----
World history systems of knowledge

History of culture understanding human cultural development, products and sociology

Chronology India and the world

106 Environmental Studies 1

Credits- 2

Teaching Hours-
Lectures**-** 36 periods of 50 minutes duration

Studio- ------
Sessional marks-
Internal- 50
External -----

OBJECTIVE
Understand the relationship between Natural environment and Built environment

Understanding Natural resources
Forest resources, Water resources, Mineral resources, Food resources, Energy resources, Land resources

CONCEPTS
Natural Environment, Ecology and ecosystems, Bio diversity and co existence

Relationship and co-existence of Built & Natural Environments

Building Types & Lifestyles in different geographic zones and climatic zones

107 Architectural Representation & Detailing 1

Credits-6

Teaching Hours

Lectures------

Studio- 108 periods of 50 minutes duration – 90 hours

Sessional marks-

Internal- 150 External ----

Graphics

Studio work culture pencils, instruments, table, etc.

Plane geometry & solid geometry orthography

Drawing a building understanding thicknesses and hollows; plans, sections, elevations

Freehand

Memory left brain creativity

Objects taking things apart/ reassembly

Workshop

Building skills studio work culture; instruments, tabletop; cutting, joining, shaping

Materials and media installations assembly

120 College Projects 1

Credits- 6

Teaching Hours-

108 periods of 50 minutes duration - 90hours

Sessional marks-

Internal- 150 External -------

(to be developed by individual colleges)

The following is a representative list of what may constitute college projects:

Seminars, Tutorials/ additional classes for any course, Guest Lectures, putting up Exhibitions, Workshops, participating in Architectural Competitions or conducting Site Visits or Study Tours.

121 Elective 1

Credits- 3

Teaching Hours

Studio- 54 periods of 50 minutes duration – 45 hours

Sessional marks-

Internal- 50 External ------

(to be developed by individual colleges)

Scheme of Teaching and Examinations
Bachelor of Architecture (B. Arch.) Semester II

	Semester II Exam conducted by individual colleges	Teaching Scheme		Credits		
Sub. No.	COURSES	Lecture	Studio	Theory	Studio	Total
201	Architectural Design		4		4	4
202	Allied Design Studio		4		4	4
203	Architectural Building Construction & Materials	2	3	2	3	5
204	Theory & Design of Structures	3		3		3
205	Humanities	3		3		3
206	Environmental Studies	2		2		2
207	Architectural Representation & Detailing		3 +3		6	6
220	College projects		6		6	6
221	Elective		3		3	3
	Total	10	26	10	26	36

	Semester II Exam Exam conducted by individual colleges	Examination Scheme			
Sub. No.	SUBJECTS	Theory (paper)	Sessional Work	External viva	Total
201	Architectural Design Studio		150		150
202	Allied Design Studio		150		150
203	Architectural Building Construction	70	80		150
204	Theory & Design of Structures	50	50		100
205	Humanities	50	50		100
206	Environmental Studies		50		50
207	Architectural Representation & Detailing		100+50		150
220	College projects		100		100
221	Elective		50		50
	Total				1000

Notes: Each period shall be of 50 minutes duration and each semester shall consist of 90 days of teaching programme.

The colleges are required to arrange the time table per semester as per the teaching scheme prescribed.

Syllabus (Course Content) for First Year B. Arch. course
Semester II

201 Architectural Design Studio 2

Credits-4

Teaching Hours
Lectures- --------
Studio- 72 periods of 50 minutes duration -60 hours
Sessional marks-
Internal- 150 External -----

Object & context

Architecture as environment

Architecture in context

Architectural insertions, Documentation, site visits, documentation through text, photography, drawings, computers

Design exercises – Designing of space for small groups and minor activities with reference to climate, site conditions, and user requirements.

202 Allied Design Studio 2

Credits-3

Teaching Hours
Lectures
Studio- 72periods of 50 minutes duration - 60hours

Sessional marks-
Internal- 150 marks External ------

The course content will be developed by the individual colleges as per their choice of Allied Design scheme.
The schemes may include Visual Studies, Basic Design, Graphic Design, Product Design, Furniture Design, Design of Outdoor Spaces

Visual Field & Practices *(given as an example)*
Aesthetics as a product of context/ media
Mixing media/ hybridity
Visual culture icon, index, symbol
Installations exercises

203 Architectural Building Construction & Materials 2

Credits- 5

Teaching Hours-
Lectures-36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours

Scheme of examination
Theory one paper of three hours duration Max. marks- 70 Min marks for passing- 28

Sessional marks-
Internal- 80 marks
External ----

Building Construction
walling systems ,external envelopes, internal partitions in various materials, cavity walls

openings/fenestrations

structural considerations; structural spans; lintel, beam, arch

fenestrations: opaque, translucent, transparent

Building Materials
Material Syntax

synchronic and paradigmatic choices

Understanding Specifications & Quantities
The outcome of this course is the ability to SPECIFY building materials as per the demands of Design Program.

204 Theory & Design of structures 2

Credits- 3

Teaching Hours
Lectures- 54 periods of 50 minutes duration- 45 hours
Studio- --------
Scheme of examination
Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-
Internal- 50 External ----

Understanding various concepts about structures as tall, long, thin, wide etc.

Understanding Articulation of structural systems from foundation to roof

Understanding the following:
1) Properties of section
2) Stress and strain:
3) Shear force and bending moment
4) Theory of simple Bending

205 Humanities 2

Credits- 3

Teaching Hours
Lectures- 54 periods of 50 minutes duration – 45 hours
Studio- ------
Scheme of examination
Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-
Internal- 50 External ----

History of art culture & aesthetics

Society, Context, Aesthetics, Architecture

Prehistory, Paleolithic and Neolithic Cultures,

River Valley Civilizations

Classical Greece and Rome

Vedic Culture, Kingship in India, Hellenistic influences

Buddhism and Jainism

206 Environmental Studies 2

Credits- 2
Teaching Hours
Lectures- 36 periods of 50 minutes duration – 30 hours
Studio- -----
Sessional marks-
Internal- 50 marks External ---

OBJECTIVE
Study the effect of architectural development on natural resources

Effects of architectural development on natural resources

Concepts of sustainable development
Renewable resources
Water cycle and its management
Conservation and generation of energy

207 Architectural Representation & Detailing 2

Credits- 6

Teaching Hours
Lectures------
Studio- 108 periods of 50 minutes duration – 90 hours
Sessional marks-
Internal- 150 External ----

Graphics
Views isometric, axonometric

Perspective & sciography exercises (may be done on sketch

Freehand

Landscape outdoor sketching

Anatomy

Workshop

Visual practices exercises

Architectural design exercises- making models

Theory of structures and construction – making of models

220 College Projects 2

Credits- 6

Teaching Hours-
108 periods of 50 minutes duration - 90hours

Sessional marks-
Internal- 150
External -------

(to be developed by individual colleges)

The following is a representative list of what may constitute college projects

Seminars, Tutorials/ additional classes for any course, Guest Lectures, putting up Exhibitions, Workshops, participating in Architectural Competitions or conducting Site Visits or Study Tours.

221 Elective 2

Credits- 3

Teaching Hours
Lectures
Studio- 54 periods of 50 minutes duration -45 hours

Sessional marks-
Internal- 50 External -----

(to be developed by individual colleges)

DETAILS OF SCHEME OF EXAMINATION SEMESTER I
TO BE CONDUCTED BY COLLEGES.

BACHELOR OF ARCHITECTURE SEMESTER I DETAILS OF SCHEME OF EXAMINATION										
	Semester I EXAMINATION Exam conducted by individual colleges	THEORY				SESSIONAL MARKS				
						Internal		External		
SR NO	COURSES	No of papers	duration	Max. marks	Min. Marks for passing	Max. marks	Min. Marks for passing	Max Marks	Min. Marks For passing	Max. marks for the course
101	Architectural Design 1	---	----	---	---	150	75	---	----	150
102	Allied Design 1	----	---	---	---	150	75	---	----	150
103	Architectural Building Construction 1	1	3HOURS	70	28	80	40	---	---	150
104	Theory & Design of Structures 1	1	2HOURS	50	20	50	25	---	---	100
105	Humanities 1	1	2HOURS	50	20	50	25	---	---	100
106	Environmental Studies 1	---	---	---	---	50	25	---	---	50
107	Architectural Representation & Detailing 1	---	---	---	---	100+50	75	---	---	150
120	College projects 1	---	---	---	---	100	50	---	---	100
121	Elective 1	---	---	---	---	50	25	---	---	50
	Total marks for the examination									**1000**

Notes:
Theory, internal sessional work, and external viva are considered as separate heads of passing

Total marks for the examination = 1000

Minimum marks for passing the examination= 50

DETAILS OF SCHEME OF EXAMINATION SEMESTER II
TO BE CONDUCTED BY COLLEGES.

BACHELOR OF ARCHITECTURE SEMESTER II DETAILS OF SCHEME OF EXAMINATION										
	Semester II EXAMINATION Exam conducted by individual colleges	THEORY				SESSIONAL MARKS				
						Internal		External		
SR NO	COURSES	No of papers	duration	Max. marks	Min. Marks for passing	Max. marks	Min. Marks for passing	Max Marks	Min. Marks For passing	Max. marks for the course
201	Architectural Design Studio 2	---	----	---	---	150	75	---	----	150
202	Allied Design studio 2					150	75	---	----	150
203	Architectural Building Construction 2	1	3HOURS	70	28	80	40	---	---	150
204	Theory & Design of Structures 2	1	2HOURS	50	20	50	25	---	---	100
205	Humanities 2	1	2HOURS	50	20	50	25	---	---	100
206	Environmental Studies 1	---	---	---	---	50	25	---	---	50
207	Architectural Representation & Detailing 2	---	---	---	---	100+50	75	---	---	150
220	College projects 2	---	---	---	---	100	50	---	---	100
221	Elective 2	---	---	---	---	50	25	---	---	50
	Total marks for the examination									**1000**

Notes:

Theory, internal sessional work, and external viva are considered as separate heads of passing

Total marks for the examination = 1000

Minimum marks for passing the examination= 50

UNIVERSITY OF MUMBAI

Syllabus for the Bachelor of Architecture

Programme : B.Arch.

Bachelor of Architecture
(Semester III & IV)

(As per Credit Based Semester and Grading System with effect from the academic year 2013–2014)

Scheme of Teaching and Examinations
Bachelor of Architecture (B. Arch.) Semester III

	Semester III Exam conducted by individual colleges	Teaching Scheme		Credits		
Sub. No.	SUBJECTS	Lecture	Studio	Theory	Studio	Total
301	Architectural Design Studio		6		6	6
302	Allied Design Studio		3		3	3
303	Architectural Building Construction	3	3 classes Technology studio	3	1	4
304	Theory and Design of Structures	2		2	1	3
308	Architectural Building Services	2		2	1	3
305	Humanities	3		3		3
306	Environmental Studies	2		2		2
307	Architectural Representation & Detailing	2	2	2	2	4
309	Architectural Theory	2				2
320	College projects		3			3
321	Elective		3			3
	Total	16	20	16	20	36

	Semester I II Exam Exam conducted by individual colleges	Examination Scheme			
Sub. No.	SUBJECTS	Theory (paper)	Internal	External viva	Total
301	Architectural Design Studio		100	100	200
302	Allied Design Studio		100		100
303	Architectural Building Construction	50	50		100
304	Theory and Design of Structures	50	50		100
308	Architectural Building Services	50	50		100
305	Humanities	50	50		100
306	Environmental Studies		50		50
307	Architectural Representation & Detailing		100		100
309	Architectural Theory		50		50
320	College projects		100		100
320	Elective		100		100
	Total				1100

Syllabus (Course Content) for Second Year B. Arch. Semester III

301 Architectural Design Studio 3

Credits-6

Teaching Hours
Lectures- --------
Studio- 108 periods of 50 minutes duration -90 hours

Sessional marks-
Internal- 100 External ---100

Objectives:

Understanding space requirements for various activities for small groups of people
Understanding indoor and out door spaces created by built forms.

Design Objectives
Design of spaces suitable for the intended activity
Design of spaces as per the behavioral needs of individuals and groups.
Design and detailing of built form and required infrastructure with reference to methods of construction, and materials

Design projects
Built and Un-built spaces for multiple activities for a small group of people
Built and Un built spaces for relatively larger groups.

302 Allied Design Studio 3

Credits-3

Teaching Hours
Lectures
Studio- 54 periods of 50 minutes duration – 45 hours

Sessional marks-
Internal- 100 External ------

The course content will be developed by the individual colleges as per their choice of Allied Design scheme.

303 Architectural Building Construction & Materials 3

Credits-4

Teaching Hours-

Lectures-54 periods of 50 minutes duration- 45 hours
Studio- 54 periods of 50 minutes duration- 45 hours to be conducted as technology studio (out of which 15 hours are considered for credit calculations)

Scheme of examination

Theory: one paper of three hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 marks External ----

Objectives-

Understanding concepts of framed structures in R.C.C.
Understanding methods of construction of various components of R.C.C. Structures

1. Structural framing in R.C.C for low rise buildings.

2 Foundation Systems, Floor Systems, Wall Systems, staircases, Roof Systems,

3. Moisture and Thermal protection in R.C.C. framed low rise buildings.

4. Movable light weight partitioning and paneling, Stairs in Interior spaces.

Sessional Work : based upon above in form of sketches, drawings, Case Studies, Reports.

Application to Architectural Design Projects.

304 Theory & Design of Structures 3

Credits- 3

Teaching Hours

Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours
(to be conducted as technology studio out of which 15hours are considered for credit calculations)

Scheme of examination

Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 External ----

Objectives:
Understanding of basic theories and principles of structural analysis
Understanding of properties of materials relevant to structural analysis
Understanding of behavior of structural elements under various conditions

1. Theory of simple bending

    a. Theory of simple bending only equations & problem.
    b. Design of timber & steel beams.
    c. Shear stress distribution.

2. Deflection

    a. Simply supported beams and cantilevers with distributed & point loads by Euler's theory.
    b. Introduction to Macaulay's method
    c. Application of deflection in structural planning

3. Direct AND Bending Stresses

    a. Combined stress distribution for Beam, column and footing
    b. Application to design the footing of wall and column (only plan dimension)

4. Basics of RCC
    Grades of concrete and steel used in RCC.
    Application of thumb rules for selecting dimensions of slab, beam and column for low rise and low span structures. Placement of steel based of Bending moment and shear force diagrams

5. Material testing

    Cement(OPC)
    Initial and final setting time
    Consistency
    Fineness
    Compressive strength

    Sand
    Bulking, silt content, Fineness modulus

    Bricks
    Density, Water absorption, compressive strength

305 Humanities 3

Credits- 3
Teaching Hours
Lectures- 54 periods of 50 minutes duration – 45 hours
Studio- ------
Scheme of examination
Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20
Sessional marks-
Internal- 50 External ----

The study of the socio-cultural circumstances, the art and the architecture of the following:

The decline of the Roman Empire
The beginnings of Christianity and the formation of the Holy Roman Empire

Early Christian architecture
The Byzantine age
The Romanesque age
Medieval Europe
The Gothic age

The rise of Islam and its impact on Europe
The Crusades and their aftermath; the fall of Constantinople

The Renaissance in Italy
The rediscovery of the Classical past and its impact on art, architecture, science and philosophy
Humanism
The Masters of the Renaissance
Mannerism
The Renaissance in the rest of Europe

The Reformation, its impact on art and architecture
The Counter-Reformation
Baroque art and architecture

The age of discovery
Colonization and the changed world order
The Enlightenment
The age of revolution: America and France

The Industrial Revolution
Its rise in England
Demographic change and urbanization
New materials and technologies and their impact

New building types for the industrial age
The battle of 'styles'; nostalgia and exoticism
Neo-Classical and Neo-Gothic architecture

The Arts and Crafts Movements in Europe
Art Nouveau
Art Deco
Early modernistic impulses
Modern movements in art
Modern movements in architecture

306Environmental Studies

Credits-2

Teaching Hours

Lectures- 36 periods of 50 minutes duration-30 hours

Sessional marks-

Internal- 50 External ----

Objective: To study and understand passive methods of environmental control

Climatology and Building Sciences

Micro climate and Macro climate
Energy flow in building
Human comfort
Traditional methods for achieving comfort

Passive Methods of control
Natural lighting
Solar Radiations and Architecture
Air flow patterns inside buildings and in building layouts
Natural ventilation

307 Architectural Representation & Detailing 3

Credits-4

Teaching Hours

Lectures- 36 periods of 50 minutes duration-30 hours
Studio- 36 periods of 50 minutes duration – 30hours

Sessional marks-

Internal- 100 External ----

Perspective-

Perspective of building elements
Perspective of interior spaces

Sciography-
Shades and shadows of buildings and parts of buildings

Sessional work – Perspective and Sciography exercises

Documentation and measured drawings

Methods of measurement of interior and exterior spaces, Building Elements.

Sessional work –
Architectural plans, sections, elevation of existing building/ interior space as per the measurements.

308 Architectural Building Services 1

Credits- 3

Teaching Hours
Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours to be conducted as technology studio (out of which 15 hours are considered for credit calculation)

Scheme of examination
Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-
Internal- 50 External ----

Objectives: understanding basic services required for a building and interior spaces

Sanitation:
Sanitary appliances and user space requirement
Various types of traps used with appliances
Design of toilets
Drainage and water supply connections to various appliances
Systems of building drainage

Water supply
Direct and indirect water supply for buildings
Connection from Municipal water main- Ferrule, water meter.
Design of water storage tanks, and down take pipes
Taps and valves used with various appliances

Sessional work_
Market survey for appliances and accessories,
Water supply calculations
Water supply layout- connection from municipal main to buildings
Water supply connections within the building
Design of toilets with water supply and drainage connections

309 Architectural Theory 1

Credits- 2
Teaching Hours
Lectures- 36 periods of 50 minutes duration – 30 hours
Studio- -----
Sessional marks-
Internal- 50 marks External ---

READING

Objectives:

1. To understand and comprehend ideas in architecture through writings in architecture
2. To appreciate architecture as the development of changing ideas over time, and as the representation of their particular time and context. To be able to chart the change of ideas chronologically over time.
3. To become familiar with and improve comprehension about architecture using theoretical texts and architectural criticism.

Sessional Work:

Students are expected to read from short and long writings about architecture and communicate their comprehension in writing and discussions/presentation in class. It is suggested that texts from the following authors be used to build up a body of knowledge about architecture (this is only a representative list):
Vitruvius, Andrea Palladio, John Ruskin, Louis Sullivan, Adolf Loos, Le Corbusier, writings from the the Bauhaus, Peter Blake, Philip Johnson, Charles Jencks, Robert Venturi, Adrian Forty, Christopher Alexander, Leon Krier, Kevin Lynch, Rem Koolhaas, Bjark Engels, Charles Correa, Romi Khosla,

320 College Projects 3

Credits- 3

Teaching Hours-
54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External -------

(to be developed by individual colleges)
The following is a representative list of what may constitute college projects:

Seminars, Tutorials/ additional classes for any course, Guest Lectures, putting up Exhibitions, Workshops, participating in Architectural Competitions or conducting Site Visits or Study Tours.

321 Elective 3

Credits- 3

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External ------

(to be developed by individual colleges)

Technology Studio

Credit and marks as per the scheme of examination for individual courses

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hour

Objectives

Integration of courses
Combined studio time

Technology studio is the studio time for students where guidance for technical courses will be available.
Combined Studio classes to be used for Sessional work for individual courses as well as for integration of courses

DETAILS OF SCHEME OF EXAMINATION SEMESTER III
TO BE CONDUCTED BY COLLEGES.

BACHELOR OF ARCHITECTURE SEMESTER III DETAILS OF SCHEME OF EXAMINATION										
	Semester III EXAMINATION Exam conducted by individual colleges	THEORY				SESSIONAL MARKS				
						Internal		External		
SR NO	COURSES	No of papers	duration	Max. marks	Min. Marks for passing	Max. marks	Min. Marks for passing	Max Marks	Min. Marks For passing	Max. marks for the course
301	Architectural Design 3	---	----	---	---	100	50	100	50	200
302	Allied Design 3	----	---	---	---	100	50	---	----	100
303	Architectural Building Construction 3	1	3 HOURS	50	20	50	25	---	---	100
304	Theories and Design of Structures 3	1	2 HOURS	50	20	50	25	---	---	100
305	Humanities 3	1	2 HOURS	50	20	50	25	---	---	100
306	Environmental Studies 3	---	---	---	---	50	25	---	---	50
307	Architectural Representation & Detailing 1	---	---	---	---	100	50	---	---	100
308	Architectural Building Services1	1	2 HOURS	50	20	50	25	----	----	100
309	Architectural Theories 1	---	---	---	---	50	25	---	---	50
320	College projects 3	---	---	---	---	100	50	---	---	100
321	Elective 3	---	---	---	---	100	50	---	---	100
	Total marks for the examination									**1100**

Total marks for the examination = 1100
Minimum marks for passing the examination= 550

Scheme of Teaching and Examinations
Bachelor of Architecture (B. Arch.) Semester IV

	Semester IV Exam conducted by individual colleges	Teaching Scheme		Credits		
Sub. No.	SUBJECTS	Lecture	Studio	Theory	Studio	Total
401	Architectural Design Studio		8		8	8
402	Allied Design Studio		3		3	3
403	Architectural Building Construction	3	3 classes technology studio	3	1	4
404	Theory and Design of Structures	2		2	1	3
408	Architectural Building Services	2		2	1	3
405	Humanities	3		3		3
407	Architectural Representation & Detailing	2	2	2	2	4
409	Architectural Theory	2				2
420	College projects		3			3
421	Elective		3			3
	Total	14	22	14	22	36

	Semester IV Exam Exam conducted by individual colleges	Examination Scheme			
Sub. No.	SUBJECTS	Theory (paper)	Internal	External viva	Total
401	Architectural Design Studio		100	100	200
402	Allied Design Studio		100		100
403	Architectural Building Construction	50	50		100
404	Theory and Design of Structures	50	50		100
408	Architectural Building Services	50	50		100
405	Humanities	50	50		100
407	Architectural Representation & Detailing		100		100
409	Architectural Theory		50		50
420	College projects		100		100
421	Elective		100		100
	Total				1050

Syllabus (Course Content) for Second Year B. Arch. Semester IV

401 Achitectural Design Studio 4

Credits-8

Teaching Hours
Lectures- --------
Studio- 144 periods of 50 minutes duration -120 hours

Sessional marks-
Internal- 100 External ---100

Objectives:

- To develop research skills for survey research and case study.
- To understand functioning of community spaces in rural areas/semi urban areas
- To study principles of design, construction, and technology based on tradition and experience.

Objectives of Design Projects

- To design spaces suitable for life style in rural/semi urban areas
- To conserve the natural surroundings and social fabric suitable for communities
- To design the buildings suitable to climatic conditions, by using local materials and traditional methods of construction.
- To understand and provide specific infrastructure required for communities.

Design projects

Built and un built spaces for Cluster & Communities,

402 Allied Design Studio 4

Credits-3

Teaching Hours
Lectures
Studio- 54 periods of 50 minutes duration – 45 hours

Sessional marks-
Internal- 100 External ------

The course content will be developed by the individual colleges as per their choice of Allied Design scheme.

403Architectural Building Construction & Materials 4

Credits-4

Teaching Hours-

Lectures-54 periods of 50 minutes duration- 45 hours
Studio- 54 periods of 50 minutes duration- 45 hours to be conducted as technology studio (out of which 15hours are considered for credit calculation)

Scheme of examination

Theory :One paper of three hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 marks External ----

Objectives-

- Understanding concepts of framed structures in Steel for low medium span building
- Understanding methods of construction of various components of steel structures
- Understanding concepts of trusses for low and medium spans

1.Structural framing in STEEL for low rise medium span buildings.

2. Foundation Systems, Floor Systems, Wall / Cladding Systems,

3. Roof Systems- concepts of trusses

4. Moisture and fire protections in STEEL framed low rise medium span buildings.

Sessional work

Based on above in the form of drawings, sketches, case studies, Reports

404 Theory & Design of Structures 4

Credits- 3

Teaching Hours

Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours to be conducted as technology studio (out of which 15 hours are considered for credit calculations)

Scheme of examination

Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 External ----

Objectives:

Understanding of basic theories and principles of structural analysis
Understanding of properties of materials relevant to structural analysis
Understanding of behaviour of structural elements under various conditions

1. Analysis of short and long column

   a. Short & long columns, slenderness ratio etc.
   b. Euler's & Rankine's Theory

2 Analysis of fixed beams

   a. Advantages & disadvantages.
   b. Determination of negative & positive bending moments.
      (confine the loading to point & UDL covering full span only).

3 Analysis by moment distribution method

Continuous two span and three spans beams with UDL and Point loads with and without support settlement. Single storey and single bay non sway frame under UDL and point load. Comparison of the analysis results of simply supported, continuous and portal frame idealization of three dimensional structures.

4. Introduction to Steel Design

Basic information about different steel section used as structural members and steel table. Brief introduction to planning of low rise and low span steel structures

5. Soil Mechanics

a. Importance of subject.
b. Types of soil and their properties.
c. Methods of compaction and consolidation.
d. Void ratio, Porosity, Bulk density, Moisture content, Degree of saturation, Liquid limit, Plastic limit, etc.
e. Test for assessing load bearing capacity of soil.
f. Soil properties and characteristics relevant to the design of foundations.
g. Criteria for selection of foundation type for different soil conditions.
h. Effect of water level, settlement of soil.
I. Failure of foundation systems.
j. Improvement of soil properties.
k. Design procedure for simple load bearing foundations.

6 Material testing

Coarse aggregate
Fineness modulus
Crushing test
Concrete
Compressive strength
Slump cone test
Mangalore tile
Flexure test

405 Humanities 4

Credits- 3
Teaching Hours
Lectures- 54 periods of 50 minutes duration – 45 hours
Studio- ------

Scheme of examination
Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-
Internal- 50 External ----

The study of the socio-cultural circumstances, the art and the architecture of the followings:

The rise of the Mahajanapadas
The organization of kingdoms
Art and architecture of the rock cut temples
Persian and Hellenistic influences

The Mauryas and the Guptas
The legacy of Ashoka

The resurgence of Hinduism
The rise of the Shaivite and Vaishnavite traditions
The great temples of India, their design, evolution and significance
Khajuraho, Konarak, Halebid, Belur, Somnathpur, Aihole, Badami, Pattadakkal
The Dravida Style
The Nagara Style
Temple towns
Timber temple traditions of Kerala and Himachal Pradesh
The rise of the Vijayanagara empire
Development of state and domestic architecture in various parts of India

The rise of Islam
Timber mosques of Kerala
The influences of the Ghorid/ Ghaznavid invasions

The establishment of the Sultanates
The Khaljis and Delhi
The later Sultanates: the Tughlaqs and the Lodhis- Art and architecture

The Gujarat and Deccan sultanates- Art and architecture
Rajput architecture

The Mughals
Babar and Humayun- Art and architecture
The interregnum of Sher Shah Suri
Akbar
His patronage, influence and syncretic legacy
Akbar's karkhanas of art, miniature painting and calligraphy
Akbar's architecture
Jehangir, Shahjehan and Aurangzeb- Art and architecture
The decline of the Mughals and the rise of regional powers

The establishment and influence of the East India Companies
The Portuguese and Dutch influence
The port cities of Calcutta, Madras and Bombay
The architecture of the Presidency towns
Company paintings

The uprising of 1857 and its aftermath
New British architecture in India
Neo-Classical architecture
Neo-Gothic architecture, its impact on Urbs Prima Indis

The influence of the Bombay School of Art on Art and architecture in the 19th century
Indo-Saracenic architecture

The urban architecture of Bombay in the early 20th century
Art movements in the early 20th century in India
The first Indian Architectural practices
Art Deco in Bombay and India
Modernist impulses in art and architecture in the years leading to independence

407 Architectural Representation & Detailing 4
Credits-4

Teaching Hours
Lectures- 36 periods of 50 minutes duration-30 hours
Studio- 36 periods of 50 minutes duration – 30hours
Sessional marks-
Internal- 100 External ----

SURVEYING AND LEVELLING
Objectives:

To Understand methods of survey, and documentation,
Introduction to tools and equipments of Land surveying
Introduction to modern methods of surveying

1. Brief history of land surveys executed by Government Departments
Information and working of land record offices

2. Reading of Survey maps, understanding of features and undulation of ground

3.Chain Survey and Triangulation

A study of instruments used for chain Survey
Chains, Ranging Rods, Tapes, Optical square, Cylindrical cross staff

B. Chain line ranging, Measurement of offsets in field book
C. Recording of Chain survey measurements in field book
D. Plotting of Chain survey, scales used in plotting
E. Calculation of Area

4.Transverse Survey

A. Instruments used Prismatic compass and Theodolite
B. Recording measurements of prismatic compass survey, magnetic Meridian, Back, Fore, and reduced Bearings, Local attraction and its correction
C. Plotting of Transverse survey, Elimination of closing error

5. Various uses of Theodolite,
Finding out heights or distances of inaccessible structures
E. Lining out of large buildings, and roads

Sesssional Work-

Based upon above in the form of plates, drawings, class Tests

408 Architectural Building Services 2

Credits- 3

Teaching Hours

Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours to be conducted as technology studio (out of 18 hours are considered for credit calculation)

Scheme of examination

Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 External ----

Objectives:
Understanding of external services of water supply and drainage for the buildings, and site lay outs.

Systems of building drainage
Design of under ground drainage system
Use of inspection chambers and disconnecting chambers
Connection to municipal sewer, use of Drop manhole
Ventilation of drainage system
Sewage disposal systems for small projects

Roof drainage
Site and surface drainage
Rain water harvesting

Various traps used in site layouts

Sessional Work- Drainage lay out
Surface drainage and rain water harvesting

409 Architectural Theory 2

Credits- 2
Teaching Hours
Lectures- 36 periods of 50 minutes duration – 30 hours
Studio- -----
Sessional marks-
Internal- 50 marks External ---

WRITING

Objective:

1. To be able to write with clarity about architecture and ideas in architecture.
2. To be able to correctly use architectural terms to communicate architectural ideas.
3. To be able to convey effectively in words the thinking behind one's own designs being carried out in various studios.
4. To learn to use referencing and citation as an essential tool of writing, and to understand clearly issues and consequences of plagiarism.

Sessional Work: this semester sessional work may be carried out in the form of writing workshops leading to short and longer pieces of writing. Resources persons such as published writers, architectural journalists and academics may be invited to conduct these workshops and encourage interaction in writing and reading by the students themselves. Much of the resource material from the previous semester may be relied upon to ensure vertical continuity of the subject.

420 College Projects 4

Credits- 3

Teaching Hours-
54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External -------

(to be developed by individual colleges)
The following is a representative list of what may constitute college projects:

Seminars, Tutorials/ additional classes for any course, Guest Lectures, putting up Exhibitions, Workshops, participating in Architectural Competitions or conducting Site Visits or Study Tours.

421 Elective 4

Credits- 3

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External ------

(to be developed by individual colleges)

Technology Studio

Credit and marks as per the scheme of examination for individual courses
Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hour

Objectives

Integration of courses
Combined studio time

Technology studio is the studio time for students where guidance for technical courses will be available.
Combined Studio classes to be used for Sessional work for individual courses as well as for integration of courses

DETAILS OF SCHEME OF EXAMINATION SEMESTER IV
TO BE CONDUCTED BY COLLEGES.

BACHELOR OF ARCHITECTURE SEMESTER IV DETAILS OF SCHEME OF EXAMINATION										
	Semester IV EXAMINATION Exam conducted by individual colleges	THEORY				SESSIONAL MARKS				
						Internal		External		
SR NO	COURSES	No of papers	duration	Max. marks	Min. Marks for passing	Max. marks	Min. Marks for passing	Max Marks	Min. Marks For passing	Max. marks for the course
401	Architectural Design 4	---	----	---	---	100	50	100	50	200
402	Allied Design 4	----	---	---	---	100	50	---	----	100
403	Architectural Building Construction 4	1	3 HOURS	50	20	50	25	---	---	100
404	Theory and Design of Structures 4	1	2HOURS	50	20	50	25	---	---	100
405	Humanities 4	1	2HOURS	50	20	50	25	---	---	100
407	Architectural Representation & Detailing 4	---	---	---	---	100	50	---	---	100
408	Architectural Building Services2	1	2HOURS	50	20	50	25	----	----	100
409	Architectural Theories 2	---	---	---	---	50	25	---	---	50
420	College projects 4	---	---	---	---	100	50	---	---	100
421	Elective 4	---	---	---	---	100	50	---	---	100
	Total marks for the examination									**1050**

Notes: Theory, internal sessional work, and external viva are considered as separate heads of passing

Total marks for the examination = 1050
Minimum marks for passing the examination= 525

UNIVERSITY OF MUMBAI

Syllabus for the Bachelor of Architecture

Programme : B.Arch.

Bachelor of Architecture
(Semester V & VI)

(As per Credit Based Semester and Grading System with effect from the academic year 2014–2015)

Scheme of Teaching and Examinations
Bachelor of Architecture (B. Arch.) Semester V

	Semester V Exam conducted by individual colleges	Teaching Scheme		Credits		
Sub. No.	SUBJECTS	Lecture	Studio	Theory	Studio	Total
BARC 501	Architectural Design Studio 5		8		8	8
BARC 502	Allied Design Studio 5		3		3	3
BARC 503	Architectural Building Construction 5	3	3 classes of technology studio	3	1	4
BARC 504	Theory & Design of Structures 5	2		2	1	3
BARC 508	Architectural Building Services 3	2		2	1	3
BARC 505	Humanities 5	3		3		3
BARC 507	Architectural Representation & Detailing 5	2	2	2	2	4
BARC 509	Architectural Theory 3	2		2		2
BARP 520	College projects 5		3		3	3
BARE 521	Elective 5		3		3	3
	Total	14	22	14	22	36

	Semester V Exam Exam conducted by individual colleges	Examination Scheme			
Sub. No.	SUBJECTS	Theory (paper)	Internal	External viva	Total
BARC 501	Architectural Design Studio 5		100	100	200
BARC 502	Allied Design Studio 5		100		100
BARC 503	Architectural Building Construction 5	50	50		100
BARC 504	Theory & Design of Structures 5	50	50		100
BARC 508	Architectural Building Services 3	50	50		100
BARC 505	Humanities 5	50	50		100
BARC 507	Architectural Representation & Detailing 5		100		100
BARC 509	Architectural Theory 3		50		50
BARP 520	College projects 5		100		100
BARE 521	Elective 5		100		100
	Total	200	750	100	1050

Syllabus (Course Content) for Third year B. Arch. Course Semester V

501 Achitectural Design Studio 5

Credits-8

Teaching Hours

Lectures- --------
Studio- 144 periods of 50 minutes duration -120 hours

Sessional marks-

Internal- 100 External ---100

Course Objectives

- To understand the potential of urban land and optimization of spaces
- To understand architectural forms, and corresponding functions for different types of buildings.

Expected Course out come

Architecture for urban commercial, recreation, entertainment activities for large group of people with respect to following

- Development of appropriate architectural forms, their grouping and composition,
- Provision of spaces required for various activities.
- Provision of spaces for required infrastructure and services
-

502 Allied Design Studio 5
Credits-3

Teaching Hours

Lectures
Studio- 54 periods of 50 minutes duration – 45 hours

Sessional marks-

Internal- 100 External ------

The course content will be developed by the individual colleges as per their choice of Allied Design scheme.

503 Architectural Building construction 5
Credits-4

Teaching Hours-

Lectures-54 periods of 50 minutes duration- 45 hours
Studio- 54 periods of 50 minutes duration- 45 hours to be conducted as technology studio (out of which 15 hours are considered for credit calculations)

Scheme of examination

Theory: one paper of three hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 marks External ----

Building Skin in various light weight materials.

: Building Skin in various lightweight materials for Framed Structure

- Curtain walls with transoms, mullions and infilling panels of various materials
- Suspended glazing
- Composite panel cladding to the existing structure

Canopies in various materials.

Foundation Systems

Types of foundation systems,

Shallow foundations

Concept of Buoyant Foundation

Spread Foundation, its need and application

Raft Foundations of various types viz. Slab, Slab & Beam, and Cellular type

Foundation Walls

Column footings- Strip, Combined, and Cantilevered footings

Sessional work based upon above in the form of case studies, site visits, sketches, Drawings.

504 Theory and Design of structures 5
Credits 3
Teaching Hours

Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours
(to be conducted as technology studio out of which 15hours are considered for credit calculations)

Scheme of examination

Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 External ----

Theme- Structural steel design of primary elements

1. Understanding steel table and readily available steel sections in market.
2. Understanding connections
   Riveted , welded, and bolted for steel framed building, trusses etc
3. Design of tension members in trusses
4. Design compression members in trusses and columns
5. Design of beams
6. Design of foundations, slab base, gusseted base and grillage

Sessional work based upon above .

505 Humanities 5
Credits 3
Teaching Hours
Lectures- 54 periods of 50 minutes duration – 45 hours
Studio- ------
Scheme of examination
Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20
Sessional marks-
Internal- 50 External -

Theme- Art and Architecture

Modern movements in art and architecture
Between the wars
After the wars

Architectural evolution influenced by developments in technology and structural systems

Postmodern (and late-modern) movements in art and architecture
Critical and philosophical influences on architecture after the 1980s
Critical regionalism
Deconstruction

Architectural and art trends in the first decade of the millennium

Art and architecture in India since independence
Modernism
Architecture for the State
Influence of Le Corbusier and Kahn
Indian modernists
The influence of Vistara and the validation of the vernacular
Critical regionalism

Architectural and art trends in the first decade of the millennium in India

507 Architectural Representation and detailing
Credits- 4
Teaching Hours
Lectures- 36 periods of 50 minutes duration-30 hours
Studio- 36 periods of 50 minutes duration – 30hours

Sessional marks-
Internal- 100 External ----

Theme-A.Quantity Surveying and Estimating
B.Specifications

Introduction:-Definition, Aim and object, Scope and importance of subject.

Types of Estimates- Approximate and Detailed.

Methods of Approximate Estimating – Built up or Carpet Area Method, Cubic Contents, Method and Numbers System, Current Rates in Bombay for Approximate Estimating.

Detailed Estimate on item rate basis- Quantities and Abstract of Estimate, Bill of Quantities of a Tender, Contingencies.

Rates for Civil work items- as per Municipal or P.W.D. Schedule Rates and Current market rates in Bombay, Units for rates.

Taking out quantities for civil works of Load Bearing structures and preparation of Abstract.

Taking out quantities for civil works of Load Bearing structures and preparation of Abstract.

Sessional Work based upon above topics.
B. Specifications
Importance of specification in the construction activities
Methods of drafting specifications with correct order and sequence
Types of specifications-detailed and brief, open and restricted, performance, and standard (Indian standard Specifications and P.W.D. specifications)
Language of specifications
Organization of project specifications

Sessional work
Brief specification of a building project

508 Architectural Building services 3
Credits 3
Teaching Hours

Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours
(to be conducted as technology studio out of which 15hours are considered for credit calculations)

Scheme of examination

Theory: one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 marks External ----

Electricity
Lighting
Acoustics

Electrical services:
Basic concept of electricity: direct and alternating currents
Three phase and single phase supply
Electrical supply to sites and distribution to buildings
Electrical distribution within buildings
Electrical layouts for interior spaces
Open and concealed wiring
Types of wires
Wiring accessories
Concepts of electrical safety- Earthing, MCB, elcb, lightning conductor

Artificial lighting
Direct and indirect lighting
Types of lamps
Illumination levels

Acoustics-
concept and terminology
Room Acoustics
Propogation and reverberation of sound
Acoustics for lecture halls and Auditoriums

Sessional work based upon above.

509Architectural theories 3

Credits- 2

Teaching Hours

Lectures- 36 periods of 50 minutes duration – 30 hours
Studio- -----

Sessional marks-
Internal- 50 marks External ---

RESEARCH AND CRITICISM

Objectives:

1. To understand the fundamentals of theoretical architectural research, its objectives and its essential methodologies.
2. To be able to build up from documentation and data collection to critical analysis and evaluation. Bloom's Taxonomy may be used by teachers to convey the various levels in research and evaluation to students.
3. To develop and attitude of Critical Thinking (reflective reasoning about beliefs and actions and ways of deciding whether a claim is always true, sometimes true, partly true, or false, from Robert Ennis) and its essential dimensions: the analysis, assessment, dispositions, skills and abilities and obstacles or barriers to critical thought (from critcalthinking.org)

Sessional Work: This semester small projects of research and reflective writing shall be undertaken by students to develop personal skills of research presentation and critical evaluation (using previously gained knowledge of referencing and citation). Students should be encouraged also to write pieces that are argumentative, and disputational to be able to convey with clarity and effectiveness alternative and individualistic thinking about architecture.

520 college projects 5

Teaching Hours-
54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External -------

(to be developed by individual colleges)
The following is a representative list of what may constitute college projects:

Research and documentation, Seminars, Guest Lectures, putting up Exhibitions, Workshops, participating in Architectural Competitions or conducting Site Visits or Study Tours.

521 electives 5

Credits- 3

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External ------

(to be developed by individual colleges)

Technology Studio

Credit and marks as per the scheme of examination for individual courses

Teaching Hours

Studio- 54 periods of 50 minutes duration – 45 hour

Objectives

Integration of courses
Combined studio time

Technology studio is the studio time for students where guidance for technical courses will be available.
Combined Studio classes to be used for Sessional work for individual courses as well as for integration of courses

DETAILS OF SCHEME OF EXAMINATION
TO BE CONDUCTED BY COLLEGES.

BACHELOR OF ARCHITECTURE: SEMESTER V

	Semester V EXAMINATION Exam conducted by individual colleges	**THEORY**				**SESSIONAL MARKS**				
						INTERNAL		EXTERNAL		
SUB. NO.	COURSES	No of Papers	Duration	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks for the Course
BARC 501	Architectural Design 5	---	----	---	---	100	50	100	50	200
BARC 502	Allied Design 5	----	---	---	---	100	50	---	----	100
BARC 503	Architectural Building Construction 5	1	3 HOURS	50	20	50	25	---	---	100
BARC 504	Theory and Design of Structures 5	1	2HOURS	50	20	50	25	---	---	100
BARC 505	Humanities 5	1	2HOURS	50	20	50	25	---	---	100
BARC 507	Architectural Representation & Detailing 5	---	---	---	---	100	50	---	---	100
BARC 508	Architectural Building Services 3	1	2HOURS	50	20	50	25	----	----	100
BARC 509	Architectural Theory 3	---	---	---	---	50	25	---	---	50
BARP 520	College projects 5	---	---	---	---	100	50	---	---	100
BARE 521	Elective 5	---	---	---	---	100	50	---	---	100
	Total marks for the examination									**1050**

Notes: Theory, Internal sessional work, and External viva are considered as separate heads of passing

Total marks for the examination = 1050

Minimum marks for passing the examination= 525

Scheme of Teaching and Examinations
Bachelor of Architecture (B. Arch.)

Semester VI

	Semester VI Exam conducted by University of Mumbai	Teaching Scheme		Credits		
Sub. No.	COURSES	Lecture	Studio	Theory	Studio	Total
BARC 601	Architectural Design Studio 6		8		8	8
BARC 602	Allied Design Studio 6		3		3	3
BARC 603	Architectural Building Construction 6	3	3 classes of technology studio	3	1	4
BARC 604	Theory and Design of Structures 6	2		2	1	3
BARC 608	Architectural Building Services 4	2		2	1	3
BARC 605	Humanities 6	3		3		3
BARC 607	Architectural Representation & Detailing 6		6		6	6
BARP 620	College projects 6		3		3	3
BARE 621	Elective 6		3		3	3
	Total	12	24	12	24	36

	Semester V I Exam conducted by University of Mumbai	Examination Scheme			
Sub. No.	COURSES	Theory (paper)	Internal	External viva	Total
BARC 601	Architectural Design Studio 6		100	100	200
BARC 602	Allied Design Studio 6		100		100
BARC 603	Architectural Building Construction 6	50	50		100
BARC 604	Theory and Design of Structures 6	50	50		100
BARC 608	Architectural Building Services 4	50	50		100
BARC 605	Humanities 6	50	50		100
BARC 607	Architectural Representation & Detailing 6		100	100	200
BARP 620	College projects 6		100		100
BARE 621	Elective 6		100		100
	Total	200	700	200	1100

Syllabus (Course Content) for Third year B. Arch. Course Semester VI

601 Architectural Design Studio 6

Credits-8

Teaching Hours

Lectures- --------
Studio- 144 periods of 50 minutes duration -120 hours

Sessional marks-

Internal- 100 External ---100

Course Objectives

- To understand nature of Urban institutions,
- To understand the context and character for urban institutions
- To understand requirement of architectural forms, spaces for corresponding activities

Course out come

- Architecture for enhancement of institutional character
- Design development and detailing for integration of infrastructure and building systems

602 Allied Design Studio 6

Credits-3

Teaching Hours

Lectures
Studio- 54 periods of 50 minutes duration – 45 hours

Sessional marks-

Internal- 100 External ------

The course content will be developed by the individual colleges as per their choice of Allied Design scheme.

603 Architectural Building Construction 6

Credits- 4

Teaching Hours

Lectures-54 periods of 50 minutes duration- 45 hours

Studio- 54 periods of 50 minutes duration- 45 hours to be conducted as technology studio (out of which 15 hours are considered for credit calculations)

Scheme of examination

Theory: one paper of three hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 marks External ----

RCC Floor system for large bay sizes

- Flat Slab Floor: Study of Plate slab, Plate slab with drops, and Plate slab with drops and column capitals
- Floors in One way and Two way ribbed slab, Waffle slab, Diagrid beam slab

Pre cast and Prefab building elements in various materials

- Pre cast floor system with RCC beams, RCC Channels, and infilling floor blocks of various materials
- Connections and assembly of various building elements (prefab walls, beams, columns, chajjas, staircase flights, floor units, etc.)

Sessional work based upon above.

604 Theory and Design of structures 6

Credits 3

Teaching Hours

Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours
(to be conducted as technology studio out of which 15hours are considered for credit calculations)

Scheme of examination

Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 External ----

1.Concrete technology as relevant to architecture

Aggregates that constitute making of concrete, types , source and availability, grades of concrete, purpose and types of additives to concrete , use and purpose of special cements , high strength concrete, transportation of concrete, placement of concrete, compaction and curing of concrete, ready mix and site mix concrete, durability of concrete, formwork for different components of rcc

2. Reinforced cement concrete of primary structural elements

Basic theory of flexure for singly and doubly reinforced sections
One way and two way slab systems and doglegged staircase
Rectangular beams
Rectangular,square &circular columns
Isolated pad, stepped & sloped footing
Precast concrete elements, its application and suitability
Steel – concrete composite construction in buildings – a very basic descriptive introduction. Encased concrete construction.

3. Rcc theory of grid floors

Rectangular grid
Dia-grid

4. Rcc theory of flat slab

I) with column capital and drop
Ii) only drop
Iii) flat plate
Iv) an appreciation of the adoption of flat slab construction vis-à-vis beam / slab construction and vice-a-versa.

The above elements are to be taught with miminum calculations and with emphasis on making correct structural drawings and good structural planning leading

605 Humanities 6
Credits 3
Teaching Hours
Lectures- 54 periods of 50 minutes duration – 45 hours
Studio- ------
Scheme of examination
Theory -one paper of two hours duration Max. marks- 50 Min marks for passing- 20
Sessional marks-
Internal- 50 External -

Theme- Understanding Architecture with reference to social issues related to Urbanization

Urbanization at global level and in India.
Globalization and its effects on urban life
Major trends urbanization and Pace of urbanization in different parts of India
Changes in the pattern of urbanization in metro cities
Growth of smaller towns into cities, and its repercussions
Problem arising out of rapid urbanization
Genesis of Urbanization
Urban population growth due to natural increase of migration into urban areas,
Nature of issues related to urban migration
Work patterns in urban areas.

Urban issues to be studied with special reference to
Mumbai Metropolitan Region(MMR)
Preservation of Natural resources, natural heritage
Understanding Built heritage, and social- cultural heritage
Public spaces and public buildings with reference to accessibility, Gender, age

Transport and real Estate
Public Housing
Infrastructure development
Public Health problems

607 Architectural Representation and detailing
Credits- 6
Teaching Hours
Lectures- 36 periods of 50 minutes duration – 30 hours
Studio- 72 periods of 50 minutes duration -60 hours
Sessional marks-
Internal- 100 External ---100

Working Drawings
Working drawing of framed structure indicating following to appropriate scale
Foundation plan
Floor plans
Elevations and sections as necessary

Details for any three of following
Roofing system, walling system, staircase, flooring system, openings

608 Architectural Building services 4
Credits 3
Teaching Hours
Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours
(to be conducted as technology studio out of which 15hours are considered for credit calculations)
Scheme of examination
Theory: one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-
Internal- 50 marks External ----

Theme- Fire protection for buildings
Services for high rise Buildings
Fire protection
Study of fire regulations, Code of safety
Combustibility and fire resistance of building materials
Design consideration for fire safety
Fire escape routes
Fire alarms and warning systems
Systems for fire protection and Fire fighting
Water supply for Fire fighting- Static tanks, Hydrants, Wet and dry riser, sprinklers
Services for high rise Buildings (Space and installation requirement)
Water supply for high rise buildings
Electrical distribution for high rise buildings
Vertical transportation system –
Lifts – carrying capacity and travel time, grouping of lifts- installation requirement
Escalators-Provision of space and installation requirement

Sessional work based upon the above topics.

620 college projects 6

Teaching Hours-
54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External -------

(to be developed by individual colleges)
The following is a representative list of what may constitute college projects:

Research and documentation, Seminars, Guest Lectures, putting up Exhibitions, Workshops, participating in Architectural Competitions or conducting Site Visits or Study Tours.

621 electives 6

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External ------

(to be developed by individual colleges)

Technology Studio

Credit and marks as per the scheme of examination for individual courses

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hour

Objectives

Integration of courses
Combined studio time

Technology studio is the studio time for students where guidance for technical courses will be available.
Combined Studio classes to be used for Sessional work for individual courses as well as for integration of courses

DETAILS OF SCHEME OF EXAMINATION
TO BE CONDUCTED BY UNIVERSITY OF MUMBAI

BACHELOR OF ARCHITECTURE: SEMESTER VI

	Semester VI EXAMINATION Exam conducted by University of Mumbai	**THEORY**				**SESSIONAL MARKS**				
						INTERNAL		EXTERNAL		
SUB. NO.	COURSES	No of Papers	Duration	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks for the Course
BARC 601	Architectural Design 6	---	----	---	---	100	50	100	50	200
BARC 602	Allied Design 6	----	---	---	---	100	50	---	----	100
BARC 603	Architectural Building Construction 6	1	3 HOURS	50	20	50	25	---	---	100
BARC 604	Theory and Design of Structures 6	1	2HOURS	50	20	50	25	---	---	100
BARC 605	Humanities 6	1	2HOURS	50	20	50	25	---	---	100
BARC 607	Architectural Representation & Detailing 6	---	---	---	---	100	50	100	50	200
BARC 608	Architectural Building Services 4	1	2HOURS	50	20	50	25	----	----	100
BARP 620	College projects 5	---	---	---	---	100	50	---	---	100
BARE 621	Elective 6	---	---	---	---	100	50	---	---	100
	Total marks for the examination									**1100**

Notes: Theory, Internal sessional work, and External viva are considered as separate heads of passing

Total marks for the examination = 1100

Minimum marks for passing the examination= 550

UNIVERSITY OF MUMBAI

Syllabus for the Bachelor of Architecture

Programme : B.Arch.

Bachelor of Architecture
(Semester VII & VIII)

(As per Credit Based Semester and Grading System with effect from the academic year 2015–2016)

Item 4.21 AC 19-9-13

Scheme of Teaching and Examinations
Bachelor of Architecture (B. Arch.)

Semester VII

	Semester VII Exam conducted by college	Teaching Scheme		Credits		
Sub. No.	COURSES	Lecture	Studio	Theory	Studio	Total
BARC 701	Architectural Design Studio 7		8		8	8
BARC 702	Allied Design 7	2	2	2	2	4
BARC 703	Architectural Building Construction 7	3	3 classes of technology studio	3	1	4
BARC 704	Theory and Design of Structures 7	2		2	1	3
BARC 708	Architectural Building Services 5	2		2	1	3
BARC 707	Architectural Representation & Detailing 7	2	3	2	3	5
BARC 710	Professional Practice 1	3		3		3
BARP 720	College projects 7		3		3	3
BARE 721	Elective 7		3		3	3
	Total	14	22	14	22	36

	Semester V II Exam conducted by college	Examination Scheme			
Sub. No.	COURSES	Theory (paper)	Internal	External viva	Total
BARC 701	Architectural Design Studio 7		100	100	200
BARC 702	Allied Design 7		100		100
BARC 703	Architectural Building Construction 7	50	50		100
BARC 704	Theory and Design of Structures 7		100		100
BARC 708	Architectural Building Services 5	50	50		100
BARC 707	Architectural Representation & Detailing 7		100	100	200
BARC 710	Professional Practice 1	50	50		100
BARP 720	College projects 7		100		100
BARE 721	Elective 7		100		100
	Total	150	750	200	1100

Syllabus (Course Content) for Fourth Year B. Arch.
Semester VII

701 Achitectural Design Studio 7

Credits-8

Teaching Hours

Lectures- --------
Studio- 144 periods of 50 minutes duration -120 hours

Sessional marks-

Internal- 100 External ---100

Theme- Housing

Course Objectives

- Understanding typologies of housing in Urban Areas.
- Understanding quantitative and qualitative aspects of mass housing.
- Under standing user aspirations and user affordability

Expected Course out come

Design of housing schemes in urban area, along with necessary infrastructure, services, and amenities.

702 Allied Design

Credits-4

Teaching Hours

Lectures 36 periods of 50 minutes duration – 30 hours
Studio- 54 periods of 50 minutes duration – 45 hours

Sessional marks-

Internal- 100 External ------

The course content will be developed by the individual colleges as per their choice of Allied Design scheme.
Suggested Themes: town planning, Urban Design, Housing

703 Architectural Building construction 7
Credits-4

Teaching Hours-

Lectures-54 periods of 50 minutes duration- 45 hours

Studio- 54 periods of 50 minutes duration- 45 hours to be conducted as technology studio (out of which 15 hours are considered for credit calculations)

Scheme of examination

Theory: one paper of three hours duration Max. Marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 marks External ----

Basement and Deep Foundations:

Single and multi level basements for Parking and Services.
Deep foundations using Piles.

Introduction to High rise buildings:

High rise buildings in RCC and Steel frame of varying structures
The construction process of high rise buildings

Introduction Earthquake Resistant Construction:

Earthquake resistant construction for Load bearing and Framed structures

704 Theory and Design of structures 7
Credits 3
Teaching Hours

Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours
(to be conducted as technology studio out of which 15hours are considered for credit calculations)

Scheme of examination
Theory ---
Sessional marks-
Internal- 100 External ----

1.introduction to design of deep foundation
It is to be taught with an emphasis on their suitability with respect to different types of buildins and soil conditions and structural drawings (no calculation)

2.combined footings
1 rectangular footing
2 trapezoidal footing
3 strip footing
4 raft footing

3.piles footings
Pre cast and cast in situ piles and pile caps

4. Retaining walls

5.earth quake resistant structure

6. Theory and principles of structural design of tall buildings.

707 Architectural Representation and detailing 7
Credits 5
Teaching Hours
Lectures- 36 periods of 50 minutes duration-30 hours
Studio- 54periods of 50 minutes duration – 45hours

Sessional marks-
Internal- 100 External ----
Theme – Project Specifications
Building By laws and Approval Drawings

Project specifications
Detailed specifications of various work items for a structure from exacavation up to finishing in super structure.

1.Excavation- filling, timbering, trenches
2.Brick Masonry-
3. Stone Masonary
4.specification for R.C.C. work including mixing, placing, curing of concrete
5. Specifications for Fabrication and assembly of structural steel frame buildings
6. Rendering and plastering
7.Floor finishes
8.wall finishes
9. flooring cast in situ including I.P.S., Terrazo
10. Roof finishes in tiles and roofing sheets

Sessional work – Project specifications for a building to include above items.
Building by laws and Approval Drawings
- Introduction to Building bye laws and regulations- their need and relevance
- Study of National Building Code
- Implications of Development control rules for greater Mumbai as approved by Government of Maharashtra on contemporary growth of built environment of Mumbai.
- Calculations of built up area and F.S.I.
- Comprehensive study of Building Bye laws relating to the strength and stability of structures, bye-laws relating to light and ventilation, and sanitation of buildings.
- Various drawings required for approvals from Authorities, on the basis of by Development Control rules and by laws

Sessional work – Set of approval Drawings and reports.

708 Architectural Building services 5
Credits 3
Teaching Hours

Lectures- 36 periods of 50 minutes duration- 30 hours
Studio- 54 periods of 50 minutes duration- 45 hours
(to be conducted as technology studio out of which 15hours are considered for credit calculations)

Scheme of examination

Theory: one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 marks External ----

Theme- Heating, Ventilation, and Air conditioning

Comfort conditions- temperature control, Humidity control, air filtration, and air changes.

Heating of spaces- local and central heating- heating equipment
Thermal conductivity, and insulation.

Ventilation-
Mechanical ventilation in buildings-
Mechanical Ventilation in Basements
Fans, blowers, air filters
Air conditioning
Concept of refrigeration cycle, and air cycle
Systems of air conditioning- local and central
Duct work and air conditioning layouts
Fittings and fixtures

Sessional work

Case studies, market surveys, and drawings, based upon above.

710 Professional Practice 1

Credits- 3
Teaching Hours

Lectures- 54 periods of 50 minutes duration – 45hours
Studio- -----

Scheme of examination

Theory: one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-

Internal- 50 marks External ----

- **Introduction to Architectural profession**,
- Role of professional bodies

- Architect's Registration Act 1972
- The professional role, responsibilities, duties, liabilities of Architects
- Code of professional conduct
- Code relation to Architectural competition
- Copy-rights of drawings

Office

Office structures – Small practice, medium practice & Large practice.
Nature of partnership, registration of firm and dissolution

Office set up and administration

Task allocation – Work plans, monitoring the plans, review meetings, record keeping - – Inward, Phone calls, Minutes of meeting, To do list, wish list-Time Management

Tenders

Types of tenders and tender document,
World Bank formats, Indian Banks Association guidelines, PWD, CPWD, Tender forms
Tender draft notices and inviting of tenders
Procedure for opening and selection of tenders
Qualification criteria, Bid capacity, freak rates, rate analysis..
Analysis and report to owner
Work order

Contract

Types of contracts and contract documents
Detailed knowledge about various conditions of contract as published by Indian Institute of Architects and specially about
Earnest Money
Security Deposit
Retention Money
Mobilization Fund
Bank Guarantee
Architect's Instructions
Clerk of works
Variation and Extras
Defects after completion
Certificate and Payments
Insurance and fire insurance
Liquidate damage
Termination of Contract

720 college projects 7
Credits- 3
Teaching Hours-
54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External -------

(to be developed by individual colleges)
The following is a representative list of what may constitute college projects:

Research and documentation, Seminars, Guest Lectures, putting up Exhibitions, Workshops, participating in Architectural Competitions or conducting Site Visits or Study Tours.

721 electives 7

Credits- 3

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External ------

(to be developed by individual colleges)

Technology Studio
Credits and marks as per the scheme of examination for individual courses

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hour

Objectives

Integration of courses
Combined studio time

Technology studio is the studio time for students where guidance for technical courses will be available.
Combined Studio classes to be used for Sessional work for individual courses as well as for integration of courses

DETAILS OF SCHEME OF EXAMINATION
TO BE CONDUCTED BY COLLEGES.

BACHELOR OF ARCHITECTURE: SEMESTER VII

	Semester VII EXAMINATION Exam conducted by individual colleges	**THEORY**				**SESSIONAL MARKS**				
						INTERNAL		EXTERNAL		
SUB. NO.	COURSES	No of Papers	Duration	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks for the Course
BARC 701	Architectural Design 7	---	----	---	---	100	50	100	50	200
BARC 702	Allied Design 7	----	---	---	---	100	50	---	----	100
BARC 703	Architectural Building Construction 7	1	3 HOURS	50	20	50	25	---	---	100
BARC 704	Theory and Design of Structures 7	----	---	---	---	100	50	---	----	100
BARC 707	Architectural Representation & Detailing 7	---	----	---	---	100	50	100	50	200
BARC 708	Architectural Building Services 5	1	2HOURS	50	20	50	25	----	----	100
BARC 710	Professional Practice 1	1	2HOURS	50	20	50	25	----	----	100
BARP 720	College projects 7	---	---	---	---	100	50	---	---	100
BARE 721	Elective 7	---	---	---	---	100	50	---	---	100
	Total marks for the examination									**1100**

Notes: Theory, Internal sessional work, and External viva are considered as separate heads of passing

Total marks for the examination = 1100

Minimum marks for passing the examination= 550

Scheme of Teaching and Examinations B.Arch Semester VIII

	Semester VIII Exam conducted by University of Mumbai	Teaching Scheme		Credits		
Sub. No.	COURSE	Lecture	Studio	Theory	Studio	Total
BARC 810	Professional Practice 2	Professional training of - 16 weeks				16

	Semester V III Exam conducted by University of Mumbai	Examination Scheme			
Sub. No.	SUBJECTS	Theory (paper)	Internal	External viva	Total
BAR T 811	Professional training			200	200

DETAILS OF SCHEME OF EXAMINATION
TO BE CONDUCTED BY UNIVERSITY OF MUMBAI

BACHELOR OF ARCHITECTURE: SEMESTER VIII

	Semester VIII EXAMINATION Exam conducted by University of Mumbai	**THEORY**				**SESSIONAL MARKS**				
						INTERNAL		EXTERNAL		
SUB. NO.	COURSES	No of Papers	Duration	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks for the Course
BARCT811	Professional Training	---	----	---	---	---	---	200	100	200

Syllabus for Fourth Year B. Arch. Semester VIII

811Professional Training

Credits-16

Teaching Hours

Lectures- --------
Studio- ----

Sessional marks-

Internal- --- External ---200

Theme-Professional Training

During this term the students have to undergo training out-side the institute, in such offices / organizations as will give him/her the necessary opportunity to improve and consolidate his/her Architectural Knowledge.

During the practical training the student is expected to work in accordance with the discipline of the organization, and will have to make progress which will be carefully watched by the institution. The student will have to submit the a detailed report of the experience gained during the professional training.

Logbooks will have to be maintained by the students and counter signed by the principal of the firm , and also by the teacher in charge .

Pro forma for professional experience

Academic year
Name of the student -

Name of the office / organization with address

Registration details

Date of Joining:
Date of leaving:
Employers report: Brief Details of the experience gained by the student stating the nature of work

Signature of Signature of
The employer Professor In charge

UNIVERSITY OF MUMBAI

Syllabus for the Bachelor of Architecture

Programme : B.Arch.

Bachelor of Architecture
(Semester IX& X)

(As per Credit Based Semester and Grading System with effect from the academic year 2016-17

Item NO. 4.47 AC 4-3- 2014

Scheme of Teaching and Examinations
Bachelor of Architecture (B. Arch.)

Semester IX

	Semester IX Exam conducted by college	Teaching Scheme		Credits		
Course code	Courses	Lecture	Studio	Theory	Studio	Total
BARC 901	Architectural Design Studio 8		8		8	8
BARC 902	Allied Design Studio 8	2	3	2	3	5
BARC 903	Architectural Building Construction 8	2	2 classes of technology studio	2	1	3
BARC 904	Theory and Design of Structures 8	1		1	1	2
BARC 908	Architectural Building Services 6	1	2 classes of technology studio	1	1	2
BARC 906	Environmental studies 4	2		2	1	3
BARC 910	Professional practice 2	3		3		3
BARD 911	Design Dissertation 1	1	3	1	3	4
BARE 921	Elective 8		3		3	3
BARE 922	Elective 9		3		3	3
	Total	14	22	14	22	36

	Semester IX Exam conducted by college	Examination Scheme			
Course code	courses	Theory (paper)	Internal	External viva	Total
BARC 901	Architectural Design Studio 8		100	100	200
BARC 902	Allied Design Studio 8	50	50		100
BARC 903	Architectural Building Construction 8		100		100
BARC 904	Theory and Design of Structures 8		50		50
BARC 908	Architectural Building Services 6		50		50
BARC 906	Environmental studies 4		100		100
BARC 910	Professional practice 3	50	50		100
BARD 911	Design Dissertation 1		50	50	100
BARP 921	Elective 8		100		100
BARE 922	Elective 9		100		100
	Total	100	650	150	1000

Syllabus (Course Content) for final year B. Arch. programme Semester IX

901 Achitectural Design Studio 8

Credits-8

Teaching Hours

Lectures- --------

Studio- 144 periods of 50 minutes duration -120 hours

Scheme of examination

Theory: ------

Sessional marks-

Internal- 100 External ---100

Course Objectives

Collection and analysis of data related to Design topic.
Application of technical knowledge to design detailing
Understanding impact of socio economic factors on user requirements
Study of climatic conditions, Site analysis, site planning
Understanding traffic patterns and transportation

Expected Course out come

Architecture for urban commercial, transportation, recreation, entertainment activities for masses with respect to following

- Development of appropriate architectural forms, their grouping and composition,
- Architectural detailing.
- Provision of required infrastructure and services
- Design of complex/ multifunctional buildings and surrounding spaces

902 Allied Design Studio 8

Credits-5
Teaching Hours
Lectures- 36 classes of 50 minutes duration – 30hours
Studio- 54 periods of 50 minutes duration -45 hours
Scheme of examination
Theory: one paper of two hours duration Max. marks- 50 Min marks for passing- 20
Sessional marks-
Internal- 50 marks External ----

The course content will be developed by the individual colleges as per their choice of Allied Design scheme.
Suggested Themes: Town planning, Urban Design, Housing, Environmental design

903 Architectural Building construction 8
Credits-3

Lectures-36periods of 50 minutes duration- 30 hours
Studio- 18 periods of 50 minutes duration- 15 hours
(to be conducted as a part of technology studio of 36 periods of 50 minutes duration – 30 hours)
Scheme of examination
Theory: ------

Sessional marks-
Internal- 100 marks External ----

Long span structures, long span beams, Long span Trusses & Roof structures.
Long span Arches,
Cable structures,
Folded Plate structures, and Space frames,
Shell structures.

904 theory and Design of Structures 8

Credits-2

Lectures-18 periods of 50 minutes duration- 15 hours
Studio- 18 periods of 50 minutes duration- 15 hours
(to be conducted as a part of integrated studio of 36 periods of 50 minutes duration – 30 hours)

Scheme of examination
Theory: ------

Sessional marks-
Internal- 100 marks External ----

1. Long span structures

Long span beams, Long span Trusses & Roof structures.
Long span Arches,

2. Cable supported structures

3. Folded Plate structures, Shell structures.

4. Space frames

5. Portal frames

6. Pre-stressed Concrete, Pre-stressing and its applications to buildings,
Principles of Pre-tensioning & Post-tensioning

Sessional work based upon above.

906 Environmental Studies 4
Credits-3

Lectures-36 periods of 50 minutes duration- 30 hours
Studio- 18 periods of 50 minutes duration- 15 hours
(to be conducted as a part of technology studio of 36 periods of 50 minutes duration – 30 hours)

Scheme of examination
Theory: ------

Sessional marks-
Internal- 100 marks External ----

Objective: To study and understand sustainable building design processes

1. **Concepts of Sustainable Building**
   Social, Economic and Environmental aspects
   Different types of Indian and International Rating Systems (GRIHA, LEED, IGBC, Eco Housing, BREEAM, CASBEE, etc)

2. **Studying the Nation Building Code (NBC 2005) code with respect to the Chapter 11 on Sustainability**

3. **Energy Efficiency**
   Energy Efficient Design (Achieving Efficiency through design)
   Energy Conservation Building Codes (ECBC) Codes 2007
   Learning Different Energy Simulation Techniques (Energy / Lighting)
   Advanced Energy Efficient Standards and Systems
      HVAC
      Lighting
      Appliances and Equipments
      Building Envelope
   Understanding and calculation of energy consumption of a House, office building

4. **Water Efficiency**
   Water and Waste Water Management (Study of Water Balancing)
   Rain Water Harvesting
   Efficient waste water treatment techniques (DEWATS, MBR, MBBR etc)
   Efficient Water Fixtures

5. **Material Efficiency**
   Understanding various parameters for Sustainable Building Materials and evaluate using LCA (ISO 14000)

6. **Solid Waste Management**

Sessional work based upon above in form of case studies, report, presentations.

908 Architectural Building services 6

Credits-2
Teaching Hours

Lectures-18 periods of 50 minutes duration- 15 hours
Studio- 18 periods of 50 minutes duration- 15 hours
(to be conducted as a part of technology studio of 36 periods of 50 minutes duration – 30 hours)

Scheme of examination
Theory: ------

Sessional marks-
Internal- 50 External ---

Theme:

Integrated services
Specialized Services required for specific functions/ building types (for example hospitals, hotels, auditorium)
Specialized services as per climatic conditions
Building management systems
Infrastructure and amenities for public spaces

Sessional work: Reports and Case studies related to Thesis topic.

910 Professional Practice 2

Credits-3

Teaching Hours
Lectures- 54 classes of 50 minutes duration – 45 hours
Studio- -------

Scheme of examination
Theory: one paper of two hours duration Max. marks- 50 Min marks for passing- 20

Sessional marks-
Internal- 50 marks External ----

Instructions in the following should be such as to understand the purpose and implication of its application, instructions to the students should be general without going too much in detail in legal aspects.

Acquisition
General principles of land acquisition with reference to norms of compensation.
Purpose of acquisition

Valuation
Elements of valuation- market value methods of valuation specially income capitalization technique and physical method of valuation
Elementary examples including one for ownership flats and premises, Building up or determining rate of capitalization based on gilt-edged theory and general investment market theory.
Valuer and his/her function including registration

Meaning of immovable property- ownership and possession.
Joint tenancies and tenancy in common- types of tenure with special reference to freehold and leasehold tenure.
Different types of tenures of land- as commonly found- leasehold and freehold and lease and other rents.

Rent- different types of rent- standard rent, example on working out of standard rent. Ratable value and its relation to rent- nature and purpose of ratable value. Rent control act

Definition of property- ownership and possession- Joint tenancies and tenancy in common- types of tenure with special reference to freehold and leasehold tenure.
Principle types of landed properties- their outgoings calculation of rented value and not income market value.

Principles governing the rate of interest required for different types and class of properties- gilt edged securities.

Valuation
Ownership basis flats
Use in practice(Construction is not contemplated)
Gross annual value ratable value and their application

Dilapidation
Procedure for preparing report and schedule of dilapidations
Settlement of claims
Law related to structural and general repairs

Fire Insurance
Insurance policy and cover note
Fire loss assessment claim and report
Insurable value of the property.

Easement of Light, Ventilation and Access.
Sessional work based on above

911 Design Dissertation 1

Credits-4

Teaching Hours

Lectures- 18 classes of 50 minutes duration – 15hours
Studio- 54 classes of 50 minutes duration – 45 hours

Scheme of examination

Theory: -------

Sessional marks-

Internal- 50 marks External viva – 50 marks (in the beginning of semester 10)

Students are required to choose a topic and conduct research under the guidance of internal teachers. They are required to submit a report to in the given format.
The report should include
Title and description of the topic
Justification for Architectural intervention in context.

Back ground study
Review of related literature
Analysis of terms

Methodology of study (Survey, Case studies, project reviews)
Findings and analysis based on the methodology
Design objectives based upon the findings, and development of design brief
Site selection criteria
Description of the site
Site analysis to include local Architectural context, and socio economic conditions.
Climatic and environmental conditions, and prevalent bylaws.

921 Elective 8

Credits- 3

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External ------

The electives are to be offered by individual colleges based upon current issues in Architecture and Urbanity

922 Elective 9

Credits- 3

Teaching Hours
Studio- 54 periods of 50 minutes duration – 45 hours
Sessional marks-
Internal- 100 External ------

The elective can be chosen by individual students based upon the topic related to Design Dissertation, under the guidance of internal teacher / guide.

DETAILS OF SCHEME OF EXAMINATION SEMESTER IX

BACHELOR OF ARCHITECTURE: SEMESTER IX EXAMINATION
TO BE CONDUCTED BY COLLEGES.

	Semester IX EXAMINATION Exam conducted by individual colleges	**THEORY**				**SESSIONAL MARKS**				
						INTERNAL		EXTERNAL		
SUB. NO.	COURSES	No of Papers	Duration	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks for the Course
BARC 901	Architectural Design 8	---	----	---	---	100	50	100	50	200
BARC 902	Allied Design 8	1	2HOURS	50	20	50	25	----	----	100
BARC 903	Architectural Building Construction 8	----	---	---	---	100	50			100
BARC 904	Theory and Design of Structures 8	----	---	---	---	50	25	---	----	50
BARC 906	Environmental studies 4	---	----	---	---	100	50	----	----	100
BARC 908	Architectural Building Services 6	---	----	---	---	50	25			50
BARC 910	Professional Practice 2	1	2HOURS	50	20	50	25	----	----	100
BARD 912	Design Dissertation 1	----	---	---	---	50	25	50	25	100
BARE 921	Elective 8	---	---	---	---	100	50	---	---	100
BARE 921	Elective 9	---	---	---	---	100	50	---	---	100
	Total marks for the examination									**1000**

Notes: Theory, Internal sessional work, and External viva are considered as separate heads of passing

Total marks for the examination = 1000

Minimum marks for passing the examination= 500

Scheme of Teaching and Examinations
Bachelor of Architecture (B. Arch.)

Semester X

	Semester X Exam conducted by University of Mumbai	Teaching Scheme		Credits		
COURSE CODE.	COURSES	Lecture	Studio	Theory	Studio	Total
BARC 1006	Environmental studies 5 (Building sciences and sustainability)	2	8 classes of technology studio	2	1	3
BARC 1007	Architectural representation & detailing 9				6	6
BARC 1012	Advanced Building Construction and structures	2		2	1	3
BARC 1009	Advanced Theories 4			2		2
BARC 1010	Professional Practice 3	2		2		2
BARD 1011	Design Dissertation 2		16		16	16
BARE 1021	Elective 10		4		4	4
	Total	2	34	2	34	36

	Semester X Exam conducted by University of Mumbai	Examination Scheme			
COURSE CODE	COURSES	Theory (paper)	Internal	External viva	Total
BARC 1006	Environmental studies 5 (Building sciences and sustainability)		100		100
BARC 1007	Architectural representation & detailing 9		100	100	200
BARC 1012	Advanced Building Construction and structures		100		100
BARC 1009	Architectural Theories 4		50		50
BARC 1010	Professional Practice 3		50		50
BARD 1011	Design Dissertation 2		200	200	400
BARE 1021	Elective 9		100		100
	Total		700	300	1000

Syllabus (Course Content) for final year B. Arch. programme Semester X

1006Environmental Studies 5
Credits-3

Lectures-36 periods of 50 minutes duration- 30 hours
Studio- 18 periods of 50 minutes duration- 15 hours
(to be conducted as a part of technology studio of 144 periods of 50 minutes duration – 120 hours)

Scheme of examination
Theory: -------

Sessional marks-
Internal- 100 marks External ----

Objective: To evaluate and apply sustainable building strategies over design.

1. **Post occupancy evaluation of case studies of student's thesis work.**
2. **Urban sustainability**
3. **Impacts of built environment on its surroundings.**

1007Architectural Representation and detailing 8

Credits 6

Teaching Hours

Studio-108 periods of 50 minutes- 90 hours.

(to be conducted as a part of technology studio of 144 periods of 50 minutes duration – 120 hours)

Scheme of examination

Theory: -------

Sessional marks-

Internal- 100 External ---100

External viva will be conducted simultaneously for Design dissertation and design detailing

Students are required to submit a report to describe :
Structural system
Method of construction and materials
Active and passive Systems related to building sciences and environment protection

Required Drawings :
Detailed sections showing structural system
Schematic plan of design with services
Students are encouraged to detail out any significant part of their design under supervision of guides.

1012 Advanced Building construction and structures

Credits-3

Lectures-36periods of 50 minutes duration- 30 hours

Studio- 18 periods of 50 minutes duration- 15 hours

(to be conducted as a part of technology studio of 144 periods of 50 minutes duration – 120 hours)

Scheme of examination

Theory: -------

Sessional marks-

Internal- 100 marks External ----

1. Study of various Structural systems and methods of construction
2. selection criteria of structural system and method of construction for building types
3. Intelligent structures and control of structural response

Sessional work – Case studies, reports

Applications- structural and construction details for design Dissertation projects

1009 Architectural Theories 4
Credits-2

Lectures-36periods of 50 minutes duration- 30 hours
Studio ------

Scheme of examination
Theory: -------

Sessional marks- 50

Advanced Theories
Theory is an integral aspect of cultural analysis of which architecture is central. Significant inputs to current architectural theory have been from disciplines outside architecture that have make thinking richer and more relevant. Architectural Theory today is multi-disciplinary in nature, and this has significant bearing on architectural design.

The objective of learning in this semester is to make students aware of the current discourses in architecture through a direct interaction with architectural thinking and ideas. It is to make comprehensible the evolution of ideas in architecture, especially after the modernist era. Students should be provided readings, and discussions on both the ideas and the language of theory are encouraged, using actual examples of architecture. Sessional work should include writing about architecture, becoming conversant with the current language of theory and gaining an insight and sensitivity to architectural thinking that influences architectural practice today.

1.0 What are the current discourses in architecture today?
Understanding the effects of contemporary thought in society and culture today, and its impact on architectural design. Understanding theory as an academic discipline.

2.0 Tracing the rise of theory in architecture and culture after modernism. The significance of post-modern and post millennial discourses in architecture. Developing a post-modern world view.

3.0 The multi disciplinary approach: Understanding ideas from outside architecture that have informed current architectural discourse- from philosophy, sociology, linguistics, psychology, feminism, post-colonial studies, information technology, art, cultural and critical theory, etc. (Teachers may choose significant disciplines from which writings can be discussed)

4.0 Describing through theoretical discourse the post-millennial world we live in and the impact of architecture in our world today.

1010 Professional Practice
Credits-3

Lectures-36periods of 50 minutes duration- 30 hours
Studio-

Scheme of examination

Theory: ------

Sessional marks-

Internal- 50 marks External ----

Professional and legal responsibilities of Architects

Arbitration clause.

Arbitration, Conciliation and Mediation.

Arbitration proceedings and Awards.

Duties and liabilities in profession.

Legal responsibility of architect to Employer.

Government bodies and local bodies.

Express and implied authority of the Architect.

Architect's relationship with the Client and the Contractor.

Duration of liability.

Consumer Protection Act 1986.

All Acts related to non agricultural lands in relation to Building activities related to regions such as M.R.T.P, M.H.A.D.A and M.M.R.D.A. acts
Environmental policy and laws related to protection of environment.

1011 Design Dissertation

Credits-16

Lectures-----
Studio- 288periods of 50 minutes duration -240 hours

Scheme of examination

Theory: ------

Sessional marks-

Internal- 200marks External -200

External viva will be conducted simultaneously for Design dissertation and design detailing

Students are required to develop the design as per the design objectives and design brief submitted in the report.
Drawings should include location plan, site plan, detailed floor plans, elevations,views and large scale sections.

1022 Elective 10

Credits- 3

Teaching Hours

Studio- 54 periods of 50 minutes duration – 45 hours

Sessional marks-

Internal- 100 External ------

The elective can be chosen by individual students under the guidance of internal teacher

DETAILS OF SCHEME OF EXAMINATION SEMESTER X

BACHELOR OF ARCHITECTURE: SEMESTER X EXAMINATION
TO BE CONDUCTED BY UNIVERSITY OF MUMBAI

	Semester X Exam conducted by University of Mumbai	**THEORY**				**SESSIONAL MARKS**				
						INTERNAL		EXTERNAL		
COURSE CODE	COURSES	No of Papers	Duration	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks	Min Marks for Passing	Max Marks for the Course
BARC 1006	Environmental studies 5	---	----	---	---	100	50	----	----	100
BARC 1007	Architectural Representation & Detailing 8	----	---	---	---	100	50	100	50	200
BARC 1009	Architectural Theories 4					50	25	----	----	50
BARC 1010	Professional Practice 3					50	25	----	-----	50
BARC 1012	Advanced Building Construction and structures	----	---	---	---	100	50	---	---	100
BARD 1011	Design Dissertation 2	----	---	---	---	200	100	200	100	400
BARE 1021	Elective 10	---	---	---	---	100	50	---	---	100
	Total marks for the examination									**1000**

Notes: Theory, Internal sessional work, and External viva are considered as separate heads of passing

Total marks for the examination = 1000

Minimum marks for passing the examination= 500

ITEm 4. 20 AC 19-9-13
Regulations of B. Arch degree programme, semester VII to semester X

Admission to Semester VII of B. Arch programme

A candidate for being eligible for admission to the Semester VII of the of the Bachelor of Architecture degree program of the University,

a) Must have passed semester V examination of B. Arch programme.

b) Must have kept necessary attendance for semester VI of B. Arch degree program

c) Must have passed all internal heads of passing of semester VI of B. Arch Programme

Bachelor of Architecture Semester VII examination

Candidates will be examined in the courses prescribed in the scheme of examination for Semester VII of Bachelor Architecture, which will be conducted by the College of Architecture affiliated to university of Mumbai.

R A candidate for being eligible for admission to the theory examination of Semester VII of Bachelor of Architecture programme,

a) Must have kept necessary attendance for semester VII of B. Arch degree program

b) Must have passed semester V examination

c) Must have passed semester VI examination

R A candidate for being eligible for admission to the viva voce examination of Semester VII of the Bachelor of Architecture programme,

a) Must have kept necessary attendance for semester VII of B. Arch degree program

b) Must have passed semester V examination

c) Must have passed semester VI examination

d) Must have passed internal heads of passing for the courses of semester VII for which viva voce examinations are to be conducted

Admission to Semester VIII of B. Arch programme

A candidate for being eligible for admission to the Semester VIII (eligible for professional training) of the of the Bachelor of Architecture degree program of the University,

a) Must have pas semester VI examination of B. Arch programme.

b) Must have kept necessary attendance for semester VII of B. Arch degree program

Bachelor of Architecture Semester VIII examination

R Semester VIII B. Arch examination will be conducted by University of Mumbai as per the scheme of examination of semester VIII.

R A candidate for being eligible for admission to the VIVA VOCE examination of Semester VIII of Bachelor of Architecture programme,

a) Must have passed semester VI B. Arch examination

a) Must have passed all internal heads of passing of semester VII of B. Arch Programme

b) Must have completed professional training as described in syllabus of semester VIII and obtained a certificate from the employer

Admission to Semester IX of B. Arch programme

A candidate for being eligible for admission to the Semester IX of the of the Bachelor of Architecture degree program of the University,

a) Must have passed semester VII examination of B. Arch programme.

b) Must have completed professional training as described in syllabus of semester VIII and obtained a certificate from the employer

Bachelor of Architecture Semester IX examination

Candidates will be examined in the courses prescribed in the scheme of examination for Semester IX of Bachelor Architecture, which will be conducted by the College of Architecture affiliated to university of Mumbai.

R A candidate for being eligible for admission to the theory examination of Semester IX of Bachelor of Architecture programme,

a) Must have kept necessary attendance for semester IX of B. Arch degree program

b) Must have passed semester VII examination

R A candidate for being eligible for admission to the viva voce examination of Semester IX of the Bachelor of Architecture programme,

a) Must have kept necessary attendance for semester IX of B. Arch degree program

b) Must have passed semester VII examination

c) Must have passed internal heads of passing for the courses of semester IX for which viva voce examinations are to be conducted

Admission to Semester X of B. Arch programme

R A candidate for being eligible for admission to the Semester X of the of the Bachelor of Architecture degree program of the University,

a) Must have kept necessary attendance for semester IX of B. Arch degree program

b) Must have passed semester VIII examination of B. Arch programme

Bachelor of Architecture Semester X examination

Candidates will be examined in the courses prescribed in the scheme of examination for Semester X of Bachelor Architecture, which will be conducted by university of Mumbai.

R A candidate for being eligible for admission to the Semester X examination of Bachelor of Architecture programme,

a) Must have kept necessary attendance for semester X of B. Arch degree program

b) Must have passed all internal heads of passing for the courses of semester IX

c) Must have passed all internal heads of passing of semester X