



CTESCON

CHEMBUR TROMBAY EDUCATION SOCIETY'S

CTES

COLLEGE OF ARCHITECTURE

ESTD : 2014

MH - 77

UNAIDED

APPROVED BY COUNCIL OF ARCHITECTURE

AFFILIATED TO UNIVERSITY OF MUMBAI

N.G. Acharya Marg
Chembur, Mumbai 400071
Maharashtra
India



+91 7700024676



admin@ctescoa.ac.in



www.ctescoa.ac.in

NAME : _____



UNIVERSITY OF MUMBAI

**Syllabus for the Bachelor of Architecture
Program: B.Arch.**

**Third Year
Bachelor of Architecture
(Semester-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 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 VI 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 outcome

- 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 minimum 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