

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT.

B. ARCH. III

Semester-VI

SCHEME UK I KACIUNT; A EXAM B.AKCIH-III (61)1 SEMEST

Course	Course No.	Teac hint* Schedule		
		Lect 1 I, PJL1	luto T	Teiinwoik Studio Work •S
(1) Studio- VI Architectural Design12)____		-l® ...
Illstory of Architecture- IV	AR 002,	2	-----	
Estimation	AH 603	2		3
Architectural working drawings				
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Illdg. Materials A Construction - VI				I
Structures-VI	C 607			
Total: ,		10	-	l»

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B. ARCH. III

Semester-VI

AR- 601 STUDIO VI ARCHITECTURAL DESIGN

Teaching Scheme (No. of Contact Hrs) Theory Tu. Studio	Examination Scheme				Grand Total
	Theory Exam		Prac / Quiz /Sketch A'iva		
0 0 11	Duration (Hrs)	Marks	Sem End Exam 180	Continuous Int-Evalua. 120	300

Emphasis: -

- (A) Characters of built environment.
- (B) Landscape Architecture.

Content: -

- (A) Understanding the essential character of a bldg. Correlation bet functions structure, materials, construction, landscape, services & cultural values to bring out the character of built environment.
- (B) Introduction to elements of landscape & landscape design. Contemporary attitudes to landscape, design. External surface as an expression of character of built environment.

Projects :-

Design of institutions such as a small industrial institution, educational or research institution, library, community centre etc. Design of an external space viz. plaza etc.

Reference

- (1) Concepts & Response - By IGNCA MAPIN
- (2) Public Municipal & Community Bldgs. - By Charles.
- (3) Enciclopedias Atrium Para Profesionales ARQUITECTURA - Public Architecture - By Cerrer-Axis Books.

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Semester-VI

AR - 604 : HISTORY OF ARCHITECTURE IV

Teaching Scheme (No. of Contact Hrs) Theory Tu. Studio	Examination Scheme			Grand Total
	Theory Exam		Prac / Quiz /Sketch /Viva	
2 0 0	Duration (Hrs) 2	Mnrks 50	Sem End Continuous Exam Int-Evalua.	50

Emphasis:

Evaluation of Architecture as a result of industrial revolution in various parts of world.

Content :

- (1) The process of colonial development in India, Portuguese, Dutch & British developments - early implantation of ideas from Europe, its gradual modification, assimilation of Indian ideas & the evolution of Indian colonial Architecture.
- (2) Comparisons to colonial developments in America. •
- (3) Forces of industrialisation in Europe, change in social structure, production systems, changes in technology & its impact on the development of the modern Architectural movement from neo-classicism to the pioneers, Distinctions between cultural as against individual designers attitudes & expression upto the more mature developments in the 1920s to 1940s, its impact in India upto pre-independence developments.

Term Work :

Submission of sketches & study

Reference: -

- (1) Indian Architecture-By precy Brown.
- (2) History of Architecture - By Bannister Fletcher.
- (3) Indian Architecture. Vol -1 & Vol - 2. By Satish Grover.
- (4) Indian Architecture . Vol -1 & Vol - 2. By James Ferguson.

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Semester-VI

AR - 603 ESTIMATION

Teaching Scheme (No. of Contact Hrs) Theory Tu. Studio	Examination Scheme				Grand Total
	Theory Exam		Prac / Quiz /Sketch /Viva		
2 0 1	Duration (Hrs)	Marks	Seni End Exam	Continuous Int -Evalua.	100
	2	50	30	20	

Emphasis: -

Basic understanding of quantities costs so as to make estimates in the design process.

Content :-

Approximate estimates, methods of estimation, taking of measurements, preparation of schedule of quantities, rate analysis of various items of work, preparation, principal material requirements & their co-relation to estimates.

Reference: -

S.C. Rangwala - Estimating &
Costing. B.N. Datta - Estimating &
Costing.

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Semester-VI

AR : 604 ARCHITECTURAL WORKING DRAWINGS

Teaching Scheme (No. of Contact Hrs) Theory Tu. Studio	Examination Scheme				Grand. Total
	Theory Exam		Prac / Quiz /Sketch /Viva		
0 0 3	Duration (Hrs)	Marks	Sem End Exam 60	Continuous Int -ICvnlua. 40	100

Emphasis: -

Development of the ability to communicate architectural design, Construction & specification by means of working drawings.

Content:-

- (1) Permission Drawings.
- (2) Set of working drawings for construction purpose (Architectural, Electrical, Plumbing & drainage civil etc.)
- (3) Detail drawings.

Projects :-

Preparing a set of working drags, for a part of a project selected in course #0510 Architectural design. studio V

References: -

- (1) Arclutecfs Working Details 0)At-cWibccU Detail liP Ev^vi/clay Details

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Semester-VI

C - 605 BUILDING SERVICES - III

Teaching Scheme (No. of Contact Hrs) Theory Tu. Studio	Examination Scheme				Grand Total
	Theory Exam		Prac / Quiz /Sketch		
2 0 2	Duration 3 airs)	Marks 100	Scm End Exam 30	Continuous Int-Evaiua. 20	150

Emphasis

Air-conditioning / Air-cooling, fire protection, acoustics & vertical transportation.

Content :-

- (1) Air conditioning systems:- Different systems in current use from chilled water cooling systems to air handling package unit etc. their installation requirements & demands in building layout, supply air, return air ducting systems, their layouts & req. within building - systems, {;o-ordinations to bldg. systems.
- (2) Fire protection systems:- Study of fire regulations, fire extinguishing systems, warning systems, fire resistance of different building materials, fire escapes, case studies of bldg. W.r.t. fire protection requirements.
- (3) Building Acoustics: - Properties of sound, process of hearing, behaviour of sound, room - Acoustics, noise control outdoor & indoor, sound insulation, noise criteria of bldg. materials prediction methods & calculations. Noise control, materials of sound insulation, testing room acoustics, reverberation time in auditoria.
- (4) Vertical transportation:- Lifts, grouping of lifts, return travel time, design of lift tanks, for carrying capacity & travel time, installation req., escalators.

Reference: -

- (1) Time Saver Standards for Architectural Design Data - By Callender.

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Semester-VI

C-606 BUILDING MATERIALS & CONSTRUCTION VI

Teaching Scheme (No. of Contact Hrs) Theory Tu. Studio*	Examination Scheme			Grand Total
	Theory Exam		Prac / Quiz/Sketch	
2 0 2	Duration	Marks (Hrs)	Sent End Continuous Exam Int-Evalua. 30 20	ISO
	100	3		

Emphasis: -

- (A) Temporary Structures.
- (B) Industrialised construction systems.

Content :

(A)

- (1) Temporary structures such as shoring, strutting, forrowork, scaffolding.
- (2) Structure for temporary exhibitions, pandols, entrance gates.
- (3) Hoists, trolleys etc. to support construction process.
- (4) Geodesic domes.

(B)

- (1) Steel Trusses, Northlight & other specialised roods & construction systems of buildings having
- large spans or high-rise structures.
- (2) Industrialised construction systems for specialised buildings or large scale projects involving
modular units.

Reference:

- (1) Building construction - By Mitchell Vol.-1 to III.
- (2) Building Construction - By Sushil Kumar.
- (3) Building Construction - By Mckay.
- (4) Building Construction - By Punamin.
- (5) Building Constniction - By Bindra & Arora.

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Semester-VI

C - 60* STRUCTURES - VI

Teaching Scheme (No. of Contact Hrs) Theory Tu. Studio	Examination Scheme			Grand Total	
	Theory Exam		Prac / Quiz /Sketch		
2 0 2	Duration	Marks (Hrs)	Sem End Exam	Continuous Int -Evalua. 20	150
	100	3	30		

Emphasis: -

Structural Design - III

Content:-

- (1) RCC Structures:- Mat or raft foundations, pile foundations, column subjected to axial load & bending of circular - water tank, retaining walls, cantilever type & counterprqof type retaining walls, industrial bents, flat slaps, precast prefabricated structural members.
- (2) Steel Structures: • Design of: • Industrial bents, castellated beams, open web joists, verendeel girders, water tanks, erection of structural steel works.
- (3) Preslressed concrete:-Advantagcs & disadvantages of prestressed cone, compared with reinforced stresses, metiiods of prestressing, cable layout, losses of prestress, basis U>r design of a simple prestressed cone, member.

Reference books: -

1. Design of steel structure by S. Ramamrutham.
2. S. 800 latest code of structural"steel.
3. Design of steel structures by Arya & Ajmani.