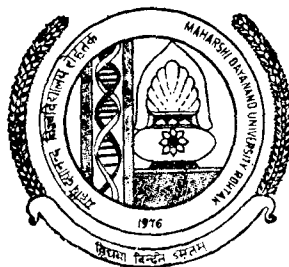


Maharshi Dayanand University Rohtak



P-

Ordinances, Syllabus and Courses of Reading for B.Arch. 1st to 10th Semester Examination

Session—1999-2000

Available from :

Deputy Registrar (Publication)

Maharshi Dayanand University

Rohtak-124 001 (Haryana)

Price :

At the Counter : Rs. 50/-

By Regd. Parcel : Rs. 75/-

By Ordinary Post : Rs. 60/-

**ORDINANCE : BACHELOR OF ARCHITECTURE
(B.ARCH.) EXAMINATION**

Amended upto 13.7.1997

Notwithstanding anything contained in any other ordinance with regard to the matters hereunder, the course of studies for the Degree of Bachelor of Architecture and the conditions for admission thereto shall be as under :-

1. The B.Arch. course shall extend over a minimum period of 5 academic years. Teaching in each academic year shall be divided into two semesters extending to about sixteen weeks duration. Teaching for odd semesters will normally be during August to December and for even semesters from January to May.
2. A candidate can be admitted to first semester of this course only if he fulfills the following requirements :
 - (a) That he has passed 10+2 examination of Haryana School Education Board or its equivalent examination from a recognised Board/University with Physics, Chemistry, Mathematics and English and must have obtained at least 50% marks (without any rounding off) in the aggregate of Physics, Chemistry and Mathematics.

However, in case of Scheduled Caste/Scheduled Tribes no minimum percentage of marks is prescribed and merely pass in qualifying examination with the said subjects is adequate.
 - (b) Admission to the third semester may be allowed in the beginning of the session to the candidates who are permitted to migrate to the Guru Jambheshwar University in accordance with the migration rules of the University for B.Arch. Course.
- 3.1 At the end of each semester there shall be an examination except in case of the seventh semester during which there

shall be 24 weeks of practical training for which the examination will be conducted according to the procedure laid in clause 4(e) of this Ordinance. Each semester examination shall be designated as First Semester Exam., Second Semester Exam and so on.

- 3.2. The examination for all semesters will normally be held in December/January and also in May/June on such date as may be fixed by the Vice-Chancellor. The dates (s) of commencement of examinations as well as the last date(s) for the receipt of examination forms and fees as fixed by the Vice-Chancellor shall be notified by the Controller of Examinations to the concerned University Teaching Departments and the College/Institutes admitted to the privileges of the University.

However in case of late declaration of result by the University, forms can be submitted without late fee within 10 days of declaration of result by the University subject to the requirements of Clause-8.

4. The course of study and the subjects of examination shall be the same as approved by the Academic Council from time to time. The examination shall consist of :-

(a) Theory papers

- (i) The paper will be set by the internal/external paper-setter.
- (ii) The evaluation will be done by the internal examiner.

(b) Sessionals

- (i) Sessionals work of all the subjects will be evaluated by the teachers of the various subjects based on the work done during the semester and in accordance with the guidelines/procedures recommended by the Head/Incharge Department of Architecture and approved by the Director-Principal of the college. The marks obtained in the sessional

work shall be awarded by the teacher concerned and duly countersigned by the Head/Incharge Deptt. of Architecture of the College and then duly countersigned and forwarded by the Director-Principal of the college to the Controller of Examinations of the University before the last theory exam. of that semester.

(c) Portfolio

- (i) In the subjects conducted in the Studio requiring drawing work there will be no theory examinations. The complete/part work done in these subjects during the semester will be evaluated by a jury comprising one external and one internal examiner. The work will be presented as a portfolio and will be evaluated through viva-voce. The subjects to be evaluated through portfolio examination will be according to the Scheme of Examination approved by the University.

(d) Thesis

- (i) Every student shall prepare a thesis under the supervision of a faculty member on a topic approved by the Head of Department of Architecture of the college. The thesis shall be submitted in the form of Research, Report Drawings, Models etc. through the Head, Deptt. of Architecture to the Director-Principal.
- (ii) The evaluation of the thesis will be through sessional and portfolio evaluation. The sessional work made up of numerous ages, as approved and given in the Scheme of Examination, will be evaluated through a Viva-voce by a jury comprising the thesis coordinator, the guide and an external examiner. The portfolio evaluation will be

conducted by a jury of two external members, Head of Department of Architecture and the concerned guide. The Head, Department of Architecture will act as co-ordinator.

(e) Practical Training

- (i) During the 7th semester and part of summer vacations after the 6th semester the students are required to undergo practical training of 24 weeks. Every student is required to submit copies of representative work done and study report during this period together with a certificate from the organisation to the Head of Department of Architecture. The practical training work will be evaluated, through seminar/viva-voce by a jury consisting of one external and one internal examiner to be appointed by the University.

The student will be required to repeat the training when :

- (i) the report from the employer is not satisfactory.,
(ii) the attendance in the office is less than 70% of the number of days required for training.

The student will be required to repeat the study report if found unsatisfactory during seminar/viva voce and which may be done while pursuing the studies for the subsequent semesters.

5. A candidate is allowed to take a theory paper, present the Portfolio /thesis when :-

- (a) the candidate has his name submitted to the Registrar/ Controller of Examinations by the Director-Principal of the College.
(b) the candidate has passed in sessional of the concerned subject in the semester.

- (c) of having attended not less than 75% of the total classes held in that semester in the subject offered by him/her for the examination provided that his/her subject attendance in each individual subject is not less than 60%. The Director-Principal of the college/Chairperson of the concerned University Department may in bonafide cases, condone deficiency upto 10% in the total and/or 5% in individual subjects.
- (d) the candidate is certified by the Director-Principal to have behaved in a manner befitting a student of a professional institution.
- (e) A candidate not covered under Clause-6 below whose result declaration for no fault of his is delayed, should attend classes of the next higher semester provisionally at his own risk and responsibility. His attendance and/or sessionals will be, however, credited subject to his passing the concerned semester examination. Such candidates shall also be governed by Clause 5.
6. If a candidate has after attending the course of studies in the college either not appeared or appeared in any semester examination and failed in one of more courses for that examination he can appear for such course(s) at subsequent examination(s) without attending a fresh course for the next semester(s) and appear in the examination(s) for the same along with the examination for the lower semester(s).
Provided that a candidate shall not be allowed to attend classes and appear in that semester examination(s) mentioned in column(A) unless he/she passed in the semester examination mentioned in column (B) below:-

A	B
5th semester onwards	1st semester
6th semester onwards	2nd semester
7th semester onwards	3rd semester
8th semester onwards	4th semester
9th semester onwards	5th semester
10th semester onwards	6th semester

Provided that a candidate who is unable to complete the first 6 semesters of the B.Arch. course within a maximum of 5 consecutive academic years and/or is unable to complete the B.Arch. course in 8 consecutive years from the date of his admission shall not be eligible for appearing in any subsequent B.Arch. examination.

7. (a) The minimum marks required to pass the examination shall be :-
- (i) 40% in each theory paper
 - (ii) 50% in each sessional
 - (iii) 50% in portfolio evaluation
 - (iv) 50% in thesis
 - (v) 50% in practical training
- (b) Any student who secures less than 50% marks in the sessional part of any subject shall not be eligible to take the theory examination in that subject. Similarly in studio courses and thesis any student who secures less than 50% marks in the sessional part of the subject shall not be eligible to make the portfolio presentation. He may be permitted to appear in the next examination in those subjects only if he has secured the pass marks in those subjects/thesis sessionals.
- (c) Grace marks, if any, will be given by the University only in theory papers and not in sessional, portfolio, thesis or practical training.
- 8 In order to determine the division in which a candidate shall be placed the scaled marks will be :-

Name of Examination	Scaled Marks
Ist and 2nd Semester	40% of aggregate marks
3rd and 4th Semester	60% of aggregate marks
5th and 6th Semester	80% of aggregate marks
7th,8th,9th & 10th Semesters	100% of aggregate marks

Candidates who pass prescribed subjects for all the semesters but obtain :-

Less than 50%	Pass Class
50% or more but less than 65%	Second Division
60% or more but less than 70%	First Division First
70% or more	Division Honours provided they have passed all the semesters examinations within the normal period of five years of the course.

Provided that in the case of a candidate who is permitted from any other University the marks obtained by him in this University will be taken into account. These marks, however, be increase proportionately so as to raise them to the level of maximum marks of Guru Jambheshwar University.

9. The medium of instructions and examination shall be in English.
10. The amount of examination admission fee to be paid by a candidate for each semester shall be as decided, by the Vice-Chancellor from time to time. A candidate who appears in one or more papers shall pay the full examination fee.
11. At the end of each semester examination controller of Examinations shall publish the result provided that in case of a candidate who was Permitted to take examination for higher semester under Clause 6 has not cleared the lower examination his result for the higher semester examination will be declared provisionally and would be confirmed only when he passes in all the written papers/sessionals/Architectural design etc. of the examination.
12. Notwithstanding the integrated nature of this course, which is spread over more than one academic year, the ordinance in force at the time a student joins the course shall hold good only for the examination held during or at the end of

the academic year and nothing in this ordinance shall be deemed to debar the University from amending the ordinance and the amended ordinance if any shall apply to all students together old or new.

13. A candidate who has passed the final examination of this University and is desirous of improving his/her performance, will be allowed to appear as an ex-student in even/odd semester examinations, as and when held, twice within the period permissible under Clause 6. Such a candidate in the first instance shall be required to intimate all the paper(s) in which he/she would like to improve his/her performance. He/she will then appear in the respective paper(s) at the concerned semester examinations simultaneously as and when held. If he/she does not improve his/her performance, he/she shall be eligible to do so in the following examinations which would be treated as second chance

Books Recommended:

Architectural Drafting and Design	by E.R. Weidhass
Design Fundamentals	by C.J. Feldsted
Design Through Discovery	by M. Bevlir
Design Fundamentals in Architecture	by V.S. Parmar
Design Fundamentals	by R.G. Scott

AR-103 BUILDING CONSTRUCTION AND MATERIAL-I

Class Hours: 4 Periods/ Week	Sessional	: 100 Marks -
	Portfolio	: 50 Marks
	Total	: 150 marks

Study of brick - its manufacture, qualities and properties. Brick bending, Brick Masonary, Brick Jallies, Brick Foundations, Study of stone, Stone walling, Masonary tools, Vernacular terms.

Books Recommended:

Engineering Materials	by Rangwala
Engineering Materials	by Surinder Singh
Building Construction	by Marekey Vol.I-IV
Building Construction	by Sushil Kumar
Building Construction	by Rangwala
Building Construction Vol. I-IV	by Bamy.

Note: The question paper will consist of five questions in all, one question will be compulsory and out of remaining four candidates will be required to attempt any two questions.

AR-105 STRUCTURAL DESIGN-I

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Study of Forces, Moments, Couples, Centre of Gravity, Bonding Moment, Shear Force, Moment of Resistance, Section Modulus, Link Polysan, Moment of Resistance, Stone Diagrams.

Books Recommended:

Structural Mechanics by Kent and Reynold
 Structural Mechanics by W. Morgan

Note: The question paper will consist of seven questions in all, candidates will be required to attempt any four out of the seven questions.

AR-107 ARCHITECTURAL DRAWING-I

Class Hours: 6 Periods/ Week	Sessional	: 100 marks
	Portfolio	: 50 marks
	Total	: 150 marks

Basic drafting techniques, types of lines, representation of building materials, lettering, scale, plan, elevation section of simple shapes, orthographics projection of prism, cone, cylinder, prism etc. section of solids.

Books Recommended:

Elementary Engineering Drawing by N.D. Bhat
 Architectural Drafting and Design by E.R. Weidhass
 Building Drawing by Shah Kala Paiki
 Metric Architectural Drawing by Frishman Loshak Stralki

Note: The question paper will consist of six questions in all, candidates will be required to attempt any three out of the six questions.

AR-109 GRAPHICS-I

Class Hours: 4 Periods/ Week	Sessional	: 100 marks
	Portfolio	: 50 marks
	Total	: 150 marks

Use of pencil, outdoor sketching, still life, shade and shadow.

Books Recommended:

Architectural Illustration and Presentation by H.C. Kuchin
 Graphics for Architects and Planners by J.E. Rurrel
 Pencil Drawing Step by Step by A.C. Gupta
 Graphic Thinking for Architect and Planners by P. Lasseau

Note: The question paper will consist of two questions in all, candidates will be required to attempt one out of the two questions.

AR-111 HISTORY OF ARCHITECTURES-I

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Early Civilization, Greek and Roman Architecture; Vedic and Bhudhist Architecture; Hindu, Draidian, Indo-Aryan and Jain Architecture; Eery Christian, Byzatine, Romanasque, Gothic Architecture.

Books Recommended:

History of Architecture	by J.G. Fletchar
World Architecture	by MGH
The Architecture of India Budhist and Hindu	by Satish Grover
History of Indian Eastern Architecture	by Fergussen
Indian Architecture	by E.B. Havell

Note: The question paper will consist of seven questions in all; candidates will be required to attempt any four out of the seven questions.

AR-113 ARCHITECTURAL DESIGN THEORY-I

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Design in Everyday life:

Elements of Design: Form, Tine, Texture, Colour, etc. Principles of Design: Scale, Balance Proportions, etc. objectives of Design: Tructh, Beauty, Order, etc.

Books Recommended:

Art in Architecture	by L.G. Redstone
Design fundamentals in Architecture	by V.S. Parmar
Design Fundamentals	by R.G. Scott
Logic and Design	by K. Bamatt
Design Concept Basic Guide Book	by G.L. Hortwigson

Note: The question paper will consist of seven questions in all candidates will be required to attempt any four out of the seven questions.

AR-115 WORKSHOP-I

Class Hours: 4 Periods/ Week	Sessional	:	50 marks
	Theory	:	-
	Total	:	50 marks
	Duration of Exam.	:	-

Sketching Masonary tools, Brick Banding, Stone Walling,
Plumbing junction and joints

***Note:** There will not be any University examination. This will consist of only sessionals.*

**SCHEME OF STUDIES AND EXAMINATIONS FOR
FIVE YEARS COURSE B.ARCH. DEGREE
SEMESTER-II**

Course No.	Course Title	Periods /Week	Sessional Marks	Portfolio Marks	Theory marks	Total Marks	Duration of Exam (Hrs.)	Remarks
AR102	Architectural Design-II	6	100	100	--	200	--	
AR104	Building Construction & Materials-II	6	100	50	--	150	--	
AR106	Structural Design-II	2	50	--	50	100	2	
AR108	Architectural Drawing-I	6	100	50	--	150	--	
AR110	Building Services-II	2	50	--	50	100	2	
AR112	Graphics-II	4	75	25	--	100	--	
AR114	Architectural Design Theory-II	2	50	--	50	100	2	
AR116	Surveying-II	2	50	--	50	100	2	
	Total	30	575	225	200	1000		

B.ARCH. II - SEMESTER

AR-102 ARCHITECTURAL DESIGN-II

Class Hours: 6 Periods/ Week	Sessional	: 100 marks
	Portfolio	: 100 marks
	Total	: 200 marks
	Duration of Exam.	:

3 Dimensional Compositions in different forms Anthropometric studies in spatial context; Design of a small building.

Books Recommended:

Architectural Drafting and Design	by E.R. Weidhass
Design Fundamentals	by C.J. Feldsted
Design Fundamentals	by R.G. Scott
Standard Graphic Symbols	by Arvell
Design for your	by Batter and Lockhort
Experiencing Architecture	by Rasmussen

AR-104 BUILDING CONSTRUCTION AND MATERIAL-II

Class Hours: 6 Periods/ Week	Sessional	: 100 marks
	Portfolio	: 50 marks
	Total	: 150 marks
	Duration of Exam.	:

Natural Timber - Sources and properties, methods of cutting and seasoning. Timber Journey. Doors, Windows etc., in timber. Boards - Plywood, blackboards, soft boards, etc., their manufacturing process and usage. Tools and Vernacular equivalent as applicable.

Books Recommended:

Engineering Materials	by Rangwala
Engineering Materials	by Surinder Singh
Building Construction Vol.I-IV	by Mackey
Building Construction	by Sushil Kumar
Building Construction	by Rangwala

Note: The question paper will consist of five questions in all, one question will be compulsory and out of remaining four questions, candidates will be required to attempt any two questions.

AR-106 STRUCTURAL DESIGN-II

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Structural properties and relevant ISI data timbers. Design of simple timber beams, bettems, purlins, long and short columns, simple trusses and truss members. Permissible compressive strength of bricks, load bearing brick walls-thickness, slenderness ratio, mortar proportions, wall footings.

Books Recommended:

Structure in Architecture by Salvadori and Hellor

Note: The question paper will consist of seven questions in all, candidates will be required to attempt any four out of the seven questions.

AR-108 ARCHITECTURAL DRAWING-II

Class Hours: 6 Periods/ Week	Sessional	: 100 Marks
	Portfolio	: 50 Marks
	Total	: 150 marks
	Duration of Exam.	:

Intersection of solids, development of surfaces, Analysis of complex forms at different intersection, Axonometric and Isometric of simple, complex and clustered objects.

Books Recommended:

Elementary Engineering Drawing by N.D. Bhat

Architectural Drafting and Design by E.R. Weidhass

Building Drawing by Shah Kala Palki

Metric Architectural Drawing by Frishman Loshak Strafka

Note: The question paper will consist of six questions in all, candidates will be required to attempt any three out of the six questions.

AR-110 BUILDING SERVICES-II

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Simple modern hot and cold water supply system and, drainage and sewage system for a single storyed building in an urban situation. Sanitation systems applicable to rural and semi developed situations.

Note: The question paper will consist of seven questions in all; candidates will be required to attempt any four out of the seven questions.

AR-112 GRAPHICS-II

Class Hours: 4 Periods/ Week	Sessional	:	75 Marks
	Portfolio -	:	25 Marks
	Total	:	100 marks
	Duration of Exam.	:	

Sketching and rendering in black and coloured inks. Use of washes.

Books Recommended:

Architectural Illustration and Presentation	by H.C. Kuchin
Graphics for Architects and Planners	by J.E. Rurrel
Architectural Rendering	by A.O. Halse
VNR the Complete Sketch	by R.S. Oliver
Graphics Thinking for Architects and Planners	by P.Laseau

Note: The question paper will consist of two questions in all; candidates will be required to attempt any one out of the two questions.

AR-114 ARCHITECTURAL DESIGN THEORY II

Class Hours: 2 Periods/ Week	Sessional	:	50 marks
	Theory	:	50 marks
	Total	:	100 marks
	Duration of Exam.	:	2 Hrs.

Elements, Principles of Architectural Design, Space and its usage. Architectural space. Architectural programming.

Books Recommended:

Art in Architecture	by L.G. Redstone
Design Fundamentals	by C.J. Feldsted
Design through Discovery	by M. Bevlin
Design Lessons from Nature	by B. Taylor
Logic and Design	by K. Bamatt
Design concepts Basic Guide Book	by G.L. Hartwigson

Note: The question paper will consist of seven questions in all; candidates will be required to attempt any four out of the seven questions.

AR-116 SURVEYING II

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Objectives and role of surveying, Types of surveys, General principles of surveying and levelling, simple methods of surveying and levelling, methods of recording and using results practical demonstration and field exercises.

Note: The question paper will consist of seven question in all; candidates will be required to attempt any four out of the seven questions.

MAHARSHI DAYANAND UNIVERSITY, ROHTAK
**SCHEME OF STUDIES AND EXAMINATIONS FOR
 FIVE YEARS B.ARCH. DEGREE COURSE**

SEMESTER-III

Course No.	Course Title	Periods/Week	Sessional Marks	Portfolio Marks	Theory Exam. Marks	Total Marks	Duration of Exam. (Hrs.)	Remarks
AR201	Architectural Design-III	6	100	100	--	200	--	
AR203	Building Construction & Materials-III	6	100	50	--	150	--	
AR205	Structural Design-III	2	50	--	50	100	2	
AR207	Architectural Drawing-III	6	100	50	--	150	--	
AR209	Building Services-III	2	50	--	50	100	2	
AR211	Graphics-III	4	75	25	--	100	--	
AR213	History of Architecture-III	2	50	--	50	100	2	
AR215	Workshop-III	4	100	--	--	100		
	Total	32	625	225	150	1000		

B.ARCH. III - SEMESTER

AR-201 ARCHITECTURAL DESIGN-III

Class Hours: 6 Periods/ Week	Sessional	: 100 marks
	Portfolio	: 100 marks
	Total	: 200 marks
	Duration of Exam.	:

Relationship of function and form, Exercises in design of small buildings incorporating services, construction methods with basic elements of structural design. (Brick, timber and concrete as basic materials).

Books Recommended:

Architectural Drafting and Design	by E.R. Weidhass
Design Fundamentals	by C.J. Feldsted
Design Fundamentals	by R.G. Scott
Standard Graphic Symbols	by Arvell
Design for your	by Batter and Lockhort
Experiencing Architecture	by Rasmussan

Note: Theory Examination will be conducted in sitting of six hours per day.

AR-203 BUILDING CONSTRUCTION AND MATERIAL-III

Class Hours: 6 Periods/ Week	Sessional	: 100 Marks
	Portfolio	: 50 Marks
	Total	: 150 marks
	Duration of Exam.	:

Construction details of simple two to three storeyed load bearing structures, types of roofs and roofs covering, walls and floor finishes, stair cases in Bricks, concrete and timber.

Books Recommended:

Engineering Materials	by Rangwala
Engineering Materials	by Surinder Singh
Building Construction Vol.I-IV	by Marekey
Building Construction	by Sushil Kumar
Building Construction	by Rangwala

Note: The question paper will consist of five questions in all, one question will be compulsory and out of remaining four questions, candidates will be required to attempt any two questions.

AR-205 STRUCTURAL DESIGN-III

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Properties of concrete and steel reinforcement by working stress method. Singly and doubly reinforced Rectangular, Tee and 'L' Beams. Shear, Torsion and Bond. One way and two way slabs, simply-supported and continuous slabs, staircases. Isolated and combined Footings. Axially Loaded columns and walls. Requirements Covering Detailing. Simple flat slabs.

Books Recommended:

R.C.C. Design	by Jai Krishan Jain
Concrete Design	by Jain & Jain
Concrete Design	by Ramanmrthan
Steel structures	by Ram Chander
Reinforced concrete design	by Malik and Rangaswani
Properties of concrete	by A.M. Neville
Concrete shells	by Dr. B.K. Chattergee
Reinforced concrete	by Malik and Gupta

Note: The question paper will consist of six questions in all, candidates will be required to attempt any four question out of the six questions.

AR-207 ARCHITECTURAL DRAWING-III

Class Hours: 6 Periods/ Week	Sessional	: 100 Marks.
	Portfolio	: 50 Marks.
	Total	: 150 marks
	Duration of Exam.	: 4 Hrs.

Drawing by geometrical method one point and two point perspective and drawing shadow/ sociography of lines and geometrical figures. simple and complex objects, simple and complex building forms. Sociography in plan and elevation.

Note: The question paper will consist of five questions in all, candidates will be required to attempt any three out of the five questions.

AR-209 BUILDING SERVICES-III

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Climate: geographical and physical factors effecting temperature, rainfall, wind, sky, ground, vegetation, microclimate and macroclimate. Seasons, movement of the sun, solar charts, use of climatic data, climatic factors. Design of shading devices. Materials and techniques of solar control study of Indiginous shelters and modern method for climate control in buildings.

Books Recommended:

Manual of Traphical Climate by Koensberger
Compiled Cfimatatlogical data by C.B.R.I., Roorkee

Note: The question paper will consist of seven questions in all; candidates will be required to attempt any four out of the seven questions.

AR-211 GRAPHICS-III

Class Hours: 4 Periods/ Week	Sessional	: 75 marks
	Portfolio	: 25 marks
	Total	: 100 marks
	Duration of Exam.	:

Frechand sketching (perspective making) and incorporating human figures, moving objects and vegetation. Completing in colour and ink. Rendering of simple architectural building drawings like plan elevation and section.

Note: The question paper will consist of two questions in all; candidates will be required to attempt any one out of the two questions.

AR-215 HISTORY OF ARCHITECTURE-III

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

13 to 19 the Cent. History of Architecture in Europe and India.

Books Recommended:

History of Architecture	by Fletcher
Islamic Architecture	by Percy Brown
Buddist Architecture	by Percy Brown
History of Architecture	by Prof. Satish Grover

AR-215 WORKSHOP-III

Class Hours: 4 Periods/ Week	Sessional	:	100 marks
	Theory	:	-
	Total	:	100 marks
	Duration of Exam.	:	- Hrs.

Making of joints and simple objects in timber. Model making in mount Board, paper, thermocoal, plastic plaster of paris etc. etc. Final work on model of studio's design problem.

Note: There will not be any University Examination. This will consist of only sessionals.

**SCHEME OF STUDIES AND EXAMINATIONS FOR
FIVE YEARS B.ARCH. DEGREE COURSE
SEMESTER-IV**

Course No.	Course Title	Periods /Week	Sessiona Marks	Portfolio Marks	Theory Exam. Marks	Total Marks	Duration of Exam. (Hrs.)	Remarks
AR202	Architectural Design-I	6	100	100	--	200	200	--
AR204	Building Construction & Materials-IV	6	100	50	--	150		
AR206	Structural Design-IV	2	50	--	50	100	2	
AR208	Computer in Architecture-IV	6	100	--	--	100	--	
AR210	Building Services-IV	2	50	--	50	100	2	
AR212	Architectural Design Theory-IV	2	50	--	50	100	2	
AR214	Communication Skills-IV	2	50	--	50	100	2	
AR216	Landscape Design-IV	4	75	75	--	150	--	
	Total	30	575	225	200	1000		

B.ARCH. IV - SEMESTER

AR-202 ARCHITECTURAL DESIGN-IV

Class Hours: 6 Periods/ Week	Sessional	: 100 marks
	Portfolio	: 100 marks
	Total	: 200 marks
	Duration of Exam.	:

Physical study of the environment of a rural settlement as a manifestation of vernacular architecture application or the physical study of a historical site such as Mandu, Fatehpur Sikri etc. etc.

Books Recommended:

Architectural Drafting and Design	by E.R. Weidhass
Design Fundamentals	by C.J. Feldsted
Design through Discovery	by M. Bevlin
Design Fundamentals in Architecture	by V.S. Parmar
Design Fundamentals	by R.G. Scott

AR-204 BUILDING CONSTRUCTION AND MATERIAL-IV

Class Hours: 6 Periods/ Week	Sessional	: 100 marks
	Portfolio	: 50 marks
	Total	: 150 marks
	Duration of Exam.	:

Construction details of building items in steel, Aluminium and R.C.C. False ceiling, partitions and wall panelling.

Books Recommended:

Engineering Materials	by Rangwala
Engineering Materials	by Surinder Singh
Building Construction Vol. I-IV	by Marckey
Building Construction	by Sushil Kumar
Building Construction	by Rangwala
Building construction Vol. I-IV	by Barry

Note: The question paper will consist of five questions in all, one question will be compulsory and out of remaining four questions, candidate will be required to attempt any two questions.

AR-206 STRUCTURAL DESIGN-IV

Class Hours	2 Periods/ Week	Sessional	: 50 marks
		Theory	: 50 marks
		Total	: 100 marks
		Duration of Exam.	: 2 Hrs.

Moment distribution. Approximate method of analysing building Frames - Portal method. Introduction to limit state Design. Design of sections against Flexure, shear, Torsion, Compression, Combined Compression and bending. Design of water retaining structures. Retaining walls. Properties of Fresh Concrete.

Books Recommended:

R.C.C. Design	by Jai Krishan Jain
Concrete Design	by Jain & Jain
Concrete Design	by Ramamurthan
R.C.C. Design	Shah & Kole

Note: The question paper will consist of six questions in all, candidates will be required to attempt any four out of the six questions.

AR-208 COMPUTER IN ARCHITECTURE-IV

Class Hours	6 Periods/ Week	Sessional	: 100 marks
		Theory	:
		Total	: 100 marks
		Duration of Exam.	:

Computer Appreciation covering basic elements of computer sys. and its working. Basic language for elementary programming.

Books Recommended:

As per the teacher incharge of the course.

Note: The question paper will consist of four questions candidates will be required to attempt any two out of the four questions.

AR-210 BUILDING SERVICES-IV

Class Hours	2 Periods, Week	Sessional	: 50 marks
		Theory	: 50 marks
		Total	: 100 marks
		Duration of Exam.	: 2 Hrs.

(Electricity, lighting and Illuminations).

Natural Lighting, Artificial lighting Systems, Lamps and Luminaires. Electric Wiring System, Electric Fixtures.

Books Recommended:

As per the instructions of the teacher concerned.

- *Note: The question paper will consist of seven questions in all, candidates will be required to attempt any four out of the seven questions.*

• **AR-212 ARCHITECTURAL DESIGN THEORY-IV**

Class Hours 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Study of time, life works & Philosophy of contemporary, recognized architectes in India and abroad.

Books Recommended:

As per the instructions of the teacher concerned.

- *Note: The question paper will consist of seven questions in all, candidates will be required to attempt any four out of the seven questions.*

AR-214 COMMUNICATIONS SKILLS = IV

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

- Basic knowledge of English language. Applied Grammar. Sentence structure
- Practice of logical and coherent creative writing.
- Writing and presentation of Technical papers, visit reports, seminar papers etc.
- Public speaking presentation of ideas and concepts through public speaking and ground discussion etc.

Books Recommended:

As per the instructions of the teachers concerned.

Note: The question paper will consist of five questions in all, candidates will be required to attempt three questions out of the five questions.

AR-216 LANDSCAPE DESIGN-IV

Class Hours 4 Periods/ Week	Sessional	:	75 marks
	Portfolio	:	75 marks
	Total	:	150 marks
	Duration of Exam.	:	

Nature and Scope of Landscape Design. Basic Environmental aspects of Landscape Development. Physical Elements of Landscape Design, such as Earth, Rock, Water and Plants. Naturalistic as well as man made attributes and use of these landscape elements. A brief History of Landscape Design.

Books Recommended:

As per the instructions of the teacher concerned

Note: The question paper will consist of five questions in all, candidates will be required to attempt any three questions out of the five questions.

**SCHEME OF STUDIES AND EXAMINATIONS FOR
FIVE YEARS B.ARCH. DEGREE COURSE
SEMESTER-V**

Course No.	Course Title	Periods Week	Sessional Marks	Portfolio Marks	Theory Exam. Marks	Total Marks	Duration of Exam. (Hrs.)	Remarks
AR301	Architectural Design-V	12	125	125	--	250	--	
AR303	Building Construction & Materials-V	6	100	50	--	150	--	
AR305	Structural Design-V	2	50	--	50	100	2	A
AR307	Computer in Architecture-V	4	100	--	--	100	--	
AR309	Building Services-V	2	50	--	50	100	2	
AR311	History of Architecture-V	2	50	--	50	100	2	
AR313	Estimating & Costing-V	2	50	--	50	100	2	
AR315	Building Bye Laws & Office Management-V	2	50	--	50	100	2	
	Total	32	575	175	250	1000		

B.ARCH. V - SEMESTER

AR-301 ARCHITECTURAL DESIGN-V

Class Hours: 12 Periods/ Week	Sessional	:	125 marks
	Portfolio	:	125 marks
	Total	:	250 marks
	Duration of Exam.	:	

Complete design of small public buildings involving vertical and horizontal circulation systems and interrelationship of multi use spaces giving due importance to services, structures and materials. Suggested building types are small commercial health or recreational centres.

AR-303 BUILDING CONSTRUCTION AND MATERIAL-V

Class Hours: 6 Periods/ Week	Sessional	:	100 marks
	Portfolio	:	50 marks
	Total	:	150 marks
	Duration of Exam.	:	

Construction details of building in steel covering.

- Steel support systems
- Steel trusses and girders
- Steel flooring and roofing
- Steel stair cases

AR-305 STRUCTURAL DESIGN-V

Class Hours: 2 Periods/ Week	Sessional	:	50 marks
	Theory	:	50 marks
	Total	:	100 marks
	Duration of Exam.	:	2 Hrs.

Study of basic data relevant to steel structures. ISI standards. Design of steel beams, Built up girders, plate girders, long and short columns, crane gantry columns, column bases, trusses, welded rivetted hinged joints foundations.

AR-307 COMPUTER IN ARCHITECTURE-V

Class Hours: 4 Periods/ Week	Sessional	:	100 marks
	Total	:	100 marks

Training on Auto Cad leading to the preparation of complete architectural drawings.

AR-309 BUILDING SERVICES-V

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

General principles of sound, reverberations, absorption, reflection etc. Acoustical materials and their efficiency. Principles of good acoustic design in buildings. Special requirements for various spaces like studio auditorium etc. Insulation from structure borne and other noises.

Fire protection -

Cause and spread of fire, methods of fighting fire, fire fighting equipments and fire extinguishers of different types.

Constructibility of materials and fire resistance. Fire protection. Means of escape, smoke detectors, fire clappers fire doors, water contain etc.

Code of safety as prescribed by ISI and study of latest National building code respect of Mechanical services.

AR-311 HISTORY OF ARCH.-V

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Post industrial revolution architecture in India & abroad.

AR-313 ESTIMATING & COSTING-V

Class Hours: 2 Periods/ Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Basic principles of Economics as applied to buildings and factors effecting cost of buildings.

Types of estimates principles and methods of taking out quantities of building material and their costing.

AR 305 BUILDING BYLAWS & OFFICE MANAGEMENT-V

Class Hours : 2 Periods/Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
Duration of Exam.:		2 Hrs.

Role of buildings bye laws in architecture, study of building bye laws applications in cities like Delhi and Chandigarh, National building code Requirements of submission drawings office management, official correspondence, dealing with different agencies like contractors, clients, experts and consultants, tendering procedures, arbitration, registration of Architects, code of professional conduct, professional bodies, official hierarchy, office decorum, professional fee, professional ethics.

**SCHEME OF STUDIES AND EXAMINATIONS FOR
FIVE YEARS B.ARCH. DEGREE COURSE
SEMESTER-VI**

Course No.	Course Title	Periods /Week	Sessional Marks	Portfolio Marks	Theory Exam. Marks	Total Exam.	Duration of Exam. Marks	Remarks (Hrs.)
AR 302	Architectural Design-VI	12	125	125	--	250	--	
AR 304	Building Construction & Materials-VI	6	100	50	--	150	--	
AR 306	Structural Design-VI	2	50	--	50	100	2	
AR 305	Computer in Architecture-VI	3	100	--	--	100	--	
AR 310	Building Services-VI	2	50	--	50	100	2	
AR 312	Graphics-VI	3	75	25	--	100	--	
AR 314	History of Architecture-VI	2	50	--	50	100	2	
AR 316	Specification-VI	2	50	--	50	100	2	
	Total	32	600	200	200	1000		

B.ARCH.VI-SEMESTER**AR-302 ARCHITECTURAL DESIGN-VI**

Class Hours : 12 Periods/Week	Sessional	: 125 marks
	Portfolio	: 125 marks
	Total	: 250 marks
Duration of Exam.:		

Complete design of complex public buildings/housing involving all the complexities of design including the abstracts factors like socio-economic and cultural issues. Suggested building types are theaters, hotels, community centre, special institutions and the like.

AR-304 BUILDING CONSTRUCTION AND MATERIAL-VI

Class Hours : 6 Periods/Week	Sessional	:	105 marks
	Portfolio	:	50 marks
	Total	:	150 marks

Duration of Exam.:

Complete working drawing of a design done in the previous semester including details of construction and services.

AR-306 STRUCTURAL DESIGN-VI

Class Hours : 2 Periods/Week	Sessional	:	50 marks
	Theory	:	50 marks
	Total	:	100 marks

Duration of Exam.: 2 Hrs.

Exercises in drawing of RCC structural members and steel structural construction.

AR-308 COMPUTER IN ARCHITECTURE-VI

Class Hours : 3 Periods/Week	Sessional	:	100 marks
	Total	:	100 marks

Training in other graphic packages like Arris, Vera Cad and addons to Auto Cad.

AR-310 BUILDING SERVICES-VI

Class Hours : 2 Periods/Week	Sessional	:	50 marks
	Theory	:	50 marks
	Total	:	100 marks

Duration of Exam.: 2 Hrs.

Natural ventilation, artificial ventilation, cooling systems, theory of air conditioning systems, types of air conditioning system, ducts and insulating materials and air-conditioning plants.

Location and equipment for lifts and escalators.

AR-312 GRAPHICS-VI

Class Hours : 3 Periods/Week	Sessional	:	75 marks
	Portfolio	:	25 marks
	Total	:	100 marks

Exercises in rednering of plans, sections, elevations perspective and sketches etc. in various madiums.

AR-314 HISTORY OF ARCHITECTURE-VI

Class Hours : 2 Periods/Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam:	2 Hrs.

Modern and contemporary Architecture in India & abroad.

AR-316 SPECIFICATION-VI

Class Hours : 2 Periods/Week	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam:	2 Hrs.

Detailed specifications of basic building materials like brick stone and cement, timber etc. for the purpose of specifying for construction both as direct and composite materials.

Techniques and phraseology of writing specifications of basic and composite materials.

Methods and points of consideration for checking specifications of materials on site.

B.ARCH VII-SEMESTER**AR-401 PRACTICAL TRAINING**

Subject	Total marks for monthly reports, office work and work done outside office hours, etc. (for details see syllabus).
Practical Training	200

RULES

1. The total marks shall be suitably apportioned to assess monthly reports, office work, and work done outside office hours, etc. (for details see syllabus).
2. Trainees are required to send/submit according to a prescribed schedule monthly progress reports of the work done by them in the office of which they are apprenticed. These reports shall be assessed/ marked regularly by the practical Training Coordinator (PTC).
3. On the conclusion of the practical training, the prescribed work done by the trainees shall be examined and evaluated through a viva voce to be conducted jointly by the PTC and one external examiner who will be appointed by the Principal/ Head of the Department.
4. In the case of failure in practical training, the matter of the relegated student's promotion in the higher semester etc. shall be governed by relevant M.D.U., Rohtak regulations prescribed for the B.Arch. Examination.

PRACTICAL TRAINING-VII
(Tenure 24 weeks)

Work to be done during practical training:

The following work will be done by each trainee during the tenure of practical Training:

- a) **Work during office hours:**
 - i) Drafting, tradings, presentation drawings, perspectives, models etc.,
 - ii) Working drawings and details.

b) In Extra-Office Hours:

One is required to prepare a study report on building design analysis incorporating site visits, recording observations, etc. of a prescribed/selected building.

Note: On the above guidelines, a detailed programme to be drawn up each year by the PTC will be approved by the Principal before it is implemented. The intention will be to update the programme, incorporating new details, with an eye on continual qualitative improvement in the projected results.

B. ARCH. VIII SEMESTER**AR-402 ARCHITECTURAL DESIGN-VIII**

No. of period per week: 12	Sessional	:	200 marks
	Portfolio	:	200 marks
	Total	:	400 marks
	Duration of Exam.	:	

Design subject will include problems such as:

- a) Industrial building involving the layout of manufacturing process based on flow sheets.
- b) Multi-storeyed-frame buildings, including designing for acoustics, air conditioning traffic, circulation and interior design.

The studio work will include:

Time sketches, work drawings, perspectives, interior design-scheme, structural design and calculations of a simple structure designed by the students in earlier stages.

Note: 1. Greater stress will be laid on discussion of the problems of design in the studio than on general lectures.

2. One teacher for every ten students or fraction thereof may be assigned to teach this subject.

AR-404 BUILDING CONSTRUCTION & MATERIALS-VII

No. of periods per week - 6	Sessional	:	125 marks
	Portfolio	:	75 marks
	Total	:	200 marks
	Duration of Exam.	:	

MAHARSHI DAYANAND UNIVERSITY, ROHTAK
SCHEME OF STUDIES AND EXAMINATIONS FOR FIVE
YEAR B.ARCH COUR

SESEMESTER-VIII

Course No.	Course Title	Periods/Week	Sessional Marks	Portfolio Marks	Theor Exam	Total Marks	Duration of Exam. (Hrs)	Remarks
AR402	Architectural Design-VII	12	200	200	--	400	--	
AR404	Building Construction & Materials-VIII	6	125	75	--	200	--	
	ELECTIVES (any four)							
AR406	Structural Design-VIII	2	50	--	50	100	2	
AR408	Acoustics-VIII	3	50	--	50	100	2	
AR410	Building Materials-VIII	3	50	--	50	100	2	
AR412	Building Maintenance-VIII	3	50	--	50	100	2	
AR414	Low Cost Building-VIII	3	50	--	50	100	2	
AR416	Indian Architecture-VIII	3	50	--	50	100	2	
AR418	Restoration and Preservation of Monuments-VIII	3	50	--	50	100	2	
AR420	Systems Building	3	50	--	50	100	2	
AR422	Urban Design-VIII	3	50	--	50	100	2	
AR424	Interior Design-VIII	3	50	--	50	100	2	
AR426	Housing-VIII	3	50	--	50	100	2	
AR428	Regional Planning-VIII	3	50	--	50	100	2	
AR430	Architectural Pl. Geography-VIII	3	50	--	50	100	2	
	Total	30	125	275	200	1000		

Note:

1. Elective courses will be offered depending upon availability of expert teaching staff.
2. Elective courses will be run only if there are minimum of five students opting for a course.
3. Each student must take 4 elective courses.

EIGHT SEMESTER

Scheme of Teaching

Duration of Semester	:16 weeks
Periods per week	:30
Duration of period	:50/55 minutes

Sr. No.	Subject	Total periods theory/study hours	Periods per weeks
1.	Architectural Design-VIII	192	12
2.	Buldg. Construction-VIII	96	6
Elective Any Four			
3	Structural Design-VIII	48	3
4	Acoustics-VIII	48	3
5	Bldg. Materials-VIII	48	3
6	Bldg. Maintenance-VIII	48	3
7	Low-Cost Building-VIII	48	3
8	Indian Architecture-VIII	48	3
9	Restoration and Preservation of Monuments-VIII	48	3
10	Buildings Systems -VIII	48	3
11	Urban Design-VIII	48	3
12	Interior Design-VIII	48	3
13	Housing-VIII	48	3
14	Regional Planning-VIII	48	3
15	Architectural Photography-VIII	48	3

INTENT

The concept is to make the students familiar with special construction details of built in furniture and other features of interior spaces and understanding of design, detail and materials of various constructions in interiors.

CONTENTS

Study of display Units, interiors. Different types of built in furniture construction details of panelling, curtain walls, partitions, false ceiling etc. Design and construction of interior constructions like fire places, special stair cases & door and windows with an aim of sound & fire proofing.

TOPICS

Study of design and details various built in furniture, wardrobes, counters, display units shop fronts etc. in various public places.

Study and design and details & construction materials for special construction features in interiors like free standing stair cases fire places, curtain walls, partition and panelling. Study of design and detail of doors and windows with emphasis on sound and fire proofing etc.

Note: Besides teaching the above topics through class room lecture the students shall be taken to construction sites of important buildings for on the spot study of execution of such speciality construction. They will present site visit report with visuals for sessionals. They will be given at least four studio assignments.

AR-406 STRUCTURAL DESIGN-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	100 marks
	Duration of Exam.	2 hrs.

Specialised study of structural behaviour, being mechanism, resulted form and its parameters and scope of their use. Tensile structures: Cable, waffle nets, tents pneumatic structures and suspension bridges and other suspension structures.

Compressive (Structures from Active): Article, Vaults, Domes.

Bull. active: Slabs, Waffle slabs, beams grid beams, honey combed beams prestressed beams, frames, portal frames, folded plates, pyramidal folding and cellular folding.

Vector Active Structures: Trusses, space frames, curved space frames, geodesic domes.

Surface Active: Shells-single curved, doubly curved, relational translatory and ruled surfaces.

High Rise structures: Bay, cantiliver, suspension tubular, Bundle of tubes etc., with special emphasis on shear bracing systems.

Emphasis should be laid on three dimensional/ studies through models.

AR-408 ACCOUSTICS-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

The course is to be offered to enable students to do a thorough analysis of existing prototypes such as theatres, cinema halls, auditoriums, multi-purpose spaces, etc. An intelligent understanding of the subject is expected so that the students can learn to design the above-mentioned special-purpose spaces in terms of accoustical constraints and objectives. The analysis should be aimed at listing out performance specifications of prototypes in terms of their acoustic behaviour in actual use.

The design should be aimed at applying theoretical and research material to a realistic design problems. Complete acoustic design for one of the special-purpose spaces should be done to enable the student to have a critical appraisal of the problems involved and how they affect architectural concept. Acoustic Design assignments will include use of acoustic diagrams, calculation of reverberation time, specifications of acoustic materials, etc. put together as a workable acoustic design proposal for special-purpose space whose location, capacity, function and other constraints are known.

Students' attention should be drawn to the need for acoustic design in bus terminals, railway stations, aerodromes, stadiums, offices, libraries, restaurants and other public spaces, as well as in residential buildings.

Note: Students should be taken to National Physical Laboratory and other places for familiarising them with materials, equipment, and the complexity of the problems of acoustics. Extension lectures by eminent, specialists/ professionals may also be arranged.

AR-410 BUILDING MATERIALS-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam	: 2 hrs.

• INTENT

- To make the students familiar with the modern building materials and their specific uses and applications etc. they shall study them in detail for their structural, Aesthetic constructional insulating and acoustical qualities alongwith their cost, durability, utility and economy etc. All types of external and internal finishing materials and some special purpose materials which were not dealt with in the lower classes shall be included in this study.

CONTENT

Plywood, wood and fibre based boards, adhesive and glued timber products, their uses and application in buildings.

Special types of glass and its allied products, ceramics etc.

Plastics in building materials and as building materials, P.V.C. and other resilient floor coverings etc.

Acoustical and thermal insulation materials and their applications. Architectural metals, alloys and their application in buildings. Light cut aggregates, foam and aerated conc. blocks.

TOPICS

Wood veneered, wood and fibre based boards, Glued timber constructions and adhesives used in their manufacture, their uses and applications in the buildings.

Special types of glass and glass products. Earthenware glazed tiles and other ceramic products, their uses etc. Plastics and allied products included resilient floor coverings Plastics used in the manufacture of building materials. Acoustical and thermal insulation materials and their qualities. Architectural metals like Aluminium, Brass, bronze lead, Zinc Gunmetal their uses and applications (include stainless steel). Light cut aggregates, foam and aerated concrete blocks and other materials for use in R.C.C. frame structures. Special paints, preservatives and protective coating materials. Other materials used for internal finishes and furnishing etc.

Note: Besides teaching the subject through class room lectures, the students shall be encouraged to collect the samples and literature etc. of new building materials. They shall also study all types of materials and samples alongwith literature available in the college museum. They shall be encouraged to organise a mini exhibition of building materials both conventional and modern and their knowledge of materials shall be evaluated through viva-voce and seminars, which shall form part of their sessional. They shall also be asked study the materials, their use and methods of applications etc. and submit a detailed study report as an assignment of sessional work and shall be evaluated through viva-voce.

AR-412 BUILDING MAINTENANCE-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	:

INTENT

The environment of built-up buildings expresses in physical form the complex social and economic factors which give structure and life to the people. The condition and quality of buildings reflect public pride or indifference, the level of prosperity in the area, the social values and divers other characteristics of the community. Dilapidated and unhealthy buildings in a decaying environment depress the quality of life and contributes in some measure to anti-social behaviour. These social consequences are however difficult to quantify and as a result are rarely given proper consideration.

On the economic front as per the statistical information available the total capital value of the buildings represents two thirds of the nation's capital stock, not only does it represent wealth accumulated over many years, but it is also a vital factor in the production of new wealth.

The preservation of the value and utility of the stock of buildings is therefore essential to the economic well-being of the country. Proper and effective maintenance of these buildings, thus, becomes the activity of prime importance. Effective maintenance is a combination of actions carried out to retain a building in, or restore it to, an acceptable its services and surrounds, to sustain the utility and safety, to increase its economic life and to protect the capital investment. To do so, one must possess the know-how and the do-how of maintenance and also understand its complete philosophy.

Further, in its back-flow, a through knowledge of building maintenance can substantially contribute towards adequacy of design and suitability of materials specified in the very first stage in the design office.

Seen in the context as has been explained above, this in essence of the INTENT of providing this optional course in the curriculum. The professional student of Architecture can now exercise his option in acquiring know-how and expertise in this important sphere of activity in the total spectrum of his professional studies in the degree course of Architecture.

CONTENT AND TOPICS

1. **Introduction:**
Maintenance defined. Need & Importance of building maintenance
Its economic and social significance.
2. **Categories of Maintenance:**
Planned maintenance; preventive maintenance, running/ caretaker
maintenance. PWD pattern of maintenance; A/R & S/R
Maintenance cycles. Maintenance Profiles.
3. **Maintenance Generators:**
Climatic conditions; usages: Defects in original design/
Construction; changing standards & tastes.
4. **Maintenances Standards:**
Determinants of maintenance standards. Statutory standards.
Building byelaws & Acts. Legislative controls. Buildings &
Housing Acts. Directive principles Act.
5. **Organizing Maintenance**
Managing maintenance. Financing & budgetting for maintenance
understanding technology & techniques involved in maintenance
Execution of maintenance work. Controlling costs.
6. **Information systems in Maintenance:**
Inspection; Annual; Periodical; Special. Check-lists proformas.
7. **Creating Data-base for Maintenance**
Maintaining building registers; Inventories; Inspection reports
records; user complaints. Building in danger.

8. Understanding Building Defects & Ailments:

Examining symptoms of various types and patterns of buildings diseases & ailments; Structural, Non-structural; Finishings; Stains; Services' ailments; Leakages & dampness; corrosion protection; sulphate attacks on metal.

Diagnosing & determining causes. Prescribing effective remedial action.

AR-414 LOW-COST BUILDING-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Need for low cost buildings.

Analysis of space norms for low cost buildings.

Study of usage pattern of low cost buildings by the inhabitants.

Cost analysis of low cost buildings.

Comparative analysis of building materials and costing.

AR-416 INDIAN ARCHITECTURE-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

The purpose of this course is to find out, through analysis and comparative study of traditional and contemporary architecture in India, how useful, harmful or natural is the imported variety of international style is to the Indian context. A brief historical background should be given.

The country may be divided into various zones based on climate in order to study and analyse residential/vernacular architecture in the hills, plains, hot and dry regions, coastal area, etc. The investigation should be aimed at isolating and identifying both in rural and urban areas such elements of architectural design as courtyards, balconies, grills, Chhajjas, skylights, etc., as well as the use and development of indigenous technology with emphasis on local materials, building methods, and innovations thereof. Other factors like climate, socio-cultural and economic constraints, lifestyle, etc. should be studied (not so much in themselves) as they appear

to have affected the evolution of certain prototypes over the centuries. A comparative study with their contemporary counterparts is expected to reveal much that has been lost in our craze to copy the western models without questioning their relevance to or desirability in the Indian context. The assignments may be done in the form of illustrated reports for presentation and discussion in the class.

AR-418 RESTORATION & PRESERVATION OF MONUMENTS-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Study of basic historical style in Indian Architecture.

Study of ornamentation and detailing in historical buildings in various styles.

Study of construction methods and structural analysis of various historical building styles e.g. arches, domes, vaults and shikharas etc.

Study of finishes in historical buildings.

Effects of weathering/ pollution on historical buildings.

Study of landscaping styles/ plantation around historical buildings. Knowledge of plantation/ water features in Mughal Garden and Hindu temple precincts.

Methods of studying and documenting archives containing information about historical monuments.

Methods of saving monuments from vandalism.

AR-420 BUILDING SYSTEMS/VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

The concept, definition, need and scope of building systems. Systems and sub-systems in buildings. A building system as a chain of concepts, methods and processes in which each sub system acts as a link.

Establishing mathematical models for assessing the good and bad points of alternative building designs for the same project prepared by the same team or different teams of architects. Switch-over from a subjective value-judgment, with its attendant problems rational and scientific approach to a comprehensive method of evaluating alternative building designs.

Study of building systems in various prototypes, viz., hospitals, offices, theatres, museums, cinema halls etc. with reference to the inherent/present sub-systems such as structure, sanitation, water supply, elevators, electrical layout/installations, air-conditioning, accoustics etc. Analysis of the overall system and supporting subsystems, taken separately and collectively, using mathematical models to assess the optional value of the building systems.

Optimization of sub-system(s) to achieve the objective of formulating a building system of optimum cost, functional requirements, and aesthetic value.

Note: Suitable assignment(s) must be devised to enable the students to apply their theoretical knowledge to meet challenge(s) of practical problems.

AR-422 URBAN DESIGN-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Introduction of Urban Design heritage in India with discussion on various ancient cities; Terminology and concepts in urban design; Raw materials of urban design; Legislations: Discussion of CIAM Grid, Ekistic Grid and Patrick Geddes philosophies; problems of Municipal Finance, seminar of different Indian cities with regard to their urban character, potential and possibilities.

AR-424 INTERIOR DESIGN-VIII

No. of periods per week 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

INTENT

To appreciate the complexities and constraints in the design and execution of architectural interiors.

CONTENT

History of Interior Design.
 Theory of Interior Design
 Study of constraints affecting Interior Designs
 Art in Interior Design
 Furniture and Furnishings
 Case Studies

TOPICS

Theory of Interior Design
 Principles of aesthetic composition in Interiors
 Interior Design in History
 Constraint of function on different Interiors
 Colour in Interior Design
 Natural and Artificial Lighting in Interiors
 Built-in furniture
 Furnishing and panelling materials and types of movable furniture
 Interior Design accessories and decorative elements
 Buildings Materials for Interior finishes
 Electrical wiring and fixtures, materials, and methods.

Note: This subject should be done through seminars and reports which are given as individual assignments and through case studies which may be done as group assignments.

At least one design project must be attempted.

AR-426 HOUSING-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Preparation for conducting on the spot study of housing problems of an existing town viz. Material of socio-economic survey, methods of conducting surveys.

Strategy for solving the housing problems, factors effecting the housing strategies e.g. population projection, age composition, land ownership, land prices, zoning, by seive map etc.

Housing standards and code.

Housing policies of the central Govt. and State Govt.'s problems of slums.

AR-428 REGIONAL PLANNING-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Understanding of physical, social and economical parameters for regional planning.

Relationship of Macro-planning and Micro-planning.

Relationship of Regional planning with National level planning.

Development of new towns/ cities.

Redevelopment and expansion of existing towns.

Implementation of regional plans.

Methods of making future projects.

Over-lay methods for developing regional plans.

AR-429 ARCHITECTURAL PHOTOGRAPHY-VIII

No. of periods per week: 3	Sessional	: 50 marks
	Theory	: 50 marks
	Total	: 100 marks
	Duration of Exam.	: 2 Hrs.

Use of photography for documentation of architectural work.

Use of photography for making audio-visual presentations of projects.

Use of photography for simulating, overlaying or juxtapositioning of buildings in different backgrounds/ environment/ surroundings.

Special skills and equipment required for photographing buildings.
Effects of using various lenses/ filters in photography of buildings.

Effects of light-outdoor on buildings, for photography.
Study of shade and shadows in architectural photography.
Scale relationships in photography of buildings.
Photographing interiors-special skills and equipment required.
Comparative values/ effects of black and white/ colour photography
of architecture.

**SCHEME OF STUDIES AND EXAMINATIONS FOR
FIVE YEARS B.ARCH COURSE
SEMESTER-IX**

Course No.	Course Title	Periods/Week	Sessional Marks	Portfolio Marks	Theory Exam. Marks	Total Marks	Duration of Exam. (Hrs.)	Remarks
AR501	Architectural Design-IX	12	200	200	--	400	--	
AR503	Building Construction & Materials-IX	6	125	75	--	200	--	
	ELECTIVES (any four)							
AR 505	Air-conditioning-IX	3	50	--	50	100	2	
AR507	Computer in Architecture-IX	3	50	--	50	100	2	
AR 509	Lighting and Illumination-IX	3	50	--	50	100	2	
AR511	Rural Architecture-IX	3	50	--	50	100	2	
AR513	Art and Architecture-IX	3	50	--	50	100	2	
AR515	Multi Storeyed Building-IX	3	50	--	50	100	2	
AR517	Landscape Design-IX	3	50	--	50	100	2	
AR 519	Traffic and Transportation-IX	3	50	--	50	100	2	
AR521	Ecological Planning-IX	3	50	--	100	100	2	
AR523	Architectural Rendering-IX	3	50	--	50	100	2	
AR525	Construction Management-IX	3	50	--	50	100	2	
AR527	Model Making-IX	3	50	--	50	100	2	
AR529	Town Planning-IX	3	50	--	50	100	2	
AR531	Architectural Journalism-IX	3	50	--	50	100	2	
	Total	30	525	275	200	1000		

Note: 1. Elective course will be offered depending upon availability of expert teaching staff.

2. Elective course will be run only if there are a minimum of five students opting a course.

3. Each student must take four elective course.

B. ARCH IX - SEMESTER**AR-501 ARCHITECTURAL DESIGN - IX**
No. of periods per week: 12

Small problem of specialised nature such as an office or an industrial building of about four weeks duration shall be done in the first four weeks of the semester.

One design shall be based on typical study of the environmental or town by the process of problem identification.

One problem shall be of a building with many components such as hospitals, commercial buildings.

AR-503 BUILDING CONSTRUCTION-IX
No. of periods per week: 6**INTENT**

To make the students learnt about all the aspects of advanced building construction, introducing latest technology adopted in building forms, methods of construction, material handling etc.

CONTENT

Advanced construction techniques like prefabrication prestressing, Study of design and detail of form work and other support construction, Advanced construction techniques and practices like extension and expansion joints,

TOPICS

Prefabrication of different building components Structural infill and finishing, Details of form work, shuttering, cantering and other temporary support constructions in timber and steel. Advanced construction techniques and practices expansion and extension joints,

Note: Besides class room /lectures students shall be taken to sites of above mentioned constructions/techniques, Students shall prepare site visit report as part of sessional assignments. There shall also be two-three studio assignments to form part of sessional,

AR-505**AIR CONDITIONING-IX****No. of periods per week: 3**

What is air conditioning? Different mechanical means of cooling: Fancoil, AHU chilled water etc. Various types of air conditioning methods. Central plant, split unit, window units etc. Humidity controls in air conditioning. Air changes and fresh air regulation in air conditioning. Planning of air conditions plants and ducts/AHU in buildings. Behaviour of various building materials and thermal conductivity. Thermal insulation for air condition interior spaces. Working out air conditioning loads for different spaces/times and types of spaces. Cost estimates of air conditioning.

AR-507**COMPUTER IN ARCHITECTURES-IX****No. of periods per week: 3**

The purpose of this course is to acquaint the students with the use of computers as aids to quicker and more objective design decision-making, and to impart him at least the elementary skills necessary to handle and process data.

What is computer languages, computer programming etc. Types of computer-digital, analogue and the hybrid varieties. Computers suitable for architectural work such as preparation of drawings and perspectives, study of variations on a given design idea, development of prototypes etc.

Use of computers for processing research data in its graphic form, for structural design calculations, for planning decisions, etc.

Students may be taken on a site visit to the local computer centre, IIT Delhi, and elsewhere to show them how various types of computer work and what they can do. Besides, talks by specialists may be arranged to supplement classroom teaching.

Specific problems may be devised so as to enable the students to learn the use of computers for selected field of study.

AR-509**LIGHTING AND ILLUMINATION-IX****No. of periods per week: 3****INTENT**

To make the students familiar with the design principles and applications of both natural and artificial light for indoor and outdoor requirements. They must study the types of lamps; luminaries, their uses,

efficiency, qualities costs, life and economy etc., the lighting levels required for different buildings, uses and different age groups etc., quality of light required for colour photography, filming and video-recording process and colour manufacturing etc. are to be dealt with.

CONTENT

Light and its characteristics Design and adaptations of natural and artificial light for interiors

Designing principles of artificial out door lighting.

Lamps, luminaires, their efficiency and qualities.

Lighting requirements in lumens and quality for different spaces, buildings, and specific activities.

TOPICS

Natural and Artificial light, propagation, reflection and radiation.

Reflectivity of-colours, glare, its effects, shades and shadows.

Eyes sensitivity to light, colour and contrast, comfort and visual clarity.

Light measuring, lighting levels and quality required for different places of working conditions different age groups, photography etc.

Methods and design of natural light adaptations for interiors.

Types of electric lamps, their cost, efficiency, quality, life power consumption and economy etc.

Designing lighting for houses, offices, shops, industry, institutes, museums, libraries and auditoriums etc.

Designing of light for sports halls, stadiums, garden, fountains, monuments and historical buildings.

Security lighting, highway, road and street lighting.

Effects of voltage fluctuations on lamps and lighting

Note: Besides learning the basic principles of design and applications of light through classroom lectures and lab. experiments the students shall study, observe, measure the lightning levels, lighting design of various buildings, and outdoors, make sketches and notes, prepare-and submit a detailed report to the teacher for individual evaluation. This award shall form part of sessional work and internal assessment.

Besides the above mentioned study report there shall be two more assignment and shall be done by students, one of which shall be based on the lab experiments conceived on the design principles of interior lights design or the testing of the efficiency of the lamps and luminario, the third assignment on the lab experiments on the light and its behaviour, effects, reflectivity of colours, shadows and contrast etc. Best two assessed assignments shall be considered for final sessional marks.

A spacious dark room shall be used as a laboratory.

AR-511**RURAL ARCHITECTURE-IX****No. of periods per week: 3**

An in depth analysis of the spatial organisations of our villages and the social and economic forces which shape these organisations.

An analysis of the public spaces in a village

A study of village housing and places for animal habitation.

Use of material and construction technology.

Aesthetics of rural architecture.

Rural economy Rural social structuring.

AR-513**ART AND ARCHITECTURE-IX****No. of periods per week: 3**

A brief history of the world highlighting the interdependence or otherwise of art and architecture

Study of art and architecture as inseparable entities such as in rural/folk architecture of various regions of the world.

Study of art as decorative element of architecture, in the form of sculpture, bas-reliefs, paintings etc.

Art in architecture at the levels of the dwelling the cluster, the neighbourhood, the city, etc.

Art in the form of industrial design like automobiles, furniture, light-fittings, kitchenware, etc. and how it effects architecture.

How architecture can be made an all-encompassing creative discipline/incorporating art from the stage of design conception. Contribution of renowned artists to the enrichment of architecture, viz. Michelangelo. Leonardo da vinci, Henri Moore, Rodin, Satish Gujral, Alexander Calder, M.F. Hussein, etc.

Note: The course should be offered with special reference to the work of artists architects like Le corbusier, Michelangelo, Satish Gujral etc.

Students should be asked to find out suitable examples from their own experience/exposure that can add to the quality of the course content.

Eminent artists may be associated to give special lectures on the manner in which they can contribute to realising a fuller architectural concept.

AR-515 MULTISTOREYED BUILDINGS-IX
No. of periods per week: 3

INTENTS

To realize and appreciate the needs constraints and complexities in High rise development

CONTENT

Need, reasons, methods, constraints and problems arising out of high rise development.

Form of multi-storeyed buildings and their effect on urban space. Structure and services for multistoreyed buildings.

Psychological implications of using such spatial organisations.

Construction methods and site management.

TOPICS

Definition of multistoreyed buildings

Need to go vertical

Siting of multistoreyed buildings

Spatial considerations in multistoreyed buildings.

Criterion for, deciding bulk and form in multistoreyed buildings.

Aesthetics of the highrise building

Psycho-social aspect of the highrise building constraints of material usage for highrise buildings

Methods used for construction and site management for highrise buildings.

Structure of the highrise buildings.

Building services for the highrise buildings :water supply, sewage, waste disposal, electrical, air conditioning ventilation, natural and artificial lighting, lifts and escalators.

Fire prevention and fire lighting systems for highrise buildings.

Note: This subjects should be done through seminars and reports which are given as individual assignments and through case studies which may be done as group assignments.

AR-517 LANDSCAPE DESIGN-IX
No. of periods per week: 3

Landscape Design - its nature and scope

The forces of man and nature; their relationship and effect on shaping the landscape. Ecology and its importance to landscape design.

Natural elements of landscape design: Earth, Rock, Water and Plants, detailed study of the problems and potential of using these elements in natural, and urban environments.

History of landscape gardens from their early beginnings of formal and informal gardens to contemporary part designs.

Recreation spaces in urban areas from Totlot to city parks and urban forests.

Site analysis, site and structure relationship and landscape assessment.

AR-519 TRAFFIC AND TRANSPORTATION - IX
No. of periods per week: 3

INTENT

To make the students well conversant with the socio-economic and environmental issued related to the movement of humans and goods in general and in urban areas in particular. To increase the design capabilities of the students on the basis of sound understanding of the techniques and methods through which traffic and transportation considerations can be effectively taken into account in the design process.

CONTENT

A study of the movement of humans and goods at the intercity and intra-city levels.

The need for transportation.

The various kinds of transportation system with their qualitative analysis

Intra-city transport systems and the problems encountered intrafficing it, with special reference to road transport.

A study methods used for resolving traffic problems such as decentralization of work centres, various traffic controls, under and over passes etc.

TOPICS

Traffic and urban environment
 Road accidents: Causes and remedial measures
 Traffic control devices
 Regulation and enforcement
 Road design Elements, Functional classification and alignment
 Road design elements, intersections
 Traffic surveys: Volume, speed and delay, origin and destination parking surveys
 Movement of humans and goods
 Urban traffic and transport problems
 Public transport in urban areas
 Transport policy issues

AR-521

ECOLOGICAL PLANNING - IX

No. of periods per week: 3

What is Ecology ? Its importance to environment
 Relationship of physical planning and ecological considerations.
 Environmental problems in urban areas.
 Environmental consideration in development of rural areas.
 Environmental- consideration in development of rural peripheral areas.
 Fundamental knowledge of Geology, Geomorphology, climatology, hydrology and
 surface-drainage.
 Management of water resources.
 Problems of soil erosion in urban/rurals/ peripheral areas.
 Problems of air-pollution in urban/industrial areas
 Over-lay method for regional plans
 Environmental impact assessment
 Ecological conservation

AR-52 : ARCHITECTURAL RENDERING-IX
No. of periods per week : 3

The course will be done in to parts:

- a) With special reference to site plan, main plans, sections, elevations, etc. of a single building or a compile:

Study and practice of method of preparing presentation drawings for discussion with clients, administrators and others, required at various stages of design such as the conceptual preliminary, developed and final, preparation of competition drawings.

- b) With special reference to external perspectives, Interior view, perspective bird's eye view, etc.

Study and practice of quick methods of preparing 1-point, 2-point, 3-point perceptive, bird's-eye view of a single building or a group of buildings, interior view, outway perspectives of private and public spaces. These methods will be applied both to existing buildings and design projects.

Various method of architectural rendering as applicable to (a) and (b) above, will be studied from books, magazines and journals with special reference to the work of professional architectural renderers. The rendering techniques may be demonstrated by the teacher using different mediums such as ballpens, pen ink, charcoal pencil, crayons, oil pastels, water and poster color etc. photo-montage technique may also be employed.

Note: More emphasis should be laid on the demonstration and practice of various skills/methods/techniques/systems rather than their theoretical aspects.

Every effort should be made to help the students discover and develop their own preferred technique for solving any practice under assignment.

CONSTRUCTION MANAGEMENT (CE-52)
No. of periods per week: 3

OBJECTS

To bring forth management consciousness in students in the field of building design and construction and give them a basic working knowledge of construction management techniques applied to one off and repetitive building projects.

CONTENT

- * Need for construction management, its aims and objectives and available management tools.
- * Role of architect in construction management.
- * Management techniques and tools for "one off" projects.
- * Management techniques and tools for repetitive projects.
- * Resource scheduling methods.
- * Site clearance, safety precaution, noise and pollution control.

TOPICS

1.
 - a) Introduction to construction management aims and objectives.
 - b) Introduction to available management tools and techniques.
 - c) Role of architect in construction management both at Design & execution stages.
2.
 - a) Management techniques and tools, Bar charts, CPM, PERT etc.
 - b) Critical path method for project management its working knowledge with exercises.
3. Project management for repetitive type of buildings, Line of balance method and its working knowledge with exercise.
4. Resources scheduling methods through Bar-charts, CPM and line of balance methods.
5. Site clearance, safety precautions, noise and pollution control.

Note: The subject is to be taught with practical orientation by arranging site visits to projects under execution any giving practical exercises.

AR-527**MODEL MAKING-IX****No. of periods per week : 3**

- Study and practice of various methods and materials used in the preparation of models for the following purposes:
 - a) Quick study models for developing a design idea.
 - b) Black model for study and development of site plans and layouts.
 - c) Presentation models of single building or group of buildings
 - d) Detailed models showing various features of architectural design such as doors, windows, projections, structure, etc.

- e) Detailed models of buildings, with removable roof-tops, showing interior layout, furniture, fittings etc.
- f) Detailed models of site plans showing roads, contours, landscape elements, lamp-posts, etc.

Note: The following points should be borne in mind:

- i) *Use of different materials like thermocol, paper board, ply wood, plyboard, cardboard, cork-sheet, aluminium foil/sheet, plastics, plaster of paris, etc. should be explored, explained and developed.*
- ii) *Students should be shown the work of professional model makers through slide as well as site visits.*
- iii) *Models should be made of existing building/complexes as well as design projects.*
- iv) *More emphasis should be laid on the demonstration and practice of various skills/methods/techniques/systems rather their theoretical aspect.*
- v) *Attempt should be made to help the students discover and develop their own preferred technique by assiduous practice under constant supervision.*

AR-529

TOWN PLANNING - IX
No. of periods per week : 3

A historical and analytical account of cities in Western Europe. A study of the origin and growth of cities in primitive societies. The greek city state. The structures and development of republican and imperial Rome and the Roman cities. The medieval town in India. The development of Town planning from Haussman to Danial-Burnham garden cities leading to contemporary planning trends-Radburn, Chandigarh, Brazilia.

AR-531 : ARCHITECTURAL JOURNALISM - IX
No. of periods per week : 3

INTENTS

This course is intended to help those, who have inclination for writing, develop their skills to enable them to record, report, analyses and evaluate architecture both in its theoretical and practical forms.

CONTENT

The broad contents of the courses would be as follows:

- (1) Use of language as applied to journalistic exercise.
- (2) Recording/collecting material for report writing pertaining to events/activities.
- (3) Editing and summing of material for publication.

TOPICS

The following forms of architectural journalism should be studied and developed:

- i) Paraphrasing and summarising given reports.
- ii) Editing given material.
- iii) Writing original reports on design projects/buildings/complexes, etc.
- iv) Reporting editorials for magazines and journals.
- v) Reporting activities like seminars, panel, discussions conferences, etc.
- vi) Thesis or research report writing.
- vii) The job of subbing like condensing, connecting, titling, etc. of reports/writeups submitted for publication.
- viii) Writing captions for pictures, programmes and events.
- ix) Organising material for publication in newspapers, magazines etc.
- x) Book reviews.

Note:

- a) *The students should be exposed to the work of professional art and architecture critics/journalists such as Peter Blake, Lewis Mumford, Vincent Scully, Jr. Patwant Singh.*
- b) *Various forms of architectural journalism should be studied from magazines like architectural Review/record, progressive architecture, Japan Architect, etc. and journals of RIBA, American institute of Architects IIA, etc.*
- c) *Report writing should be presented to a panel to be chaired by the teacher for discussion, criticism and consequential changes.*
- d) *Students other than the author should be asked to write a report/review of the proceedings of the discussion.*

**SCHEME OF STUDIES AND EXAMINATIONS FOR
FIVE YEARS B.A.RCH COURSE**

SEMESTER-V

Course No.	Course Title	Periods /Week	Theory Marks	Practical Marks	Theory Marks	Total Marks	Duration of Exam (Hrs.)
AR502	Thesis	30	300	100	-	400	-
	Total	30	300	100	-	400	-

AR-502

B.ARCH X - SEMESTER

THESIS

No. of periods per week : 30

The development of thesis is the students opportunity to prove that he has adequate ability to handle all phases of building design. The definition of thesis is a proposition that offers to prove. It is a subject for scholastic study through analysis. It is a development and presentation of the design of a building including its setting in a specific environment and its technical aspects. In former times the thesis was perhaps the only evidence of a students academic ability in the subject.

After an orientation talk by the thesis coordinator each student will submit to the HOD, Arch. his/her subject he/she proposes to work upon. The criterion for the choice of the subject will be its relevance to the actual needs of the region/country. The student will commence the work on the subject only after it has been approved by the HOD, Arch. Students are divided into groups for thesis work, each group being entrusted for guidance to a thesis guide who will be responsible for one particular group.

Contents of Thesis

Among other things, a thesis project will comprise of the following:

- a) A written and illustrated report which should include validity of the chosen project, methodology, prototype studios, client's and architect's briefs, conclusion design criteria alongwith sketches, photographs, tables and diagrams etc.
- b) A fully worked-out design proposal.

Submission of Thesis

Students will submit two copies of their thesis report on standard format complete in all respects to the HOD, Arch. on the date decided by him every year. One copy will be retained by the college and other sent to the University for onward transmission to the respective external examiners.

Other thesis material, such as drawings and models, etc. will be received and retained by the HOD, Arch. on a subsequent date to be fixed by him.

Procedure of Marking Thesis

- a) Sessional work: Sessional marks shall be computed on the basis of periodic evaluation of the thesis project done at various stages such as:
 - i) Synopsis of thesis to include validity, methodology and scope.
 - ii) Prototype case studies.
 - iii) Site analysis, conclusions and design criteria.
 - iv) Final report submission along with duplicate copies on the standard format stipulated by the Deptt. of Architecture.
- b) Examination: For final examination of thesis, there will be external examiners as well as thesis guides. Even if there are several groups, the examination will be common. The HOD, Arch. as a convener will be considered as an examiner for the entire class.

Final marking through ratification will be done jointly by all the external examiners and the thesis guides bearing in mind the marks under sessional work. Co-ordination of marking will be done by the HOD, Arch of the college, and in case of any difference of opinion his decision will be final and binding.

The thesis will be awarded with a passing standard of 50 per cent of the aggregate marks. The marks shall be apportioned as follows:

Final examination of thesis (with ratification)	600
Sessional work	400

Total 1000

Each external examiner with the concerned thesis guide will award marks under (a) and (b) above.