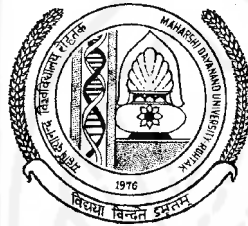


Maharshi Dayanand University Rohtak



Ordinances, Syllabus and Courses of Reading for Bachelor of Architecture and Bachelor of Architecture (Interior Design) Examination

Session 2009-2010

Available from:

Asstt. Registrar (Publication)
Maharshi Dayanand University
Rohtak-124 001 (Haryana)

Price :

At the Counter : Rs. 50/-
By Regd. Parcel : Rs. 90/-
By Ordinary Post : Rs. 70/-

ARCHITECTURAL DESIGN-I**AR 101-A**

Periods per week : 6
Sessional Marks : 100
Portfolio Marks : 100

INTENT

Introduce in to the mathematical mind set of the students from the science stream an aesthetic line of thinking. Inculcating a sense of joy in 'design' and its process.

CONTENT

Potential of a line

Two dimensional compositions of simple geometric shares (triangles, rectangles, circles) as lines and as cut and paste in monochromatic schemes and in color schemes.

Application of form and color in differing visual creative situation like design of a carpet, a sari border, anecktie, a rangoli, a pavement pattern, curtain fabric and the like.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 12 exercise must be attempted out of which half should be on design of 2D compositions applicable in different situations.

BUILDING CONSTRUCTION AND MATERIALS-I**AR 103-A**

Periods per week : 6
Sessional Marks : 100
Portfolio Marks : 50

INTENT

To introduce the students to the dynamics of the Construction of Buildings and an appreciation of the use of Building materials in architecture as an integral component of the conversion of Architectural Concepts into tangible reality.

CONTENTS

Basic components of a “building”.

Role of Construction in Architecture.

Brick as a building material

Brick Masonry tools

Brick waling and joints

Brick Jallies

Brick Arches

Stone as a building material

Stone Masonry Tools.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course will be supported by site visits off the studio hours.

At least 12 sheets must be prepared in the Studio.

STRUCTURAL DESIGN-I

AR 105-A

Periods per week : 2

Sessional Marks : 50

Theory Exam. Marks: 50

INTENT

To inculcate the understanding of the basic principles of structural mechanics for understanding of Structural Systems and Design.

CONTENTS

Forces in structures

Moments in structures

Loads in structures

IS : 875

Types of supports

Shear Force, Bending moment

Center of Gravity, Moment of Inertia

Forces in a simple wooden truss

Design of members of a wooden truss

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Exercises must be done at the end of each lecture.

ARCHITECTURAL DRAWING-I

AR 107-A

Periods per week : 6
Sessional Marks : 100
Portfolio Marks : 50

INTENT

To develop the skill of hand drafting using conventional drafting instruments.

CONTENT

Use of different drafting equipment.
Drafting of lines
Orthographic projections
Reprinting simple solids
Lettering
Architectural Graphic Symbols
Drawing Scales
Measured drawing of a simple object

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 12 sheets must be prepared in the studio under supervision.

GRAPHICS-I

AR 109-A

Periods per week : 6
Sessional Marks : 100
Portfolio Marks : 50

INTENT

To develop the skill of using the pencil in free hand drawing and rendering to support Architectural Design and Drawing.

CONTENT

Use of pencil

Lines

Shading with pencil

Indoor sketching

Out door sketching

Drawing scaled graphics

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 8 sheets and 20 sketches to be made under supervision in the studio.

HISTORY OF ARCHITECTURE-I

AR 111-A

Periods per week : 2

Sessional Marks : 50

Theory Exam. Marks: 50

INTENT

To inculcate the appreciation of 'History of architecture' in the larger context of Time, Space, Man and Architecture; to develop a curiosity of a past era; to appreciate the glory of a past era through its Architecture.

CONTENT

Eastern World (Indian Subcontinent)

Indus valley civilization

Aryan/Vedic civilization

Buddhist and Jain civilization

Indio Aryan Temple Architecture

Early and late Chalukyan architecture.

Dravidian Temple Architecture.

Western world

Ancient civilizations Mesopotamia, Sumerian, Babylonian,

Persian, Assyrian

Egyptian civilization

Classical Greek architecture

Roman architecture

Early Christian architecture

Romanesque architecture

Early Gothic architecture

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Each topic concerned should be followed by a written assignment by the students along with stress on sketches.

ARCHITECTURAL DESIGN THEORY-I

AR 113-A

Periods per week : 2

Sessional Marks : 50

Theory Exam. Marks: 50

INTENT

To appreciate “design”, the background thinking in the design of art forms; the design of natural objects

CONTENT

Meaning of design

Appreciation of beautiful objects

Design in every day life.

Logic in design.

Geometry in design

Elements of Design - Line, Form, color texture

Principles of Design - Unity, variety, hierarchy,

Scale and proportions

Balance, emphasis, focus, fashion, decoration.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Assignments must be illustrated with visuals

WORKSHOP-I

AR 115-A

Periods per week : 4

Sessional Marks : 50

INTENT

To appreciate the complexity of working by ones own hand; to familiarize students with the complexity of making quick and rendered models to support design presentation.

CONTENT

Brick masonry tools

Brick Masonry on building site

Model Making materials

Model making techniques for quick study models

Model making techniques for rendered models

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 6 quick models and 3 rendered models to be made.

ARCHITECTURAL DESIGN -II

AR 102-A

Periods per week : 6

Sessional Marks : 100

Portfolio Marks : 100

INTENT

To appreciate the process of design and the complexities involved in architectural design.

CONTENT

Exercises in composing 3 dimensional objects and their representation in 2-D

Exercise in design of simple mono cellular buildings like guard house, flower kiosk, milk parlor etc.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Visits to proto type situations to be arranged off the studio hours. At least 2 exercises in 3-D composition studies and 6 exercises in design should be done. 4 design exercises shall form the portfolio assignment.

BUILDING CONSTRUCTION MATERIAL-II

AR 104-A

Periods per week	: 6
Sessional Marks	: 100
Portfolio Marks	: 100

INTENT

To familiarize the student with the various aspects of building construction with the basic material as wood.

CONTENT

Carpentry tools.

Timber as a building material

Plywood and Boards - types and qualities

Types of Doors; Windows; Ventilators, and their details

Moldings

Types of Wooden Staircase and their Details.

Sliding and folding wooden doors, sliding wooden doors.

Substitute wood products

TEACHING AIDS :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester. At least 10 sheets to be made under supervision.

STRUCTURAL DESIGN-II

AR 106-A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To develop an understanding of simple timber monolith material and brick masonry (composite material) structural elements.

CONTENT

Timber as a structural material
Design of simple timber beams
Design of simple timber short and long columns
Design of simple trusses and their members
Brick as a structural material
Design of load bearing brick walls.
Design of brick wall footings.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Appropriate Standards must be explained and used.

Exercises must be done in each class.

ARCHITECTURAL DRAWING-II

AR 108-A

Periods per week : 6
Sessional Marks : 75
Portfolio Marks : 50

INTENT

To develop the capability of understanding and drawing three dimensional solids and their various complex sections as a basis of representing architectural design.

CONTENT

Projection of group of solids

Complex section of solids,
Development of surface,
Inter penetration of solids,
Isometric view of simple forms,
Axonometric view.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 12 sheets to be prepared in the studio under supervision.

**BUILDING SERVICES-II
(SEWERAGE AND WATER SUPPLY)**

AR 110-A

Periods per week : 2

Sessional Marks : 50

Theory Exam. Marks: 50

INTENT

Appreciating designing and layout of the water supply, plumbing, drainage and sanitation of simple buildings.

CONTENT

Sources of surface and ground water, treatment of water, transportation and distribution at town level.

Water supply system: fittings, direct and indirect supply, layout and sizes of pipes, hot water supply, storage.

Sewerage system: systems, fittings and fixtures, sizes and layout, sewage collection, sewage treatment and disposal at town level.

Solid waste management.

Rainwater drainage

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Theory to be supported with site visits to be conducted off the class hours.

GRAPHICS-II

AR 112-A

Periods per week : 4
Sessional Marks : 75
Portfolio Marks : 25

INTENT

To make students experiment in different color mediums for the final application of rendering architectural drawings.

CONTENT

Use of pencil colors for rendering
Color wheel
Theory of Color aesthetics
Representing building material in color
Use of poster color for rendering
Use of ink for rendering
Rendering on different kinds of paper.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 10 sheets to be made in the studio under supervision.

Drawing of current semester in architectural design may be taken up for rendering exercise.

ARCHITECTURAL DESIGN THEORY-II

AR 114-A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To generate an appreciation of background aspects of thinking required in architectural design.

CONTENT

Basic Design And Architectural Design - Elemental Differentiation.

Perception And Experience.
Tangible And Intangible In Architecture.
Function, Structure And Form.
Space, Space Usage And Interrelationship Of Spaces
Circulation Within Spatial Units.
Horizontal Circulation
Vertical Circulation
Circulation And Spaces Between Buildings
Relationship Of Plan, Section And Elevation.
Architectural Scale
Programming In Architectural Design.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Each lecture to be followed by a written assignment.

SURVEYING-II

AR 116-A

Periods per week : 2

Sessional Marks : 50

Theory Exam. Marks: 50

INTENT

Acquaintance with instruments and techniques of simple Surveying and leveling as used by an architect in the profession.

CONTENT

Definitions and concepts; Instrument used.
Principles of surveying; Units of measurement
Chain surveying
compass surveying
Leveling:
Contouring: Topographic maps,
Plane tabling
Marking foundations.
Measuring buildings under construction.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Field work to be done at some off time.

ARCHITECTURAL DESIGN-III

AR 201-A

Periods per week : 6
Sessional Marks : 100
Portfolio Marks : 100

INTENT

Appreciation of the complexities and contradictions in the architectural design process.

CONTENT

Exercises in design of small buildings like primary health clinic, nursery school, neighborhood shopping incorporating services and basic elements of structural systems.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Visits to proto type situations to be arranged off the studio hours. At least 4 exercises should be done. The later 2 shall be the portfolio assignment.

BUILDING CONSTRUCTION MATERIAL-III

AR 203 -A

Periods per week : 6
Sessional Marks : 100
Portfolio Marks : 50

INTENT

To understand the construction details used in 3-4 storied buildings.

CONTENT

RCC as a material
RCC staircase
Flooring and roofing details
Detailed section through a 4 storied building
Concept of frame structures
RCC frame structure with in fills
RCC footings and foundations.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 10 sheets to be made under supervision.

STRUCTURAL DESIGN-III

AR 205 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks : 50

INTENT

To understand the principles of design of RCC structures

CONTENT

Concept of RCC and introduction to IS : 456 Working stress method of design for RCC structure.
Theory of singly reinforced sections - neutral axis, under reinforced sections, over reinforced sections, and moment of resistance.
Shear, Bond and development length
Analysis and design of singly reinforced rectangular RCC beam
Analysis and design of doubly reinforced rectangular RCC beam
Theory and design of long and short square, rectangular and circular RCC columns.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Appropriate Standards must be explained and used.

Exercises must be done in each class.

ARCHITECTURAL DRAWING-III

AR 207 -A

Periods per week	: 6
Sessional Marks	: 25
Portfolio Marks	: 50

INTENT

To understand the concept of shade and shadows and its application in architecture and develop the skill of perspective drawing.

CONTENT

Perspective drawing, its concepts and various elements and methods.

2 point Perspective drawings of simple forms with changes in different parameters.

2 point Perspective drawings of small structures with changes in different parameters

1 point perspective drawing of a simple situation.

Shade and shadow of object of different shape at different levels and planes.

Shade and shadows of architectural fenestrations

Shade and shadow of facade of simple building.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 10 sheets to be made under supervision.

Exercises live as well as related to other studies subjects may be given to make the subject more useful.

BUILDING SERVICES-III (CLIMATOLOGY)

AR 209 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks : 50

INTENT

Appreciate the concepts of climatology that are used in Architecture.

CONTENT

Traditional use of material and shelter design.
Climate and its elements
Classifications of various climatic zones and their characteristics
Human comfort design guidelines.
Micro climate
Thermal comfort factors
Solar position, shadow angles shading devices.
Architectural climatic control devices
Ventilation and air movement and their architectural implications.
Climate design rules affecting settlement planning and architecture.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

GRAPHICS-III

AR 211 -A

Periods per week : 4
Sessional Marks : 75
Portfolio Marks : 25

INTENT

To augment and enhance the skill and techniques in architecture rendering using different mediums.

CONTENT

Techniques for rendering drawings in color pencil, water color and ink.

Rendering of plan, section and elevation in different mediums
 Rendering of two point perspective of a building in different mediums
 Rendering of one point perspective of an interior space in ink.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 10 sheets to be made in the studio under supervision.

Drawing made by the student in architectural design may be taken up for rendering exercises.

HISTORY OF ARCHITECTURE-III

AR 213 -A

Periods per week : 2
 Sessional Marks : 50
 Theory Exam. Marks : 50

INTENT

To appreciate the growth and development of architecture from the 12th to the 18th century in the Indian sub continent and Europe in terms of the idea of the time converted to architectural enterprise at that time.

THE INDIAN SUBCONTINENT

The coming of Islam to the region and its Architectural Implications
 Architecture of the Sultans in the Delhi Region
 Development of Architecture in the important provinces
 Architecture of the Early Rulers of the Mughal Dynasty
 The city of Fatehpur Sikri
 Architecture of the Later rulers of the Mughal Dynasty
 Shahjahan's Contribution to Mughal Architecture.

EUROPE

The birth of Renaissance in Florence
 16th century Renaissance in Italy
 Renaissance and the Cult of personality

Baroque And Rococo as outlying Styles of Renaissance
Influences of Italian Renaissance on Architecture in England.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

WORKSHOP-III

AR 215 -A

Periods per week : 4
Sessional Marks : 100

INTENT

To get hands on experience in basic carpentry and enhance the skill of architectural model making.

CONTENT

Use of carpentry tools
Characteristics of wood
Exercises in making of carpentry joints
Exercises using commercial boards
Model making in mount board and thermocol
Making of one detailed model of a building
Making of detailed site model of a contouring site.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

ARCHITECTURAL DESIGN-IV

AR 202 -A

Periods per week : 6
Sessional Marks : 100
Portfolio Marks : 100

INTENT

To explore the process and complexities in architectural design; physical patterns of a small settlement; built form and various factors that contribute to its development.

CONTENT

Study of built environment of a rural settlement, covering various aspects related to physical built form and infrastructure to appreciate the development of settlement pattern.

Study of an urban area, covering various aspects related to the built form and infrastructure to appreciate the development of settlement patterns in a small town.

Design of a small community building related to the studied urban area.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course needs to be supported by frequent site visits but care must be taken that drawings are prepared under supervision in the studio.

Design problem can have a thrust direction such as climatic control or some other building service.

The first problem shall comprise the Internal Sessional component.

BUILDING CONSTRUCTION AND MATERIAL-IV

AR 204 -A

Periods per week : 6

Sessional Marks : 100

Portfolio Marks : 50

INTENT

To understand the design and drawing of interior building elements in different materials like PVC and aluminium.

CONTENT

PVC as a material

PVC sections

PVC doors and windows
Aluminium as a material
Aluminium doors and windows
Aluminium Cladding
Different cladding materials like Aluco-bond etc.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course will be supported with site visits and market surveys outside studio hours.

STRUCTURAL DESIGN-IV

AR 206 -A

Periods per weeks : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To enhance the understanding of RCC structures.

CONTENT

Theory and design of simply supported circular and ribbed slabs subjected to uniformly distributed loads

Fixed beams: Bending moment diagrams for a fixed beam subjected to uniformly distributed load and point load. Formula to be explained - no derivation

Theory and design of reinforced T-beams and isolated T-beams, singly reinforced Lbeams

Theory and design of isolated sloped column footing for a square, rectangular and circular column subjected for axial loads

Column footings subjected to eccentric loading

RCC footing for axially loaded RCC and brick walls.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Appropriate Standards must be explained and used.
Exercises must be done in each class.

COMPUTERS IN ARCHITECTURE-IV

AR 208 -A

Periods per week : 6
Sessional Marks : 100

INTENT

To appreciate the potential of the computer as a tool and an aid for architectural practice.

CONTENT

Hardware components
Operating Systems
Microsoft Office suite
Photoshop
Corel Draw
Internet

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

BUILDING SERVICES-IV (LIGHTING)

AR 210 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To understand the implication and application of natural and artificial lighting in architecture.

CONTENT

Natural lighting
Artificial light
Requirements for different situations.

Lamps and luminaires.
Outdoor lighting
Specialized lighting like art galleries etc.
Electrical systems wires.
Electricity distribution with a building.
Safety devices
Electrical wiring systems.
Generation transmission and distribution of electricity.
Graphics electrical symbols.
Load calculation of a small building.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

ARCHITECTURAL DESIGN THEORY-IV

AR 212-A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To create awareness about the life, time, work and philosophy of contemporary recognized architectures in India and abroad.

CONTENT

Historical scene in Europe, America and India after the Industrial Revolution.
Life, philosophy and works of
Walter Gropius
Frank Llyod Wright
Mies Van Der Rohe
Le-Corbusier
Alvar Alto
Louis Khan
Joseph Allen Stein
Charles Correa

Achut P. Kanvinde
B.V. Doshi
Raj Rewal

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course should be supported with appropriate and manageable visits to the concerned works off the class hours.

COMMUNICATION SKILLS-IV

AR 214 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To inculcate the technique and skill of effective communication mediums for the running of an effective architectural practice.

CONTENT

Principles of communication:

Office English

Interview skill, technical presentation

Report writing

Writing for publication:

Spoken English (oral presentation)

Meetings

Annotative English

Creative writing

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

An exercise should be done in each class.

LANDSCAPE DESIGN-IV

AR 216 -A

Periods per week : 4
Sessional Marks : 75
Portfolio Marks : 75

INTENT

To appreciate that landscape design is an integral part of architectural design.

CONTENT

Principles of landscape design
Elements of landscape design and their various manifestations.
plant material: Shrubs, trees, plants, ground cover.
Water and its manifestations
Use of earth and stone as element of landscape.
Site planning.
Landscape Design Exercises for different architectural situations.
Landscape and climatology

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course should be supported with appropriate and manageable visits to the concerned works off the class hours.

Portfolio to comprise of at least 10 sheets prepared under supervision.

ARCHITECTURAL DESIGN-V

AR 301 -A

Periods per week : 12
Sessional Marks : 125
Portfolio Marks : 125

INTENT

To inculcate the appreciation of the design process and an understanding of the design complexities and contradictions to resolve architectural design problems for different situations.

CONTENT

Design of an institutional/educational building (6 weeks).

Time problem of 6 hours

Design of a Housing (7 weeks)

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course needs to be supported by frequent site visits but care must be taken that drawings are prepared under supervision in the studio.

Design problem can have a thrust direction such as socio economic studies or some building service.

Housing Design to be the portfolio assignment.

BUILDING CONSTRUCTION AND MATERIALS-V**AR 303 -A**

Periods per week : 6

Sessional Marks : 100

Portfolio Marks : 50

INTENT

To familiarize the student with steel as a building material and understand its use in buildings.

CONTENT

Structural Steel members and sections.

Joining details of various steel members

Steel connections

Steel foundations.

Structural steel frame

Steel staircase
Steel Mezzanine floor
Steel support system for roofing
Steel trusses
Steel cladding
Collapsible and rolling shutters.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course will be supported with site visits and market surveys outside studio hours.

STRUCTURAL DESIGN-V

AR 305 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To understand the principles and design of simple steel structures.

CONTENT

Design of steel beams
Design of built up girders, plate girders
Design of steel columns, long and short, built-up
Column bases slab, grillage, gusseted
Steel joints
Theory and design of steel frames.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Appropriate IS codes should be explained.

COMPUTER IN ARCHITECTURE-V

AR 307 -A

Periods per week : 4
Sessional Marks : 100

INTENT

To appreciate the potential of the computer as a drafting aid for an architect.

CONTENT

2-D drawing and editing commands in AutoCad.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Each student must produce individual work for evaluation.

**BUILDING SERVICES -V
(ACOUSTICS AND FIRE FIGHTING)**

AR 309 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To appreciate the role of acoustics and fire protection in buildings.

CONTENT

Terminology in acoustics
Behavior of sound
Acoustical defects and their solutions
Acoustical materials
Principles of acoustical design for different building types
Noise
Fire-fighting
Fire resistant rating,
Fire resisting materials,
Fire preventive techniques,

Fire protection equipments,
NBC standards for fire fighting.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

HISTORY OF ARCHITECTURE-V

AR 311 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To understand the growth and development of architecture and appreciation of the role of the intangibles that brought this growth and development from the 18th century to the advent of European Modernism.

The Western Worlds:

Industrial Revolution and its architectural Implications
19th century Neo Classicism in Europe and America
Development of Architecture in Victorian England
Technology of Iron and Steel
Town Planning Trends in Europe
Rise of the Idea of Expositions
Birth of the American Skyscraper
Alternate Trends in late 10th and early 20th century in Europe.

India:

Culture of colonialism and British Response to Indian Context
Early British Architecture
Birth of Indo Saracenic Style
Classical Revival and Building of New Delhi.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

ESTIMATING AND COSTING-V

AR 313 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To appreciate the technique and role of this subject in Architecture.

CONTENT

Types of estimates
Thumb rules used in estimating
Costing and valuation
Bill of Quantities
Methods of preparing BOQ
BOQ for journey works
Quantity estimation for finishes
Principles of economics in Building planning.
Price rise Mechanism in tenders.
Abstract of cost of estimate of Project.
Various forms of tenders in building civil works
Analysis of rates for various building works.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

BUILDING BYE LAW AND OFFICE MANAGEMENT -V

AR 315 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To acquaint the student with building legislation and basic office procedure and management techniques in architecture.

CONTENT

Building Bye Laws professional practice, office management, project management.

TOPIC

National building code.

Building Bye Laws of Chandigarh and Delhi

Submission drawings

Architect's Act 1972, Council of Architecture, norms and standards regarding fees and scale of charges.

Architectural office

Office correspondence, Filing and record keeping

Dealing with different personnel

Legal responsibilities and ethics

Architectural competitions.

Notice inviting tenders, tender documents, agreement contract.

Arbitration, arbitrator its advantages/disadvantages, billing, accounting.

Project management

Site organization and Networking techniques

Time analysis, CPM PERT.

Value engineering Manpower and labor law

Basic accounts techniques and book keeping.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

ARCHITECTURAL DESIGN-VI

AR 302 -A

Periods per week : 12

Sessional Marks : 125

Portfolio Marks : 125

INTENT

To inculcate the appreciation of the design process and an understanding of the design complexities and contradictions to resolve architectural design problems for complex situations.

CONTENT

Design of a recreational building (club, theater etc.) (6 weeks)

Time problem of 6 hour.

Design of a Commercial organization (sector shopping, small shopping mall, etc.) (7 weeks)

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course needs to be supported by frequent site visits but care must be taken that drawings are prepared under supervision in the studio.

Design problem can have a thrust direction such as climatic control or some other building service.

Second major project to form the portfolio assignment.

BUILDING CONSTRUCTION AND MATERIALS-VI

AR 304 -A

Periods per week : 6

Sessional Marks : 100

Portfolio Marks : 50

INTENT

To be aware of the content, methodology and technique of preparing working drawings before proceeding on practical training.

CONTENT

Complete working drawings with specification document of the previous semesters design project preferably an appropriate part of the housing comprising:

Foundation plan

All floor plans

All elevations

Necessary sections

Joinery details

Kitchen detail

Toilet detail

Staircase detail

Wardrobe detail
Services layout
Site plan

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

STRUCTURAL DESIGN-VI

AR 306 -A

Periods per weeks : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To appreciate the numerous possibilities of structural systems and the techniques of dealing structural drawings.

CONTENT

Analysis of the structure of a previous design (preferably an appropriate part of the housing).
Calculation of the structural component of the selected design.
Preparing structural drawings for the selected design.
Bulk active structures
Form active structures
Surface active structures
Vector active structure.

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

COMPUTER IN ARCHITECTURE-VI

AR 308 -A

Periods per week : 2
Sessional Marks : 100

INTENT

To appreciate the potential of the computer as an aid to the architect in both drafting and design.

CONTENT

Advanced 2D commands of Autocad - latest version

Basic 3D command of Autocad - latest version

Rendering packages like 3D max.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

Each student must produce individual work for evaluation .

BUILDING SERVICES VI (AIR-CONDITIONING)

AR 310-A

Periods per week : 2

Sessional Marks : 50

Theory Exam. Marks: 50

INTENT

To appreciate how buildings can be made more comfortable by adding mechanical systems like artificial ventilation, air conditioning and conveyor systems.

CONTENT

Human comfort conditions

Natural and mechanical ventilation

Air Conditioning principles, systems and methods

Architectural interventions in air-conditioned buildings, study of materials (interiors) for air conditioned spaces

Types and lay out of centrally air-conditioning systems.

Lifts location, systems, sizes equipment, spatial requirement

Escalators location, equipment

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course should be supported with site visits arranged off the class hours and expert lectures.

GRAPHICS-VI

AR 312 -A

Periods per week : 3
Sessional Marks : 75
Portfolio Marks : 25

INTENT

To augment and enhance the skill and techniques in architectural rendering using different mediums.

CONTENT

Rendering of all architectural drawings in
Oil Patels
Markers
Charcoal Pencil
Cut and Paste
Water Color
Poster Color

NOTE :

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

At least 12 sheets to be prepared for the portfolio in as many different mediums as possible.

HISTORY OF ARCHITECTURE-VI

AR 314 -A

Periods per week : 2
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To understand the growth and development of architecture and appreciation of the role of the intangibles that brought this growth

and development from the advent of the Modern Movement in the early decades of the 20th century to contemporary trends.

CONTENT

The Western World :

Early modernism

Post War decades: The international style

Alternatives to the International Styles

Late Modernism

Slick Tech. Architecture

Post Modernism

Neo Modernism.

India:

Post Independence Architecture

The arrival of modernism

Rediscovering our Roots

Current trends in Indian Architecture

Exploring Regionalism in Indian Architecture

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

SPECIFICATION-VI

AR 316 -A

Periods per week : 2

Sessional Marks : 50

Theory Exam. Marks: 50

INTENT

Understanding of the techniques and pharaseology of writing specifications of basic and composite materials and various building works.

CONTENT

Writing specifications of

Excavations
Earthwork
Foundations
Damp proof course
Brick Masonry
Concreting
Flooring
Timber doors and windows
Metal doors and windows
Painting and other finishes
Sanitary fittings and fixtures
Electrical wiring and fixtures
Specifications as a part of the tender document.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

PRACTICAL TRAINING -VII

AR 401 -A

INTENT

To expose the student to practical conditions of architectural practice.

CONTENT

The training is to be of 24 weeks duration (Full Semester)
The following work is to be done by each trainee during the Practical Training:
In the architect's office :
Drafting, tracing, presentation drawings, perspectives, models etc.
Working drawings and details.
Site Visits.
Any other work desired by the architect
In extra-office hours :
The trainee is also required to prepare a study report on building/buildings designed preferably by his/her employer. The report is to be based on site visits and personal observations and will cover

aspects of designed, structure, use of material, construction methods, services etc.

NOTE

This entire semester will be used for practical Training, which is to be undertaken with an architect having a minimum professional experience of 10 year

Training are required to submit monthly progress reports of the work done by theme in the office. These reports will be monitored by a faculty member designated as the Practical Training Coordinator.

A Practical Training Examination will be conducted at the end of the training period, in which the work done by the trainee will be assessed through a viva voce.

A detailed Training Programme will be g/drawn up on the above guidelines by the Practical Training Coordinator and approved by the Head of Department each year before implementation. The intention is to continually update the programme in view of the changing demands of the profession.

ARCHITECTURAL DESIGN-VIII

AR 402-A

Periods per week	: 12
Sessional Marks	: 200
Portfolio Marks	: 200

INTENT

To develop design skills for multisotried and other large scale public buildings.

CONTENT

Design of a commercial/cultural/recreational building (office/institutional complex, shopping arcade etc.) (6 weeks)

Time problem of 6-12 hours.

Design of a services oriented building (large hotel, hospital etc.) (7 weeks).

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course needs to be supported by frequent site visits but care must be taken that drawings are prepared under supervision in the studio.

Design problem can have a thrust direction of resolving some building service.

The second major problem shall be the portfolio project.

BUILDING CONSTRUCTION-VIII

AR 404-A

Periods per week	: 6
Sessional Marks	: 125
Portfolio Marks	: 75

INTENT

To generate awareness about special construction details used in interiors.

CONTENT

Furniture layout and details

False ceiling layout and details

Flooring layout and details

Partition details and design.

Paneling design and details

Staircase design and details.

Shop front design and details.

Electrical layout.

Interior accessories planters signage, display boards etc.

Specifications of interior materials.

Paints, types, characteristics, mode of application.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

This course needs to be supported by frequent site visits but care must be taken that drawings are prepared under supervision in the studio.

URBAN DESIGN-VIII

AR 406-A

Periods per week : 3
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To familiarize the students with basic aspects of urban design as one of the specialization of Architecture.

CONTENT

Urban design vocabulary,
Elements of urban design
History of urban design.
Urban spaces
Circulation: intercity/Intra-city urban
Visual surveys
building typology and its impact on urban form.
Physical and non-Physical determinants of city form patterns
Urban design tools
Principles and techniques of urban design, legislations related to urban design.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

INTERIOR DESIGN-VIII

AR 408-A

Periods per week : 3
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

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

CONTENT

History of interior design
Theory of interior design
Constraints effecting interior design.
Art in interior design
Furniture and furnishings
Color in interiors
Lighting in interiors.
Interior design accessories
Building material for interior finishes
Electrical wiring and fixtures, materials and methods.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

HOUSING-VIII

AR 410-A

Periods per week : 3
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To appreciate the issues related to housing and understanding the emerging housing scenario and the complexities of handling housing projects.

CONTENT

Definitions and vocabulary
History of housing
Housing scenario in the context of the National and the State.
Housing surveys.
National housing policies, five year plan

Housing sites - and planning
Architectural design of various types of housing
Housing an planning codes.
Ownerships types, cooperatives
Factors influencing land value.
Housing finance
Slums
Housing construction technology
Housing physical infrastructure
Housing legislation.

NOTE

Detailed teaching programme to be made before the commencement of the semester and circulated to the students at the commencement of the semester.

REGIONAL PLANNING-VIII

AR 412-A

Periods per week : 3
Sessional Marks : 50
Theory Exam. Marks: 50

INTENT

To appreciate the issues involved in the planning of a region and its architectural implications.

CONTENT

Physical, social and economic parameters for regional planning
Theories of Regional Planning
Macro planning and micro planning
Regional planning and National planning
Development of new towns and cities
Redevelopment and expansion of existing towns
Implementation of regional plans
Methods of making future projects
Over-lay methods fort developing regional plans.

(i)

**ORDINANCE FOR BACHELOR OF ARCHITECTURE
EXAMINATION**

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 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 s/he has passed 10+2 examination of Haryana School Education Board or its equivalent examination from a recognized Board/university with Mathematics and must have obtained at least 50% marks (without any rounding off) in the aggregate.
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 may be allowed in the beginning of the session to the candidates who are permitted to migrate to the University in accordance with the migration rules of the University for B.Arch. (Interior Design) course.
- 3.1 At the end of the semester there shall be an examination except in case of the seventh 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 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 dates as may be fixed by the Vice- Chancellor. The date(s) of commencement of examinations as well as the last date(s) for the receipt 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 privillages of the University.

(ii)

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 B.

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) Sessional 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 Principal/ Incharge of Department of B. Arch. and approved by the Director of the college. The marks obtained in the sessional work shall be awarded by the teacher concerned and duly countersigned by the Principal/ Incharge Department of B. Arch. of the College and then duly countersigned and forwarded by the Director 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 prepare a thesis under the supervision of a guide on a topic approved by the Principal/ Incharge Department of B. Arch. of the college. The thesis shall be submitted in the form of Research, Report, Drawings, Models etc. through the Principal/ Incharge Department of B. Arch. of the college to the Director of the college.

(ii) The evaluation of the thesis will be through sessionals and portfolio evaluation. The sessional work made up numerous stages, 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 examiner. The portfolio evaluation will be conducted by a jury of two external examiner members, Principal/ Incharge Department of B. Arch.of the collage act as coordinator.

(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 Principal/ Incharge Departments of B. Arch. 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 semester.

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 examination by the Director of the College.
- (b) the candidate has passed in sessional of the concerned subjects in the semesters.
- (c) of having attended no less that 75% of the 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 of the College/ Chairperson of the concerned University Department may in bonafide cases, condone deficiency

(iv)

up to 10% in the total and /or 5% in individual subjects.

- (d) the candidate is certified by the Director-Principal to have behaved in 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 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 examination(s) mentioned in column(a) unless he/she has passed in the semester examination mentioned in column below :-

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

(v)

- (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 course 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 in which a candidate shall be placed the scaled marks will be :

<u>Name of Examination</u>	<u>Scaled marks</u>
1 st and 2 nd semester	40% of aggregate marks
3 rd and 4 th semester	60% of aggregate marks
5 th and 6 th semester	80% of aggregate marks
7 th , 8 th , 9 th & 10 th semester	100% of aggregate marks

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

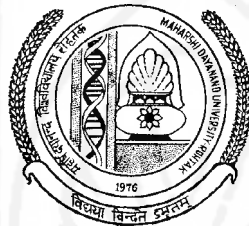
Less than 50%	Pass Class
50% or more but less than 60%	Second Division
60% or more but less than 70%	First Division
70% or more	First division with Honours provided they have passed all the semesters examinations within the normal period five years of the course.

Provided that in the case of 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 increased proportionately so as to raise them to the level of maximum marks of University.

(vi)

9. The medium of instructions and examination shall be in English.
10. The account of instructions 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 full examination fee.
11. At the end of each semester examination Controller of Examination 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 whether 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 papers 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.

Maharshi Dayanand University Rohtak



Ordinances, Syllabus and Courses of Reading for Bachelor of Architecture and Bachelor of Architecture (Interior Design) Examination

Session 2009-2010

Available from:

Asstt. Registrar (Publication)
Maharshi Dayanand University
Rohtak-124 001 (Haryana)

Price :

At the Counter : Rs. 50/-
By Regd. Parcel : Rs. 90/-
By Ordinary Post : Rs. 70/-