

DEPARTMENT OF ARCHITECTURE
JAMIA MILLIA ISLAMIA

BACHELOR OF ARCHITECTURE
SCHEME OF EXAMINATION

YEAR 2

CODE	SUBJECT	CLASSES			MARKS			EXAM HOURS
		L	T/ST	IA	WR	VV	TOT	
AR 201	ARCHITECTURAL DESIGN - II	1	5	300	150	150	600	12
AR 202	BUILDING CONSTRUCTION - II	1	3	150	75	75	300	3
AR 203	HISTORY OF ARCHITECTURE - I	2	-	50	50	-	100	3
AR 204	ARCHITECTURAL DRAWING - II	1	5	100	50	50	200	3
AR 205	WORKSHOP PRACTICES - II	-	2	50	-	50	100	-
AR 206	THEORY OF STRUCTURES - II	3	-	75	75	-	150	3
AR 207	BUILDING SERVICES - I	1	-	50	50	-	100	3
AR 208	VIRTUAL ARCHITECTURE - I**	2	-	50	-	50	100	-
AR 209	COMPUTER APPLICATIONS - II	1	1	50	25	25	100	3
AR 210	DISSERTATION: INDIAN ARCHITECTURE**	2	-	50	-	50	100	-
AR 211	ARTS AND GRAPHICS - II*	1	3	50	50	-	100	3
	GENERAL PROFICIENCY	-	-	-	-	-	50	-
TOTAL		-	-	975	525	450	2000	33

NOTATIONS:

L-LECTURES T-TUTORIALS ST-STUDIO
IA-INTERNAL ASSESMENT WR-WRITTEN EXAM VV-VIVA VOCE

NOTE:

Each session will be of 2 terms of 16 teaching weeks each.
Number of Classes per week = 30 (in each term).
Subjects with * against them will be taught only for one term in TERM 1.
Subjects with ** against them will be taught only for one term in TERM 2.
Exams will be held after 32 weeks of teaching (excluding exams) in each academic year.
All exams would be conducted at the end of the academic year.

DEPARTMENT OF ARCHITECTURE
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BACHELOR OF ARCHITECTURE
SCHEME OF EXAMINATION

YEAR 3

CODE	SUBJECT	CLASSES			MARKS			EXAM HOURS
		L	T/ST	IA	WR	VV	TOT	
AR 301	ARCHITECTURAL DESIGN - III	2	6	300	150	150	600	18
AR 302	BUILDING CONSTRUCTION - III	1	4	150	75	75	300	6
AR 303	HISTORY OF ARCHITECTURE - II	2	-	75	75	-	150	3
AR 304	PRINCIPLES OF HUMAN SETTLEMENT	2	-	50	50	-	100	3
AR 305	ESTIMATION AND COSTING	2	-	75	75	-	150	3
AR 306	THEORY OF STRUCTURES - III	4	-	75	75	-	150	3
AR 307	BUILDING SERVICES - II	2	-	75	75	-	150	3
AR 308	VIRTUAL ARCHITECTURE - II*	2	-	50	-	50	100	-
AR 309	COMPUTER APPLICATIONS - III	1	2	75	50	25	150	3
AR 310	DISSERTATION: INDIAN ARCHITECTS**	2	-	50	-	50	100	-
	GENERAL PROFICIENCY	-	-	-	-	-	50	-
TOTAL		-	-	975	625	350	2000	42

NOTATIONS:

L-LECTURES T-TUTORIALS ST-STUDIO
IA-INTERNAL ASSESMENT WR-WRITTEN EXAM VV-VIVA VOCE

NOTE:

Each session will be of 2 terms of 16 teaching weeks each.
Number of Classes per week = 30 (in each term).
Subjects with * against them will be taught only for one term in TERM 1.
Subjects with ** against them will be taught only for one term in TERM 2.
Exams will be held after 32 weeks of teaching (excluding exams) in each academic year.
All exams would be conducted at the end of the academic year.

Photographic studies

A practical introduction to the theory and application of cameras, metering devices and lighting

Studio and darkroom techniques, developing a print and processing.

Using digital cameras.

Mounting of photographs.

Slide presentation.

AR 109: COMPUTER APPLICATIONS - I

TEACHING HOURS

L/TU	ST	TOTAL
0	1	1

EXAMINATION MARKS

IA	WR	W	TOTAL
50	25	25	100

OBJECTIVES

- General Historical background of computer development.
- Brief description of various Hardware and Software.
- Basic knowledge of different operating systems i.e. Windows, Unix, Linux etc.

METHODOLOGY

Brief lectures followed by application in individual lab exercises.

CONTENTS

TERM 1

Introduction of various software available for documentation, presentation & drawing purposes.

Familiarizing the use of scanners, printers plotters etc.

Introduction of Auto CAD as drafting tool.

TERM 2

Applications of M.S. Office in presentation:

Microsoft Word

Microsoft Power Point

Microsoft Excel

Adobe Page Maker

Drainage systems- separate, combined and partially combined systems.

Single stack system.

One pipe and two pipe systems.

Testing of house drains.

Gradients used in laying drains and sewers.

Self-cleaning and non-scouring velocities for drain pipes.

Size of drainpipes and materials used.

Roads

Description and suitability of roads and comparative cost analysis. WBM (water bound macadam) road, tar, bitumen, asphalt and RCC roads.

Soil stabilized, brick and stone paving.

Drainage- sub drains, culverts, ditches, gutters, drop inlets and catch basins.

AR 208: VIRTUAL ARCHITECTURE - I

TEACHING HOURS

L/TU	ST	TOTAL
2	-	2

EXAMINATION MARKS

IA	WR	W	TOTAL
50	0	50	100

OBJECTIVE

Introduce techniques of photography, digital imaging and computer visualization and their role in architectural presentation.

METHODOLOGY

Lectures and skill development workshops and exercises.

CONTENTS

Photographic studies

Photography, cameras, basic skills, composition and the relation of aesthetics with architecture, synergy between the two fields, interrelation viz. use of landscapes and photography in interrelation with architectural designs and aesthetic principles.

Basic skills of camera operation both video and still; emphasis on image design and creative techniques; topics include exposure, lenses, composition, filters, and films. Photographing miniatures and models and their presentation.

Digital imaging

This will also involve cutting edge digital technology like scanning, printing, digital manipulation of images, presentation techniques on appropriate software for use by students.

Presentation skills for preview and postproduction of models.

Computer Visualization in Architecture

Application of current computer technologies in architecture and interior design; emphasis on the fundamentals of integrating multi-dimensional modelling, computer-aided design, and visualization methods into the design process.

Digital Design and Representation Tools

With a general framework of addressing the relationship between design and representation as a whole, this module explores the role of the computer in articulating design ideas, developing conceptual approaches, and interactively representing design proposals.

This course provides an investigation of computer-aided visualization techniques through the use of commercially available software for photo-realistic rendering, lighting simulation, animation, scanning, raster graphics, and virtual reality.

AR 209: COMPUTER APPLICATIONS - II

TEACHING HOURS		
L/TU	ST	TOTAL
1	1	2

EXAMINATION MARKS			
IA	WR	W	TOTAL
50	25	25	100

OBJECTIVE

Introduction and the use of software available for architectural applications.

METHODOLOGY

Integration of practical exercises along with the design studio project.

CONTENTS

TERM 1

Introduction

Introduction of various software available for Architectural application, like Auto CAD, Architectural desktop, Revit, Micro station etc. Stress should be given on Auto CAD.

Basic commands for 2-D AutoCAD

Learning basic 2D commands their function and application.

Working on layers and colors.

Understanding of Text, and dimension styles etc, supported with suitable exercise. Understanding complex commands like Pline, spline, x-refs, Attributes, Model space & Paper space etc.

At least one working plan, elevation and section should be completed.

TERM 2

Basic commands for 3D

Introduction of basic 3D commands.

Different types of modeling in Auto CAD.

Exercise on wire mesh modeling.

AR 308: VIRTUAL ARCHITECTURE - II

TEACHING HOURS			EXAMINATION MARKS			
L/TU	ST	TOTAL	IA	WR	W	TOTAL
2	-	2	50	0	50	100

OBJECTIVE

Intro to technical and aesthetic concepts of interface design.

METHODOLOGY

This module consists of lectures and self-motivated projects leading from basic 3D modeling and animation to the existing world of virtual environments.

CONTENTS

Interface Design

Introduction to technical and aesthetic concepts of interface design, including interface design for the Web, graphics, video, and sound. Introduction to basic interactive multi-media programs, intermediate asset preparation, and delivery systems (Internet, CD, kiosk, etc.).

Digital Fabrication

Introduction to the fact that Digital technology is transforming not only the way buildings are conceived and designed, it is transforming the way buildings are constructed.

This course also explores the crossover between computer-aided designs. Through a series of hands-on labs and small design projects students learn various software applications and computer-driven hardware tools as a means of introducing basic concepts of construction.

Virtual Worlds, 3D Modelling and Animation

This module aims at developing competency and confidence in rapidly developing technology. The focus is on mastering technical challenges on aesthetics and creativity.

AR 309: COMPUTER APPLICATIONS - III

TEACHING HOURS			EXAMINATION MARKS			
L/TU	ST	TOTAL	IA	WR	W	TOTAL
1	2	3	75	50	25	150

OBJECTIVE

Advanced learning of software available for architectural applications.

METHODOLOGY

Integration of practical exercises along with the design studio project.

CONTENTS

TERM 1

AutoCAD 3D

Understanding Co-ordinate systems.
Introduction of solid modeling.
Learning solid modeling commands, editing solid modeling.
Working on different planes.
At least one exercise should be completed in 3D modeling.

TERM 2

Revit

Introduction of Revit.
Advantages of Revit over Auto CAD.
Learning various 2D & 3D Commands supported with suitable exercise.

Basic working commands for Adobe Photoshop, Adobe Pagemaker and Corel Draw as applications helpful in Architectural presentations.

Office management and procedure

Organizing work, staffing, delegation and decentralization.
Filing and Indexing.
IT application in office management and procedure.
Enterprise Resources Planning (ERP).
Customer Relationship Management (CRM) .
Customer satisfaction, Quality and Excellence.

Entrepreneurship

The entrepreneurs' tasks and special challenges of entrepreneurship.
Design office management
Construction management.

Reference

Donelly, Gibson and Ivancevich, *Fundamentals of Management*
Ed. Irwin.
Hellriegel and Slocum, *Management*, 7th ed. South Western College
Publishing.
Anderson, *Customer Relationship Management*, Tata McGraw
Hill.
Hampton, *Management*, Tata McGraw Hill.

AR 501: THESIS

ATEACHING HOURS		
L/TU	ST	TOTAL
5	15	20

EXAMINATION MARKS			
IA	WR	W	TOTAL
600	0	600	1200

OBJECTIVES

Thesis projects must reflect the culmination of the development of the student's architectural skills and design attitude. The project must be chosen so as to address and resolve, through design, all aspects of the design process.

METHODOLOGY

The student must submit to the department the synopsis of at least two different design/research projects for approval out of which one would be selected depending on its merit for scope of design intervention and its scale.

A guide to supervise the studies will be appointed by the head for each student. Regular progress in studio will be monitored and internal assessment will be carried in six stages during the exercise, each stage will have a presentation to the internal jury for thesis.

The stage submissions must be based and supported by detailed analytical studies that lay down the validity of the design criteria and detailed methodology. The following are the basic guidelines for the planning the thesis design project and its submissions:

1. Detailed site study of existing site conditions and context and evolving design directives and concept.
2. Case studies to be clubbed with library research and surveys.
3. Site restrictions should be followed as applicable for building byelaws of parking, FAR, fire, security and services.
4. Initial concept stage to experiment with shapes and forms to evolve a built volume through block model studies.
5. Incorporating landscape to understand interaction between built and open space.
6. Study and address issues like movement of people and traffic,

Molded Furniture
Modular Furniture

Exercises

Toilet Design
Office Design
Kitchen Design
Restaurant
Show room

AR 412: MANAGEMENT

TEACHING HOURS

L/TU ST TOTAL

2 0 2

EXAMINATION MARKS

IA WR W TOTAL

50 50 0 100

OBJECTIVE

To equip students with basic management techniques needed for office and project management.

METHODOLOGY

Lectures.

CONTENTS

Management and the environment

Evolution of management thought.
Managing in a global environment.
Social and ethical responsibility of management.

Managing work and organization

Decision-making and the planning functions including strategic planning.
The organization function, the controlling function.

Managing people

Human resource management- managing work groups.
Leadership: motivation: communication and negotiations.
Organization change and development.

Financial management

Functions of financial management.
Financial objectives, analysis and interpretation of financial information.
Sources of long term and short term finance.
Project appraisal and capital budgeting.