ANNA UNIVERSITY : : CHENNAI- 600 025

UNIVERSITY DEPARTMENTS

CURRICULUM – R 2009

M. ARCH

I TO IV SEMESTERS CURRICULUM AND SYLLABUS

No.	Code No	Course Name	L	T	P/S	C
SEMESTER I						
Common to M. Arch., M. Arch. (Digital Arch.) and M. Arch. (Landscape Arch.)						
1.	**AA 9111**	Contemporary Processes in Architectural Design I	3	0	0	3
2.	**AA 9112**	Architecture and Critical Theory	3	0	0	3
3.	**AA 9113**	Traditional and Contemporary Landscapes	3	0	0	3
4.	**AA 9114**	Sustainable and Green Building Design	2	0	6	5
5.	**AA 9115**	Urban Design Studio	2	0	6	5
		Sub Total	**13**	**0**	**12**	**19**
SEMESTER II						
6.	**DG 9121**	Contemporary Processes in Architectural Design II	3	0	0	3
7.	**DG 9122**	Performance Evaluation of Buildings	3	0	0	3
8.	**AA 9123**	Services in High Rise Buildings	3	0	0	3
9.	**AA 9124**	Emerging Practices in Housing	1	0	4	3
10.	**********	Elective I	*	*	*	3
11.	**AA 9125**	Advanced Architectural Design Studio I	0	0	12	6
		Sub Total	**10**	**0**	**16**	**21**
SEMESTER III						
12.	**AA 9131**	Research Methodologies in Architecture	3	0	0	3
13.	**AA 9132**	Conservation Planning and Practice	1	0	4	3
14.	**********	Elective II	*	*	*	3
15.	**********	Elective III	*	*	*	3
16.	**AA 9133**	Dissertation	0	0	6	3
17.	**AA 9134**	Advanced Architectural Design Studio II	0	0	12	6
		Sub Total	**4**	**0**	**22**	**21**
SEMESTER IV						
18.	**********	Elective IV	*	*	*	3
19.	**DG 9141**	Portfolio Production and Web Publishing	0	0	6	3
20.	**AA 9142**	Thesis	0	0	16	8
		Sub Total	**0**	**0**	**22**	**14**
Total no of credits required for the award of the degree						**75**

List of Electives- M. Arch						
21.	**AA 9151**	Building Management and Control Systems	3	0	0	3
22.	**AA 9152**	Appropriate technologies and Sustainable Construction	3	0	0	3
23.	**AA 9153**	GIS Modeling in Urban Planning	3	0	0	3
24.	**AA 9154**	Anthropology and Architecture	3	0	0	3
25.	**AA 9155**	Material Conservation	3	0	0	3
26.	**LN 9124**	Landscape Ecology and Planning	0	0	0	3
27.	**LN 9151**	Sustainability & Energy Conservation in Landscape architecture	3	0	0	3
28.	**DG 9157**	Web Design	1	0	4	3

L- Lecture T- Tutorial P- Practical / S- Studio C- Credits

ANNA UNIVERSITY : : CHENNAI- 600 025

UNIVERSITY DEPARTMENTS

M. ARCH – Part Time- Day Time

CURRICULUM (REGULATIONS 2009)

No.	Code No	Course Name	L	T	P/S	C
		SEMESTER I				
1.	**AA 9111**	Contemporary Processes in Architectural Design I	3	0	0	3
2.	**AA 9114**	Sustainable and Green Building Design	2	0	6	5
3.	**AA 9115**	Urban Design Studio	2	0	6	5
		Sub Total				**13**
		SEMESTER II				
4.	**DG 9121**	Contemporary Processes in Architectural Design II	3	0	0	3
5.	**DG 9122**	Performance Evaluation of Buildings	3	0	0	3
6.	**AA 9123**	Services in High Rise Buildings	3	0	0	3
7.	**AA 9124**	Emerging Practices in Housing	1	0	4	3
		Sub Total				**12**
		SEMESTER III				
8.	**AA 9112**	Architecture and Critical Theory	3	0	0	3
9.	**AA 9113**	Traditional and Contemporary Landscapes	3	0	0	3
10.	**AA 9132**	Conservation Planning and Practice	1	0	4	3
11.	**********	Elective I	*	*	*	3
		Sub Total				**12**
		SEMESTER IV				
12.	**********	Elective II	*	*	*	3
13.	**********	Elective III	*	*	*	3
14.	**AA 9125**	Advanced Architectural Design Studio I	0	0	12	6
		Sub Total				**12**
		SEMESTER V				
15.	**AA 9131**	Research Methodologies in Architecture	3	0	0	3
16.	**AA 9133**	Dissertation	0	0	6	3
17.	**AA 9134**	Advanced Architectural Design Studio II	0	0	12	6
		Sub Total				**12**
		SEMESTER VI				
18.	**********	Elective IV	*	*	*	3
19.	**DG 9141**	Portfolio Production and Web Publishing	0	0	6	3
20.	**AA 9142**	Thesis	0	0	16	8
		Sub Total				**14**
Total no of credits required for the award of the degree						**75**

List of Electives- M. Arch.						
21.	**AA 9151**	Building Management and Control Systems	3	0	0	3
22.	**AA 9152**	Appropriate technologies and Sustainable Construction	3	0	0	3
23.	**AA 9153**	GIS Modeling in Urban Planning	3	0	0	3
24.	**AA 9154**	Anthropology and Architecture	3	0	0	3
25.	**AA 9155**	Material Conservation	3	0	0	3
26.	**LN 9124**	Landscape Ecology and Planning	0	0	0	3
27.	**LN 9151**	Sustainability & Energy Conservation in Landscape architecture	3	0	0	3
28.	**DG 9157**	Web Design	1	0	4	3
L- Lecture T- Tutorial P- Practical / S- Studio C- Credits						

M. ARCH. SYLLABUS

SEMESTER I

AA 9111 CONTEMPRORARY PROCESS IN ARCHITECTURE I L T P/S C
3 0 0 3

OBJECTIVE:
To investigate the contemporary theories of media and their influence on the perception of space and architecture. To provide an overview of various Contemporary design processes and its relation to computation.

UNIT I INTRODUCTION 6
Investigation of contemporary theories of media and their influence on the perception of space and architecture. Technology and Art – Technology and Architecture – Technology as Rhetoric – Digital Technology and Architecture

UNIT II ASPECT OF DIGITAL ARCHITECTURE 9
Aspects of Digital Architecture – Design and Computation – Difference between Digital Process and Non-Digital Process – Architecture and Cyber Space – Qualities of the new space – Issues of Aesthetics and Authorship of Design – Increased Automatism and its influence on Architectural Form and Space

UNIT III CONTEMPORARY PROCESS 15
Overview of various Contemporary design process and it relation to computation: Diagrams – Diagrammatic Reasoning – Diagrams and Design Process – Animation and Design – Digital Hybrid Design Protocols – Concept of Emergence - Introduction to Cellular Automata and Architectural applications – Genetic algorithms and Design Computation

UNIT IV GEOMETRIES AND SURFACES 15
Fractal Geometry and their properties – Architectural applications - Works of Zvi Hecker–- Shape Grammar - Shapes, rules and Label - Shape Grammar as analytical and synthetic tools- Combining Shape grammar and Genetic algorithm to optimize architectural solutions - Hyper Surface– Introduction to Hyper surface and concepts of Liquid architecture.

TOTAL:45 PERIODS

REQUIRED READING
1. Peter Eisenmann, Diagram: An Original Scene of Writing, Diagram Diaries
2. MOVE, UN Studio
3. Grey Lynn, The Folded, The Pliant and The Supple, Animate form
4. Contemporary Techniques in Architecture, Halsted Press, 2002
5. Ali Rahim, Contemporary Process in Architecture, John Wiley & Sons, 2000

REFERENCES

1. Walter Benjamin, Practices of Art in the Age of Mechanical Reproduction Colin press, 1977
2. Work of Architecture in the Age of Mechanical Reproduction, Differences MIT press,1997.
3. William J Mitchell, the Logic of Architecture: Design, Computation and Cognition. MIT Press, Cambridge, 1995
4. Marcos Novak, invisible Architecture: An Installation for the Greek Pavilion, Venice Biennale, 2000

AA 9112 ARCHITECTURE AND CRITICAL THEORY L T P/S C
3 0 0 3

OBJECTIVE:
The term critical theory is a tautology. However, this term is used to differentiate traditional theories that understand and explain architecture as autonomous objects and hermetically sealed discipline. The objective of this course is to explain and show how architecture is enmeshed in the society and a product of larger socio-cultural issues and practices.

UNIT I INTRODUCTION 6
Architectural Theory and practice- Relation between theory and practice. Traditions in/of architectural theory. Critical Theory. Qualities and challenges of critical theory.

UNIT II POWER AND BUILT ENVIRONMENT 10
Forms of power. Power and knowledge. Panopticon. Colonialism as a form of dominance. Colonialism in India. Production of Indo-Saracen architecture. Ideas of segregation, control and surveillance in colonial towns. Discussing New Delhi as a part of imperial vision. Idea of Ghetto, surveillance and control in contemporary cities.

UNIT III ENCOUNTERING MODERNISM/MODERNITY 10
Phenomenology and architecture. Architecture and sense of place. Fragmentation and Nihilism as conditions of modern society. Counter claims. Encountering the idea of functionalism - Semiotic and Deconstruction as a critical tool. Architecture of Resistance. The idea of critical regionalism.

UNIT IV SPECTACLE AND ARCHITECTURE 10
Society of spectacle. Spectacle as a form of seduction. Debating aesthetisation of architectural issues. Critiquing learning from Las Vegas. World in a shopping wall. Thematic environments. Theme parks and privatization of public spaces. Visual regime in architecture. Media and architecture.

UNIT V ISSUES IN ARCHITECTURE 9
Gender and space. Heritage and politics of memory. City as contested geography. Technology and Architecture.

TOTAL:45 PERIODS

REQUIRED READINGS:

1. Neil Leach (ed) Rethinking Architecture, Routledge 2000
2. Paul Allan Johnson. Theory of Architecture, Routledge 2000
3. Michael Hays (ed) Architectural Theory since 1960,MIT Press, 2000
4. Anthony king, Urban Development in Colonialism
5. Nazzar Al Sayaad (ed) Forms of Dominance,
6. Lawrence vale. Architecture and Nationalism and identity,

REFERENCES:

1. Anil Lomba, Colonialism, 2000
2. Thomas Metcalf Imperial vision, Oxford
3. Neil Leach, Aesthetics and Anesthetics,
4. Guy Debord. Society of Spectacle.
5. Michael Sorkin (ed) Variations of Theme park

6. Lan Border (ed), Intersections.

AA 9113 TRADITIONAL AND CONTEMPORARY LANDSCAPES L T P/S C
3 0 0 3

OBJECTIVE

To study the social and cultural influences on traditional landscapes through analysis of form and space, citing principles of each period with examples.
To study contemporary landscape and the manifestation in the western and Indian context.

UNIT I EASTERN TRADITIONS AND ISLAMIC LANDSCAPES 15

Early traditions and beliefs about landscape and environment in east. Ancient Indian traditions – Vedic, Jainism, Buddhism and later Hindu movements. Symbolic meanings and sacred value of natural landscapes.
Transfer of concepts through Buddhism to China –Chinese landscape development – gardens of China – Pre Buddhist Japanese landscapes – impact of China on Japanese gardens – Japanese gardens.

Nomadic culture of central Asia – advent of Islam – concept of Paradise as a garden – spread of Islamic traditions to the West and East. Eastern expression of Islam – Samarkhand and Mughul India – Tomb and pleasure garden – Moghul concepts of site planning. Western expression of Islam – Spain Alhambra and General life, Granada.

UNIT II RENNAISSANCE AND THE EVOLUTION OF NEW THOUGHTS 6

Development of the enclosed garden in the Middle ages. Renaissance – Italy, France and England, Romanticism. Influences and linkages across cultures. Study of the western landscapes till the nineteenth century.

UNIT III THE EVOLUTION OF THE MODERN LANDSCAPE 9

Industrialization and urbanization – impacts and development of the concept of public open spaces, open space development in new towns, parks movement.
Open space development and its urban design and planning context, Early industrial towns and the garden city movement. Public park as a major component of urban landscape, the works of F.L.Ohmstead, and other pioneers. Open space development and Close conceptual relationship between Town planning, urban design and landscape architecture. Examples.

UNIT IV THE MODERN MOVEMENT, CONTEMPORARY CONCEPTS AND CONCERNS 9

Changing concepts of space and the relationship of architecture to landscape. Study of selected works of modern architects and landscape architects. Postwar development in Europe. The influence of Ian Mcharg on Landscape architecture. The works of Jellicoe, Burle Marx and others.

Concept of sustainable landscape development, Cultural landscapes their definition, identification, characteristics, policies, Artistic sensibility in landscape architecture and land art, New development in urban Landscape design.

UNIT V INDIAN CONTEXT 6

Issues in contemporary India, Analysis and understanding of philosophies of contemporary landscape works in India, case studies.

TOTAL: 45 PERIODS

REQUIRED READINGS:

1. Geoffrey and Susan Jellico, The landscape of Man, Thames & Hudson Publication, 1995
2. Robert Holden, New landscape Design, Lawrence king publishing, UK, 2003
3. Penelope Hill, Contemporary history of garden design, Birkhauser publishers, 2004.

REFERENCES:

1. Elizabeth Barlow Rogers, Landscape Design – A Cultural &Architectural History, Hary & Abram inc. publishers, 2001.
2. Phillip Pregill & Nancy Volkman, Landscapes in History, Van Nostrand publishers, 1993.
3. Jonas Lehrman, Earthly Paradise- Garden and courtyard in Islam, Thames and Hudson,1980.
4. G.B.Tobey, A history of American Landscape architecture, American elsevier Publishing Co.,NY, 1973.
5. Pieluigi Nicholin, Francesco Repishti, Dictionary of today's landscape designers, Skira Editores P.A, 2003.

AA 9114 SUSTAINABLE AND GREEN BUILDING DESIGN L T P/S C
2 0 6 5

OBJECTIVE:

To sensitize the students to the various aspects of sustainable and green building design in the context of global warming and climate change and to address the very process and tools of design to enable architecture that is environmentally friendly and sustainable.

UNIT I INTRODUCTION 15

Attitudes to architecture: a historical perspective- General premises and strategies for sustainable and green design- objectives and basis- Eco-mimicry as a design tool based on ecosystem analogy- theoretical basis for a sustainable and eco friendly design

UNIT II ECO HOUSE 30

The form of the house: the building as an analogy- design from first principles: conserving energy; working with climate: passive solar design; minimizing new resources; respect for users; respect for site and holism- photovoltaics and solar hot water systems; water usage; small scale wind systems and hydro power; Case studies- Studio project on design of eco houses: context specific

UNIT III ENVIRONMENTAL IMPACT OF BUILDING MATERIALS 15

Measuring the impact of building materials- calculating embodied energy- recycling and embodied energy- processing and embodied energy- time and embodied energy- embodied energy of different building materials- low energy building and masonry materials- life cycle analysis- Case studies and analysis

UNIT IV GREEN CONSTRUCTION AND ENVIRONMENTAL QUALITY 15

Sustainable architecture and Green Building: definition- Green building Evaluation Systems; LEED Certification; Green Globe Certification; Case studies which look at the

environmental approach- renewable energy- controlling the water cycle- impact of materials on the environment – optimizing construction- site management- environmental management of buildings

UNIT V SUSTAINABLE AND GREEN BUILDING DESIGN STUDIO 30

This studio will explore collaborative learning to explore, investigate and apply various parameters of sustainability for design development of projected building/ urban scenarios

TOTAL:120 PERIODS

REQUIRED READINGS:

1. Ken Yeang; Eco design - A Manual for Ecological design, Wiley- Academy; 2006
2. Sue Roaf et all; Ecohouse: A design Guide; Elsevier Architectural Press; 2007
3. Thomas E Glavinich; Green Building Construction; Wiley; 2008

REFERENCES:

1. Brenda and Robert Vale; Green Architecture- Design for a Sustainable Future; Thames and Hudson; 1996
2. Daniel Vallero and Chris Brasier; Sustainable Design- The science of sustainability and Green Engineering; Wiley; 2008
3. Catherine Slessor; Sustainable Architecture and High Technology- Eco Tech; Thames and Hudson; 1997
4. Dominique Gauzin- Muller; Sustainable architecture and Urbanism; Birkhauser; 2002

AA 9115 URBAN DESIGN STUDIO L T P/S C
2 0 6 5

OBJECTIVE:

To identify and address the issues of urban form through precedent studies; literature review; case studies and contemporary determinants of urban form including globalization, real estate, digital revolution, policy and infrastructure development

UNIT I INTRODUCTION 15

A brief historic review of the development of the urban design discipline and principles- Redefining urban condition – role of Globalisation – impact of Digital Revolution – sustainable development– Contemporary Processes in Urban Design

UNIT II SPLINTERING URBANISM 15

Transportation Networks –Information and communication networks Telecommuting and Urbanism

UNIT III RESTRUCTURING THE CITY 15

Place making in the Digital Age – reconfiguring public realm – Globalisation, and Generic Urban form– Urbanisation and Excursions on density

UNIT IV SUSTAINABLE DEVELOPMENT 30

Sustainable Cities Program - Revitalization of brown field sites- Transit Metropolis- Case Studies

UNIT V APPLICATION OF DIGITAL TECHNIQUES IN URBAN DESIGN 30

Depiction of Urban Spaces in Digital Media - Role of Digital Media in Reconfiguring Urban Space –Case studies – Application of Geographic Information Systems, diagramming and

3D Modeling tools in Urban Design - Digital Media as a facilitator for participatory, sustainable urban design.

TOTAL:120 PERIODS

REQUIRED READING:

1. Crigore Birdea (ed.), Virtual Reality Technology. Wiley and Sons, New York, 1994
2. William J. Mitchell, City of Bits: Space, Place and the infobahn, MIT Press, 1996
3. Charles Correa, Housing and Urbanisation, Thames and Hudson, 1999
4. Neil leach, Designing for the digital world, John Wiley and Sons, 2002

REFERENCES:

1 Benjamin Woolley, Virtual Worlds. Penguin Books, 19931994
2 Peter Calthorpe, The Next American Metropolis, Princeton Architectural Press, 1993
3 Thomas A, Horan, Digital Places: Building our city of bits, Urban Land Institute, 2000

SEMESTER II

DG9121	**CONTEMPORARY PROCESS IN ARCHITECTURAL DESIGN II**	**L T P/S C** **3 0 0 3**

UNIT I QUALITIES OF VIRTUAL ARCHITECTURE 9

Discussing the differences between the real and virtual space. Virtual space as the potential space. Qualities of the new space: Disconnection of the body, new laws of proximity and increased automatism and its influence on architectural form and space

UNIT II MEDIA AND ARCHITECTURE 9

Visions unfolding/ Media Architecture as desirable/ Films as a space for virtual architecture

UNIT III ISSUES 9

Towards new paradigm – A myth or a promise. / Need versus desire/ anxiety of new/ identity and Fashion.

UNIT IV IDEAS AND WORKS OF CONTEMPORARY ARCHITECTS 12

Ideas and works of contemporary architects - Greg Lynn, Reiser + Umemotto, Lars Spuybroek / NOX Architects, UN studio, Diller Scofidio, Dominique Perrault, Decoi, Marcos Novak, Foreign Office Architects, Asymptote, Herzog and de Meuron, Neil Denari.

UNIT V SEMINAR PRESENTATION 6

Students presentation on the ideas and works of architects known for process oriented approach to architecture. Topics to be discussed with course faculty prior to presentation.

TOTAL: 45 PERIODS

REQUIRED READING:

1. L. Convey et. al. Virtual Architecture, Batsford, 1995.
2. William J Mitchell, City of bits: Space, Place and the Infobahn. MIT Press, Cambridge, 1995
3. Michael Heim, Virtual Realism, OUP, New York, 1998.
4. John Beckman, The Virtual Dimension, Architecture, Representation and Crash Culture, Princeton Architecture Press, 1998.

REFERENCES:

1. Rob Shields (ed.) Cultures of the internet: Virtual Spaces, Real Histories, Living bodies, Sage, London
2. Marcos Novak, invisible Architecture: An Installation for the Greek Pavilion, Venice Biennale, 2000

DG9122 PERFORMANCE EVALUATION OF BUILDINGS L T P/S C
3 0 0 3

OBJECTIVE:
This course will investigate simulation and audit techniques for assessing the energy performance, environmental response and impact of built form.

UNIT I SIMULATIONS AND DESIGN OF BUILDINGS 3
Principles of modelling and simulation – Classification and validation of simulation models – CAD/ CAM operations.

UNIT II PRINCIPLES OF SUSTAINABLE DESIGN 12
E's of sustainability - Integrated approach to environmental design- Case studies – Comparative analysis of green rating systems, LEED, BREAM and GRIHA – Cognitive , analytical and simulated modeling and design of buildings. Zero Carbon Footprint Building.

UNIT III ENVIRONMENTAL ASSESSMENT METHODS AND MODELING FOR PASSIVE SYSTEMS 12
Modelling and experimental techniques for building assessment/ evaluation and design – Basics of thermal comfort, solar shading/access/ control, day lighting, acoustics air movement etc. – issues and opportunities with current assessment modes/ evaluation tools- Evaluation and assessment based on Building type/ function and program – Building performance with respect to function, program, micro climate, urban planning, envelope design, material – Computer studio and simulation

UNIT IV ENVIRONMENTAL ASSESSMENT METHODS AND MODELING FOR ACTIVE SYSTEMS 12
Mathematical models of heat and mass transfer phenomena through building components: transfer function methods and numerical methods – Models of radiative and convective heat transfer phenomena within buildings – Application to equipment – based modelling of HVAC systems: first principle models and correlation – based models – System – based modelling of HVAC systems – Validation of computer models. Photovoltaic cells.

UNIT V SEMINAR AND CASE STUDY PRESENTATION 6
Case study presentation of students on performance evaluation of a building identified by them and approved by the course faculty – Seminar on topics approved by the course faculty.

TOTAL: 45 PERIODS

REQUIRED READING
1. Energy Audit of Building Systems – Moneef Krarti (Ph.D) – CRC Press 2000
2. Clarke, J.A., "Energy simulation in building design", Adam Hilger Ltd, Bristol, 1985

3. ESRU,. “ESP-r A Building Energy Simulation Environment; User Guide Version 9 Series. “ESRU Manual U 96/1, University of Strathclyde, Energy Systems Research Unit, Glasgow, 1996.
4. Kabele, K., “Modeling and analyses of passive solar systems with computer simulation”, in Proc. Renewable energy sources, PP. 39 – 44, Czech Society for Energetics Kromeriz 1998 (in Czech)

AA9123 SERVICES IN HIGH RISE BUILDINGS L T P/S C
3 0 0 3

OBJECTIVE:

This course will examine various services in high rise buildings and their integration into an intelligent and energy efficient system which will enable sustainability of the structure.

UNIT I INTRODUCTION 3

Standards of high Rise buildings- Aspects and Integration of services- Relative costs- Concepts of Intelligence Architecture and Building Automation

UNIT II WATER SUPPLY AND WASTE DISPOSAL 9

Water supply and waste water collection systems- water storage and distribution systems- Planning and Design- Selection of pumps- rain water harvesting – Sewage collection systems and recycling of water- solid waste disposal

UNIT III HVAC, Electrical and Mechanical Systems 15

Natural and Mechanical Ventilation systems- Air conditioning systems and load estimation- Planning and design for efficiency- Automation and Energy Management

Natural lighting systems- Energy efficiency in lighting systems- load and distribution- Planning and Design for energy efficiency- Automation

Types of elevators, systems and services- Lobby design- Escalators- safety principles

UNIT IV SAFETY AND SECURITY 6

Security systems- Access Control and Perimeter Protection- CCTV Intruder alarms- Passive fire safety- Fire Detection and Fire Alarm Systems- Planning and Design- NBC

UNIT V CASE STUDIES 12

Case Studies of High Rise buildings and skyscrapers through appropriate examples- Norman Foster; Ove Arup; Ken Yeang, etc.

TOTAL:45 PERIODS

REFERENCES

1. William J. Mcguinness, Benjamin Stein and John S. Reynolds, Mechanical and Electrical Equipment for Buildings, John Wiley & Sons, Inc. 1980.
2. Donald Watson, Michael J. Crosbie and John Hancock Callender, Time-Saver Standards for Architectural Design Data, Mcgraw – Hill International Editions, 1997.

AA 9124 EMERGING PRACTICES IN HOUSING L T P/S C
1 0 4 3

OBJECTIVE:

The constant flux in context and content due to the globalization and its manifestation makes one to redefine, to revive, and to revamp Built Spaces. This course will examine the redefinition of contemporary housing within the contexts of multicultural cities.

UNIT I INTRODUCTION 10

Introduction to this building type, from its industrial beginnings in London and Paris to New York City's Lower East Side and the 20th-century designs of Le Corbusier, Antonio Sant'Elia, and Mies van der Rohe to mention a few.

Investigation of contemporary life and its influence on space and architecture-Globalization and influences on economy- Alternate housing solutions: Commune, Co Housing, Cooperatives, etc.

UNIT II SINGLE FAMILY, MULTI FAMILY HOUSING 12

Review of latest developments in single family and multi family housing by examining the works of Wiel Arets, Shigeru Ban, Ben van Berkel, Kees Christiaanse, Philippe Gazeau, Frank O. Gehry, Steven Holl, Hans Kollhoff, Morger & Degelo, , Jean Nouvel, Kas Oosterhuis, MVRDV

UNIT III HIGH DENSITY HOUSING 9

Issues and concerns- Review of the current state of high density houses - the perspectives and future developments through a study of a few international projects.

UNIT IV NEW FORMS OF LIVING AND HOUSING IN THE DIGITAL ERA 9

Hyper Housing- Multi cultural Housing- lab rooms and cyber homes- Network housing- hybrid buildings- individual sheltered residences; residence cities and bio homes for senior citizens- Works of UN Studio; FOA;; OMA

UNIT V DEFINITION OF HOUSING IN THE INDIAN CONTEXT 20

Design strategies in the context of Indian metropolitan cities will be explored through a studio exercise

TOTAL:60 PERIODS

REFERENCES

1. Manuel Gausa and Jaime Salazer; Housing+ Single Family Housing; Birkhauser-Publishers for Architecture; 2005
2. Vincene Guillart; Sociopolis:Project for a city of the Future; ACTAR; 2004
3. Jingmin ZHOU; Urban housing Forms; Architectural Press; 2005
4. Adrienne Schmitz; Multifamily Housing Development Handbook; Urban Land Institute; 2001
5. Carles Bronto; Innovative Public Housing; Gingko Press; 2005

AA 9125 ADVANCED ARCHITECTURAL DESIGN STUDIO I L T P/S C

0 0 12 6

This studio will emphasize high rise and high tech buildings and will explore collaborative learning of students to explore, investigate and apply various parameters of energy efficiency, green concepts and sustainability for the design development of projected scenarios.

TOTAL:180 PERIODS

SEMESTER III

AA 9131 RESEARCH METHODOLOGIES IN ARCHITECTURE L T P/S C
3 0 0 3

This course will seek to equip students with analytical, critical thinking and writing skills pertinent to advanced architectural design and informed practice. The students will explore research skills as a propositional process within design and the module will stablish the tools and methods which will allow the student to operate as a design researcher.

UNIT I INTRODUCTION 9

Basic research issues and concepts- orientation to research process- types of research: historical, qualitative, co-relational, experimental, simulation and modeling, logical argumentation, case study and mixed methods- illustration using research samples

UNIT II RESEARCH PROCESS 9

Elements of Research process: finding a topic- writing an introduction- stating a purpose of study- identifying key research questions and hypotheses- reviewing literature- using theory- defining, delimiting and stating the significance of the study, advanced methods and procedures for data collection and analysis- illustration using research samples

UNIT III RESEARCHING AND DATA COLLECTION 9

Library and archives- Internet: New information and the role of internet; finding and evaluating sources- misuse- test for reliability- ethics

Methods of data collection- From primary sources: observation and recording, interviews structured and unstructured, questionnaire, open ended and close ended questions and the advantages, sampling- Problems encountered in collecting data from secondary sources-

UNIT IV REPORT WRITING 6

Research writing in general- Components: referencing- writing the bibliography- developing the outline- presentation; etc.

UNIT V CASE STUDIES 12

Case studies illustrating how good research can be used from project inception to completion- review of research publications

TOTAL: 45 PERIODS

REQUIRED READING

1. Linda Groat and David Wang; Architectural Research Methods;

2. Wayne C Booth; Joseph M Williams; Gregory G. Colomb; The Craft of Research, 2nd Edition; Chicago guides to writing, editing and publishing;
3. Iain Borden and Kaaterina Ruedi; The Dissertation: An Architecture Student's Handbook; Architectural Press; 2000
4. Ranjith Kumar; Research Mehodology- A step by step guide for beginners; Sage Publications; 2005
5. John W Creswell; Research design: Qualitative, Quantitative and Mixed Methods Approaches; Sage Publications; 2002

REFERENCES:

1. Amos Rapoport; House, form and culture;
2. Christopher Alexander; Pattern Language
3. Diagram Diaries; Peter Eissenman;

AA 9132 CONSERVATION PLANNING AND PRACTICE L T P/S C
1 0 4 3

This course is an introduction to issues and practices of Conservation. Conservation is addressed as an idea that enhances quality of life, as an effective planning strategy, a criticism of universal modernism and a way to address issues of memory and identity. An overview of current status of conservation in India is also provided.

UNIT I INTRODUCTION TO CONSERVATION 15

Understanding Heritage. Types of Heritage. Heritage conservation – Need, Debate and purpose. Defining Conservation, Preservation and Adaptive reuse. Distinction between Architectural and Urban Conservation. International agencies like ICCROM, UNESCO AND their role in Conservation.

UNIT II CONSERVATION IN INDIA 15

Museum conservation – monument conservation and the role of Archeological Survey of India – role of INTACH – Central and state government policies and legislations – inventories and projects – select case studies – craft Issues of conservation –conservation project management.

UNIT III CONSERVATION PRACTICE 15

Listing of monuments – documentation of historic structures – assessing architectural character – historic report – guidelines for preservation, rehabilitation and adaptive re-use of historic structures – seismic retrofit and disabled access /services additions to historic buildings – heritage site management.

UNIT IV URBAN CONSERVATION 15

Over view of urban history of India and Tamil Nadu – understanding the character and issues of historic cities – select case studies of sites like Thanjavur, Kumbakonam, Kanchipuram, Chettinad – historic districts and heritage precincts.

UNIT V CONSERVATION AND URBAN PLANNING 15

Norms for conservation of heritage buildings and sites as part of Development Regulations - Conservation as a planning tool – financial incentives and planning tools such as TDR, (transferable development right) – Urban conservation and heritage tourism.

TOTAL :75 PERIODS

REQUIRED READING

1. Donald Appleyard, The Conservation of European Cities, M.I.T. Press, Massachusetts.
2. James M. Fitch, Historic Preservation: Curatorial Management of the Built World by University Press of Virginia; Reprint edition (April 1, 1990)
3. A Richer Heritage: Historic Preservation in the Twenty – First Century by Robert E. Stipe.
4. Conservation Manual, Bernard Fielden
5. Bernard Feilden, Conservation of Historic Buildings, 2nd Edition, Butterworth, 1994.

REFERENCES

1. B.K. Singh, State and Culture, Oxford, New Delhi.
2. A.G.K. Memon ed. Conservation of Immovable Sites, INTACH Publication, N.Delhi
3. Seminar Issue on Urban Conservation.
4. Christropher Brereton, The repair of Historic Buildings. Advice on principles and methods; English Heritage 1991.

AA9133 DISSERTATION L T P/S C
0 0 6 3

This is a Thesis preparation course and gives the student scope for independent study and opportunity to explore specific area of interest which will form the basis of his/ her design thesis project in the next semester. The topic will have to be approved at the start of the semester and reviewed periodically to a jury at the end of the semester.

TOTAL: 90 PERIODS

REQUIRED READING:

1. Iain Borden and Kaaterina Ruedi; The Dissertation: An Architecture Student's Handbook; Architectural Press; 2000

AA 9134 ADVANCED ARCHITECTURAL DESIGN STUDIO II L T P/S C
0 0 12 3

This Design Studio will explore relationships between user group activity, movement, landform and urban form using diagramming and mapping tools to come up with creative prescriptions of certain projected scenarios.

This studio will also emphasize on urban design and will explore collaborative learning of students to explore, investigate and apply various parameters of sustainability for the design development of projected urban scenarios.

TOTAL: 180 PERIODS

SEMESTER IV

DG9141 PORT FOLIO PRODUCTION AND WEB PUBLISHING L T P/S C
0 0 6 3

Using the skills and concepts learnt in the multi media and web design courses, students will periodically submit their dissertation and design work in the form of web pages. These pages have to be uploaded in free public domains prior to their respective reviews.

TOTAL: 90 PERIODS

AA9142 **THESIS** **L T P/S C**
0 0 16 8

Within the thesis module students will synthesize the knowledge skills and techniques acquired in the taught and research modules. Each student will develop an independent design thesis project for faculty review. This will comprise of documentation of project issues, context, site and building information, research, case studies and programming culminating in a design project. The module requires the student to extend the critical position developed within the Studio projects and dissertation as a starting point for practice and further research.

Students will submit a detailed proposal on their topic of interest(s). The Proposal shall be approved by the thesis review committee and the thesis project shall be reviewed periodically and presented before a jury at the end of the semester.

TOTAL:300 PERIODS

LIST OF ELECTIVES (M.ARCH.)

AA9151 BUILDING MANAGEMENT AND CONTROL SYSTEMS L T P/S C
3 0 0 3

OBJECTIVE

This course will investigate building safety, security and integrated management systems and their application in contemporary case studies

UNIT I SAFETY SYSTEMS – FIRE ALARM SYSTEM 9

Objective of a Fire Alarm System, essential components of a Fire Alarm System, Technology of Detection, and Type of Statutory Standards followed in Detection. Explanation on the essential Clauses, and various types of Technologies employed in the Fire Alarm System, basic knowledge on how a Fire Alarm system is designed and installed.

UNIT II SAFETY SYSTEMS – FIRE SUPPRESSION SYSTEM 9

Objective of a Fire Suppression System, Explanation on Fire triangle, Essential Components of a Fire Suppression System, different type of Fire Suppression Systems, detailed design criteria for Wet Riser, Sprinkler Systems and various gas Based Fire Suppression System, and Type of Statutory Standards followed in Suppression, Explanation on the essential Clauses and Basic Knowledge on how a Fire Suppression System is designed and installed.

UNIT III SECURITY SYSTEMS – ACCESS CONTROL SYSTEM AND INTRUDER ALARM SYSTEM 9

Introduction to Access Control, Intruder Alarm, Essential Components of each System, and Various types of Technologies employed in the system, Basic knowledge as how they are designed and installed.

UNIT IV SECURITY SYSTEMS – CCTV AND PERIMETER PROTECTION 6

Introduction to CCTV, Perimeter protection system, Essential Components of each System, and Various types of Technologies employed in the system, Basic knowledge as how they are designed and installed.

UNIT V INTEGRATED BUILDING MANAGEMENT SYSTEM 12

The objective of the Integrated Building Management System (IBMS), the list of utility, safety & security systems that are generally monitored & controlled through IBMS, the various components of IBMS, types of integration with the utility, Safety & security systems, explanation in detail on how each utility, safety & security system is integrated to IBMS, details of various parameters that can be monitored & controlled on each utility, safety & security system and the basic knowledge on how they are designed and installed.

TOTAL: 45 PERIODS

REQUIRED READING

1. Building Automation Systems – A Practical Guide to Selection and Implementation, Maurice Eyke
2. The Principles and Practice of Closed Circuit Television, Mike Constant & Peter Turnbull
3. Rules for Automatic sprinkler Installation – second edition – Pub: Tariff Advisory Committee.
4. CCTV Surveillance, Herman Kruegle.

REFERENCES

1. National Building Code of India 1983 (SP 7: 1983 Part IV) – Pub: Bureau of Indian Standards.
2. Fire Suppression Detection System, John L. Bryan.
3. Security Systems and Intruder Alarm System, Vivian Capel.

AA9152	APPROPRIATE TECHNOLOGIES AND SUSTAINABLE CONSTRUCTION	L T P/S C 3 0 0 3

OBJECTIVE

The course will provide necessary knowledge and skills to enable the facilitation and transformation of places and spaces where culture and technology are in a state of rapid change and resources are scarce. It will examine self help techniques of construction, adaptation, repair and management to understand what is involved in sustainable construction of domestic and community architecture.

UNIT I INTRODUCTION 6

Architecture and the survival of the planet- Assessing patterns of consumption and their alternatives- Profit and politics- Natural building movement – new context for codes and regulations

UNIT II DESIGN PRINCIPLES 12

Principle 1: Conserving energy; Principle 2: Working with Climate; Principle 3: minimizing new resources; Principle 4: respect for users; Principle 5: respect for site; Principle 6: holism- Illustrated with examples

UNIT III SUSTAINABLE CONSTRUCTION 6

Design issues relating to sustainable development including site and ecology, community and culture, health, materials, energy, and water- Domestic and Community buildings using self help techniques of construction; adaptation, repair and management.-.portable architecture-

UNIT IV SYSTEMS, MATERIALS AND APPLICATIONS 12

Adobe- Cob- Rammed Earth- Modular contained earth- light clay- Straw bale- bamboo- earthen finishes, etc.- their sustainability; adaptability to climate; engineering considerations, and construction methods; Waste as a resource

Portable architecture to Applications through specific case studies

UNIT V CASE STUDIES FROM THE CONTEMPORARY SCENARIO 9

Ranging from small dwellings to large commercial buildings, drawn from a range of countries to demonstrate best current practice

TOTAL:45 PERIODS

REFERENCES

1. Brenda and Robert Vale; Green Architecture: Design for a sustainable future; Thames and Hudsson;1996
2. Lynne Elizabeth and Cassandra Adams; Alternative Construction: Contemporary Natural Building Methods
3. Victor Papanek; The Green Imperative; Thames and Hudson; 1995
4. Steven Harris and Deborah Berke; Architecture of the Everyday; Princeton Architectural Press; 1997
5. Pilar Echavarria; Portable Architecture- and unpredictable surroundings; Page One Publishing Pvt. Ltd.; 2005.

AA9153 GIS MODELLING IN URBAN PLANNING L T P/S C
2 0 2 3

OBJECTIVE

This course will examine the role and application of Geographic Information Systems in environmental design, community charities and other urban design projects.

UNIT I INTRODUCTION 8

GIS – Spatial data, non Spatial data, Plan, Map, Scale, Map Projection, GPS, GCP collection, Spectral signature curve, Image processing – Geo coding / Geo referencing, GIS software, Two tier architecture, Three tier architecture, Thin client, Thick client

UNIT II DATABASE CONCEPTS 12

Data structures, Databases, Files, Types of Tables, Table operations, Creating a Table, Accessing Records in a Table, Manipulating records in a Table, Modifying Table structure, Reports, Advantages of database, Primary key and data access, Composite primary key, Defining a primary key, Sorting, Indexing, Master Detail relationships, Types of relationships, Foreign key, Deleting, updating and adding records to linked tables, ER Diagram, Data Model – Physical, logical and conceptual.

UNIT III SPATIAL DATA 10

Comparative methods for obtaining images, Aerial Photograph, Satellite Imagery – High resolution imagery – LISS, PAN, MSS – Ortho rectification, Digitization – Layers, Digital Elevation model, Digital Terrain Modelling, Existing maps – Problems and Issues, Rubber sheeting, Digitization, overlay, union, intersection.

UNIT IV INTRODUCTION TO GIS SOFTWARE 12

Arc Info – Coverage – Arc, Node, Tics, Add, get, put, Map extent, edit, Topology creation – Clean, Build, Tables – Creating tables, updating tables, join, drop item, Export, Import, overlay, union, intersection, buffer.

UNIT V MODELLING GIS PROJECTS FOR URBAN AREAS 18

Preparation of Land use map, Land use suitability analysis, Screen design, Visual Basic application using Map objects.

TOTAL:60 PERIODS

REQUIRED READING

1. Information systems for Urban Planning – Robert Laurini
2. Modelling our world – ESRI Press
3. An Introduction to Data base Systems – C.J.Date
4. Fundamentals of Data base Management System by Elmasri & Navethi
5. ESRI (1992) Understanding GIS, The Arc Info Methods, ESRI, USA

AA9154 ANTHROPOLOGY AND ARCHITECTURE L T P/S C
3 0 0 3

OBJECTIVE

To focus on the anthropological view of architecture with specific reference to built form, place making and urban form. The course will include anthropolofy and contemporary urban issues.

UNIT I RELATIONSHIP BETWEEN CULTURE, SOCIETY, ANTHROPOLOGY AND ARCHITECTURE 6

Concepts of culture, society, politics and anthropology – relation between society and built environment – introduction to cultural anthropology view of architecture.

UNIT II ANTHROPOLOGY OF TRADITIONAL ARCHITECTURE 10

Architecture as a Process – kinship and house societies – perceptions of built form – conceptions of space – symbolism and technology – study of the above through case study of traditional architecture in India, Asia and Africa.

UNIT III ANTHROPOLOGY AND PLACE MAKING 15

Conditions of modernity –Fragmentation of society – Heidegger and notions of dwelling – C Noeberg Schultz and notions of Genius Loci Rapoport and studies on the meaning of built environment – Joseph Rykwert and the idea of house – Bollnow and idea of space – Jan Pieper and the notions of scared space.

UNIT IV AN OVER VIEW OF URBAN ANTHROPOLOGY 6

Meaning of urban studies and urban anthropology – role of cities – urban ethnography, primary units, major components and units of integration – anthropology and contemporary urban issues.

UNIT V SEMINAR 8

Students would make presentations exploring the relevance and impact of anthropological studies on contemporary architecture and design through readings/case studies. The proposal must be discussed with course faculty prior to presentation.

TOTAL: 45 PERIODS

REQUIRED READING:

1. Roxanna Wasterson; The living House Anthropology of Architecture in S E Asia; Oxford Press.
2. Claire Melhuish (ed); Architecture and Anthropology – AD Vol 66 No 11/12 Nov - 1996

REFERECES

1. Joseph Rykwert; On Adams house in Paradise; MIT Press 1987
2. O F Bollnow; Mann, Bensch and Raum, Stuttgart; 1963.
3. Joseph Rykwert – Idea of a Town: The Anthropology of Urban Form in Rome; 1976.
4. Nold Egenter; The review of the Primitive in Architecture – Architectural Anthropology – Research Series Vol. I and II; Structura Mundi; 1992 and 1996.
5. Edwin James; Anthropology of the City; Prentice Hall; 1977.
6. J Carstern and S H Jones; About the house: Levi Strauss and Beyond; Cambrige University Press; 1955.

AA9155	MATERIAL CONSERVATION	L	T	P/S	C
		3	0	0	3

OBJECTIVE

The materials, structural systems, buildings and elements produced by historical technologies are studied in order to develop understanding of their evolutionary, chronological and stylistic context. With this understanding the course will outline causes of deterioration and repair look at the remedial and preventive measures that need to be taken to preserve the building fabric.

UNIT I CONSERVATION TECHNIQUES 9

Decay of monuments – reasons to decay – restoration techniques – soil and structure conservation – cleaning of monuments – reconstruction of monuments- Decay Mapping - Quantifying techniques- Introduction to structural analysis.

UNIT II COMPOSITION, CHARACTERESTICS AND DETERIORATION OF MASONRY MATERIALS 9

Brick- Stone- Composite masonry- causes for decay and deterioration- remedial measures- Introduction to the significance and use of the lime – working with lime – repairing and replacing plaster - Issues concerning terracotta and mud- use of consolidants.

UNIT III COMPOSITION, CHARACTERESTICS AND DETERIORATION OF OTHER STRUCTURAL MATERIALS 9

Use and repair of iron and steel members – Understanding wood and timber structures / methods to conserving timber structures-

UNIT IV CASE STUDIES 9

Case studies at the national, international and state level conservation projects done by ASI, INTACH & Conservation Architects- assessment and evaluation.

UNIT V MATERIAL CONSERVATION AND ADAPTIVE REUSE 9

Studio on Adaptive reuse/ restoration project / building in Existing fabric.

TOTAL: 45 PERIODS

REFERENCES

1. Bernard Feilden, Conservation of Historic Buildings, 2nd Edition, Butterworth, 1994.
2. Martin E Weaver; Conserving buildings: Guide to Techniques and materials, Revised Edition; Wiley; 1997
3. J. Stanley Rabun; Structural Analysis of Historic buildings: Restoration, Preservation and Adaptive Reuse; Applications for Architects and Engineers; Wiley 2000
4. Kirk Urwin J.; Historic Preservation Handbook; Mc Graw hill 2003
5. Ernest Burden; Illustrated Dictionary of Architectural Preservation; McGraw hill 2003

LN9124 LANDSCAPE ECOLOGY AND PLANNING L T P/S C
0 0 0 3

UNIT I ECOLOGY 9

Understanding the ecosystem and their functioning — components of ecosystem - natural process- Fundamentals of ecology - Ecological processes and dynamics– understanding ecological concepts like population growth, regulation, carrying capacity- colonization and succession - stability and resilience of ecosystem – ecosystem degradation.

UNIT II LANDSCAPE ECOLOGY 9

Introduction to landscape ecology – formation of various landforms – landforms and landscape process – pattern and structure of landscapes– concepts of patch, corridor and matrix - landscape dynamics and function – topological and chorological process within landscape - concept of landscape metrics – understanding dynamic interaction between landscape structure and function – ecological services of landscape.

UNIT III LANDSCAPE PLANNING 9

Relationship between man and nature – analytical aspect of landscape - the natural and cultural setting - evolution of landscape planning –concepts and projects of McHarg, Carl Steinite, Warren Manning, Augus Hills, Phil Lewis – Izank Zonneveld, Ervin Zube - landscape planning models – METLAND concept

UNIT IV PROCESS IN LANDSCAPE PLANNING 9

The purpose of landscape planning – domain and context for landscape planning – principles of planning – procedure in landscape planning - problem defining, goal setting, inventory and analysis - basic of collecting and analyzing, projecting and presenting data in landscape planning, visual assessment and aesthetic dimension.– Suitability analysis – techniques for identifying preferences - Planning options – proposing landscape plan.

UNIT V Case Studies: LANDSCAPE PLANNING 9

Reclamation and restoration of derelict landscapes - conservation and preservation of ecological fragile areas such as wetlands, creeks etc. - conservation ordinances. Case studies on landscape regional planning - policies and landscape.

TOTAL: 45 PERIODS

REFERENCES:

1. Richard T.T.Forman & Michel Godron , Landscape Ecology, John Wiley & Sons; 1986
2. Tom Turner, Landscape Planning and Environmental Impact Design, UCL Press, London, 1998.
3. Ervin H. Zube, Robert O Brush, Julios G.Y.Fabos, Landscape assessment – values, perceptions, 1975.
4. G. Tyler Miller Jr., Living in the Environment: Principles, Connections, and Solutions, Brooks / Cole publishers co., 2004.

5. William M. Marsh, Landscape planning – Environmental Application, John Wiley and sons Inc., 1997.

LN9151 SUSTAINABILITY AND ENERGY CONSERVATION IN LANDSCAPE ARCHITECTURE. **L T P/S C 3 0 0 3**

UNIT I INTRODUCTION TO SUSTAINABILITY 10

Need and concept of sustainability, Brundtland report, World Commission on environment and development, sustainable development, sustainable growth, sustainable economy and sustainable use. Visions of sustainability. Source and ethics of sustainability.

UNIT II SUSTAINABLE SITE 7

Sustainable site – LEEDS, BREEM, rating erosion and sedimentation control, site selection, urban development, landscape and exterior design etc. Ecology and sustainability.

UNIT III SUSTAINABLE LANDSCAPE 9

Sustainable landscape management, Sustainable planning and city form. Sustainable urban landscape, landscape sustainability at the national and regional level.

UNIT IV INTRODUCTION TO ENERGY CONSERVATION IN LANDSCAPE 9

Energy conservation and sustainability, principles of energy systems, energy and global environment, scope for energy conservation in landscape.

UNIT V ENERGY CONSERVATION METHODS IN LANDSCAPE ARCHITECTURE 10

Various methods of energy conservation in landscape architecture, energy conservation techniques in various climates- hot and humid, hot dry, etc. Energy efficient site planning and landscape development. Energy efficient planting design. Case studies.

TOTAL: 45 PERIODS

REFERENCES:

1. John.F.Benson and Maggie.H.Roe, Landscape and sustainability, John wiley Publication, Newyork, 2000.
2. O.R.Gray, Landscape Planning for energy conservation.
3. Anne simon Moffat and marc schiler, Landscape design that saves energy, William monow and co.,Inc., Newyork, 1981.
4. Publications of Centre for science and environments, New delhi and TERI.
5. Grady Clay, Water and the landscape, McGraw hill book company, Newyork.

Websites:

1. www.greenbuilder.com/sourcebook/landscapeenergy.html
2. www.wspinners.com/contex/newsletter/gmgroup/landscaping.html

DG9157	WEB DESIGN	L T P/S C 1 0 4 3

UNIT I INTRODUCTION TO WEB DESIGN 2

Basics of web design – Introduction to software used for web design – ADOBE IMAGE READY DREAMWEAVER Macro Media, Flash etc.

UNIT II STATIC PAGES 10

Slice – URL in ADOBE IMAGEREADY. Creation and Editing of site map – layer, tables, frameset, - CSS style – Forms – tools like insert, roll over etc., in DREAMWEAVER – Exercise using the above said utilities.

UNIT III ANIMATION IN FLASH 20

Introduction to MACROMEDIA FLASH, importing other file formats to Flash – saving and exporting Flash files, Frame by frame animation – Motion Tweening – Shape Tweening – Symbols – Sound in Flash. Exercise using the above said utilities.

UNIT IV SCRIPTING IN FLASH 20

Introduction to Flash Scripting – Movie Control – Browser Network – Movie Clip Control – Variables – Conditions/ Loops – User Defined Functions – Miscellaneous Functions – Operators – Functions –Constants - Objects.

UNIT V DEVELOPING A WEB SITE 13

Exercise using the above said utilities using all necessary software in developing a Website.

TOTAL: 75 PERIODS

REQUIRED READING

1. Photoshop 7 Bible Professional Edition, Wiley John & Son INC, New York, DekeMcClelland, 2000.
2. Flash Web Design, The Art of Motion Graph, Curtis Hillman, New Riders Publishing, Indianapolis, IN. U.S.A, 2000
3. M.E. Morris, and R.J. Hinrichs, Web Page Design, Prentice Hall, 1996.
4. Mark Von Wodtke, Mind over Media : Creative Thinking Skills for Electronic Media, McGraw-hill, New York, 1993