VISION OF DEPARTMENT OF ARCHITECTURE
The Department of Architecture is committed to excellence in the field of architectural education and the discipline of architecture through its pedagogical, research, extension and outreach activities, directed towards the betterment of the world that we inhabit, in all realms shaped by architecture. It shall uphold universal moral and ethical values in all endeavours that it undertakes and be exemplary in creating positive transformations.

MISSION OF DEPARTMENT OF ARCHITECTURE
The Mission of the Department of Architecture is

- To tap and strengthen the innate potential of each student and deepen their knowledge/skills in order to enable them to self-actualise as well as become catalysts for positive change.
- To contribute to immediate context, larger society and the world through knowledge creation and dissemination.
- To engage and extend the expertise of the department in addressing and solving of issues/problems related to the built environment.
- To actively interact and collaborate with professionals, educational institutions and other related organisations at all scales in order to collectively further the cause of appropriate architecture.
1. PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

I. Become a landscape architect with ability to design open spaces, find environmentally suitable solutions and become a landscape planner capable of promoting sustainable development of natural resources.

II. Find gainful employment in landscape architectural firms / infrastructure firms / environmental solutions providers through offering of specialized knowledge.

III. Be a part of organisations that influence policy and decision making through contributing in-depth knowledge in relevant fields of study.

IV. Become a teacher/researcher with ability to apply critical, investigative and analytical thinking towards future society.

V. Become a thinker and entrepreneur who can anticipate and project future transformations in the environment.

2. PROGRAMME OUTCOMES (POs)

After going through two years of study, our M. Arch (Landscape) graduates will exhibit ability to:

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<thead>
<tr>
<th>PO#</th>
<th>Programme Outcome</th>
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<tbody>
<tr>
<td>1.</td>
<td>Independently carry out research / investigation and design development work to solve practical problems of built environment.</td>
</tr>
<tr>
<td>2.</td>
<td>Write and present a substantial technical report/research document.</td>
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<td>3.</td>
<td>Demonstrate a degree of mastery in the area of landscape architecture.</td>
</tr>
<tr>
<td>4.</td>
<td>Resolve landscape architectural problems with due consideration to environmental and urban issues.</td>
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<tr>
<td>5.</td>
<td>Bring contemporary tools/ methods/ approaches to analyse situations and explore design.</td>
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<td>6.</td>
<td>Identify, decipher and interpret issues relating to Landscape Architecture as well as collect, critically analyse and present information in a logical and clear manner.</td>
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PEO / PO Mapping

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# ANNA UNIVERSITY, CHENNAI
# UNIVERSITY DEPARTMENTS
# M.ARCH (LANDSCAPE ARCHITECTURE)
# REGULATIONS - 2019
# CHOICE BASED CREDIT SYSTEM
# CURRICULUM AND SYLLABUS FOR I TO IV SEMESTERS

## SEMESTER I

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**TOTAL**

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*Audit Course is Optional

## SEMESTER II

(Prerequisite - Pass in Site Planning and Design Studio)

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**TOTAL**

|              | 15 | 0  | 16 | 31 | 21 |

*Audit Course is Optional
### SEMESTER III
(Prerequisite - Pass in Urban Landscape Design Studio)

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* 4 weeks in Summer Vacation between II and III Semesters

### SEMESTER IV
(Prerequisite- Pass in Regional Landscape Planning Studio & Pre-Thesis, 40 Credits)

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TOTAL CREDITS: 74
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### PROGRAM ELECTIVE COURSES (PEC)

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### EMPLOYABILITY ENHANCEMENT COURSES (EEC)

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### AUDIT COURSES (AC)

Registration for any of these courses is optional to students.

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Total Credits: 0
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OBJECTIVES

- To give introduction to soil formation, characteristics of land formation and its influence on landscape.
- To give detailed knowledge on the formation of landforms.
- To introduce basic hydrology and its link with various landscape elements.

UNIT I  INTRODUCTION


UNIT II  GEOMORPHOLOGY


UNIT III  SOIL CHARACTERISTICS AND ANALYSIS

Soil properties soil classification, soils of India. Soil use and Management: A) Soil survey and field mapping. Basics of Soil Testing and Analysis. B) land capability classifications (a) Soil evaluation and land-use planning. (b) Soil and water conservation. (c) Soil fertility and plant nutrition. (d) Soil degradation control, remedial actions and reclamation techniques, Role of remote sensing in soil mapping.

UNIT IV  HYDROLOGY


UNIT V  WATER MANAGEMENT

Application of geological information in the interpretation of landscapes on maps and in the field. Identifying land forms and land use through remote sensing for Landscape Applications. The relationships between geology, soil, hydrology and vegetation: Practical examples.

TOTAL: 45 PERIODS

OUTCOME

- Familiarity with characteristics of landforms, causes and effects.
- Knowledge about soil characteristics, causes and effects and modifications.
- Knowledge about methods of analysis of soils.
- Knowledge about water management

REFERENCES

OBJECTIVES

- To give introduction to the characteristics of Plant materials, which are an important part of soft landscape, international nomenclature, used for plants and their associations.
- To promote understanding of the factors that regulate the growth and characteristics of plant.

UNIT I CHARACTERISTICS OF PLANT MATERIALS


UNIT II FLORISTIC REGIONS OF INDIA

Different floristic regions and forest types of India. Dominant, endemic, occasional, prevalent species in select types.

UNIT III PLANT PROPAGATION

Nursery establishment and plant propagation. Establishment and maintenance of grass, Shrubs and trees with respect to ground preparation, planting and transplanting, Protection of plants during and after planting.

UNIT IV HORTICULTURAL PRACTICE


UNIT V LANDSCAPE MAINTENANCE

Maintenance methodology, maintenance economics and maintenance details for all soft landscape. Equipment for landscape maintenance.

TOTAL: 45 PERIODS

OUTCOME

- Knowledge of binomial nomenclature of plants.
- Familiarity with aspects of plant growth and propagation, thereby having understanding of maintenance requirement of plants.

REFERENCES

OBJECTIVES

- To give understanding of a broad range of contemporary and historic theories that influence design and planning.
- To give outline of the chronology of development and evolution of landscape and garden design in relation to art, architecture and city planning from the earliest period to the present day.

UNIT I  ATTITUDE TO NATURE AND WORLD VIEW  9
Changing perceptions of man’s relationship with nature in various phases of history; responses and attitudes to nature and landscape resources as a function of this perception. Worldviews and their impact upon design (modernism and modernist design, postmodernism and its varied design manifestations).

UNIT II  SOCIAL AND CULTURAL DIMENSIONS OF LANDSCAPE  9
Overview of social, behavioral, and cultural theories and writings as they are applied to. Environmental and Behavioral theories: Entropy, Prospect and Refuge, Defensible space etc. An introduction to social and cultural dimensions of landscape.

UNIT III  FORM, SPACE AND ORDER  9
Place-making (sense of place theories, role of cultural geography research in design, regional issues). The comparative analysis of examples of landscape separated in time and space: siting, relationship to surroundings, use of landscape elements, function, scale, symbolism, etc. Illustrative range of examples from various geographic locations and periods, highlighting aspects of Form, Space and Order.

UNIT IV  INERT MEANING OF LANDSCAPE  9
Historic landscape preservation issues (cultural landscapes, adaptive reuse, restoration approaches, and management theories). Ancient traditions; siting of structures, complexes and cities; symbolic meanings and sacred value attributed to natural landscapes.

UNIT V  DEVELOPMENT OF LANDSCAPE DESIGN  9
Development of landscape design and gardens till the early 19th century, Influences and linkages across cultures and traditions.

TOTAL: 45 PERIODS

OUTCOME

- Ability to engage analytical approach to the study of theory and developing an attitude towards critiquing and evaluating choices for design decisions in varied contexts.
- An appreciation of scale in terms of landscape and nature.

REFERENCES


LN5111  DESIGN AND DETAILING OF BASIC LANDSCAPE ELEMENTS  L T P/S C
                              1 0 4 3

OBJECTIVES

• To give understanding about site planning process and its significance; to train in establishing relationship between site characteristics and design requirements. Inventory, documentation and site planning checklist.
• To train students on detailing of basic landscape elements.

UNIT I  DESIGN OF LANDFORMS  25
Contours – representation of landforms and landform design, interpolation of contours, slope analysis, uses and function. Grading – symbols and abbreviations, basic grading exercises, grading alignment of Paths/roads, across/along contours, Basics of road alignment (horizontal and vertical) Angle of repose and use of retaining wall.

UNIT II  EARTHWORK FORMATION  10
Earth works – principles of earthwork, cut and fill calculations – borrow pit method, Average end area method, average spot level method, precautions taken in cut and fill methods in relation to soil conditions, etc.

UNIT III  HARD LANDSCAPES  20
Design and detail of hard landscapes – Roads, paving, barriers, edge conditions – functions, types, criteria for selection, design aspects, details.

UNIT IV  OUTDOOR LIGHTING AND FURNITURE  20

TOTAL: 75 PERIODS

OUTCOME

• Skill in techniques of drawing landscape and site elements.
• Ability to detail site elements like earthwork, hard landscape and outdoor furniture.
• General understanding of climate and elements of micro climate and the relationship to landscape elements.
REFERENCES:


LN5121 SITE PLANNING AND DESIGN STUDIO L T P/S C 0 0 12 6

OBJECTIVES

- To give introduction to landscape design.
- To give introductory exercises in art, architecture and landscape.
- To give knowledge about landscape analysis and site planning for medium sized sites.
- To enable landscape design of small recreational or civic spaces.

CONTENT

Appreciation of basic landscape design issues and elements. Simple site planning, use of hard and soft landscape materials for defining and structuring the open spaces. Landscape design in relation to architecture.

OUTCOME

- Exposure to the process of site study and analysis.
- Understanding of site planning process.
- Ability to undertake landscape design of small projects primarily involving site planning and design.

TOTAL:180 PERIODS

REFERENCES


LN5201 PLANTING DESIGN L T P/S C 3 0 0 3

OBJECTIVES

- To learn about the various aspects of designing plants.
- To learn in detail about the applications of planting design in practice.
UNIT I  INTRODUCTION TO PLANTING DESIGN  9
Introduction to planting design. Plants as living materials, landscape architect’s view of plants. Plants as structural, functional and decorative elements. Structural characteristics of plants. Spatial functions of plants, ground level planting, below knee height, knee to eye level, above eye level planting, tree planting.

UNIT II  CREATING SPACES WITH PLANTS  9
Experience of spaces, use of planting to manipulate spatial experience, elements of spatial composition – enclosure, dynamics and focus. Plant associations. Plant communities, Designing with canopy layers – 3 layers, 2 layers and single layer. Plants as a part of integral habitats.

UNIT III  VISUAL COMPOSITION IN PLANTING DESIGN  9
Subjective and objective responses to plant material. A study on form, shape, colour, texture, growth characteristics and suitability to different environments. Principles of visual composition- harmony and contrast, Balance, Emphasis, Sequence, Scale, Unity and variety in planting design.

UNIT IV  PLANTING DESIGN FOR HABITAT CREATION  9
Planting strategies and species for various types of habitats – wooded areas, grassland and meadows, wetlands, coastal edges, waterside and aquatic planting, slope retention, and plants for restoration of disturbed habitats.

UNIT V  APPLICATIONS IN PRACTICE  9
Study of local plant materials, their botanical, common and regional names, growth characteristics and application in design. Visit to nurseries. Introduction to soft landscape working drawings, planting plans, specifications and estimation.

OUTCOME
• Knowledge about basics of planting design
• Knowledge about applications of planting design

REFERENCES

LN5202  URBAN LANDSCAPE DESIGN  L T P/S C
3 0 0 3

OBJECTIVE:
• To expand the student’s knowledge on landscape within urban areas and open spaces in urban context.

UNIT I  INTRODUCTION  6
City and pattern – hierarchy of streets and squares – spatial organization and land use – road net works and basic services. Open spaces with in urban environment.
UNIT II  URBAN SPACES  9
Cultural, social and aesthetic value of urban spaces and its perception, Imageability, Townscape elements. Urban space enhancement.

UNIT III  OPEN SPACE SYSTEM  9

UNIT IV  ELEMENTS IN URBAN LANDSCAPE  12
Design of public parks, roads, green ways, parkways, promenade and plaza. Public art. Plant selection criteria, furnishings and lighting of public space, maintenance and management of public spaces and parks,

UNIT V  CASE STUDIES  9
Contemporary urban landscape issues. Case studies- Study, understanding and analysis of known examples at the national and international levels.

TOTAL: 45 PERIODS

OUTCOME
- Knowledge about the types, characteristics and elements of urban open spaces.
- Understanding of issues related to and design of urban landscape design.

REFERENCES

LN5211  DESIGN AND DETAILING OF COMPLEX LANDSCAPE ELEMENTS  L T P/S C 1 0 4 3

OBJECTIVES:
- To train the students in the design, detailing and drawing of landscape elements.

UNIT I  PLAY AREA, TERRACE LANDSCAPING AND WATER FEATURES  35
Design of play areas -Tot lots to play grounds. Design and detail of play equipments. Considerations, design and detail for terrace landscaping, concept of green roof - intensive and extensive- green walls. Design of water features such as swimming pools, cascades, fountains etc., and their technical requirements. Consideration for design and detail. Water bodies and natural ponds. Design of irrigation system. Landscape area types, objectives and design, water needs and sources, application, methods of installation. Control systems, scheduling and maintenance.
UNIT II  STORM WATER MANAGEMENT & WATER RESOURCES PLANNING  15

Drainage – surface drainage, calculation of surface run off, design of surface and storm water drainage, design of swales and gutters. Water shed and their characteristics, urban storm water drainage systems, protection of natural water bodies, water retention structures, water harvesting techniques and devices.

UNIT III  PLANTING DESIGN FOR SPECIAL SITUATIONS  15

Basis for planting selection and design for buffers- for screening, pollution control, noise control and others. Design of planting for treatment of pollution- waste land, dump-yard and artificial wetlands

UNIT IV  MICRO CLIMATE CONTROL  10

The role of landscape components in modifying microclimate with respect to temperature, humidity, precipitation, air corridors, heat islands, wind speed etc., in cities. Study of vegetation, landforms and water as modifiers of microclimate and application in design.

TOTAL: 75 PERIODS

OUTCOME

- Ability to detail and draw landscape elements and features.
- Knowledge about water management through landscape design.
- Ability to detail of site elements like earthwork, hard landscape and outdoor furniture.

REFERENCES:


LN5221  URBAN LANDSCAPE DESIGN STUDIO  L T P/S C

0 0 12 6

OBJECTIVE:

- To train students in landscape design in relatively large-scale urban areas through exercise of analysis and proposals

CONTENT

Understanding the function and structuring of outdoor spaces in an urban context. Design in relation to existing context. Integration of various infrastructure and services such as traffic, irrigation and lighting in landscape design. Training in master plan development for complex spaces such as Campus landscape, transportation infrastructure, large parks and public recreational spaces.

TOTAL:180 PERIODS
OUTCOME

- An understanding of the function and structuring of outdoor spaces.
- Ability to design urban landscape.

REFERENCES


AA5351 RESEARCH METHODOLOGIES FOR HUMAN ENVIRONMENT

OBJECTIVES

- To give introduction to the importance of critical inquiry as a way of gaining knowledge and adding to it through research.
- To give exposure to the various forms of research and research methodologies/ processes.
- To help engage this understanding in the specific field of human environment research.

UNIT I INTRODUCTION

Basic research issues and concepts. Orientation to research process. Types of research: historical, qualitative, co-relational, experimental, simulation and modelling, logical argumentation, case study and mixed methods. Illustration using research samples.

UNIT II RESEARCH PROCESS

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


UNIT IV REPORT WRITING

Research writing in general and its components. Developing the outline, referencing, writing the bibliography, presentation, etc.

UNIT V CASE STUDIES

Case studies illustrating how good research can be, from project inception to completion. Review of research publications.

TOTAL: 45 PERIODS
OUTCOME

- Skill to identify, decipher and interpret issues relating to architecture based on research enquiry methods.
- Knowledge of different methods of conducting research and research writing.

REFERENCES


LN5311 APPLICATION OF GIS IN LANDSCAPE PLANNING

OBJECTIVES:
- To introduce concept of GIS as the platform being increasingly used worldwide for landscape planning and restoration projects.
- To train the students in the application of GIS in Landscape design.

UNIT I INTRODUCTION TO MAPS

UNIT II INTRODUCTION TO G.I.S, G.P.S AND REMOTE SENSING

UNIT III CAPTURING AND GENERATING SPATIAL AND NON SPATIAL DATA AND DISPLAY

UNIT IV SPATIAL ANALYSIS

UNIT V APPLICATION OF G.I.S
Introduction to site suitability analysis. Application of GIS in Landscape designing and site suitability.

TOTAL: 60 PERIODS
OUTCOME
- Knowledge about the techniques of Map preparation and analysis using maps.
- Knowledge about application of GIS in Landscape Architecture.

REFERENCES:

LN5321 PRE-THESIS

OBJECTIVES
- To promote research in landscape architecture.
- To impart training in collecting, critically analysing and presenting information in a logical sequence.
- To enable preparation for Thesis.

CONTENT
Preparing the basis for the thesis to be undertaken in the next semester. Training in collection, critical analysis and presenting of information in a logical sequence. To promote critical thinking and the ability of adding to theory, that can aid design applications in landscape architecture. Topics related to various aspects of Landscape Architecture could be chosen in consultation with faculty members, comprehensively researched and findings presented. The progress of work will be reviewed periodically throughout the semester.

The materials would be documented/collated and formally presented as final submission for Pre-Thesis in the form of a Pre-Thesis report. The report will be presented in the viva-voce exam and defended. The Pre-Thesis report will form the basis to begin the Thesis project.

TOTAL: 90 PERIODS

OUTCOME
- Ability to research on a chosen topic.
- Expertise in collecting, processing and presenting relevant information.
- Depth of knowledge in a particular area that would give a base to start the Thesis project.

REFERENCES

LN5322 REGIONAL LANDSCAPE PLANNING STUDIO

OBJECTIVE
- The objective of this course is to train students in advanced landscape design involving complex situations that require handling of multiple information and contexts.
CONTENT
Dealing with larger regional issues in planning and design. Understanding and responding to the influence of physiographic and anthropometric factors in planning and design. Understanding of ecologically sustainable development would be the underlying theme.

OUTCOME
- Ability to develop ecologically sustainable design.

REFERENCES

LN5323 INTERNSHIP TRAINING

OBJECTIVES
- To help the students to have direct understanding of the practice of landscape architecture.
- To help the students to formally and informally interact with the officials engaged in landscape architecture to enhance employability of the students.

CONTENT
The students shall undertake the Internship Training, in an Organization engaged in activities relating to Landscape Architecture for a period of 4 weeks. The Internship Training expected to make familiar the practical demands and complexities of the profession of Landscape Architecture. It is also aimed at providing the necessary acumen and knowledge to enable them to become employable by any Landscape Architect and further to motivate them to start their practice. Alternatively, the Internship Training can also be in any research organisation/ university, etc., where the knowledge of Landscape Architecture is crucial. This could help the students direct a career in research too. The students may also utilise the Internship Training to strengthen their ability to do Thesis in the subsequent semester. The students are expected to complete the Internship Training in the Summer Vacation between second and third semesters, before the commencement of the third semester, and enroll for the course in the third semester. The students shall submit an Internship Training Report, on or before the last working day of the third semester. The students shall be evaluated on the basis of the Report submitted, through a Viva-Voce Examination, as part of the End Semester Examinations of the third semester.

OUTCOME
- Enrichment in their theoretical understanding of Landscape Architecture and better preparedness of the students for employment in the Landscape Architecture Profession or to pursue independent research in allied fields.
OBJECTIVES

- To give training to the students to work individually on landscape design projects.

CONTENT

Thesis will be an individual project dealing with complex problems of landscape architecture including site planning and landscape planning and seeks to develop concepts of landscape design as an interactive process of natural and man-made environment.

TOTAL: 360 PERIODS

OUTCOME

- Ability to handle a major landscape design project independently.

REFERENCES


ELECTIVE I

LN5001 SUSTAINABILITY AND ENERGY CONSERVATION IN LANDSCAPE ARCHITECTURE.

OBJECTIVES:

- To expose the students on the issues of sustainability at the global level.
- To give knowledge about energy conservation landscape and sustainability at the micro level.
- To learn about Sustainable landscape design for various climates of India.

UNIT I  INTRODUCTION TO SUSTAINABILITY


UNIT II  SUSTAINABLE SITE

Sustainable site – LEEDS, BREAM, rating erosion and sedimentation control, site selection, urban development, landscape and exterior design etc., Green Building in the context of sustainability. Ecology and sustainability. Eco-City.

UNIT III  INTRODUCTION TO ENERGY CONSERVATION IN LANDSCAPE

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

UNIT IV  ENERGY CONSERVATION METHODS IN LANDSCAPE ARCHITECTURE-CASE STUDIES

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.
UNIT V  SUSTAINABLE LANDSCAPE PRACTICES
Sustainable landscape maintenance and management, Sustainable planning and city form. Sustainable urban landscape, landscape sustainability at the national and regional level.

TOTAL: 45 PERIODS

OUTCOME
- Understanding of sustainability from macro to micro level.
- Knowledge on energy conscious Landscape design

REFERENCES
- Publications of Centre for Science and Environments, TERI, New Delhi.

LN5002  ENVIRONMENTAL PLANNING AND LEGISLATION  L T P/S C
3 0 0 3

OBJECTIVES:
- To introduce to the students, basic concepts of environmental planning and legislation.
- To enable learning about tools and methods of E.I.A.

UNIT I  COMPONENTS OF ENVIRONMENT
Environmental sciences, Environment – definition, important components, quality of total environment.

UNIT II  HUMAN IMPACT ON ECOSYSTEMS

UNIT III  ENVIRONMENTAL LEGISLATION

UNIT IV  CONSERVATION AND PRESERVATION
Legislation relating to preservation of parks, open spaces, playgrounds, trees and ancient monuments. Legislation related to air, water, Land pollution prevention

UNIT V  ENVIRONMENTAL IMPACT ASSESSMENT
Environmental impact assessment – definitions, methodologies, techniques, advantages and disadvantages. Process – data collection, identification of study area, scope, aim, environmental standards and their measurement. EIA in India, legislation related to EIA, EIA in developed and developing countries

TOTAL: 45 PERIODS
OUTCOME
• An understanding of the basics of Environmental planning and legislation.
• Knowledge about E.I.A.

REFERENCES:

LN5003 LANDSCAPE RESOURCES L T P/S C
3 0 0 3

OBJECTIVES:
• To give understanding of the different types of Landscape resources, the threats they are facing and the different means of conservation.
• To enable application of the different techniques for regional planning.

UNIT I SETTLEMENTS AND LANDSCAPE 6
Siting and evolution of cities in relation to regional landscape resources. The role of landform, water systems, climate and vegetation. Illustrative studies of cities in India and elsewhere.

UNIT II LANDSCAPE RESOURCES 9
Landscape resources specific to distinctive city types: for example: religious centers, historic cities, coastal or port cities, hill station etc. The urban forest: Its ecological social and environmental dimensions. Ways of studying urban vegetation. Its role in the urban landscape.

UNIT III RESOURCES AT THE NATIONAL LEVEL 12
Overview of landscape resources at the national level. National Environment Policy. Developmental and Environmental issues associated with particular landscape regions: mountain and hill areas; deserts and wastelands; river and aquatic systems, coastal and estuarine regions, etc.

UNIT IV THREATS TO URBAN LANDSCAPE RESOURCES 9
Threats to urban landscape resources; urban environmental issues such as solid waste management, air quality, conservation of water resources and vegetation cover. The rural landscape, the impact of industry and power generation. Agricultural practices and the formation of traditional rural landscape. Illustrative examples from different climatic and geographic regions.

UNIT V POLICIES AND DEVELOPMENT CONTROLS 9
Introduction to Forest Policy and management of forest resources. Conservation Forestry, Agro-Forestry and Social Forestry. Significance of biodiversity, urban biodiversity, and wildlife conservation. City development Plans, Zonal Plans and structure plan. Development controls and their role in the conservation and creation of urban landscape.

TOTAL 45 PERIODS

OUTCOMES
• Understanding of resource management from macro to micro level.

REFERENCES

**ELECTIVE 2**

**LN5004 UNIVERSAL DESIGN**

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**OBJECTIVES:**

- To give understanding about the importance of design that is User-Aware.
- To give knowledge on how to design services and environments to include as many people as possible.
- To enable learning about design tools and strategies to minimise the difficulties of adaptation to particular users.

**UNIT I BACKGROUND**

Importance and significance. Difficulties and challenges faced by differently abled people in accessing and using open spaces. Definition and basic pretexts

**UNIT II STATUTES OF UNIVERSAL DESIGN**

International and national Laws, guidelines and best practices about universal design. Standards, statutes and other considerations.

**UNIT III UNIVERSAL DESIGN AT MICRO LEVEL**

Universal design of open spaces at site scale. Design of furniture, paving, signage and other hard landscape elements with reference to universal design. Plating design, Design of water elements and other soft landscape elements with reference to universal design

**UNIT IV UNIVERSAL DESIGN AT MACRO LEVEL**

Design of transportation and other public facilities at urban and regional scales as per the requirements of universal design. Removal of social seclusion and stigma through design of public places.

**UNIT V CASE STUDIES**

International, national and local case studies of projects which have been designed based on universal design principles.

**OUTCOMES:**

- Knowledge and skill about designing universally accessible open spaces.
- Sensibility to challenges faced by differently abled people.

**REFERENCES:**

OBJECTIVES:

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

UNIT I  EASTERN TRADITIONS AND ISLAMIC LANDSCAPES  15

UNIT II  RENNAISSANCE AND THE EVOLUTION OF NEW THOUGHTS  6

UNIT III  THE EVOLUTION OF THE MODERN LANDSCAPE  9
Industrialization and urbanization. Impact 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

OUTCOME

- Understanding of the relationship between culture and Landscape design.
- Perceptive knowledge of open spaces in different cultures

REFERENCES

LN5006

LANDSCAPE GRAPHICS

OBJECTIVES:

- To expose the students about the various techniques of presenting landscape design drawings.
- To train the students in preparing design portfolios

UNIT I  GRAPHIC LANGUAGE AND DESIGN PROCESS

Drawings used for design communication – Concept, Scheme, Drawing and free hand Sketches. Exercises using their own designs. Use of pen, pencil and other media.

UNIT II  LANDSCAPE ELEMENTS AND THEIR REPRESENTATION

Representation using various media in 2 Dimension of Trees, shrubs, groundcovers, pathways, pavements, water bodies, fountains, and other elements of Landscape. Exercises can be to observe and sketch various elements.

UNIT III  FREE HAND DRAWING AND PAINTING

Landscape views and sketches, representing landscape ideas in 3 D form. Exercises can be in the form of sketching existing landscapes as well as creating views for their designs.

UNIT IV  LANDSCAPE MODELS

Use of modeling as a graphic tool to express landscape design concepts. Manual models using different materials like soap, Hard Board, Clay, Cork sheet and waste materials.

UNIT V  USE OF COMPUTERS IN GRAPHICS

Terrain modeling using various softwares. (3 D S MAX, Sketchup, Arch-view). Visualization and realistic imaging- creating 3D views and Animation using software.

TOTAL: 45 PERIODS

OUTCOMES:

- Knowledge and skill about preparing landscape design portfolios.

REFERENCES:

- Ian Bishop and Eckart Lange, ‘Visualization in Landscape and Environmental Planning’, Taylor and Francis, 2005
- Websites: 1.www.sketchup.google.com
ELECTIVE 3

LN5007 LANDSCAPE ASSESSMENT

OBJECTIVES:
- To give understanding about the different types Landscape Assessment techniques and methodologies
- To give understanding about the application of landscape assessment in planning.

UNIT I INTRODUCTION TO LANDSCAPE ASSESSMENT
Introduction to the concept of Landscape Assessment. Importance in today’s scenario. Development of the field and formative theories.

UNIT II ASSESSMENT TECHNIQUES

UNIT III MODELS IN LANDSCAPE ASSESSMENT

UNIT IV APPLICATION IN LANDSCAPE PLANNING
The application of landscape assessment to evolve effective landscape planning measures. Strategies and methodologies for compilation and presentation of the landscape assessment for dissemination and use in landscape planning.

UNIT V CASE STUDIES
Case studies of projects in which landscape assessment have been conducted and has been applied to formulate master plans.

TOTAL: 45 PERIODS

OUTCOME
- Understanding of Landscape Planning and Landscape Conservation with proper assessment results and cost benefit analysis.
- Knowledge about landscape assessment.

REFERENCES:

LN5008 LANDSCAPE URBANISM

OBJECTIVE:
- To introduce the theory of planning known as landscape urbanism.
- To give understanding about the applications of the theory in landscape planning and city planning.
UNIT I BACK GROUND
The basis of the theory of landscape urbanism. Concepts about the emergence of the theory. Background and formulation of basic tenets. Landscape planners who advocated the theory.

UNIT II PRINCIPLES OF LANDSCAPE URBANISM
New Urbanism, Green urbanism, from critical regionalism to critical pragmatism. Theories of landscape and city planning that led to Landscape urbanism. Role of theory in landscape urbanism. Strategies, tools and limitations of the theory.

UNIT III LANDSCAPE URBANISM-PLANNING

UNIT IV SUSTAINABLE AND ECOLOGICAL URBANISM

UNIT V ASIAN LANDSCAPE URBANISM

TOTAL: 45 PERIODS

OUTCOME
• Knowledge about landscape urbanism.
• Understanding of the application of theory in landscape planning.

REFERENCES
• Mohsen Mostafavi, Gareth Doherty (eds.),‘Ecological Urbanism’, Harvard University Graduate school of Design, Lars Muller, 2016.
UNIT II ELEMENTS OF CULTURAL LANDSCAPE
Reading and assessing the elements of a cultural landscape/ region with reference to various parameters such as political, physical, natural, linguistic etc. Describing the components- tangible and the intangible. Traditions, crafts, vernacular heritage and their contributions.

UNIT III ASSESSMENT OF CULTURAL LANDSCAPES
Methods for identification, assessment, mapping and recording of cultural landscapes.

UNIT IV LANDSCAPE CONSERVATION
Landscape Conservation: Policies and Programs. Objectives, methodologies and the process.

UNIT V CASE STUDIES
case studies of conservation /preservation of cultural landscapes.

TOTAL: 45 PERIODS

OUTCOME
• Understanding about the importance of cultural landscape. Recognizing cultural landscapes.
• Learning about Landscape Conservation importance, methods and the process.

REFERENCES
• Laura Verdelli and Danielle Pini, ‘Planning and management of urban and landscape heritage’, Bononia University Press, bologna, Italy, 2012.

ELECTIVE 4

LN5010 LANDSCAPE MANAGEMENT

OBJECTIVES
• To introduce the students to aspects of management of Landscape. Landscape project management at site level and management of natural resources for regional landscapes.
• To enable learning about the various techniques for management and valuation of natural resources.

UNIT I INTRODUCTION

UNIT II ENVIRONMENTAL ECONOMICS IN LANDSCAPE
UNIT III MANAGEMENT OF NATURAL RESOURCES

Landscape management at the regional scale in relation to soil conservation. Resource management - water management, forest management, grassland and agricultural management. Management practice related to urban ecology and urban habitats such as urban forests, urban water sheds, regional parks, green belts. Ecological. Economic and administrative issues,

UNIT IV MANAGEMENT MODELS

Models used for sustainable management of landscapes.

UNIT V LANDSCAPE PROJECT MANAGEMENT

Identification and protection of conservation areas at site level. Methodologies of protection of sensitive materials and zones within the site. Top soil removal, protection and reapplication during construction. Establishing and maintaining nursery at site for small and large projects. Maintenance and active management of planting areas. Life cycle analysis of projects. PERT and CPM with reference to landscape projects.

TOTAL: 45 PERIODS

OUTCOME

- Knowledge of Landscape Management techniques and valuation of natural resources.
- Familiarity with case studies of Landscape management

REFERENCES:


LN5011 LANDSCAPE ECOLOGY AND PLANNING

OBJECTIVES

- To give understanding that any developmental activity involves intervention in the natural processes and to minimize the impact due to this intervention.
- To outline the evolution of landscape planning, its premises and the process.

UNIT I ECOLOGY


UNIT II LANDSCAPE ECOLOGY

UNIT III LANDSCAPE PLANNING


UNIT IV PROCESS IN LANDSCAPE PLANNING


UNIT V LANDSCAPE PLANNING - CASE STUDIES

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

OUTCOME

- Knowledge about basics of Ecology and Landscape Ecology.
- Familiarity with landscape planning history, evolution, process and case studies.
- Knowledge about legislation concerned with the environment and EIA

REFERENCES:


LN5012 PROFESSIONAL PRACTICE OF LANDSCAPE ARCHITECTURE

OBJECTIVE

- To educate the students on the various aspects of a Landscape design practice.

UNIT I THE PROFESSION OF LANDSCAPE ARCHITECTURE

Brief history of profession, Professional career tracks, Registration and License, professional ethics and code of professional conduct.

UNIT II PRINCIPLES OF PROFESSIONAL PRACTICE

The client- different kinds of clients and projects, general concept for engaging the services of landscape architect. The extent and variety of services performed by landscape architect, terms and conditions.
UNIT III PROFESSIONAL RELATIONSHIPS
Interface with other consultants and contracting agencies. Prime consulting, Multiple direct-consulting, Sub consulting relationships. Relationship between the Landscape architect and Clients, Allied professional, contractor, General public.

UNIT IV PROFESSIONAL APPROACH

UNIT V PROJECT MANAGEMENT
Planning, and organizing the project. PERT and CPM. Project supervision, coordination between different agencies, monitoring a project during execution and preparation of site reports.

TOTAL: 45 PERIODS

OUTCOMES
- Knowledge about landscape consultancy practice.
- Understanding about the code of conduct
- Understanding of the process and role of an architect in project execution.

REFERENCES
AUDIT COURSES (AC)

AX5091 ENGLISH FOR RESEARCH PAPER WRITING L T P C 2 0 0 0

OBJECTIVES
- Teach how to improve writing skills and level of readability
- Tell about what to write in each section
- Summarize the skills needed when writing a Title
- Infer the skills needed when writing the Conclusion
- Ensure the quality of paper at very first-time submission

UNIT I   INTRODUCTION TO RESEARCH PAPER WRITING  6
Planning and Preparation, Word Order, Breaking up long sentences, Structuring Paragraphs and Sentences, Being Concise and Removing Redundancy, Avoiding Ambiguity and Vagueness

UNIT II  PRESENTATION SKILLS  6

UNIT III TITLE WRITING SKILLS  6
Key skills are needed when writing a Title, key skills are needed when writing an Abstract, key skills are needed when writing an Introduction, skills needed when writing a Review of the Literature, Methods, Results, Discussion, Conclusions, The Final Check

UNIT IV RESULT WRITING SKILLS  6
Skills are needed when writing the Methods, skills needed when writing the Results, skills are needed when writing the Discussion, skills are needed when writing the Conclusions

UNIT V VERIFICATION SKILLS  6
Useful phrases, checking Plagiarism, how to ensure paper is as good as it could possibly be the first-time submission

TOTAL: 30 PERIODS

OUTCOMES
CO1 – Understand that how to improve your writing skills and level of readability
CO2 – Learn about what to write in each section
CO3 – Understand the skills needed when writing a Title
CO4 – Understand the skills needed when writing the Conclusion
CO5 – Ensure the good quality of paper at very first-time submission

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REFERENCES
OBJECTIVES

- Summarize basics of disaster
- Explain a critical understanding of key concepts in disaster risk reduction and humanitarian response.
- Illustrate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
- Describe an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
- Develop the strengths and weaknesses of disaster management approaches

UNIT I  INTRODUCTION
Disaster: Definition, Factors and Significance; Difference between Hazard And Disaster; Natural and Manmade Disasters: Difference, Nature, Types and Magnitude.

UNIT II  REPERCUSSIONS OF DISASTERS AND HAZARDS

UNIT III  DISASTER PRONE AREAS IN INDIA
Study of Seismic Zones; Areas Prone To Floods and Droughts, Landslides And Avalanches; Areas Prone To Cyclonic and Coastal Hazards with Special Reference To Tsunami; Post-Disaster Diseases and Epidemics.

UNIT IV  DISASTER PREPAREDNESS AND MANAGEMENT
Preparedness: Monitoring Of Phenomena Triggering a Disaster or Hazard; Evaluation of Risk: Application of Remote Sensing, Data from Meteorological And Other Agencies, Media Reports: Governmental and Community Preparedness.

UNIT V  RISK ASSESSMENT

TOTAL: 30 PERIODS

OUTCOMES

- CO1: Ability to summarize basics of disaster
- CO2: Ability to explain a critical understanding of key concepts in disaster risk reduction and humanitarian response.
- CO3: Ability to illustrate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
- CO4: Ability to describe an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
- CO5: Ability to develop the strengths and weaknesses of disaster management approaches

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AX5093 SANSKRIT FOR TECHNICAL KNOWLEDGE

OBJECTIVES
- Illustrate the basic sanskrit language.
- Recognize sanskrit, the scientific language in the world.
- Appraise learning of sanskrit to improve brain functioning.
- Relate sanskrit to develop the logic in mathematics, science & other subjects enhancing the memory power.
- Extract huge knowledge from ancient literature.

UNIT I ALPHABETS
Alphabets in Sanskrit

UNIT II TENSES AND SENTENCES
Past/Present/Future Tense - Simple Sentences

UNIT III ORDER AND ROOTS
Order - Introduction of roots

UNIT IV SANSKRIT LITERATURE
Technical information about Sanskrit Literature

UNIT V TECHNICAL CONCEPTS OF ENGINEERING
Technical concepts of Engineering-Electrical, Mechanical, Architecture, Mathematics

TOTAL: 30 PERIODS

OUTCOMES
- CO1 - Understanding basic Sanskrit language.
- CO2 - Write sentences.
- CO3 - Know the order and roots of Sanskrit.
- CO4 - Know about technical information about Sanskrit literature.
- CO5 - Understand the technical concepts of Engineering.

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REFERENCES
1. “Abhyaspustakam” – Dr. Vishwas, Samskrita-Bharti Publication, New Delhi
2. “Teach Yourself Sanskrit” Prathama Deeksha-Vempati Kutumbbhastri, Rashtriya Sanskrit Sansthanam, New Delhi Publication

AX5094

VALUE EDUCATION

OBJECTIVES
Students will be able to
- Understand value of education and self-development
- Imbibe good values in students
- Let the should know about the importance of character

UNIT I

UNIT II

UNIT III

UNIT IV

TOTAL: 30 PERIODS

OUTCOMES
Students will be able to
- Knowledge of self-development.
- Learn the importance of Human values.
- Developing the overall personality.

Suggested reading
OBJECTIVES
Students will be able to:
- Understand the premises informing the twin themes of liberty and freedom from a civil rights perspective.
- To address the growth of Indian opinion regarding modern Indian intellectuals’ constitutional
- Role and entitlement to civil and economic rights as well as the emergence nationhood in the early years of Indian nationalism.
- To address the role of socialism in India after the commencement of the Bolshevik Revolutionin1917 and its impact on the initial drafting of the Indian Constitution.

UNIT I  HISTORY OF MAKING OF THE INDIAN CONSTITUTION
History, Drafting Committee, (Composition & Working)

UNIT II  PHILOSOPHY OF THE INDIAN CONSTITUTION
Preamble, Salient Features

UNIT III  CONTOURS OF CONSTITUTIONAL RIGHTS AND DUTIES

UNIT IV  ORGANS OF GOVERNANCE
Parliament, Composition, Qualifications and Disqualifications, Powers and Functions, Executive, President, Governor, Council of Ministers, Judiciary, Appointment and Transfer of Judges, Qualifications, Powers and Functions.

UNIT V  LOCAL ADMINISTRATION

UNIT VI  ELECTION COMMISSION
Election Commission: Role and Functioning. Chief Election Commissioner and Election Commissioners - Institute and Bodies for the welfare of SC/ST/OBC and women.

TOTAL: 30 PERIODS

OUTCOMES
Students will be able to:
- Discuss the growth of the demand for civil rights in India for the bulk of Indians before the arrival of Gandhi in Indian politics.
- Discuss the intellectual origins of the framework of argument that informed the conceptualization of social reforms leading to revolution in India.
- Discuss the circumstances surrounding the foundation of the Congress Socialist Party[CSP] under the leadership of Jawaharlal Nehru and the eventual failure of the proposal of direct elections through adult suffrage in the Indian Constitution.
- Discuss the passage of the Hindu Code Bill of 1956.

Suggested reading
1. The Constitution of India, 1950(Bare Act),Government Publication.
OBJECTIVES
Students will be able to:
- Review existing evidence on there view topic to inform programme design and policy
- Making under taken by the DfID, other agencies and researchers.
- Identify critical evidence gaps to guide the development.

UNIT I INTRODUCTION AND METHODOLOGY
Aims and rationale, Policy background, Conceptual framework and terminology - Theories of learning, Curriculum, Teacher education - Conceptual framework, Research questions - Overview of methodology and Searching.

UNIT II THEMATIC OVERVIEW
Pedagogical practices are being used by teachers in formal and informal classrooms in developing countries - Curriculum, Teacher education.

UNIT III EVIDENCE ON THE EFFECTIVENESS OF PEDAGOGICAL PRACTICES
Methodology for the in depth stage: quality assessment of included studies - How can teacher education (curriculum and practicum) and the school curriculum and guidance materials best support effective pedagogy? - Theory of change - Strength and nature of the body of evidence for effective pedagogical practices - Pedagogic theory and pedagogical approaches - Teachers’ attitudes and beliefs and Pedagogic strategies.

UNIT IV PROFESSIONAL DEVELOPMENT
Professional development: alignment with classroom practices and follow up support - Peer support - Support from the head teacher and the community - Curriculum and assessment - Barriers to learning: limited resources and large class sizes.

UNIT V RESEARCH GAPS AND FUTURE DIRECTIONS
Research design – Contexts – Pedagogy - Teacher education - Curriculum and assessment - Dissemination and research impact.

TOTAL: 30 PERIODS

OUTCOMES
Students will be able to understand
- What pedagogical practices are being used by teachers informal and informal classrooms in developing countries?
- What is the evidence on the effectiveness of these pedagogical practices, in what conditions, and with what population of learners?
- How can teacher education (curriculum and practicum) and the school curriculum and guidance materials best support effective pedagogy?

Suggested reading
AX5097  
STRESS MANAGEMENT BY YOGA

OBJECTIVES
- To achieve overall health of body and mind
- To overcome stress

UNIT I
Definitions of Eight parts of yoga.(Ashtanga)

UNIT II
Yam and Niyam - Do’s and Don’t’s in life - i) Ahinsa, satya, astheya, bramhacharya and aparigraha, ii) Ahinsa, satya, astheya, bramhacharya and aparigraha.

UNIT III
Asan and Pranayam - Various yog poses and their benefits for mind & body - Regularization of breathing techniques and its effects-Types of pranayam

TOTAL: 30 PERIODS

OUTCOMES
Students will be able to
- Develop healthy mind in a healthy body thus improving social health also
- Improve efficiency

SUGGESTED READING
1. ‘Yogic Asanas for Group Tarining-Part-I”-Janardan Swami Yoga bhyasi Mandal, Nagpur
2. “Rajayoga or conquering the Internal Nature” by Swami Vivekananda, Advaita Ashrama (Publication Department), Kolkata

AX5098  
PERSONALITY DEVELOPMENT THROUGH LIFE ENLIGHTENMENT SKILLS

OBJECTIVES
- To learn to achieve the highest goal happily
- To become a person with stable mind, pleasing personality and determination
- To awaken wisdom in students

UNIT I
Neetisatakam-holistic development of personality - Verses- 19,20,21,22 (wisdom) - Verses- 29,31,32 (pride & heroism) – Verses- 26,28,63,65 (virtue) - Verses- 52,53,59 (dont’s) - Verses- 71,73,75,78 (do’s)

UNIT II
Approach to day to day work and duties - Shrimad Bhagwad Geeta: Chapter 2-Verses 41, 47,48 - Chapter 3-Verses 13, 21, 27, 35 Chapter 6-Verses 5,13,17,23, 35 - Chapter 18-Verses 45, 46, 48.
UNIT III
Statements of basic knowledge - Shrimad Bhagwad Geeta: Chapter2-Verses 56, 62, 68 Chapter 12 - Verses 13, 14, 15, 16, 17, 18 - Personality of role model - shrimad bhagwad geeta - Chapter2-Verses 17, Chapter 3-Verses 36, 37, 42 - Chapter 4-Verses 18, 38, 39 Chapter 18 – Verses 37, 38, 63

TOTAL: 30 PERIODS

OUTCOMES
Students will be able to

• Study of Shrimad-Bhagwad-Geeta will help the student in developing his personality and achieve the highest goal in life
• The person who has studied Geeta will lead the nation and mankind to peace and prosperity
• Study of Neet is hatakam will help in developing versatile personality of students.

Suggested reading
1. Gopinath, Rashtriya Sanskrit Sansthanam P, Bhartrihari’s Three Satakam, Niti-sringar-vairagya, New Delhi, 2010