Syllabus and COs
for
B.Voc (Landscape Design)

DEEN DAYAL UPADHYAY KAUSHAL KENDRA, DAVV, INDORE

B.Voc (Landscape Design)

SEMESTER I

BVC-LD 11: Business Communication (English)

Course Outcomes:

CO 1: The student will be able to comprehend the importance of verbal and non-verbal communication and also apply the basic principles to communicate effectively.

Unit I : Understanding the basic structure used in English Language for formation and comparing it with that of our primary language, understanding and identifying 'Sense of Sentence', identifying and defining 'Subject' and 'Verb', Concept of Verbs and Verb Forms.

Unit II: Structures of Present, Past, Continuous and Future Sentence formation with First, Second and Third forms of Verbs, learning usage of Helping Verbs like Has, Have and Had, do, does, did, will, shall etc., knowing Subject-Verb Agreement principles, knowing 'Subject Modifiers' and their usage in sentence formation.

Unit III : Structures of Sense of Being (SoB) sentences, and for 'Sense of Possession (SoP)', knowing the type of sentences, usage of helping verbs like 'is/am/are/was/were' etc as Main Verbs for Present, Past, Continuous and Future times senses.

Unit IV: Sentence Structures using 'THERE' and 'IT', constructing sentences denoting the 'Location' of the subject with 'THERE', handling 'identified' and 'unidentified' Subjects, constructing sentences with 'IT' where 'Active Subject' is not available.

Unit V: Understanding 'Sense' of Grammar in special reference to Primary Language, usage of Pronoun, Articles and Prepositions.

Unit VI: Sentence constructions using 'Modals' like can, could, should, must, have to, will be able to, should have, must have etc.

Unit VII: Communication and English Lab Sessions to reinforce and enhance the effectiveness of Classroom Session.
Section A: These sessions to cover Verb and Verb Form vocabulary, Word vocabulary, 'Group of Words' vocabulary, Grammar aspects.
Section B: Elementary Reading, Listening and Writing skills practice and 'Trade Specific Vocabulary building.

Text & Reference Books:

1. Expressions, A language Lbas for English, C. Sumant, Publisher : 'iGrowth'.
2. SuperFast English and Instant English , Abdul Salam Chaus, Publisher : Salaam Chaus, Jafar Nagar, Masjid Complex, 110, Jafar Nagar, Nagpur.
3. How to Translate into English, Prof. Rajendra Prasad Sinha, Bharti Bhawan, 4271/3, Ansari Road, Dariya Ganj, New Delhi

BVC-LD 12: Basic Computer Application

Course Outcomes:

CO 1: To promote professional excellence in the area of Cargo Logistics Management towards National Prosperity through Sustainable Development.

Unit I: Fundamentals of Computers: Identification of various hardware components of a computer system, Architecture and types of Computers. Hardware- Input, Output, Processing, Storage and Networking devices with their working principals. Software - System and Application Software. Computer Languages - Generation of Languages and their Features. Introduction to Information Technology- Data, Information, role of Information System in organization, computer based Information System, latest trends and challenges of information Systems, Information System applications in Air cargo, water Cargo, road and railway cargo, use of RFID and GPS.

Unit II: Familiarization of various Operating Systems: WINDOWS: Basic Operations, Utilities and Features (Explorer to manage files). UNIX/LINUX: Introduction, Features and Basic Commands, introduction to mobile operating system – ANDROID and mobile applications. Fundamentals of Networking - types of networks (LAN, WAN, MAN), Network topologies, and Components of Computer Network -Server, Workstation, NIC, Hubs, Switchers, Cables etc. Internet and its use in business – e-commerce, business communication, sending documents, E-mail, www, Searching, Uploading and Downloading from Internet, Hardware and Software requirement of Internet, Search Engines, Browser, Video conferencing. Introduction to mobile communication and mobile computing**,** Computer Virus, Trojan horse and Worms and their Prevention.

Unit III: Application Software (Open Office Automation Software):

*Word Processing Software***-** Word Processing Basics, spell check and grammar, Formatting Text and Documents, Headers, Footers, Tables, Working with Graphics, Templates, printing documents, advance report formatting, Introduction to Mail Merge

Presentation Software - Presentation software Basics, Creating Presentation, slide layouts, working with Text, Graphics, pictures, audio and video in presentation, Slide transition, Custom animation, managing slide shows.

Unit IV: Spreadsheet Software: Working with cell and cell Addresses, Inserting and Deleting Cells, rows and columns, cell ranges, Formatting and styles, entering formula, inbuilt simple Functions, Working with multiple sheets, Visual presentation of data using charts, adding Graphics, Table format, sorting and filtering data, Auto fill.

Unit V: Advance Features of Spreadsheet Software – logical and text functions, Validation, Conditional formatting, Editing charts, Using Worksheet as Databases, Subtotals, Goal Seek, Solver, Pivot tables, Protection of workbooks, managing large spreadsheets. Case Study: Role of Information Technology for Supply Chain Management. Case Study: Role of internet in logistics and Supply chain management.

Text & Reference Books:

1. Antony Thomas. Information Technology for Office. Pratibha Publications.
2. Gini Courter & Annette Marquis. Ms-Office 2007: BPB Publications.
3. Leon A & Leon M, Introduction to Computers, Vikas Publication.

4. Leon, Fundamentals of Information Technology, Vikas Publication.
5. Kakkar D.N., Goyal R, Computer Applications in Management, New Age.
6. Lucas, Henry C., Information Technology for Management, New Delhi, Tata McGraw-Hill.
7. P.K. Sinha, Computer Fundamentals, New Delhi, BPB Publications Christian Crumlish, ABCs of the Internet, New Delhi, BPB Publications.
8. Das, Sumitabha, Unix Concepts and Applications, New Delhi, Tata McGraw Hill Pub. Co. Ltd.

BVC- LD 13: Landscape Material and Construction Technology-I

Course Outcomes:

CO 1: Students will be able to differentiate the mechanism involved in plant physiology and growth
CO 2: Modify techniques and materials to demonstrate and understanding of the conceptual and technical aspects of landscape systems, landform, material in landscape architecture, in relation to other diverse practice modes
CO 3: The ability to use resources, materials and technologies to develop responsible and ecologically sound and novel design solution

Unit I: Tools and techniques used for gardening.

Unit II: basic botany their planting and plotting techniques, and their their maintenance (uses of pesticide types etc.), study of plants – their morphology and anatomy.

Unit III: free standing walls, screen walls used in gardens.

Unit IV: Types of Boundary walls/fences/screening.

Unit V: copings, capping and introduction of bonds.

Sessional Work- Assignments sheets should be followed by practical example sheets.

BVC-LD 14: History of Landscape Design

Course Outcomes:

CO 1: Knowledge of landscape architectural history and theory and critical skills to interpret historic ideas, environmental movements and contemporary trends

Unit I: Man, Nature & the process of transforming Landscape.

Unit II: Development of landscape design & garden till the early 19th century.

Unit III: Ancient- Egypt, Rome.

Unit IV: Western - Europe, Italy, France, England, Middle East- Persian garden.

Unit V: Medieval period in India- Mughal & Rajput Landscape. Detail of all-

Ancient trees, shrubs (all types of vegetation, species etc) & transformation.

Sessional Work – Students Should be submitted in the form of report, power point, journals etc.

BVC-LD 15: Basic Gardening Design

Course Outcomes:

CO 1: Students will learn to design a landscape project from residential small project to large public projects
CO 2: The ability to develop design strategies that contribute to the improvement of our built and natural environments

Unit I: basic free hand lines, circles, composition of shapes

Unit II: aesthetic components of design – symmetry, rhythm, etc. Exploration of basic principles proportion, scale, balance, relationship between art and design

Unit III: color theory, basic introduction of drawings and their symbols

Unit IV: one point and two point perspective

Unit V: small exercise for design like play area, canteen design etc

Sessional Work – work should be submitted in a2 size sheets, practical examples sheets for every details.

SEMESTER II

BVC-LD 21: Computer Aided Design

Course Outcomes:

CO 1: To teach users the basic commands and tools necessary for designing and drafting drawings.

Unit I: Introduction of cad- Limits, units, coordinate, osnap, open, save, exit, new file, zoom, ortho, print.

Unit II: Draw and edit commands-line, circle, ellipse, rectangle, polygon, copy, move, erase, offset, scale, rotate, array, trim, fillet, layer, text etc.

Unit III: Dimension, block and hatch-Liner, angular, base line, continue, radius, diameter, canter mark all type of dimension, insert block, and hatch

Unit IV: 3d modelling- box, cylinder, sphere, cube, etc. extrude, viewport, UCS, object editing etc.

Unit V: Rendering-Light, camera, material, render.

BVC-LD 22: Planting Design

Course Outcomes:

CO 1: Student will able to understand the role of plant material for the improvement of the environment in all aspects.

Unit I: Natural design characteristics of plant material and factors influencing choice of plant material for specific design application.

Unit II: Plant section from ecological, hydrology, aesthetic, symbolic and functional point of view.

Unit III: Planting for urban and rural roads, paths and open spaces, internal courtyards, selection of plants for inside and outside of residence etc.

Unit IV: Planting for wildlife, land rehabitation, plants growing in and around water bodies.

Unit V: Introduction of bio-aesthetic, planting ability to produce accurate and professional quality planting plans.

Sessional Work - should be in the form of journal, sketches and supportive material more emphasis should be given on practical examples on all the topics mentioned above.

BVC- LD 23: Landscape Material and Construction Technology-II

Course Outcomes:

CO 1: Students will be able to differentiate the mechanism involved in plant physiology and growth
CO 2: Modify techniques and materials to demonstrate and understanding of the conceptual and technical aspects of landscape systems, landform, material in landscape architecture, in relation to other diverse practice modes
CO 3: The ability to use resources, materials and technologies to develop responsible and ecologically sound and novel design solution

Unit I: Different types of vehicular paving and pedestrian paving and their construction details.

Unit II: land terrain- contours, grading, cut and fill method, topography survey (technical drawing).

Unit III: Detail study of Curbs, Edges, joints, steps and ramps.

Unit IV: Construction details of Gates, stiles and walls.

Unit V: Landscape material includes all the materials which are used in the above topics for ex-bricks, metal, wood, cement etc.

Sessional Work - All the construction details should be submitted in the form of A2 size sheets and theory in the form of journals and other supportive materials.

BVC-LD 24: Environmental Studies

Course Outcomes:

CO 1: The students should be aware of environmental factors and systems so as to understand and maintain echo friendly environment.

Unit I: Environment meaning, structure and type of environment, components of environment, society and resources. Man environment relationship: Approach to study man interaction with environment (historical to present day)

Unit II: Environmental degradation: Meaning of degradation, types of degradation, process of degradation, cause of degradation, Religious and philosophical factors, deforestation, agricultural development and degradation, population growth and degradation, urbanization and degradation, modern technology and degradation.

Unit III: Ecology: Definition of ecology and ecosystem. Types of ecosystem, components of ecosystem, functions of ecosystem, productivity and stability of ecosystem.
Environmental disasters: Meaning and concepts, types of hazards and disaster, man induced and natural hazards, global warming, ozone depiction, greenhouse effect and other major environmental problems.

Unit IV: Environmental pollution: Air, water, solid, noise pollution. Meaning, definition, sources, types, adverse effects and methods of control.

Unit V: Environmental planning and management: Concepts, aspects and approaches, resources management, ecological management. Biosphere reserves, management of wild life. Environmental regulation and rules, Vision of Environment by govt. of India, Environmental policy, waste disposal rules and laws and legislation enacted by parliament for environmental protection.

Text Book:

1. Environmental Awareness : Dr. Dhananjoy Verma, Published by : Madhya Pradesh Hindi Granth Academy.

BVC- LD 25: Design Studio -I

Course Outcomes:

CO 1: Students will learn to design a landscape project from residential small project to large public projects.

CO 2: The ability to develop design strategies that contribute to the improvement of our built and natural environments

Contents - The students will be introduced to VERNACULAR landscape design for Residential Garden area, they have to study in depth site analysis, site planning etc

Sessional Work - students will produce and present their work in the form of sheets, reports and Models

SEMESTER III

BVC-LD 31: Life Skills Management

Course Outcomes:

CO 1: Handle Stressful Situations
CO 2: Understand their priorities
CO 3: Cope with different Psychological Problems
CO 4: Find Real Happiness

UNIT I: Basics of Life Skills Management: Understanding Self and Psychological Problems**:** Life Skills Management: Concepts and Applications, Basics of Brain-Structure, Hormones: Role of Hormones in changing mood and emotions, Role of genes, Understanding Memory. Normal Self: Concept of Normality. Characteristics of Healthy Personality, Levels of Personality Dysfunctions, Ways to offset depression. Anxiety: Symptoms and Dealing with anxiety. Managing Anger, and Right attitude towards competition. Understanding the reasons behind OCD and.

Unit II: Managing Habits: Neurology of Habits, Developing Discipline in creating new habits, will-power, Causes of Addictions, Changing destructive habits, Habits of highly effective people. Relaxation Techniques: Meditation, Effects of Meditation. Positive Attitude towards oneself, Equanimity in oneself, Happiness – a state of mind and related techniques.

Unit III: Relationship Management: Emotional Intelligence: Core Domain: Self Awareness, Self-Regulation, Social Awareness and Relationship Management. Relationship Management: Four Criteria for Effective Relationship Management, Competencies in the Relationship Management. Ability to size-up situations, Role of Empathy Basics of Interpersonal Communication: Understanding and Observing Non-Verbal Behavior, Listening skills. Profiling Personal Environments. Understanding the types of Personality & their Motivating-Factors. Concepts of healthy relationships.

Unit IV: Stress Management: Understanding the Physiology of Stress, Symptoms of Stress. Stress and Performance, effects of Stress on Learning, Oversensitivity, Focus and Concentration, Techniques of Stress Management. Concepts of Crisis Management, Dealing with Peer Pressure and Complexes, Assertiveness Training, Avoiding Groupthink, Dealing with distractions.

Unit V: Mental Health and Wellness: Concept of Wellness: Measures to improve Wellness. Sleeping and Mind, Yoga and Exercise, Concepts of Balanced Diet, Importance of Recreational Practice, Role of art in wellness, How imagination shapes our Mind-Set. Wellness Programs for Professionals.

BVC–LD 32: Landscape Services

Course Outcomes:

CO 1: It will help to learn about the basic function to operate the sites like soil, water and drainages etc.

Unit I: Soils- properties of soil, its uses and management, soil degradation control, remedial action and techniques.

Unit II: Hydrology its cycle and sources of surface water, rainfall regime, types of flow channel, water supply sources and different techniques used in gardens.

Unit III: Drainage sources of ground water pollution and its control, types of drainage systems, characteristic and management of drainage basins, drainage system used in landscape sites.

Unit IV: Landscape simulation and site utilities basic planning and understanding of principles, external lighting types of fixtures and their use in varying situation.

Unit V: Street furniture and site furnishing

Sessional Work – All units will follow with practical site examples and survey reports.

BVC-LD 33: Landscape Materials and Construction Technology-III

Course Outcomes:

CO 1: Students will be able to differentiate the mechanism involved in plant physiology and growth.

CO 2: Modify techniques and materials to demonstrate and understanding of the conceptual and technical aspects of landscape systems, landform, material in landscape architecture, in relation to other diverse practice modes.

CO 3: The ability to use resources, materials and technologies to develop responsible and ecologically sound and novel design solution.

Unit I: Construction of retaining walls, edgings of natural & manmade water bodies

Unit II: Construction detail of small landscape structure & street furniture, plant boxes

Unit III: Hardscape materials use in landscape design – seats, lamp post, benches, manmade materials, etc

Unit IV: Construction techniques of water bodies- Ponds, Swimming pools etc

Unit V: Mud, clay, stone, bricks, timber, glass, metals, gravel, pebbles, lime, sand, cement, concrete, RCC, Vitrified tiles / all patterns, Terracotta. Market survey for materials & products

Sessional Work - All the construction details should be submitted in the form of A2 size sheets and theory in the form of journals and other supportive materials.

BVC-LD 34: Landscape Surveying

Course Outcomes:

CO 1: Students will learn the uses of all the instruments and techniques used for site measurements.

Unit I: Introduction and uses of all the instruments used in landscape sites

Unit II: Landscape site survey and appraisal - topographic survey and their methodology, visualizing landforms.

Unit III: Understanding contours and their characteristics, graphical representation, deriving contours interpolation (intro).

Unit IV: Earth form grading- symbolic annotations, basic grading principles, grading terraces, basics of road alignment (horizontal and vertical)

Unit V: Mapping and sensing, remote sensing system, computation of volume, application of remote sensing, satellites imaginaries (all the new techniques used in landscaping sites)

Sessional Work - Students will produce and present their work in the form of sheets and reports showing practical use of all the above method on different landscape sites.

BVC-LD 35: Design Studio –II

Course Outcomes:

CO 1: Students will learn to design a landscape project from residential small project to large public projects.

CO 2: The ability to develop design strategies that contribute to the improvement of our built and natural environments.

CO 3: Students will also learn to develop the technical drawings into the presentation drawing with all the detail of materials through the software of Photoshop.

Unit I: Introduction of different REGIONAL landscape design for small public areas, they have to study in depth site analysis, site planning and new solutions for topics like zoo area, college campus; sites can be taken from different climatic zones like Rajasthan, Shimla etc.

Unit II: Introduction of Photoshop Crop, paint, color, edit, open, save, exit, new file, zoom, text, print, select.

Unit III: Draw and edit commands-Line, circle, ellipse, rectangle, polygon, copy, move, erase, scale, rotate, trim, pen tool etc

Unit IV: Working with layers- Duplicate layer, copy layer, insert layer. Photo retouching Color, resize, edit, color correction, editing etc.

Unit V: Print special effects like -mosaic effect, bridal effect, image in text, change background, black and white, clone effect, passport size, create certificate, exporting your work.

Sessional Work - Students will produce and present their work in the form of sheets, reports and Models.

SEMESTER IV

BVC-LD 41: Energy Efficient Landscape

Objective: To give an opportunity to students to study energy efficient landscapes in detail to enhance its application in landscape design process.

Unit I: Energy Efficiency – meaning and definition. Need for adopting energy efficient landscape design techniques, rating systems, application at various scales (solar energy, wind energy)

Unit II: Passive design strategies, vegetation and microclimate: plants and their impact on environment

Unit III: Water conserving landscape design (xeriscaping), conservation of energy through landscape, human thermal comfort in outdoor spaces, humidity and precipitation modification.

Unit IV: Introduction of energy conservation, green building design, and sustainable gardening

Unit V: Case studies and examples of energy efficient landscapes practices globally and locally

Sessional Work - Should be submitted in the form of A2 size sheets and theory in the form of journals and other supportive materials.

BVC-LD 42: Estimation and Costing

Objective: Students will learn to define as the process of determining the probable cost of the product before the actual manufacture starts.

Unit I: Introduction and types of estimates and their uses.

Unit II: Analysis of rates - market survey (landscape material costing).

Unit III: Specification and procedure for landscape works.

Unit IV: Preparation of detailed and abstract landscape estimate from drawings, Calculation of quantities of materials used in landscape sites.

Unit V: Detailed study of government schedule of rates.

Sessional Work - Students will produce and present their work in the form of sheets and reports showing practical use of all the above method on different landscape sites.

BVC-LD 43: Landscape Material & Construction Technology-IV

Objective: Modify techniques and materials to demonstrate and understanding of the conceptual and technical aspects of landscape systems, landform, material in landscape

architecture, in relation to other diverse practice modes. The ability to use resources, materials and technologies to develop responsible and ecologically sound and novel design solution.

Unit I: Garden structure – gazebos, tree deck, wooden structures, roof top gardens.
Water proofing (theory).

Unit II: Different Construction techniques of roof landscaping.

Unit III: Parking design standards and circulation (theory), parking layout design guidelines space dimension, accessible parking's.

Unit IV: Treatment for disturbed landscapes like quarries, degraded wastelands, over exploited waterfronts etc.

Unit V: New modern techniques used in planting design, waste water management (harvesting, grey water treatment). Fire safety, Irrigation and Security system etc.

Sessional Work - all the construction details should be submitted in the form of A2 size sheets and theory in the form of journals and other supportive materials.

BVC-LD 44: Landscape Working Drawing

Objective: Students will learned how to provide dimensioned, graphical information that can be used by a contractor to construct the works or by suppliers to fabricate components of the works or to assemble or install components.

Unit I: Working drawing of residential project.

Unit II: Study of different landscaping materials, and their uses, construction details.

Unit III: Drawing, working detail, finished models, mockups, details.

Sessional Work - Students will produce and present their work in the form of sheets.

BVC-LD 45: Design Studio-III

Objective: Studio work deals with understanding or resolving of basic landscape design issues and elements through study of case studies of existing landscape design.

Content: Study about commercial space design considering all the details of energy efficient garden and the historical context of the city.

Sessional Work - Students will produce and present their work in the form of sheets, reports and Models

SEMESTER V

BVC–LD 51: Landscape Conservation

Objective: To understand the importance of landscape conservation and various approaches.

Unit I: Conservation in Indian context (historic conservation).

Unit II: Environmental conservation, Conservation of historic landscapes.

Unit III: Landscape conservation and its significance (natural resources such as soil, water, vegetation etc).

Unit IV: Non-Conventional energy resources used in designed Landscapes.

Unit V: National and International policies related to landscape conservation areas such as forests, national parks, protected landscapes, bio-reserves etc.

Sessional Work - Assignment will be in the form of a journal along with individual study and / or design project/s which are presented in the form of presentation and a written report of the same. The project will also include design solution for the disturbed landscapes or site needing conservation. This will be submitted in the form of sheets.

BVC-LD 52: Professional Practice

Objective: To give an opportunity for learning and for development of skills related to practical aspects of the discipline of Landscape Architecture, by working in a professional firm.

Unit I: Ethics, code of conduct and liabilities as a landscape designer, contracts and tenders (types of contracts, etc.), execution procedures.

Unit II: By laws, role of statutory bodies at city level.

Unit III: Office organization procedure.

Unit IV: Relationship of landscape designer with clients.

Unit V: Landscape specification writing.

Sessional Work - Students will produce and present their work in the form of journals and reports.

BVC-LD 53: Project Management

Objective: To understand landscape management principles and concepts with respect to natural and manmade contexts.

Unit I: Landscape management principles.

Unit II: Management concepts related to

1. Designed landscapes
2. Urban open space
3. Sub-urban and rural landscapes
4. Natural landscapes such as forests, streams etc.
5. Historic and protected landscapes

Unit III: Understanding Landscape Management Framework

Unit IV: Understanding management of landscape projects under execution and after execution

Sessional Work - Assignment will be in the form of notes/ assignments covering all the topics mentioned above with suitable examples, sketches and supportive material.

BVC-LD 54: Dissertation

Objective: Each student is required to prepare an independent study with reference to a special subject in consultation with the faculty members. The opportunity for students to explore a practical or conceptual project / subject to evolve a sound methodology and solution. The project can focus on landscape planning, landscape design or any in-depth research work in same or allied fields related to landscape design.

Contents:

- Research methodology, case study, design.
- Research on a selected topic, case study and solution.
- Student is required to prepare an independent study of a special topic consulting the faculty or guide
- Viva.

Sessional Work – The work will be in the form of necessary drawings to explain the project and its details. A comprehensive report of the project will be submitted which will include the above drawings.

BVC-LD 55: Design Studio –IV

Objective: To understand the complex issues related to landscape architecture including site planning, urban landscaping and to develop the concept of landscape development as an interacting process between natural, man-made and social environment.

- Urban space design –to design urban space considering the complex, historical, contemporary and ecological context of city.
- Designing public spaces.

Sessional Work - Students will produce and present their work in the form of sheets, reports and Models

SEMESTER VI

BVC-LD 61: Internship Training

Objective: To give an opportunity to work in an office and give the student an exposure to real time challenges and situations of the profession.

NOTE: 100 days internship under respective landscape designer or architect Portfolio and viva.

Sessional Work - A log book consisting of details of work done during the professional training which would be duly stamped and signed by the Principal authority of the office / firm.