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| AR 173 Landscape Design and Ecological Architecture  | **L-T-P** **2-0-2** **3 credit**  |
| Objective : To expose the students to process of landscape and ecological design  |
| **Unit-1 (Landscape design definition)** objective and scope, History of landscape design, Review of Landscape designs/Styles (Mughal, Japanese, Chinese, Italian, French and English Gardens) and practice. Profession of landscape architects. Importance of Landscape in present times. **Unit-2 (Landscape Surveys)** Taking stock of natural and manmade elements, local ecology, land character, land forms, flora and fauna,  |
| existing and potential important elements. Planting design principles, plant characteristics, form, shape, structure, texture etc. Types of plants. Trees, shrubs bushes, hedges, edges, annual creepers etc. and methods of their propagation, plant selection techniques. **Unit-3 (Process of Landscape Design)** Formal and informal landscape designs, rock garden, terrace garden, water garden, landscaping for interiors, landform design and grading, drainage design. Landscape and its effect on climate and its use as a means to modify the environmental conditions (noise, soil erosion, land, air & water pollution, water logging and depletion of water resources) within and around the buildings. Landscape applications in gardens, indoor landscaping, terrace gardening, industrial landscaping, landscaping of residential areas and urban avenues, surface treatments, landscape elements of construction. Computer application in landscape. Multi-criteria landscape evaluation. **Unit-4 (Energy, Water & Waste Management for Landscape)** Alternative energy systems for buildings, energy from waste: bio-gas technology, energy from sanitary landfill, composting, vermi-composting. Management of water in arid regions-principles of rain water harvesting, recycling of waste water. Site planning techniques.  |
| Expected Outcome : Developed understanding of landscape and ecological design process.  |
| Reference Books: 1. An introduction to Landscape Architecture/Lauric Michael 2. An introduction to Landscape Architecture/Hubband H 3. Fundamentals of Landscaping and Sale Planning /Root James B 4. Landscape Detailing LilleucoodMichacl  |