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 specialised knowledge.

III. Be a part of organizations 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:

<table>
<thead>
<tr>
<th>PO#</th>
<th>Programme Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>An ability to independently carry out research /investigation and landscape design to solve practical problems</td>
</tr>
<tr>
<td>2</td>
<td>An ability to write and present a substantial technical report/document.</td>
</tr>
<tr>
<td>3</td>
<td>An ability to design outdoor environments for people and an ability to plan for the effective management of natural resources for use by people.</td>
</tr>
<tr>
<td>4</td>
<td>Students will be able to resolve landscape architectural problems with due consideration to environmental and urban issues.</td>
</tr>
<tr>
<td>5</td>
<td>Students will be able to bring contemporary tools/ methods/ approaches to analyse situations and explore design.</td>
</tr>
<tr>
<td>6</td>
<td>The students will develop skill to identify, decipher and interpret the issues relating to Landscape Architecture and will also be trained in collecting, critically analysing and presenting information in a logical and clear manner.</td>
</tr>
</tbody>
</table>

**PEO / PO Mapping**

<table>
<thead>
<tr>
<th>PROGRAMME EDUCATIONAL OBJECTIVES</th>
<th>PROGRAMME OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PO1</td>
</tr>
<tr>
<td>I</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>1</td>
</tr>
<tr>
<td>IV</td>
<td>2</td>
</tr>
<tr>
<td>V</td>
<td>1</td>
</tr>
</tbody>
</table>

3- High 2-Moderate 1-Low
### Mapping of Course Outcome and Programme Outcome

<table>
<thead>
<tr>
<th>Year</th>
<th>Semester</th>
<th>Course Name</th>
<th>PO1</th>
<th>PO2</th>
<th>PO3</th>
<th>PO4</th>
<th>PO5</th>
<th>PO6</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1</td>
<td>Geology and Watershed Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Planting and Horticultural Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Theory of Landscape Architecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Landscape Construction Detailing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Site Planning and Design Studio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Professional Elective I</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Research Methodologies for Human Environment</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Planting Design</td>
<td></td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban Landscape Design</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Professional Elective II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Application of GIS in Landscape Planning</td>
<td></td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban Landscape Design Studio</td>
<td></td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>II</td>
<td>3</td>
<td>Professional Practice of Landscape Architecture</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Professional Elective III</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Professional Elective IV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internship Training</td>
<td></td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pre-Thesis</td>
<td></td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regional Landscape Planning Studio</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Thesis</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3- High 2-Moderate 1-Low

![Progress Through Knowledge](PROGRESS_THROUGH_KNOWLEDGE.png)
### SEMESTER I

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>TOTAL CONTACT PERIODS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L  T  P/S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>THEORY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>LN3101</td>
<td>Geology and Watershed Management</td>
<td>PCC</td>
<td>3 0 0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>LN3102</td>
<td>Planting and Horticultural Practices</td>
<td>PCC</td>
<td>3 0 0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>LN3103</td>
<td>Theory of Landscape Architecture</td>
<td>PCC</td>
<td>3 0 0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>THEORY CUM STUDIO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>LN3111</td>
<td>Landscape Construction Detailing</td>
<td>PCC</td>
<td>1 0 3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>STUDIO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>LN3121</td>
<td>Site Planning and Design Studio</td>
<td>PCC</td>
<td>0 0 10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td>10 0 13</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td><strong>PROFESSIONAL ELECTIVE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td>Professional Elective I</td>
<td>PEC</td>
<td>X X X</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td>26 26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### SEMESTER II

(Prerequisite - Pass in Site Planning and Design Studio)

<table>
<thead>
<tr>
<th>S. NO.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>TOTAL CONTACT PERIODS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>L  T  P/S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>THEORY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>LN3201</td>
<td>Research Methodologies for Human Environment</td>
<td>RMC</td>
<td>3 0 0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>LN3202</td>
<td>Planting Design</td>
<td>PCC</td>
<td>3 0 0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>LN3203</td>
<td>Urban Landscape Design</td>
<td>PCC</td>
<td>3 0 0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>THEORY CUM STUDIO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>LN3211</td>
<td>Application of GIS in Landscape Planning</td>
<td>EEC</td>
<td>1 0 3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>STUDIO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>LN3221</td>
<td>Urban Landscape Design Studio</td>
<td>PCC</td>
<td>0 0 10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td>10 0 13</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td><strong>PROFESSIONAL ELECTIVE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td>Professional Elective II</td>
<td>PEC</td>
<td>X X X</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td>26 26</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# SEMESTER III
(Prerequisite - Pass in Urban Landscape Design Studio)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>TOTAL CONTACT PERIODS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>L    T    P/S</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>THEORY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>LN3301</td>
<td>Professional Practice of Landscape Architecture</td>
<td>PCC</td>
<td>3    0    0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STUDIO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>LN3321</td>
<td>Pre-Thesis</td>
<td>PCC</td>
<td>0    0    6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>3.</td>
<td>LN3322</td>
<td>Regional Landscape Planning Studio</td>
<td>PCC</td>
<td>0    0    10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PROFESSIONAL ELECTIVE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td>Professional Elective III</td>
<td>PEC</td>
<td>x    x    x</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td>Professional Elective IV</td>
<td>PEC</td>
<td>x    x    x</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>INTERNSHIP TRAINING</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>LN3311</td>
<td>Internship Training</td>
<td>EEC</td>
<td>X    X    X</td>
<td>X</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td>3    0    16</td>
<td>19</td>
<td>19</td>
</tr>
</tbody>
</table>

* 4 weeks in Summer Vacation between II and III Semesters

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

<table>
<thead>
<tr>
<th>S. No.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>TOTAL CONTACT PERIODS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>L    T    P/S</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>STUDIO</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>LN3421</td>
<td>Thesis</td>
<td>PCC</td>
<td>0    0    16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL NO. OF CREDITS: 95

# PROFESSIONAL CORE COURSES (PCC)

<table>
<thead>
<tr>
<th>S NO.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>TOTAL CONTACT PERIODS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>L    T    P/S</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>LN3101</td>
<td>Geology and Watershed Management</td>
<td>PCC</td>
<td>3    0    0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>LN3102</td>
<td>Planting and Horticultural Practices</td>
<td>PCC</td>
<td>3    0    0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>LN3103</td>
<td>Theory of Landscape Architecture</td>
<td>PCC</td>
<td>3    0    0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>LN3111</td>
<td>Landscape Construction Detailing</td>
<td>PCC</td>
<td>1    0    3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>LN3121</td>
<td>Site Planning and Design Studio</td>
<td>PCC</td>
<td>0    0    10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>LN3201</td>
<td>Research Methodologies for Human Environment</td>
<td>RMC</td>
<td>3    0    0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>7.</td>
<td>LN3202</td>
<td>Planting Design</td>
<td>PCC</td>
<td>3    0    0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>S. No.</td>
<td>COURSE CODE</td>
<td>COURSE TITLE</td>
<td>CATEGORY</td>
<td>PERIODS PER WEEK</td>
<td>CREDITS</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
<td>-------------------------------------------------------</td>
<td>----------</td>
<td>------------------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LN3203</td>
<td>Urban Landscape Design</td>
<td>PCC</td>
<td>3 0 0</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LN3221</td>
<td>Urban Landscape Design Studio</td>
<td>PCC</td>
<td>0 0 10</td>
<td>10 10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LN3301</td>
<td>Professional Practice of Landscape Architecture</td>
<td>PCC</td>
<td>3 0 0</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LN3321</td>
<td>Pre-Thesis</td>
<td>PCC</td>
<td>0 0 6</td>
<td>6 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LN3322</td>
<td>Regional Landscape Planning Studio</td>
<td>PCC</td>
<td>0 0 10</td>
<td>10 10</td>
<td></td>
</tr>
</tbody>
</table>

**PROFESSIONAL ELECTIVE COURSES (PEC)**

**SEMESTER I, ELECTIVE I**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>LN3001</td>
<td>Sustainability and Energy Conservation in Landscape Architecture</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
<tr>
<td>2.</td>
<td>LN3002</td>
<td>Universal Design</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
<tr>
<td>3.</td>
<td>LN3003</td>
<td>Traditional and Contemporary Landscapes</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
</tbody>
</table>

**SEMESTER II, ELECTIVE II**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>LN3004</td>
<td>Environmental Planning and Legislation</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
<tr>
<td>2.</td>
<td>LN3005</td>
<td>Landscape Resources</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
<tr>
<td>3.</td>
<td>LN3006</td>
<td>Energy, Climate Change and Urban Development</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
</tbody>
</table>

**SEMESTER III, ELECTIVE III**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>LN3007</td>
<td>Landscape Assessment</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
<tr>
<td>2.</td>
<td>LN3051</td>
<td>Landscape Urbanism</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
<tr>
<td>3.</td>
<td>LN3008</td>
<td>Cultural Landscapes and Landscape Conservation</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
<tr>
<td>4.</td>
<td>LN3009</td>
<td>Environment, Development and Disaster Management</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3 3</td>
</tr>
</tbody>
</table>
## SEMESTER III, ELECTIVE IV

<table>
<thead>
<tr>
<th>S. No.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>TOTAL CONTACT PERIODS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>LN3010</td>
<td>Landscape Management</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2.</td>
<td>LN3011</td>
<td>Landscape Ecology and Planning</td>
<td>PEC</td>
<td>3 0 0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3.</td>
<td>LN3012</td>
<td>Environmental Impact Assessment</td>
<td>PEC</td>
<td>2 0 2</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

### EMPLOYMENT ENHANCEMENT COURSES (EEC)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
<th>CATEGORY</th>
<th>PERIODS PER WEEK</th>
<th>TOTAL CONTACT PERIODS</th>
<th>CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>LN3211</td>
<td>Application of GIS in Landscape Planning</td>
<td>EEC</td>
<td>1 0 3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2.</td>
<td>LN3311</td>
<td>Internship Training</td>
<td>EEC</td>
<td>X X X</td>
<td>X</td>
<td>2</td>
</tr>
</tbody>
</table>

### SUMMARY

<table>
<thead>
<tr>
<th>S. No</th>
<th>Subject Area</th>
<th>Credits per Semester</th>
<th>Credits Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>1</td>
<td>PCC</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>PEC</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>RMC</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>EEC</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>26</td>
<td>27</td>
</tr>
</tbody>
</table>
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

Evolution of land forms: Land forms produced by geomorphic process and theories of Plate tectonics.

Stratigraphy: principles, stratigraphy and geology of India. Man’s intervention into Ecology and Environment case studies in India. Suitability of land for various developments.

UNIT III SOIL CHARACTERISTICS & 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

COURSE OUTCOMES:

On completion of the course, the student is expected to be able to

CO1 Familiarity with characteristics of landforms, causes and effects.
CO2 Knowledge about soil characteristics, causes and effects and modifications.
CO3 Knowledge about methods of analysis of soils.
CO4 Knowledge about water management

REFERENCES

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
</tbody>
</table>

'1' = Low; '2' = Medium; '3' = High

LN3102 PLANTING AND HORTICULTURAL PRACTICES

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

COURSE OUTCOMES:

On completion of the course, the student is expected to be able to

CO1 Knowledge of binomial nomenclature of plants.
CO2 Familiarity with aspects of plant growth and propagation, thereby having understanding of maintenance requirement of plants.
REFERENCES

CO-PO Mapping

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Avg.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>2</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High

LN3103 THEORY OF LANDSCAPE ARCHITECTURE

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
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
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
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
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

Development of landscape design and gardens till the early 19th century, Influences and linkages across cultures and traditions.

TOTAL: 45 PERIODS

COURSE OUTCOMES:

On completion of the course, the student is expected to be able to

**CO1** 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.

**CO2** An appreciation of scale in terms of landscape and nature.

REFERENCES


**CO-PO Mapping**

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Avg.</td>
<td></td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
</tbody>
</table>

1’ = Low; ‘2’ = Medium; ‘3’ = High;

LN3111  LANDSCAPE CONSTRUCTION DETAILING  L T P/S C

1 0 3 4

OBJECTIVE

- To train the students in the detailing and drawing of landscape elements – Hard and soft landscape elements

UNIT I  HARD LANDSCAPES AND OUTDOOR FURNITURE

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

Criteria for the selection of materials and specifications for the street furniture in various environments. Design of outdoor structures like pavilions, gazebos etc. Use of waste materials in
landscape, recycling and reuse of materials, their impact on landscape design. Preparation of working drawings for hard landscaping and services.

UNIT II OUTDOOR LIGHTING 10
Definition of technical terms, types of electrical lighting, types of fixtures, auxiliary fixtures. Principles of design for outdoor illumination, design and type of effects with electrical lighting. Solar energy and lighting. Preparation of electrical drawing for landscape area.

UNIT III LAND AND WATER FEATURES 25
Design of water features such as swimming pools, cascades, fountains etc., and their technical requirements. Consideration for design and detail, Water bodies. Design of irrigation system. Landscape area types, objectives and design, water needs and sources, application, methods of installation. Control systems, scheduling and maintenance. Representation of land forms, slope analysis-uses and function, Grading – symbols and abbreviations, principles of earthwork- cut and fill calculations, precaution taken while performing cut and fill in relation to soil condition. Design of grading alignments for paths /roads.

UNIT IV PLAY AREA AND TERRACE LANDSCAPING 15
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.

TOTAL: 60 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to
CO1 Detailing and drawing of landscape elements and features.
CO2 Water management through landscape design.
CO3 Detailing of site elements like earthwork, hard landscape and outdoor furniture

REFERENCES
6. Charles.W.Harris& Nicholas T. Dines, Time saver Standards for Landscape Architecture,

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Avg.</td>
<td>3</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High;
LN3121 SITE PLANNING AND DESIGN STUDIO

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.

COURSE OUTCOMES:

On completion of the course, the student is expected to be able to

- CO1 Exposure to the process of site study and analysis.
- CO2 Understanding of site planning process.
- CO3 Ability to undertake landscape design of small projects primarily involving site planning and design.

TOTAL: 150 PERIODS

REFERENCES


CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High

LN3201 RESEARCH METHODOLOGIES FOR HUMAN ENVIRONMENT

OBJECTIVES

- To introduce the students to the importance of critical inquiry as a way of gaining knowledge and adding to it through research.
- To expose the students to the various forms of research and research methodologies/processes.
- To 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 modeling, 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
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
Research writing in general- Components: referencing- writing the bibliography - developing the outline - presentation; etc.

UNIT V  CASE STUDIES
Case studies illustrating how good research can be used from project inception to completion- review of research publications.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

CO1  Skill to identify, decipher and interpret issues relating to architecture based on research enquiry methods.

CO2  Knowledge of different methods of conducting research and research writing.

REFERENCES
2. Wayne C Booth; Joseph M Williams; Gregory G. Colomb; ‘The Craft of Research’ , 3rd Edition; Chicago guides to writing, editing and publishing;2008
4. Ranjith Kumar; Research Methodology- A step by step guide for beginners-3rd Edition ; Sage Publications;2011
5. John W Creswell; Research design: Qualitative, Quantitative and Mixed Methods Approaches; Sage Publications; 2011.

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td>-</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High
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
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
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
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, planting palette, Unity and variety in planting design.

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

UNIT V APPLICATIONS IN PRACTICE
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.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to
CO1 Knowledge about basics of planting design
CO2 Knowledge about applications of planting design

REFERENCES

CO-PO Mapping

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Avg.</td>
<td></td>
<td></td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High
OBJECTIVE:

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

UNIT I INTRODUCTION
City and pattern – hierarchy of streets and squares – spatial organization and land use – road networks and basic services. Open spaces with in urban environment.

UNIT II URBAN SPACES
Cultural, social and aesthetic value of urban spaces and its perception, Imageability, Townscape elements. Urban space enhancement.

UNIT III OPEN SPACE SYSTEM

UNIT IV ELEMENTS IN URBAN LANDSCAPE
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
Contemporary urban landscape issues. Case studies- Study, understanding and analysis of known examples at the national and international levels.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

CO1 Knowledge about the types, characteristics and elements of urban open spaces.

CO2 Understanding of issues related to and design of urban landscape design.

REFERENCES

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td>-</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High
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  10

UNIT II  INTRODUCTION TO G.I.S, G.P.S AND REMOTE SENSING  10

UNIT III  CAPTURING AND GENERATING SPATIAL AND NON SPATIAL DATA AND DISPLAY  16

UNIT IV  SPATIAL ANALYSIS AND APPLICATION OF G.I.S  24

TOTAL: 60 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to
CO1 Knowledge about the techniques of Map preparation and analysis using maps.
CO2 Knowledge about application of GIS in Landscape Architecture.

REFERENCES:

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Avg.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

’1’ = Low; ‘2’ = Medium; ‘3’ = High
LN3221 URBAN LANDSCAPE DESIGN STUDIO  
L T P/S C 0 0 10 10

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: 150 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to
CO1 An understanding of the function and structuring of outdoor spaces.
CO2 Ability to design urban landscape.

REFERENCES

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

1’ = Low; ‘2’ = Medium; ‘3’ = High;

LN3301 PROFESSIONAL PRACTICE OF LANDSCAPE ARCHITECTURE  
L T P/S C 3 0 0 3

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

UNIT I THE PROFESSION OF LANDSCAPE ARCHITECTURE 6
Brief history of profession, Professional career tracks, Registration and License, professional ethics and code of professional conduct.

UNIT II PRINCIPLES OF PROFESSIONAL PRACTICE 9
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

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

CO1 Knowledge about landscape consultancy practice.
CO2 Understanding about the code of conduct.
CO3 Understanding of the process and role of an architect in project execution.

REFERENCES

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Avg.</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

1’ = Low; ‘2’ = Medium; ‘3’ = High

LN3321 PRE-THESIS 

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

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

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

CO1 Ability to research on a chosen topic.
CO2 Expertise in collecting, processing and presenting relevant information.

REFERENCES

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Avg.</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

1’ = Low; ‘2’ = Medium; ‘3’ = High

LN3322 REGIONAL LANDSCAPE PLANNING STUDIO L T P/S C 0 0 10 10

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.

TOTAL: 150 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

CO1 Ability to develop ecologically sustainable design.
CO2 Ability to collect, analyze and present environmental data for sustainable design.

REFERENCES
CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Avg.</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

1' = Low; '2' = Medium; '3' = High;

LN3311 INTERNSHIP TRAINING LT P/S C
XX X 2

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 the quality of their Thesis works.

The students are expected to complete the Internship Training before the commencement of the third semester and enroll for the same 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.

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

CO1 Preparedness of the students for employment in the Landscape Architecture Profession
CO2 Ability to pursue independent research in allied fields.

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Avg.</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High
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: 240 PERIODS

COURSE OUTCOMES:

On completion of the course, the student is expected to be able to

CO1 Ability to handle a major landscape design project independently.
CO2 Skill to prepare landscape design and detailing drawings
CO3 Skill to prepare a detailed project report

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td></td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td></td>
<td>3</td>
<td></td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Avg.</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High

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.

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to
CO1 Understanding of sustainability from macro to micro level.
CO2 Knowledge on energy conscious Landscape design

REFERENCES

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High

LN3002 UNIVERSAL DESIGN L T P/S C 3 0 0 3

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

TOTAL – 45 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

**CO1**  Knowledge and skill about designing universally accessible open spaces.
**CO2**  Sensibility to challenges faced by differently abled people.

REFERENCES

**CO-PO Mapping**

<table>
<thead>
<tr>
<th></th>
<th>CO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High

LN3003  TRADITIONAL AND CONTEMPORARY LANDSCAPES  L T P/S C  3 0 0 3

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 RENAISSANCE AND THE EVOLUTION OF NEW THOUGHTS

UNIT III THE EVOLUTION OF THE MODERN LANDSCAPE
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
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
Issues in contemporary India, Analysis and understanding of philosophies of contemporary landscape works in India, case studies.

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to
CO1 Understanding of the relationship between culture and Landscape design.
CO2 Perceptive knowledge of open spaces in different cultures

REFERENCES
CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Avg.</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High

LN3004 ENVIRONMENTAL PLANNING AND LEGISLATION

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 IV 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

COURSE OUTCOMES:

On completion of the course, the student is expected to be able to

CO1 An understanding of the basics of Environmental planning and legislation.

CO2 Knowledge about E.I.A.

REFERENCES:

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td>-</td>
</tr>
</tbody>
</table>

'1' = Low; '2' = Medium; '3' = High

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
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
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
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
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
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

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

CO1 Understanding of resource management from macro to micro level.

REFERENCES

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Avg.</td>
<td></td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High;

LN3006 ENERGY, CLIMATE CHANGE AND URBAN DEVELOPMENT

OBJECTIVES:
- The objective of this course is to make students aware of the scenario of climate change and to provide exposure on discussions happening at national and international levels. After attending this course, the students will be in a position to appreciate the role of settlements in climate change mitigation at the same time they will be able to address impact and adaptations issues faced by human settlements.

UNIT I INTRODUCTION
Energy, Climate change and Urban Development – Interface. Understanding Climate Change: Greenhouse gases, Anthropogenic causes, Carbon Cycle, Global Warming, Inventory of GHGs, Urban Heat Islands

UNIT II ENERGY GENERATION AND CONSUMPTION
Energy Supply and Demand, Energy Consumption in cities, determinants of energy demand, phenomenon of climate change, factors influencing climate change, impacts of climate change

UNIT III ENERGY PLANNING AND MANAGEMENT, AND MITIGATION AND ADAPTATION TO CLIMATE CHANGE
Energy efficient development, Compact city form, Transit oriented development. Mechanisms and measures for mitigating and adapting to climate change at various levels

UNIT IV PLANS, POLICIES AND STRATEGIES
Related to energy planning, conservation, climate change mitigation and adaptation.

UNIT V CLIMATE CHANGE

TOTAL: 45 PERIODS

COURSE OUTCOMES:
- Knowledge about climate change and its influences in urban areas
- Knowledge about measures for mitigating and adapting to climate change
- Ability to understand linkage about the micro-climatic and topographic condition
- Ability to understand an assessment of population density and resource consumption
REFERENCES:
4. Mike Lydon David Owen Green Metropolis: Why Living Smaller, Living Closer, and Driving Lessare the Keys to Sustainability.

CO -PO Mapping

<table>
<thead>
<tr>
<th>Course Outcome (CO)</th>
<th>Programme Outcome (POs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PO1</td>
</tr>
<tr>
<td>CO1</td>
<td>-</td>
</tr>
<tr>
<td>CO2</td>
<td>-</td>
</tr>
<tr>
<td>CO3</td>
<td>-</td>
</tr>
<tr>
<td>CO4</td>
<td>-</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>-</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High;

LN3007 LANDSCAPE ASSESSMENT L TP/S C 3 0 0 3

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 6
Introduction to the concept of Landscape Assessment. Importance in today’s scenario. Development of the field and formative theories.

UNIT II ASSESSMENT TECHNIQUES 15

UNIT III MODELS IN LANDSCAPE ASSESSMENT 9

UNIT IV APPLICATION IN LANDSCAPE PLANNING 6
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 9
Case studies of projects in which landscape assessment have been conducted and has been applied to formulate master plans.

TOTAL: 45 PERIODS
COURSE OUTCOMES:
On completion of the course, the student is expected to be able to
CO1 Knowledge about tools and models of landscape assessment.
CO2 Knowledge about application of assessment for effective Landscape Planning and Landscape Conservation

REFERENCES:

CO -PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Avg.</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

1’ = Low; ‘2’ = Medium; ‘3’ = High;

LN3051 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. Back ground 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

Emerging challenges, Relationship between Asian urbanism and Landscape Urbanism. Social and cultural aspects of Asian Urbanism. Landscape Urbanism in India. Case studies

TOTAL: 45 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to
CO1 Knowledge about landscape urbanism.
CO2 Understanding of the application of theory in landscape planning.

REFERENCES

CO-PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Avg.</td>
<td></td>
<td>-</td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

'1' = Low; '2' = Medium; '3' = High

LN3008  CULTURAL LANDSCAPES AND LANDSCAPE CONSERVATION  L TP/S C

3 0 0 3

OBJECTIVES
- To introduce, the concept of cultural landscapes
- To enable learning about the conservation of cultural landscapes.

UNIT I  INTRODUCTION TO CULTURAL LANDSCAPE
Definition of cultural landscapes. UNESCO. EU landscape convention. US National park service and others. Characteristics, features of cultural landscapes, examples from around the world.

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
COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

CO1 Understanding about the importance of cultural landscape. Recognizing cultural landscapes.

CO2 Learning about Landscape Conservation importance, methods and the process.

REFERENCES

CO -PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Avg.</td>
<td></td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*1’ = Low; ‘2’ = Medium; ‘3’ = High;*

LN3009 ENVIRONMENT, DEVELOPMENT AND DISASTER MANAGEMENT

OBJECTIVES:
- At the end of the course, the students must have an understanding of the resource optimization and the measures to be taken in the face of a disaster

UNIT I ENVIRONMENT, DEVELOPMENT AND DISASTER MANAGEMENT INTERFACE
Resource use, exploitation and conservation; Impact of human activities on environment; Environment and economy interaction, introduction to environmental accounting.

UNIT II ENVIRONMENTAL MANAGEMENT
Environmental Impact Assessment, thresholds, indicators, audits, environmental certification, lifecycle analysis, environment and poverty links, environmental policy, Acts and regulations; Environmental education, participatory approaches, emerging concepts. Disaster classification, concepts, hazards, vulnerability, risks, human response to disaster, impacts

UNIT III CONCEPTS OF HAZARD
Vulnerability, Risks, Natural Disasters (earthquake, Cyclone, Floods, Volcanoes), and Man Made Disaster ( Armed conflicts and civil strip, Technological disasters, Human Settlement, Slow Disasters (famine, draught, epidemics) and Rapid Onset Disasters(Air Crash, tidal waves, Tsunami) Risks, Difference between Accidents and Disasters, Simple and Complex Disasters,
Refugee problems, Political, Social, Economic impacts of Disasters, Gender and Social issues during disasters, principles of psychosocial issues and recovery during emergency situations, Equity issues in disasters, Relationship between Disasters and Development and vulnerabilities, different stake holders in Disaster Relief. Refugee operations during disasters, Human Resettlement and Rehabilitation issues during and after disasters, Inter-sectoral coordination during disasters, Models in Disasters. Impact on Environment.
UNIT IV DISASTER MITIGATION AND MANAGEMENT

Relevance of disaster management in development and environment, disaster preparedness, prevention, displacement and development, Role and responsibilities of government and non-government organizations, Disaster Education – awareness of individuals, communities and participation at various levels; Integrating disaster mitigation in the spatial planning process, provision of infrastructure for disaster mitigation.

UNIT V POLICIES AND LEGISLATION PERTAINING TO ENVIRONMENT AND DISASTER MANAGEMENT

Policies and Legislation at various levels., Institutional and Legal Arrangements Disaster Management Act, 2005. Role of Central Ministries and Departments, and States, Communications and Information Technology (IT) Support, Community Based Disaster Preparedness, Stakeholders’ Participation, Corporate Social Responsibility (CSR) and Public-Private Partnership (PPP).

COURSE OUTCOMES:

CO1 Understand the various contexts leading to disaster
CO2 understand the vulnerability, risks, human response to disaster and its impacts
CO3 Awareness about disaster management and provision of infrastructure for disaster mitigation
CO4 Ability to understand policies and Legislation of disaster management

REFERENCES:

3. NDMA Disaster Management Guidelines 2007-11 NDMA
4. P C Sinha Introduction to Disaster Management 2007 Anmol Publications, New Delhi
5. Pardeep Sahni, Alka Dhameja, Uma Medury Disaster Mitigation: Experiences and Reflections 2008 PHI Learning Pvt. Limited, New Delhi
6. Rajib Shaw Community, Environment and Disaster Risk Management 2010 Emerald Group Publishing Limited

CO - PO Mapping

<table>
<thead>
<tr>
<th>Course Outcome (CO)</th>
<th>Programme Outcome (POs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PO1</td>
</tr>
<tr>
<td>CO1</td>
<td>-</td>
</tr>
<tr>
<td>CO2</td>
<td>-</td>
</tr>
<tr>
<td>CO3</td>
<td>-</td>
</tr>
<tr>
<td>CO4</td>
<td>-</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>-</td>
</tr>
</tbody>
</table>

'1' = Low; ‘2’ = Medium; ‘3’ = High;
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  9

UNIT II   ENVIRONMENTAL ECONOMICS IN LANDSCAPE  6

UNIT III   MANAGEMENT OF NATURAL RESOURCES  15
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  6
Models used for sustainable management of landscapes.

UNIT V   LANDSCAPE PROJECT MANAGEMENT  9
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

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to

CO1  Knowledge of Landscape Management techniques and valuation of natural resources.

CO2  Familiarity with case studies of Landscape management

REFERENCES:

CO -PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>-</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High;

LN3011 LANDSCAPE ECOLOGY AND PLANNING  L T P/S C 3 0 0 3

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

COURSE OUTCOMES:

On completion of the course, the student is expected to be able to

CO1 Knowledge about basics of Ecology and Landscape Ecology.
CO2 Familiarity with landscape planning history, evolution, process and case studies.
CO3 Knowledge about legislation concerned with the environment and EIA.
REFERENCES:

CO -PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

1’ = Low; ‘2’ = Medium; ‘3’ = High;

LN3012 ENVIRONMENTAL IMPACT ASSESSMENT L T P/S C 2 0 2 3

OBJECTIVES
- To give exposure to the need, methodology, documentation and usefulness of environmental impact assessment.
- To enable the development of skill to prepare environmental management plan.

UNIT I BASICS OF ENVIRONMENTAL IMPACT ASSESSMENT 14

UNIT II METHODS 16

UNIT III EIA OF PROJECTS 16
Regional and strategic assessments. Elements of EIA – prediction and assessment of impacts on the physical, chemical, biological and socio economical environmental. EIA methodologies, cost-benefit analysis, comparison of alternatives, public participation, mitigation plans, monitoring plans,

UNIT IV ENVIRONMENTAL MANAGEMENT PLAN 14

TOTAL: 60 PERIODS

COURSE OUTCOMES:
On completion of the course, the student is expected to be able to
CO1 Understanding about the significance of environmental impact assessment.
CO2 Ability to prepare basics of environmental management plan.
CO3 Knowledge about the legal requirements of Environmental and Risk Assessment for projects.

REFERENCES
6. EIA Manual – Download from the website of ministry of environment and forests (MOEF)
Available from: <https://environmentclearance.nic.in/writereaddata/Form-1A/HomeLinks/ommodel2.html>

CO -PO Mapping

<table>
<thead>
<tr>
<th>CO</th>
<th>PO</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Avg.</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

‘1’ = Low; ‘2’ = Medium; ‘3’ = High;