



School of Planning and Architecture: Vijayawada
(An institution of National Importance under the Ministry of Human Resource Development, Govt. of India)
S.No. 71/1, NH-5, Nidamanuru, Vijayawada – 521 104, Andhra Pradesh, India

Department of Architecture

Course: 10210203 Land and Vegetation

Instructors: Parul Vyas

Class: Ist Yr M. Arch II Sem A.Y. 2017-18

Internal Assessment: 50

External Theory Exam: 50

Total Marks: 100

Credits: 2

Contact Periods/ week: 02 periods

Time Table: Wednesday

Attendance: Min 75%

Min. Passing Marks: 50% each in Internal & External Assessment, 50% in Aggregate

Objective:

To introduce the students to evolution of different landforms, concepts of site planning. To make students aware of types of vegetation, relationship of landform, vegetation and climate.

Out Line of the Course:

LECTURE PLAN

S. No.	Week	TOPIC OF CLASS LECTURE & DISCUSSION	CLASS ACTIVITIES & ASSIGNMENTS
1	Week 1	Geomorphologic processes: endogenic, exogenic, extra-terrestrial.	Lecture
2	Week 2	Geomorphologic processes: endogenic, exogenic, extra-terrestrial.	Lecture
3	Week 3	Major processes and associated landforms: Tectonic, fluvial, Aeolian, coastal, karst, glacial, and topography caused by ground water.	Lecture
4	Week 4	Running water and underground water; channel networks and drainage basins. Hill slope geomorphology, land forms related to the activities of organisms and man. Earth-form Grading, symbols and annotations, basic grading principles, grading terraces, grading of roads across/along contours, road alignment.	Lecture
5	Week 5	Introduction to watersheds, Types of Flow: channel and over-land, Occurrence and movement of ground water. Water bearing properties of geological formation, artesian conditions and development of karst topography; salt water intrusions, Aquifers recharge area, infiltration characteristics, rainwater harvesting, artificial recharge, ground water management, ground water pollution and its control.	Lecture

6	Week 6	Presentation by students	Internal Assessment - I
7	Week 7	Presentation by students	
8	Week 8	Classification of soils and use: (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 and (e) Managing difficult soils.	Lecture
9	Week 9	Relationship between site features and design requirements. Site planning checklist, topographic surveys and their methodology, visualizing land forms. Understanding contours and their characteristics. Surface Drainage: Site planning for efficient drainage; understanding drainage pattern and watershed area, surface run off, determination of catchment area; types of drainage systems, design of drainage elements: swales, culverts etc. Sub surface drainage planning.	Lecture & Site Introduction
10	Week 10	Site planning exercise	Studio
11	Week 11	Mid term exam	-
12	Week 12	Introduction to Landscape: Experience, Aesthetics and Imagery. Relation of Humans and Landscapes. How landscapes relate to land, nature, environment and place; How the scales & conception of landscapes evolve over time, Landscape evolution models	Lecture
13	Week 13	Basic plant structure / morphology / anatomy, Basic plant functions / growth & development / physiology, principles of taxonomy / classification, identification and naming, familiarity with local flora.	Lecture
14	Week 14	Planting design - through the ages, as a design element for structuring the landscape. Differentiation between trees, shrubs, ground cover and creepers. Planting for appearance. Seasonal variation in appearance. Visual aesthetic and functional considerations. Planting for visual effect and accent.	Lecture
15	Week 15	Role of plant material in environmental improvement. Planting for shelter, windbreaks and shelter belts. Planting in various environments. Planting design for habitat such as grasslands, woodlands, marshes, bogs, wetlands, aquatic planting etc. Planting design and ecological considerations, stratification of plant material in nature, herbal plants and their uses.	Lecture
16	Week 16	Presentation by students	Internal Assessment - II
17	Week 17	Plants and sustainability. Growth rate of plants as a criteria for plant choice for particular situations. Comparison of advantages and disadvantages of fast, medium and slow growing trees. The concept of nurse planting. Creating conditions for plant establishment, planting and transplanting trees and shrubs.	Lecture

S.No.	Category of Evaluation	Marks	Note
1	Assessment – I:	15	<i>The Marks allotted at each stage is tentative. Categories of evaluation may be increased or decreased (merged) on need-basis</i>
2	Assessment – II:	15	

References:

1. Beryl R. Collins and Karl H. Anderson, Plant Communities of New Jersey, Rutgers University Press, 1994
2. Douglas W. Tallamy, Bringing Nature Home, Timber Press, 2007
3. Grant W. Reid, Landscape Graphics, Watson-Guption Publications, Revised Edition 2002
4. Tony Bertauski, Plan Graphics for the Landscape Designer, Prentice Hall, Second Edition, 2007
5. Norman K. Booth and James E. Hiss, Residential Landscape Architecture, Pearson Prentice Hall, 5th Edition, 2008

Signatures of the Instructors:

Head of the Department: