School of Planning and Architecture: Vijayawada
(An institution of National Importance under the Ministry of Education, Govt. of India)
Survey No.4/4, ITI Road, Vijayawada-520008, Andhra Pradesh, India

Department of Architecture

Course: **MACO115 - Conservation Methods & Materials - I**

Class: M.Arch(AC) 1st Year 1st Sem
A.Y. 2024-25

Instructors: Ar. Sanjay Bhandari

Internal Assessment: 50%
External Theory Exam: 50%
Credits: 4

Contact Periods/ week: 04 periods.(55min each)
Time Table: Wednesday (9:00AM to 12:40PM)
Attendance: Min 75%

Objective: The objective of this course is to understand the traditional materials their behavior and changes due to various atmospheric elements.

LECTURE PLAN

Sr. No	Week	TOPIC OF CLASS LECTURE & DISCUSSION	TOPIC OF STUDIO WORK& ASSIGNMENTS / REMARKS
1	Week 1 (L+T)	Location, formation, physical and chemical properties and sourcing of historic building materials.	Lecture
2	Week 2 (L+T)	Continued…	Lecture and Discussion
3	Week 3 (L+T)	Characterization of materials and compatibility of its usage with modern materials. Relationship between various historic building materials and historic buildings.	Lecture and Discussion
4	Week 4 (L+T)	Demonstration of Historic materials through documented buildings in Conservation Lab	Lecture and Discussion
5	Week 5 (L+T)	Continued…	**Internal Assessment -1**
6	Week 6 (L+T)	Diagnosis and assessment of defects in building materials by atmospheric elements. Assesment of Condition through photogrammetry	Lecture & Exercises in Conservation Lab
7	Week 7 (L+T)	Continued…	Lecture and Discussion
8	Week 8 (L+T)	Remedial measures. Strengthening of building materials. New building materials.	Lecture and Discussion
9	Week 9 (L+T)	Solutions for additions, alterations and new construction to historic buildings.	Lecture and Discussion
10	Week 10 (L+T)	Laboratory testing of historic materials for material and structural analysis to support sensitive interventions.	Lecture and demonstration in Conservation Lab
11	Week 11 (L+T)	Continued…	Lecture and Discussion

12	Week 12 (L+T)	Introduction to traditional and historic building materials and construction vocabularies in different cultural regions of India. Case studies of the same.	Lecture,Discussion & Exercises in Conservation Lab
13	Week 13 (L+T)	Identification of materials and structural building system typologies Inspection, condition assessment and diagnosis of material and structural defects.	Lecture,Discussion & Exercises in Conservation Lab
14	Week 14 (L+T)	Continued…	**Internal Assessment -2**
15	Week 15 (L+T)	Continued…	Lecture,Discussion & Exercises

S. No.	Stages of Evaluation	Weightage
1	First stage: Assessment –1	15%
2	Second stage: Mid-semester Examination	20%
3	Third stage: Assessment –3	15%
	Total Internals	50%

Suggested Readings:

1.Durbin, Lesley . Architectural Tiles: Conservation and Restoration from the Medieval Period to Twentieth Century, 2005
2.Conservation of Building Stones, 2001
3.Daniels, Klaus. Low-tech, Light-tech and High-tech: Building in the Information Age, 2000
4.Lime and Lime mortars Donhead Shaftesbury, 1998
5.Forsyth, Michael . Material and Skills for Historic building Conservation, Blackwell Publishing, 2008
6.Gurmeet S. Rai, P. Desarkar . What are Lime Mortars, INTACH publication
7.Sangeeta Bais. Why Use Lime, INTACH Publication

Head of Department :

Cource Instructors:

sd/-
(Ar. Sanjay Bhandari)

sd/-
(Dr. D Srinivas)