

AR-603

CODE	SUBJECT	CREDITS
AR-603	STRUCTURE-VI	02
FOCUS		
Study of various forms of surface structures and their structural behavior.		
CONTENT		
	<ul style="list-style-type: none">• Types of surface structures, detailed classification of stressed skin surfaces, generation of various types. General equations of regular surfaces. Introduction to various types of shells. Structural behavior of the shells. Case studies.• Various types of folded plate structures. General behavior and design of a simple V type of folded plate roof.• Introduction to membrane structures, its behavior in general. Simple form finding method. Development of simple forms in the laboratory and preparing scaled models. Case studies.• Introduction to tension structures.• Introduction to grids, planar and curved types of grids. Their structural behavior, form finding technique for a curved grid. Development of simple forms and construction of scaled models. Case studies.	
METHODOLOGY		
Through class lectures, Presentations, site visits, case studies and making models & testing them.		
REFERENCES:		
	<ol style="list-style-type: none">1. Introduction to shell structure, the art and science of vaulting - Michele Melaragno.2. Building structures from concepts of design - Malcolm Millais.3. Theory of Plates & Shells - Timoshenko.	