

**SRM UNIVERSITY**  
FACULTY OF ENGINEERING AND TECHNOLOGY  
**SCHOOL OF ARCHITECTURE AND INTERIOR DESIGN**

**Course Code** : 16AR 207  
**Course Title** : Building Materials & Construction - II  
**Year & Semester** : **B.Arch**, II year, III semester  
**Course time** : Odd semester (Jul 2017- Oct 2017)  
**Location** : Architecture Department

**Faculty Details:**

Name of the Staff	Sec.	Office	Office Hours	Mail ID
Anoop Menon	A	Arch Dept	Day Order 1: 1 <sup>st</sup> hr. - 4 <sup>th</sup> hr. (4 Hrs)	anoopmenon.s@ktr.srmuniv.ac.in
B.G.Denish Kumar	B	Arch Dept	Day Order 1: 1 <sup>st</sup> hr. - 4 <sup>th</sup> hr. (4 Hrs)	denishkumar.g@ktr.srmuniv.ac.in
N.Ramesh	C	Arch Dept	Day Order 1: 1 <sup>st</sup> hr. - 4 <sup>th</sup> hr. (4 Hrs)	ramesh.n@ktr.srmuniv.ac.in

**Text Books:**

1. W.B. MacKay – Building construction Vol 1,2 and 3 – Longmans, UK 1981.
2. R.Chudley – Building Construction Handbook – BLPD, London 1990.
3. S.C.Rangwala – Engineering materials – Charotar Publishing, Anand.

**Reference Books:**

1. Dr.B.C.Punmia – Building construction
2. R.Chudley, construction Technology.
3. Francies D.K.Ching – Building Construction illustrated. VNR, 1975.

**Objectives:**

1. **To study more about doors, windows, different types of materials and their use in construction.**
2. **They also focus on the different water proofing, damp proofing materials & technology available and their application.**
3. **Also to expose the students to the vertical transportation – designing & detailing.**

**Tentative test dates**

Mid Semester Test : As per schedule  
Model Examination : As per schedule

**Test Portions**

Mid Semester Test : 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> Units  
Model Examination : All five Units

**Assessment details** : Mid Semester Test - 10 marks  
Model Examination - 15 marks  
Port Folio - 25 marks

<b>Course outcome</b>	<b>Program outcome</b>
Students will gain knowledge about the different materials, their properties, the construction methodology and representation through relevant drawings.	This program helps the students to understand the properties of building materials and construction techniques.

### Detailed Session plan

<b>Session</b>	<b>Topic to be covered</b>	<b>Assignments/Test</b>
1-5	<b>Introduction – non ferrous metals &amp; plastics</b> : Introduction to materials & their properties	
6-14	<b>Rural &amp; traditional Materials –</b> Stone masonry : foundation & wall Stabilised mud rammed earth & compact earth block Details for walls with bamboo and casuarina	
15-21	<b>Rural &amp; traditional Materials –</b> Roof : Palm,Thatched & Hay roof detailing – Bamboo, Casuarina & CEB frame work	
22-30	<b>Doors, windows &amp; ventilators –</b> Aluminium - Horizontal sliding, Louvered, casement & ventilators Aluminium in Interiors – Partitions, Glazings, Panels, Hinged & pivoted aluminium doors	
31-39	<b>Doors, windows &amp; ventilators –</b> UPVC - Horizontal sliding, Louvered, casement & ventilators	<b>Mid Semester Test</b>
40-50	<b>Vertical Transportation - I</b> Rcc Staircases: Types according to profile – straight flight, doglegged, quarter turn, half turn, bifurcated, spiral & Helical.	
51-60	<b>Vertical Transportation - I</b> Structural system for the above types, sloped slab, cranked slab, cantilevered slab, continuous slab& folded plate, foundation for RCC stair case. Designing and detailing of vertical transportation for physical and handicapped.	
61 - 68	<b>Damp proofing &amp; Water proofing –</b> Damp Proofing – Hot & cold application : various materials ( Emulsified asphalt, bentonite clay, butyl rubber, silicones, vinyl, epoxy resin), their properties& uses	
69 - 75	<b>Damp proofing &amp; Water proofing –</b> Water Proofing – water proofing membranes : various materials (rag, asbestos, glass felt, plastic & synthetic rubber vinyl, butyl rubber, neoprene, polyvinyl chlnide – Pre fabricated membranes, sheet lead, asphalt), their properties, uses & application in swimming pool, basement & terrace	
	<b>Model Exam</b>	

Staff in charge –

1. Anoop Menon

**Dean / Arch**

2. B.G.Denish Kumar

3. N.Ramesh