

**COURSE TITLE : BUILDING PLANNING & DRAWING**  
**COURSE CODE : 3014**  
**COURSE CATEGORY : B**  
**PERIODS/WEEK : 5**  
**PERIODS/SEMESTER: 75**  
**CREDITS : 3**

**TIME SCHEDULE**

Module	Topics	Period
1	Building components	17
2	Building planning & drawing	20
3	Building drawing	21
4	Service plan and culverts	17
<b>TOTAL</b>		<b>75</b>

**COURSE OUTCOME**

Sl.	Sub	Student will be able to
<b>1</b>	1	Know the different types of tiled roof and their components.
	2	Draw the elevation of different types of tiled roof
	3	Prepare detailed drawings of fully panelled doors and fully glazed windows.
<b>2</b>	1	Understand and Perform planning of residential and public buildings as per standards
	2	Draw line plan of residential & public buildings for the given plinth area requirements.
	3	Develop detailed drawings of residential & public buildings from the given line plan with different types of roofs.
<b>3</b>	1	Prepare service plan of buildings
	2	Understand the different types of culverts and their components
	3	Prepare detailed drawings of slab culvert.

**SPECIFIC OUTCOMES**

Upon completion of the study, the student should be able to:

**MODULE - I**

**1.1.0 Understand main components of a building**

1.1.1 Identify the conventional signs of building materials

- 1.1.2 Draw plan and section strip footing, isolated footing, combined footing
- 1.1.3 Draw elevation, section plan a fully paneled door, three panel glassed window by showing Important members
- 1.1.4 Draw plan, sectional elevation dog legged RCC stair, quarter turn RCC stair
- 1.1.5 Draw elevation of coupled roof, close couple roof, single collar roof, and double collar roof by showing all the members.
- 1.5.6 Draw plan of room showing important members in the tiled roofing for gabled and pitched ends

## **MODULE -II**

### **2.1.0 Understand planning requirements**

- 2.1.1 Define plinth area, floor area, carpet area, floor area ratio, coverage of building, height of building, building line, set back line, head room, mezzanine floor, basement floor, detached building, and RC houses.
- 2.1.2 Explain classification of buildings and requirements of part of residential, institution and hospital building as per NBC and KMBR
- 2.1.3 Prepare single line sketch plans for single storey and double storey residential buildings, primary school building, public health centre building in a plot for specific plinth area as per NBC and KMBR

### **2.2.0 Produce details of residential building from line sketches and specifications**

- 2.2.1 Draw plan, elevation, section for a single storey and double storey flat roof residential buildings
- 2.2.2 Draw site plan showing proposed building-septic tank and sock pit -underground sump-compound wall-gate –boundary measurement-exterior open space- orientation-road etc. based on KMBR
- 2.2.3 Draw plan, elevation, section and site plan for a single storey tiled roof residential buildings
- 2.2.4 Draw plan, elevation, and section and site plan for RCC combination roof residential building

## **MODULE -III**

### **3.2.0 Produce details of public buildings from line sketches and specifications**

- 3.2.1 Draw to detail plan elevation section and site plan of office buildings
- 3.2.2 Draw detailed plan elevation section and site plan of health centre
- 3.2.3 Draw detailed plan elevation section and site plan of hospital buildings
- 3.2.4 Draw service plan for residential building showing boundaries of site, proposed building, position of septic tank, sock pit, sullage pit, manholes, garbage disposal system, storm water drain, layout of service line(electrical, water supply and sanitary)

## **MODULE -IV**

### **4.1.0 Produce details of service plan-plumbing and electrical**

- 4.1.1 Draw the plumbing layout plan showing proposed water supply and sanitary lines and position fixtures for a single storey residential building

4.1.2 Draw the electrical layout plan showing proposed electrical fixture points and control points required for a single story residential building

**4.2.0 Understand details culverts**

4.2.1 Draw detailed sectional plan, sectional elevation, and side elevation of a slab culvert with return wing wall.

4.2.2 Draw detailed sectional plan, sectional elevation and side elevation of a slab culvert with splayed wing wall.

## **CONTENT DETAILS**

### **MODULE - I**

Conventional signs for construction materials- strip footing-RCC column footing-RCC combined footing-paneled door-three panel glazed window-doglegged RCC stair-quarter turn RCC stair-couple roof-close couple roof-single collar roof- double collar roof-plan of tile roof showing all members of gable and hipped end

### **MODULE -II**

Define plinth area-floor area- carpet area-floor area ratio-coverage of building-height of building-building line-set back line-head room-mezzanine floor- basement floor- detached building-- row houses  
Planning requirements of building as per NBC & KMBR: – plan line sketch of residential and public building for the given plinth area in a site and requirements and rules for single ,two, three bed residence, an office building, primary school building and public health centre  
Prepare Detailed Plan-elevation-section from the line sketch of one bed , two bed ,three bed room RCC building in flat roof , sloped roof combination roof, single storey & double storey residential building in a site-single storey tile roof residential building

### **MODULE- III**

Prepare detailed Plan, elevation, section from the line sketch of office building-school building-hospital building -prepare service plan of single storey residential building

### **MODULE -IV**

Plumbing layout showing water supply and sanitary fixtures of a residential building-electrical layout showing electrical fixtures and control points-detailed plan and section of slab culvert with return wing wall and splayed wing wall

### **REFERANCE BOOKS**

1. Dr. A Achuthan, Dr.Balagopal & T S Prabhu: Building Planning and Drawing ; Spades publishers
2. S P Deodar : Building Planning and Science ; Khanna publisher
3. Kerala Municipal Building Rule
4. Kerala Panchayath Building Rule
5. National Building Code