

Subject Code	Subject Name	Period per Week		Credit
26141	Architectural Design-III	T	P	C
		2	6	4

Rationale	The subject will enable to focuses on fundamentals of architecture focusing on formulation of form an its relation with experimental quality of space. Students will go through systematic approach on collecting and evaluating information in order to understand context, climatic consideration, materials and users' comfort and interpret them into design through architectural drawings. The course will concentrate on process how to arrange functions, analyze site force data and formulation design proposal accordingly. Importance will be given on achieving innovative formal expression, structural logic and cultural considerations. Students will also be able to incorporate ideas on landscape design consideration, building components and service system.
Learning Outcome (Theoretical)	After undergoing the subject, students will be able to • State shelter/shed/canopy. • Describe structural consideration for shed/canopy. • Describe the religious building. • Describe planning of Mosque. • Describe design feature of a mosque. • Explain stair. • Discuss Building by-laws and Building Approval. • Describe basic terms of building by-laws about building construction act.
Learning Outcome (Practical)	After undergoing the subject, students will be able to • Design a shed/canopy. • Prepare presentation drawings of shed/canopy. • Prepare staircase detail. • Design of mosque. • Develop RAJUK sheet/ building approval sheet. • Prepare presentation drawing of mosque • Prepare working drawing of mosque. • Prepare detail drawing of mosque. • Prepare miscellaneous drawing of mosque. • Prepare the landscape drawing of mosque.

Detailed Syllabus (Theory)

Unit	Topics with Contents	Class (1 Period)	Final Marks
1	SHELTER/SHED/CANOPY 1.1. Define bus stand passenger shelter/shed/canopy. 1.2. Explain pedestrian circulation area. 1.3. Discuss the supporting facilities of a passenger shed. 1.4. Discuss the climatic consideration for the shed/canopy. 1.5. Discuss the public ergonomics for pedestrians. 1.6. Discuss the design idea formation of shed/canopy.	3	7
2	STRUCTURAL CONSIDERATION FOR SHED/CANOPY 2.1 Discuss different type of structural system. 2.2 Discuss structural expression. 2.3 Explain different materials used in shed or canopy. 2.4 Explain the anchoring and joint system of wood, steel and bamboo.	2	5
3	THE RELIGIOUS BUILDING 3.1 Define religious building. 3.2 Define Mosque, Church, Temple and Pagoda. 3.3 Discuss the design features of Mosque, Church, Temple and Pagoda. 3.4 Compare among the structural features of Mosque, Church, Temple and Pagoda.	2	5
4	PLANNING OF MOSQUE 4.1 Define mosque. 4.2 Discuss the design idea formation of Mosque. 4.3 Discuss the design aspects of prayer hall, Mimber/pulpit, mihrab, minar, dome and ablution area. 4.4 Describe Prayer Hall with different dimension & allocation. 4.5 Explain Mimber & Mihrab with dimension & allocation. 4.6 Discuss ablution area & Shan with dimension & allocation. 4.7 Explain the necessity of Dome & Minar at mosque.	2	8
5	DESIGN FEATURE OF A MOSQUE 5.1 Discuss different materials used in mosque. 5.2 Discuss the orientation of a mosque. 5.3 Explain the ventilation of a mosque. 5.4 Explain the lighting and acoustic system of a mosque.	4	5
6	STAIR & STIARCASE 6.1 Define stair & staircase. 6.2 Discuss the classification of stair. 6.3 Explain the components of stair. 6.4 Discuss the consideration factors of stair design. 6.5 Discuss the modern materials used in stair. 6.6 Discuss the consideration factors of fire escape.	3	10

	6.7 Relate between trade and riser.		
7	BUILDING BY-LAWS AND BUILDING APPROVAL 7.1 Define Building by-laws and BNBC. 7.2 Define RAJUK Sheet/ Building approval Sheet. 7.3 Explain different features of a building approval sheet. 7.4 Explain FAR, MGC and Set-Back of building approval sheet. 7.5 Discuss RAJUK, CDA, RDA and KDA rules for Stair. 7.6 Explain the rule for Ramp, Horizontal exit, number of exits, maximum length of travel distance and railing. 7.7 Describe the car parking and turning radius.	4	10
8	BUILDING BY-LAWS ABOUT BUILDING CONSTRUCTION ACT 8.1 Define Authorized officer, fire resistance materials, fire resistance door, air well, loft, DAP, As-Built Drawing and coverage area according to RAJUK law. 8.2 Describe the building plan permit & Occupancy Certificate according to RAJUK law. 8.3 Describe the basement and mezzanine floor Planning. 8.4 State the construction and construction permit. 8.5 Describe the road and footpath according to RAJUK law. 8.6 Describe health and safety according to RAJUK act. 8.7 Discuss disable people right in RAJUK law. 8.8 State Means of escape.	4	10
	Total	32	60

Detailed Syllabus (Practical)

Sl.	Experiment name with procedure	Class (3 Period)	Continuous Marks
1	DESIGN A SHED/CANOPY 1.1. Present a Case study report of any shed or canopy. 1.2. Make free hand sketches from interpreted ideas of a shed or canopy. 1.3. Draw a free hand 3D view of the shed or canopy. 1.4. Draw presentation drawings of a shed or canopy by following ergonomics and climatic consideration. 1.5. Make a mass model of shed or canopy.	3	5
2	PREPARE PRESENTATION DRAWINGS OF SHED/CANOPY 2.1 Draw a plan of the shed or canopy in scale with rendering. 2.2 Draw a long section of the shed or canopy in scale. 2.3 Draw the transverse section of the shed or canopy scale. 2.4 Draw a roof plan of the shed or canopy in scale.	3	5

	2.5 Draw a site plan of the shed or canopy in scale. 2.6 Make a model of the shed or canopy.		
3	PREPARE STAIRCASE DETAIL 3.1 Draw ground floor plan of an open well stair having entrance under landing with dimension. 3.2 Draw Typical Floor plan of the staircase with dimension and annotation. 3.3 Draw a longitudinal section of the stair with dimension, showing materials symbol and different parts of stair. 3.4 Draw detail of tread, riser, baluster, balustrade, nosing, railing and newel post.	2	7
4	DEVELOP A RAJUK SHEET/ BUILDING APPROVAL SHEET 4.1 Draw all necessary drawings for RAJUK sheet/ Building approval sheet of a given residence as per required scale. 4.2 Calculate all necessary measurements. 4.3 Calculate FAR, MGC and Set back rules. 4.4 Write the title box with all necessary information.	2	5
5	DESIGN OF MOSQUE. 5.1 Present a case study report of any historical or contemporary mosque. 5.2 Make free hand sketches from interpreted ideas of mosque. 5.3 Convert the line sketch into 1:100 scale. 5.4 Draw the final plan of the mosque in 1:100 scale. 5.5 Draw the four-side elevation of the mosque in 1:100 scale. 5.6 Draw long and cross section of the mosque in 1:100 scale.	3	10
6	PREPARE WORKING DRAWING OF MOSQUE 6.1 Draw the plan of the mosque with detail dimensions in 1:50 scale. 6.2 Draw front elevation of the mosque in 1:50 scale. 6.3 Draw side elevation of the mosque in 1:50 scale. 6.4 Draw long section of the mosque in 1:50 scale with dimensions. 6.5 Draw cross section of the mosque in 1:50 scale with dimensions.	2	5
7	PREPARE OTHER COMPONENTS' DETAIL DRAWING OF MOSQUE 7.1 Draw the floor pattern of tiles/mosaic. 7.2 Draw the detail plan of Mihrab & Mimber in 1:20 scale. 7.3 Draw the detail plan of ablution area and toilet showing all fixture 1:20 scale. 7.4 Draw the ceiling plan of the mosque 1:50.	2	5

	7.5 Draw the plan & section of Minar 1:20.		
8	PREPARE MISCELLANEOUS DRAWING OF MOSQUE 8.1 Draw the detail plan & section of the Dome in 1:20 scale. 8.2 Make calligraphy for the mosque. 8.3 Draw the detail plan, elevation & section of entry door and other door. 8.4 Draw the detail plan, elevation & section of the window. 8.5 Draw the gateway detail of the mosque.	2	5
9	PREPARE LANDSCAPE DRAWING OF MOSQUE 9.1 Draw the site plan of the mosque in 1:50 scale. 9.2 Draw the parking area of the mosque. 9.3 Draw the walk way, roads, garden, fountain in the site plan. 9.4 Draw the landscape plan of the mosque. 9.5 Make a model of the mosque with landscape.	1	3
	Total	32	50

Necessary Resources (Tools, equipment's and Machinery):

Sl	Item Name	Quantity
1.	Drawing sheet (Size A2, A3)	10 reams (500 Sheets per Reams)
2.	Cutting Matt size A ₂ (18"X 24")	50
3.	PVC Sheet, size (4'x8') (thickness 1.5mm)	25
4.	Model paper size (24"x 32"), 260-300 GSM, Color (grey, light grey, brick red)	50
5.	Tracing paper (Size 60/65 gsm, 20meter long roll)	12 Nos
6.	Wooden Pencil (2B) Garman quality	12 Dozens
7.	Color pencil	12 packets
8.	Eraser (soft)	4 Dozens
9.	Paper Tape (3/4")	4 Dozens
10	Drafting pen (0.1, 0.3, 0.5, 1.0)	20 set
11	Triangular scale	48 Nos.
12	Set square	48 Set.
13	Frosted sheet, size A ₃	50
14	Acrylic sheet, Size (4'x 8')	10pcs
15	Shashlik stick, long 10" and round shape	Pack(100 sticks)