

Trade : Architectural Draughtsmanship

First Semester: 1

Duration: Six Month

Course Code No	Trade Practical 01 (Building construction + Graphic presentation)	Trade Theory 01 (Building construction + History of architecture)
VTC AD-101	<ul style="list-style-type: none"> ● Importance of safety and general precautions observed in the institute and in the section ● Importance of the trade in the development of the country's infrastructure ● Recreational, medical facilities and other extra curricular activities of the institute ● All necessary guidance to be provided to the new comers to become familiar, with the working of training institute 	<ul style="list-style-type: none"> ● Familiarization with the institute ● Importance of trade training ● Introduction to the trade and professional prospects
VTC AD-102	<p>Brick masonry</p> <ul style="list-style-type: none"> ● Sizes of brick and brick tiles ● English and Flemish bond- for half brick thick. and one brick thick. wall <p>GP</p> <ul style="list-style-type: none"> ● Lettering – basics, vertical and inclined, forms and proportions, types of lettering strokes, composition, fonts (Gothic, Roman etc), writing sentence 	<p>BC – Brick masonry</p> <ul style="list-style-type: none"> ● Sizes of brick and brick tiles ● Principle of brick masonry construction ● English and Flemish bond ● Opening in masonry ● Hollow brick masonry <p>GP</p> <ul style="list-style-type: none"> ● Importance of lettering, writing of letters and figures, sizes, proportion, etc. as per IS code
VTC AD-103	<p>Stone masonry</p> <ul style="list-style-type: none"> ● Coarsed and uncoarsed rubble masonry ● Coarsed and uncoarsed random rubble masonry ● Ashlar - chamfered masonry <p>GP</p>	<p>BC - Stone masonry</p> <ul style="list-style-type: none"> ● Technical terms ● Principles of stone masonry ● Classification of stone masonry ● Coarsed rubble, uncoarsed rubble masonry ● Coursed and uncoarsed random rubble

- Sketches of landscape/ monuments with water colors, pencil colors, crayons

- Ashlar - chamfered masonry

GP

- Free hand sketching

VTC AD-104

Foundation

- Types of foundation (pile, raft, spread, mat, column, retaining wall)

BC – Foundation

- Definition
 - Types of foundation (pile, raft, spread,
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		mat, column, retaining wall) <ul style="list-style-type: none"> ● Depth of foundation ● Footing and foundation sizes minimum required
VTC AD-105	<p>GP</p> <ul style="list-style-type: none"> ●Color wheel - primary, secondary, tertiary colors ●Color schemes - monochromatic, tones and shades in any creative pattern 	<p>Concrete masonry</p> <ul style="list-style-type: none"> ●Openings in concrete masonry ●Reinforced concrete masonry ●Mortar for concrete masonry <p>GP</p> <ul style="list-style-type: none"> ●Definition of color ●Qualities of color ●Color wheel ●Properties of color
VTC AD-106	<p>Joints(wood)</p> <ul style="list-style-type: none"> ● Detail sketches of various types of carpentry joints <p>GP</p> <ul style="list-style-type: none"> ●Composition of pattern using different textures using different grade of pencils (H, HB, B, 2B etc) 	<p>Carpentry Joints</p> <ul style="list-style-type: none"> ●Technical terms ●Classification of joints (lengthening spliced or longitudinal joints, bearing joints, angle or corner joints, oblique – shouldered joints, widening or side joints) and its uses in wood work <p>GP</p> <ul style="list-style-type: none"> ●Methods of pencil use ●Pencil grades
VTC AD-107	<p>DPC</p> <ul style="list-style-type: none"> ●Detail at plinth level, on terrace and basement floor 	<p>Damp proof course</p> <ul style="list-style-type: none"> ●Sources of dampness ●Effects of dampness ●Prevention ● Damp proof treatments in building
VTC AD-108	<p>Lintels</p> <ul style="list-style-type: none"> ●Wooden lintel, stone lintel, brick lintel, steel lintel, RCC lintel, chajjas 	<p>Lintels</p> <ul style="list-style-type: none"> ●Purpose and types (wooden lintels, brick lintel, stone lintel, reinforced brick lintel, reinforced concrete lintel, steel lintel)
VTC AD-109	<p>Arches</p> <ul style="list-style-type: none"> ●Semicircular arch, flat arch, segmental arch, pointed arch, two centered arch, corbelled arch, brick arch, stone arch, concrete arch 	<p>Arches</p> <ul style="list-style-type: none"> ●Types of arches (flat arch, semi circular arch, segmental arch, relieving arch, Dutch of French arch) ●Technical terms ●Classification of arches ●Materials used for construction
VTC AD-110	<p>Doors</p> <ul style="list-style-type: none"> ●Details Paneled door, flush door, batten and ledged door <p>Visit to any Construction site for better exposure to details</p>	<p>Doors</p> <ul style="list-style-type: none"> ● Size of doors ●Door frame ●Types of doors <p>HOA – elements and features</p> <p>Indian architecture</p> <ul style="list-style-type: none"> ● Stupas and its characteristic features and typical examples ● Northern Indian style elements (Lingaraja temple, Sun temple)

		<ul style="list-style-type: none"> ● rock cut caves and its elements (badami, Ajanta and Ellora) ● South Indian temples - Syle and its elements (Mahabalipuram, Tanjavur, Madurai)
VTC AD-111	<ul style="list-style-type: none"> ● Glazed door, sliding door, revolving door 	Egyptian Architecture <ul style="list-style-type: none"> ● Characteristic features of the great pyramid of Cheops at Giza and great sphinx of chephren
VTC AD-112	Windows <ul style="list-style-type: none"> ● Casement window, louvered window, ventilator and its details 	Windows <ul style="list-style-type: none"> ● Size of window ● Classification of windows Greek Architecture <ul style="list-style-type: none"> ● Greek columns like Doric order, ionic order, Corinthian order ● Characteristic features of the temple of Parthenon at Athens, Olympia stadium at Athens
VTC AD-113	<ul style="list-style-type: none"> ● Glazed window, pivoted window and its details 	Roman Architecture <ul style="list-style-type: none"> ● Characteristic features of the temple of Saturn at Rome, the Pantheon at Athens, basilica of Trajan at Rome

TRADE : ARCHITECTURAL DRAUGHTSMANSHIP

FIRST SEMESTER: 2

DURATION: SIX MONTH

COURSE CODE NO.	Trade Practical TP02 in CAD (Building construction + Architectural design)	Trade Theory TT02 (Building construction + Architectural design)
VTC AD-201	<ul style="list-style-type: none"> ● Introduction to design ● Design topic – Residential ● Concept and visualization of design. Students should be able to understand the process of designing and the design project will go through out the semester ● Case study of similar project to be done 	<p>Basic elements of design</p> <ul style="list-style-type: none"> ● Understanding the basic elements of design like Point, line, linear elements, plane, volume
VTC AD-202	<ul style="list-style-type: none"> ● Preliminary drawing will be prepared by the students in AUTOCAD based on a single project of G+1 residential building after analyzing the requirement and area analysis ● Initial sketches / preliminary drawings in CAD <ol style="list-style-type: none"> a) Sketches of the plan b) Surrounding area and site landscaping c) Minimum front and 1 side elevation d) Section through toilet and stairs 	<p>Aesthetic components of design</p> <ul style="list-style-type: none"> ● Texture, color, direction, tone, proportion, scale, balance, symmetry
VTC AD-203	<p>Stairs</p> <ul style="list-style-type: none"> ● Plan and elevation of different types of stairs 	<p>Stairs</p> <ul style="list-style-type: none"> ● Technical terms used ● Materials used for different types of stairs ● Planning and design of a stair ● Details of construction of various stairs <p>Factors considered in Architectural design</p> <ul style="list-style-type: none"> ● Requirements ● Circulation (elements of circulation, path configuration, form of circulation spaces)

VTC AD-204	<ul style="list-style-type: none">● Construction details of dog legged stairs, baluster details, railing, nosing, tread and riser calculation	Floors <ul style="list-style-type: none">● Components of floor● Suspended floor● Floor coverings● Ground and basement floor
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VTC AD-205	<p>Floors and flooring</p> <ul style="list-style-type: none"> ● Sub floor and floor finish details, types of brick floors, timber floors ● Construction details of mosaic, terrazzo, PVC, rubber, brick, granite or marble, wooden flooring 	<p>Flooring</p> <ul style="list-style-type: none"> ● Types and its laying process (terrazzo, concrete, granite, marble, tiles, rubber, wooden)
VTC AD-206	<p>Roof and roof coverings</p> <ul style="list-style-type: none"> ● Pitched roof details ● Flat roof details ● Lean to roof details 	<p>Roof and roof coverings</p> <ul style="list-style-type: none"> ● Technical terms ● Pitched roof , flat roof, lean to roof ● Materials used for roofing like asbestos sheet, terracotta tiles, AC sheets, corrugated sheets etc
VTC AD-207	<p>Basement construction detail</p> <ul style="list-style-type: none"> ● Basement wall construction and treatment to prevent seepage. ● Basement floor detail ● Basement roof detail 	<p>Anti termite treatment</p> <ul style="list-style-type: none"> ● Types of anti termite treatment ● Treatment to basement in ordinary soil ● Treatment to basement in damp soil
VTC AD-208	<p>Final design</p> <ul style="list-style-type: none"> ● All floor plans rendered with furniture layout ● Front elevation and one side elevation rendered ● Section through toilet/ staircase rendered ● Site plan with all landscape elements <p>Note: Subject of drawing, scale, date, job no, address, ph no, north, sheet no. to be mentioned in all the sheets. Drawing produced should be well readable and self explanatory</p>	<p>Fire protection</p> <ul style="list-style-type: none"> ● Definitions ● Fire resisting properties of materials ● Fire resistant construction ● Fire fighting equipments and detection(alarm, sprinklers systems etc) ● Means of escape, staircase, lifts etc <p>Rain water harvesting</p> <ul style="list-style-type: none"> ● Purpose, advantages, system set up and various process ● Today's need for rain water harvesting and its implications
VTC AD-209	<p>Project work / On the job training</p> <ul style="list-style-type: none"> ● On the job training in any of the Architect's office or project work 	

