

Lesson Plan on Civil Engineering Drawing - II (AutoCAD) *Summer - 24*

Course Requirement: All drawings to be prepared using AutoCAD Software only

Total Contact Hours: 90 Hours

Weekly Duration: 6 Hours/Week

Total Duration: 15 Weeks

Faculty- **Soubhagya Ranjan Mohanty and Deepanjali Sethi**

Week	Hours	Topic / Drawing Exercise	Details of Activities
Week 1	6 Hrs	Introduction to AutoCAD for Civil Drawings	Introduction to AutoCAD interface, commands, layers, units, dimensioning, text styles, line types, drawing setup and plotting standards.
Week 2	6 Hrs	RCC Slab Culvert – Study of Drawing	Study of RCC slab culvert with right angled wing wall. Understanding plan, elevation, sections, dimensions and construction details
Week 3	6 Hrs	RCC Slab Culvert Drawing	Preparation of half foundation plan and half top plan using AutoCAD. Setting layers, dimensions and annotations. Drawing cross-sectional elevation and longitudinal section of RCC slab culvert with right angled wing wall. Final detailing and corrections.
Week 4	6 Hrs	RCC Slab Culvert Sections	Study of RCC Hume pipe culvert with splayed wing wall. Preparation of plan, elevation and sectional details using AutoCAD.
Week 5	6 Hrs	Hume Pipe Culvert Drawing	Final detailing of Hume pipe culvert drawings, dimensioning, labeling and submission of culvert drawings.
Week 6	6 Hrs	Completion of Culvert Drawings	Study of vertical drop type fall (Sarada Type). Understanding components, specifications and drawing requirements.
Week 7	6 Hrs	Irrigation Structures – Vertical Drop Fall	Preparation of detailed AutoCAD drawing of vertical drop fall including plan, longitudinal section and cross section with required dimensions.
Week 8	6 Hrs	Drawing of Vertical Fall Structure	Study of drainage siphon structure from given specifications. Preparation of layout and sectional views.
Week 9	6 Hrs	Drainage Siphon Drawing	Detailed AutoCAD drawing of drainage siphon including plan, elevation, sections, dimensions and annotations.
Week 10	6 Hrs	Completion of Drainage Siphon Drawing	

Week 11	6 Hrs	Plumbing and Sanitary Drawing	Introduction to plumbing and sanitary symbols. Study of water supply, drainage layout and sanitary fittings for a two-room building.
Week 12	6 Hrs	Two Room Building Plumbing Layout	Preparation of detailed plumbing and sanitary connection drawings including fixtures, pipes, connections and fittings using AutoCAD.
Week 13	6 Hrs	Septic Tank and Soak Pit Drawing	Study of septic tank design for 50 users. Understanding components, dimensions and connection details from water closet.
Week 14	6 Hrs	Septic Tank & Soak Pit AutoCAD Drawing	Preparation of detailed plan, sectional elevation and connection details of septic tank and soak pit.
Week 15	6 Hrs	Final Submission & Revision	Review of all drawings, corrections, proper dimensioning, title blocks, plotting and final AutoCAD drawing submission.

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