



SYLLABUS

1. ELECTRICAL DESIGN DRAUGHTING (FOR BUILDING WORKS)

- o BASIC PRINCIPLES OF ELECTRICAL DRAUGHTING.
- o INTERNATIONAL STANDARDS FOR ELECTRICAL DRAUGHTING WORKS.
- o ELECTRICAL NORMS AND LEGENDS.
- o LIGHTING AND POWER CIRCUIT LAYOUTS AS PER ADDC, DEWA AND SEWA RULES & REGULATIONS.
- o PREPARING LOAD SCHEDULES AND SCHEMATIC DIAGRAMS.
- o CALCULATION OF BREAKER SIZES AND CABLE SIZES WITH RESPECT TO VOLTAGE DROP.
- o CABLE TRAY ROUTING LAYOUT AND SUPPORT DETAILS.
- o SLEEVES, TRENCH AND MANHOLE DETAILS.
- o FIRE ALARM SYSTEM DRAWINGS AND RISER.
- o TELEPHONE SYSTEM DRAWINGS AND RISER
- o CCTV SYSTEM DRAWINGS AND RISER
- o MATV SYSTEM DRAWINGS AND RISER
- o AS-BUILT DRAWINGS.

2. ELECTRICAL DRAUGHTING (FOR OILFIELD SERVICES)

- o BASIC PRINCIPLES OF ELECTRICAL DRAUGHTING.
- o INTERNATIONAL STANDARDS FOR ELECTRICAL DRAUGHTING WORKS.
- o ELECTRICAL NORMS AND LEGENDS.
- o LIGHTING AND POWER CIRCUIT LAYOUTS AS PER CLIENTS REQUIREMENTS.
- o PREPARING LOAD SCHEDULES AND SCHEMATIC DIAGRAMS.



- o CALCULATION OF BREAKER SIZES AND CABLE SIZES WITH RESPECT TO VOLTAGE DROP.
- o CABLE TRAY ROUTING LAYOUT AND SUPPORT DETAILS.
- o SUPPORT FABRICATION AND CUT LISTS.
- o FIRE AND SAFETY SYSTEM DRAWINGS AND RISER.

3. INSTRUMENTATION DESIGN DRAUGHTING (FOR OILFIELD SERVICES)

- o BASIC PRINCIPLES OF INSTRUMENTATION DRAUGHTING.
- o INTERNATIONAL STANDARDS FOR INSTRUMENTATION DRAUGHTING WORKS.
- o INSTRUMENTATION NORMS AND LEGENDS.
- o GENERAL LAYOUT FOR INSTRUMENTS AND EQUIPMENTS.
- o PROCESS PLANT LAYOUT.
- o DEFINITION, BASICS OF PLANT LAYOUT DESIGN AND FUNDAMENTALS. PLANT LAYOUT SPECIFICATIONS, STANDARD SPECIFICATIONS & DATA SHEETS FOR PROCESS EQUIPMENTS.
- o PROCESS PLANT EQUIPMENTS
- o TUBE ROUTING & DRAFTING
- o SYMBOLS, FLOW DIAGRAMS, GENERAL ARRANGEMENT DRAWINGS SECTIONS.
- o PROCESS & INSTRUMENTATION DIAGRAMS (P&ID S) / PROCESS FLOW DIAGRAMS
- o PURPOSE OF P&ID S, STAGES OF DEVELOPMENT OF P & ID S.
- o PURPOSE OF PFD S, SYMBOLISM & CONVENTIONS FOR PFD S
- o INTRODUCTION TO ASME CODES & STANDARDS
- o CODES, SPECIFICATIONS, ABBREVIATIONS, PIPING ABBREVIATIONS, SPECIFICATION CLASSES



- o EQUIPMENT LAYOUT
- o TUBES AND TUBE TRAY SCHEDULES.
- o CABLE AND CABLE TRAY ROUTING AND SCHEDULE.
- o TUBE AND CABLE TRY SUPPORT DETAILS.
- o INSTRUMENT LAYOUT AND HOOK- UP DRAWINGS.

4. ELECTRICAL & INSTRUMENTATION DESIGN DRAUGHTING – E & I (FOR OILFIELD SERVICES)

- o BASIC PRINCIPLES OF ELECTRICAL DRAUGHTING.
- o INTERNATIONAL STANDARDS FOR ELECTRICAL DRAUGHTING WORKS.
- o ELECTRICAL NORMS AND LEGENDS.
- o LIGHTING AND POWER CIRCUIT LAYOUTS AS PER CLIENTS REQUIREMENTS.
- o PREPARING LOAD SCHEDULES AND SCHEMATIC DIAGRAMS.
- o CALCULATION OF BREAKER SIZES AND CABLE SIZES WITH RESPECT TO VOLTAGE DROP.
- o CABLE TRAY ROUTING LAYOUT AND SUPPORT DETAILS.
- o SUPPORT FABRICATION AND CUT LISTS.
- o FIRE AND SAFETY SYSTEM DRAWINGS AND RISER.
- o BASIC PRINCIPLES OF INSTRUMENTATION DRAUGHTING.
- o INTERNATIONAL STANDARDS FOR INSTRUMENTATION DRAUGHTING WORKS.
- o INSTRUMENTATION NORMS AND LEGENDS.
- o GENERAL LAYOUT FOR INSTRUMENTS AND EQUIPMENTS.
- o TUBE ROUTING LAYOUT
- o SYMBOLS, FLOW DIAGRAMS, GENERAL ARRANGEMENT DRAWINGS SECTIONS.
- o PROCESS & INSTRUMENTATION DIAGRAMS (P&ID S) / PROCESS FLOW DIAGRAMS



- o PURPOSE OF P&ID S, STAGES OF DEVELOPMENT OF P & ID S.
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- o CABLE AND CABLE TRAY ROUTING AND SCHEDULE.
- o TUBE AND CABLE TRY SUPPORT DETAILS.
- o INSTRUMENT LAYOUT AND HOOK- UP DRAWINGS.