

MODU Electrical For Offshore Personnel – Level 1

Course Code : AT5201



Course Length (Days)	Taught Hours	Practical Content (%)	Theoretical Content (%)
05	35	40	60

Target Audience

This course is designed for electrical personnel working in the offshore and marine industries, and is principally aimed at junior staff and those with a land-based background.

Course Objectives

The course examines the basic theory and practical applications of the types of electrical systems and equipment encountered offshore. Basic electrical safety is covered including safe isolation & PTW systems, and drilling rig systems are introduced.

Candidates perform practical exercises in the ATTS training facility. These include generator synchronizing, motor starting methods, and basic equipment inspection & trouble shooting.

Course Content

Theory Components

- **Electrical Safety and Permits to Work**
Dangers to Personnel & Plant, First Aid
System Voltage Levels
Introduction to Hazardous Areas
PTW, Safe Isolation & LOTO
Test Instruments and their uses
- **The Drilling Rig**
Hazards, and Ex Safety
Introduction to Rotary Drilling Process, components and nomenclature
Offshore Rigs – Personnel, Types of Rig
- **Review of Electrical Basics**
DC & AC basic theory
Basics of Semiconductors
- **Electrical Symbols and Diagrams**
SI units
Electrical symbols, IEC & US
Drawings and diagrams
Examples, & rig single-line drawing
- **AC Distribution**
Enclosures & IP
Earthed and Uearthed
Distribution Systems
Switchgear and Transformers
Cables
Metering & Protection
- **AC Generator**
Generators and Prime Movers
Emergency Generator
Synchronising
- **AC Motors and starting**
Types
The induction motor
Starting & MCC's
Connections and markings
- **DC Systems**
Motors and Generators
Battery Systems
- **Offshore Equipment**
Introduction to AC / DC Drives & generator Control
More about drilling equipment
Lighting and HVAC
Ships service equipment
- **Final question paper**
Course review

Practical Components

- Synchronising
- AC Motor Control
- Inspection of LV Equipment
- AC Motor Maintenance
- Trouble Shooting AC circuits

Delivery

Teaching aids, apparatus, slides, videos, practical demonstrations, questionnaires, theory and practical assessments.

Certification

ATTS Certificate of Attendance
ATTS Final Certificate showing results of theory and practical assessments will be awarded.

Minimum Number of Delegates Required Per Event

10

Times of Training

08:30 to 17:00

Venue

28B Penjuru Close, #01-06, Singapore 609130

Special Requirements

Delegates are required to supply their own personal protective safety equipment.

Dates And Prices

Please check with course administrator

