Human Capital Associates Global Consult Ltd RC: 1462051

Workshop on Mechanical Engineering for Non-Mechanical Engineers
January 8 - 12, 2024, 1st Run: Lagos & Abuja
July 1 – 5, 2024, 2nd Run: Lagos & Port Harcourt
For Tutor -Led Class: 9am – 4:30pm
Workshop fee: N300, 000 per Participant
For online: Delivery via Zoom
Time: 9am – 4:00pm everyday
Online course fee: N250, 000 per Participant
Available for In-plant Training

600 U$D for foreign Participants

Program Overview:

This course provides non-mechanical engineers and other professionals with an introduction into the core subject areas of mechanical engineering. Engineering as a profession is becoming increasingly multi-disciplinary, and is also combining with other professions. People can find themselves working with mechanical engineers, without understanding the technical language or the key engineering principles. This course focuses on the traditional mechanical engineering subject areas. It covers design, statics (stationary objects), dynamics (things that move), fluids (gases and liquids) and other general subjects. The theory covers the terminology and the basic laws that underpin each topic. A better understanding of the precise use of terms can help improve communication with mechanical engineers, and participation in mechanical engineering projects. For example, we discuss the difference between 'gauge' and 'absolute' pressure, and why that matters.
This course covers a broad range of mechanical engineering subjects. The subjects are explained with examples of engineering applications, with a range of exercises to enhance understanding and support learning. Comprehensive references are provided for participants who would like to further their learning on any specific topic in further detail.

For Whom:
This course is designed for professionals who work alongside mechanical engineers or in organizations where mechanical engineering is an important part of their business. It is also beneficial for those who wish to broaden their knowledge base and gain a practical insight into the subject.

Learning Objectives:

At the end of the program, participants will be able to:

- explain the main subject areas of mechanical engineering;
- recognize the key terminology and the fundamental laws;
- clarify communications with mechanical engineers;
- analyze engineering problems better; and
- participate more effectively in mechanical engineering projects.

Course Outline:

Day 1: Design

- Mechanical engineering design
- Standards
- Technical drawing
- Orthographic projections

- Tolerance
- Fits
- Mechanical Components
- Computer-Aided Design (CAD)

Day 2: Statics

- Properties of engineering materials
- Solid Mechanics
- Forces
- Newton's Laws of Motion
- Equilibrium
- Stress
- Strength
- Strain

Day 3: Dynamics

- Types of motion
- Energy
- Friction
- Lubrication
- Bearings
- Shafts
- Fatigue
- Vibration

Day 4: Fluids

- Fluid mechanics
- Gases
- Perfect gas law
- Liquids
- Buoyancy
- Viscosity
- Aerodynamics
- Thermodynamics

Day 5: General Subjects

- Mathematical approach
- Units
- Computer tools
- Problem solving
- Documentation
- Ethics
- History of mechanical engineering
- Professional engineering registration

LOCATIONS
1 - HCA Learning Centre. Acme House 2nd Floor, 23, Acme Road, Ogba, Industrial Scheme, Ikeja, Lagos, Nigeria

2 - Green-Minds Hotel, Plot 764, Cadastral Zone B05, E. Ekukinam Street, Utako District, Abuja

3 – Pakiri hotel Ltd., 4 Okwuruola Street, off Stadium Road, Rumuola, Port Harcourt, Rivers State.

Open Course Fee: N300, 000
In-plant Fee Negotiable

WORKSHOP FEE:
N300, 000 per participant, VAT –N22, 500
Note: this covers Workshop Fee, Tea/coffee break, Lunch, course materials and certificate of attendance.
Payment should be made into our Accounts:
Account Name: Human Capital Associates Global Consult Ltd.
Union Bank of Nig. PLC: Account No: 0097961537
First Bank of Nig. PLC: Account No: 2033683960
Keystone Bank Ltd.: Account No: 1007150325

For Booking / Enquiry, Call: 234-8051365946, 234-7087578814 24/7 Lines: 234-8068933608, 234-8029170491, 234-8145745664, & 234-9112830607

Training Methodology

Lectures, discussions, exercises, and case studies will be used to reinforce these teaching/learning methods.