Specialist Diploma in Mechanical Engineering

OVERVIEW

The Specialist Diploma in Mechanical Engineering provides the opportunity for students with or without experience to develop a broad knowledge of engineering. People with mechanical skills highly valued in society.

PROGRAMME OBJECTIVES:

This course aims are to equip students with applied knowledge, understanding and skills for success in employment in the Mechanical Engineering sector and develop a wide range of skills and techniques, personal qualities and attributes essential for successful performance and immediately contribution to employment

ASSESSMENT METHODS:

70% Coursework & 30% Examination

DURATION COMPONENTS:

Classroom Training Hours: 30 Hours Per Module

MODULE SYNOPSIS:

HM401 Human Management

This module aims to learn various approaches to motivation, leadership and team-building and to illustrate how and when those approaches are approaches used. It is essential for students to learn team management skills and how to organise groups for maximum effectiveness, motivate group members and promote and reward team success.

Upon completion of this module, students will be able to demonstrate an awareness of how the managers of an organisation can seek to ensure that the organisation has sufficient competent staff to facilitate the achievement of strategic objectives in the face of a changing environment.

CP401 Contract Practice

The module is providing students with a sound understanding of Contract Law and its reforms which will be required for their everyday work in the profession requiring specialised knowledge of contract law principles and evaluate contractual issues. It is important for students to understand the various forms of contracts and the responsibilities of the people involved in executing a contract.

Upon completion of this module, students will be able to understand the general principles of the law of contract and practical and social context in which those rules operate.

MM401 Mechanics and Materials

This module provides an introduction to the mechanics of solids with applications to science and engineering. It focuses on three essential features of all mechanics analyses including the geometry of the motion and deformation of the structure, and conditions of geometric fit; the forces on and within structures and assemblages; and the physical aspects of the structural system (including material properties) which quantify relations between the forces and motions/deformation.

PROGRAMME OUTCOMES:

Upon completion of the course, the students will be competent to:

- Plan, co-ordinate, implement and evaluate quality control and quality assurance procedures to meet organizational standards and requirements
- Analyse and solve complex mechanical problem by applying mathematics and fundamentals of mechanical engineering

AWARDING BODIES:

Global School of Technology and Management

NUMBER OF MODULE:

6

TOTAL CONTACT HOURS:

180

DV401 Dynamics and Vibrations

All engineer should understand the necessary fundamental skills for the analysis of the dynamics of mechanical systems and modelling and analysis of vibrations. The learning objectives of this module are to understand the application of vibration analysis to critical engineering systems and evaluate complex (single-and multi-degree of freedom) systems and via a systematic approach show an understanding of the response of the system to periodic excitations. Students also learn the mathematical tools underpinning the measurement, analysis, modelling and design of complex vibrating systems and mechanisms.

EM401 Engineering Mathematics

This module aims to enable the students to become proficient in the application of the mathematical and statistical principles and techniques to analyse and solve the problem within an engineering context. On successful completion of this module, students will be able to:

- Solve problems involving elementary functions and complex numbers.
- Analyse engineering problems and select and apply appropriate techniques of calculus to solve them.
- Perform matrix arithmetic and solve linear algebraic systems.
- Solve simple problems using vector Algebra

EP401 Engineering Principles

The module aims to provide the knowledge, problem-solving skills and practical aspects of engineering sciences. This module is encouraging students to explore a broad range of engineering topics, including parameters within mechanical engineering systems, characteristics and properties of engineering materials, A.C./D.C. circuit theorems, network analysis and electromagnetic principles and properties.

On successful completion of this module, students will be able to learn on how to apply the mechanical and electrical science to find solutions to a variety of engineering problems and how to documents their work and communicate their solutions to their peers.

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