University of Central Lancashire
Training 2000

ENGINEERING
TRAINING COURSES

Electrical and Electronic Engineering
Manufacturing Engineering
Mechatronics

Level 4 Higher National Certificate (HNC)

The BTEC Level 4 HNC Qualification is a higher level programme aimed at developing a greater understanding and technical capability of engineering processes. We have three pathways to choose from - Electrical and Electronic Engineering, Manufacturing Engineering or Mechatronics.

We provide employees with more than just a qualification. We develop both their industry skills and knowledge for immediate application in the workplace which maximises return on investment.

Duration:
2 years - one day per week

Where will I study:
Training 2000, Blackburn

Entry requirements:
Ideally you will have completed a Level 3 qualification in engineering or equivalent

Cost: £2,625 (+VAT) per year

Date: Starts in September each year

What you'll learn: all pathways

Engineering Design
The aim of this unit is to introduce students to the methodical steps that engineers use in creating functional products and processes as an individual or part of a design team; from a design brief to the work, and the stages involved in identifying and justifying a solution to a given engineering need.

Engineering Mathematics
The aim of this unit is to develop students' skills in the mathematical principles and theories that underpin the engineering curriculum. Students will be introduced to mathematical methods and statistical techniques in order to analyse and solve problems within an engineering and manufacturing context.

Managing a Professional Engineering Project
This unit introduces students to the techniques and best practices required to successfully create and manage an engineering/manufacturing project designed to identify a solution to an engineering need. While carrying out this project students will consider the role and function of engineering in our society, the professional duties and responsibilities expected of engineers together with the behaviours that accompany their actions.

Production Engineering for Manufacture
This unit introduces students to the production process for key material types; the various types of machinery used to manufacture products and the different ways of organising production systems to optimise the production process; consideration of how to measure the effectiveness of a production system within the overall context of the manufacturing system; and an examination of how production engineering contributes to ensuring safe and reliable operation of manufacturing.

Quality and Process Improvement
This unit introduces students to the importance of quality assurance processes in a manufacturing or service environment and the principles and theories that underpin them. Topics included in this unit are: tools and techniques used to support quality control, attributes and variables, testing processes, costing modules, the importance of qualifying the costs related to quality, international standards for management (ISO 9000, 14000, 18000), European Foundation for Quality Management (EFQM), principles, tools and techniques of Total Quality Management (TQM) and implementation of Six Sigma.

Lean Manufacturing
The aim of this unit is to introduce students to the principles and processes of lean manufacturing, so that they can become an effective and committed practitioner of lean in whatever industry sector they are employed in. To do this, the unit will explore the tools and techniques that are applied by organisations practicing lean. The students will consider both the benefits and challenges of using lean manufacturing, and become sufficiently knowledgeable about the most important process tools and techniques to be able to operate and use them.

What you'll learn: pathway units

1. Electrical and Electronic Engineering pathway

Automation, Robotics, PLCs

Electrical & Electronic Principles

Electrical Machines

2. Manufacturing Engineering pathway

Computer Aided Design and Manufacture (CAD/CAM)

Industry 4.0

Industrial Robots

3. Mechatronics pathway

Engineering Mechanics and Materials

Analogue and Digital Electronics

Mechatronic Systems in Manufacturing

Please visit www.training2000.co.uk/apprenticeships/engineering for more information of each unit and to book your place.

How you'll be assessed?

All units are internally assessed. Each unit within the qualification has specified pass assessment and grading criteria, in addition to this there are generic merit and distinction grading descriptors that describe performance over and above a pass grade. These allow grades of pass, merit or distinction to be awarded for all units.

Interested? Book your place today

www.training2000.co.uk
01254 54659
info@t2000.co.uk

DEVELOPING TALENT THROUGH TRAINING

University of Central Lancashire
Training 2000

ENGINEERING TRAINING COURSES

General Engineering

Level 5 Higher National Diploma (HND)

Delivering high level, industry-led training courses is what we do. As an engineering provider of advanced technical and academic skills, we work closely with employers to nurture and develop the employees they need for the future.

Duration:
1 year - one day per week

Where will I study:
Training 2000, Blackburn

Entry requirements:
Our one year top up from HNC to HND is obtained by studying a further six units at Level 5.

Cost: £2,625 (+VAT) per year

Date: Starts in September each year

What you'll learn

Professional Engineering Management
The aim of this unit is to provide students with the professional standards for engineers and to guide them on how to develop the range of employability skills needed by professional engineers.

Further Mathematics
The unit will prepare students to analyse and model engineering situations using mathematical techniques.

Research Project
This unit introduces students to the skills necessary to deliver a complex, independently conducted research project that fits within an engineering context.

These units could be subject to change

Advanced Mechanical Principles
The aim of this unit is to provide students with advanced knowledge of the mechanical theories associated with engineering applications.

Further Thermodynamics
The aim of this unit is to develop further students' skills in applied thermodynamics by investigating the relationships between theory and practice.

Sustainability
The aim of this unit is to provide students with a wide range of knowledge and understanding of the issues and topics associated with sustainability and low carbon engineering.

How you'll be assessed?

All units are internally assessed. Each unit within the qualification has specified pass assessment and grading criteria, in addition to this there are generic merit and distinction grading descriptors that describe performance over and above a pass grade. These allow grades of pass, merit or distinction to be awarded for all units.

Interested? Book your place today

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