

# **BTEC Certificate in Motorsport Engineering Level 3**



#### In a nutshell

This course has been designed to give you the foundation knowledge and specific skills required to meet the needs of modern mechanical/motorsport engineering industries.

## This course is for you if...

- ... You want a career in engineering
- ... You have a passion for motorsport
- ... You're hard working and good at problem-solving

## What will I be doing?

This is one of the most exciting and growing industries in the UK, with increasing links between the world of motorsport and other high-performance engineering sectors, such as automotive, defence, marine and aerospace. With the £120 million investment in the Ebbw



Vale Automotive Technology Park and the Circuit of Wales, there has never been a better time to study a course in motorsport engineering.

Alongside your theoretical studies, there are several extra-curricular activities to get involved with. During your first year, you'll get the opportunity to build a Caterham from scratch. During your second year, you'll have the opportunity to be part of Coleg Gwent Racing, where you'll compete in the Radical SR1 Cup. Once you've completed the course, we have a number of pathways you can follow into employment, whether it be an apprenticeship or a university degree.

On this course you'll study:

Year 1

Subsidiary Diploma in Engineering (60 Credits)

Operation of Vehicle Chassis Systems
Motorsport Workshop Practices
Motorsport Vehicle Preparation and Inspection
Vehicle Engine Principles, Operation, Service and Repair
Professional Practice and Logistics for Motorsports
Mathematics for Engineering Technicians

Plus 30 additional credits

Engineering Design
Applications of Vehicle Science and Mathematics
Engineering Drawing for Technicians

Year 2

Vehicle Project
Vehicle System Fault Diagnosis and Rectification
Fabrication Processes and Technology
Light Vehicle Suspension Steering and Braking Systems
Electrical and Electronic Principles for Vehicle Technology
Properties and Applications of Engineering Materials
Function and Operation of Vehicle Petrol Injection Systems
Welding Technology

To develop your practical skills, you'll have access to a state-of-the-art workshop and can take





part in numerous motorsport events throughout the UK. You'll also have bolt on qualifications in Composite Engineering using our sector leading composite training facility.

## What is expected of me?

To enrol, you'll need a minimum of 5 GCSEs at Grade C or above, including Mathematics at Grade B and preferably a Science at Grade B.

You need to have a keen interest in engineering and have the enthusiasm and drive to develop your practical and analytical skills. Full commitment to attendance is required, as is respect for others, enthusiasm for the subject and self-motivation. Having the right attitude and enthusiasm are viewed critically by a would-be employer.

There is an expectation that you'll continue your studies and coursework during your own time. You'll also be expected to attend as many race events as possible and network with as many people as you can.

You'll be assessed through coursework, a portfolio and practical assessment. Upon completion, you'll achieve:

Level 3 Subsidiary Diploma in Vehicle Technology (Motorsports) plus 30 additional credits (Year 1)

Level 3 Extended Diploma in Vehicle Technology (Motorsports) (Year 2) Welsh Baccalaureate

<u>Maths and English</u> (you'll be required to attend classes if you achieved less than a Grade C in these subjects at GCSE level)

Other relevant qualifications to enhance your skill set

#### What comes next?

University level qualification in Motorsport Engineering or another engineering related subject Higher Apprenticeship Employment

#### **Additional information**





You'll need to purchase PPE (Personal Protective Equipment) which will cost approximately £40.00.

