SUBJECT: COMPUTING AND MANUFACTURING

EXAM BOARD: TLM LEVEL 2 CERTIFICATES IN OPEN SYSTEMS AND ADVANCED MANUFACTURING TECHNOLOGIES (RQF)

Course Description

The object of this qualification is to introduce Key Stage 4 students to the science and manufacturing technology required to launch rockets and satellites into space. The qualification is designed, to give students the skills and knowledge to equip them for jobs in these industries in the near future. Students will learn how to build and fly rockets, how to build some objects to go into those rockets, such as microsatellites. Students will explore artificial intelligence, and look at the issues surrounding the making and use of unmanned vehicles.

Topics Covered

- Rocket Science
- Micro Satellites
- Robotics
- Artificial Intelligence
- Unmanned Vehicles (UV)

Exam Details

Students complete an exam in Year 11 which covers all the topics covered in the coursework units. The exam is worth 70% of the qualification.
The exam and coursework are added together to give a mark out of 100.

- Students gaining 50 marks out of 100 will be awarded a Grade C (5)
- Students gaining 60% marks out of 100 will be awarded a Grade B (6)
- Students gaining 70% marks out of 100 will be awarded a Grade A (7)
- Students gaining 80% marks out of 100 will be awarded a Grade A*(8)

Coursework/Controlled Assessment Information

Students must complete 4 coursework units worth 30% of the qualification.

- Unit 1 - The Understanding and Appreciation of Rocket Science.
- Unit 2 - The Science and Application of Microsatellites
- Unit 3 - Working with Robotics and Artificial Intelligence
- Unit 4 - The Development and Deployment of Unmanned Vehicles (UV)

Progression Route/s

Open Systems and Advanced Manufacturing Technologies offers links to career progression in the engineering, design, creative arts, embedded software development and technology industries.