TUXFORD ACADEMY Level 3 Cambridge Technical Extended Cert (360GLH) **ENGINEERING KS5 LEARNING JOURNEY** Code: 05823 **Mathematics for Engineering** 1. Algebra 2. Geometry and Graphs **Computer Aided Manufacture** 3. Exponentials and logarithms 1. Computers in Manufacture 4. Trigonometry 2. Produce CNC programs 5. Calculus 3. Set-up and Operate CNC Machines **OCR Level 3 Y13 Summer Exams** 6. Statistics and Probability 4. Additive Manufacturing Mathematics for Engineering 1hr 30 min • Unit 1,2,3,4 exam resits 1hr 30 min **OCR Level 3 NEA Submission Computer Aided Manufacture Engineering Science Mechanical Principles** 1. Si units 2. Measurement 1. Force and loading 3. Mechanical Principles 2. Geometric Properties OCR Level 3 Y12 Summer Exams 4. Electrical/Electronic Principles 3. Levers, Pulleys and Gearing Engineering Science Exam 1hr 30 min 5. Material Properties 4. Beams Principles of Mechanical Engineering Exam 1 hr 30 min 6. Fluid mechanics 5. Dynamic Forces Principles of Electrical/Electronics Exam 1 hr 30 min 7. Thermodynamics 8. Gas Laws **OCR Level 3 NEA Submission** Computer Aided Design YEAR

Electrical/ Electronic Principles

2. Alternating Voltage and Current

3. Electric Motors and Generators

4. Power Supplies and System Protection

1. Electrical principles

5. Analogue Electronics

6. Digital Electronics

L3 Technical

Computer Aided Design

Engineering Drawing

Exploded Diagrams

CAD simulation Part Assemblies

Sketch

Extrude

Features

Rendering