# Cambridge National

# Design Engineering

**Who is this qualification in Design Engineering for?**

The OCR Design Engineering Level 1/2 Cambridge National in Engineering is for learners who wish to acquire technical skills through vocational contexts by Engineering Design. Through practical activities they develop skills in computer modelling and model making and how to communicate design ideas effectively.

**What will students study and how will it be assessed?**

The course is broken up into 4 components, each aiming to give learners a taste of the processes that an engineer might use to solve problems in the workplace.

**R105: Design briefs, design specifications and user requirements – 25%**

60 marks 1hour 30minutes Written paper, set and marked by the exam board

**R106: Product analysis and research – 25%**

60 marks Approx. 30 hours including delivery. Learners will have to produce a presentation or report about the strengths and weaknesses of an identified product from an engineering standpoint. Centre-assessed task, exam board moderated.

**R107: Developing and presenting engineering designs – 25%**

60 marks Approx. 30 hours including delivery. Learners will produce designs for a given problem, using hand-drawn sketches and rendering. The students will then use industry-standard Computer Aided Design to produce the idea in 3D. Centre-assessed tasks, exam board moderated

**R108: 3D design realisation – 25%**

60 marks Approx. 30 hours including delivery. Learners will plan and produce a prototype based on their designs in R107. The students will be assessed for the quality of their planning and making stills. Centre-assessed tasks, exam board moderated

**What can this qualification lead to?**

Learners who want to progress to Level 3 qualifications have the choice of various GCE qualifications at college which will further develop areas of their learning from Level 1/2. E.g. Design and Technology or Engineering A-Level.

Learners can progress from OCR Level 1/2 Cambridge National in Engineering to other vocational qualifications or apprenticeships.

**Do you have any questions?**

Speak to Mr Green for further information or visit the following link:
https://www.ocr.org.uk/qualifications/cambridge-nationals/engineering-design-level-1-2-award-certificate-j831-j841/