

**Product Design and
Development Engineer
Degree Apprenticeship
BEng (Hons)**



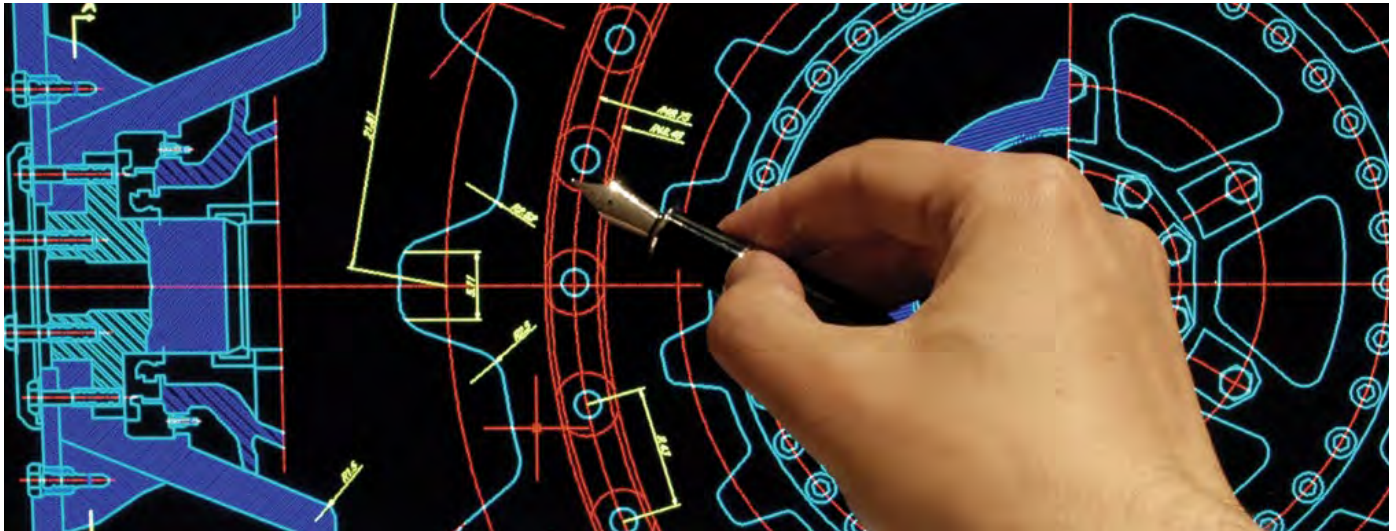
Product Design and Development Engineers work on all stages of product creation, modification, prototyping and introduction stages.

They support activities ranging from early concept feasibility and Computer Aided Design to modelling and final preparation for launch to customers. This includes working in concept studios, rapid prototyping, assembly, testing, validating and analysing performance. Typically they work closely with suppliers and managers in bringing new concepts to life or contributing to redesigns of existing products.

The apprenticeship is supported by the choice of two new degree courses:

BEng (Hons) Mechanical Engineering Design or BEng (Hons) Automotive Engineering Design

Degrees integrate with the apprenticeship standard and will assist in the generation of evidence for End-Point Assessment (EPA).



Delivery Features

- Block delivery: Two, three-day block attendances per semester along with weekly ½ day remotely delivered sessions.
- Study contextualised to the workplace
- Innovative teaching and learning methods
- Integrated delivery with the MIRA Technology Institute

Cost and Funding

The funding rate payable for the delivery of this apprenticeship has been set by the government at £27,000. If you are a Levy payer, this can be paid from your Levy.

If you are not a Levy paying company, there can be substantial Government funding available to you under the co-funding scheme.

Entry Requirements

The programme is equally suitable for new employees and existing members of staff. There is no age limit.

Entry at Level 4 (4 year programme)

- 96 points from three A levels including Maths and a Science based subject. (i.e. three 'C' grades or equivalent).
- Level 3 Diploma or Extended Diploma in Engineering or a related subject with a Merit, Merit, Merit profile.

Plus

GCSE's at Grade C or above in Maths and English.

Entry at Level 5 (32 month programme)

- Higher National Certificate in Engineering or a related subject with a Merit grade.
- Mature students with a level 3 technical qualification and three years post qualification industrial experience may be admitted following an assessment of suitability by the course director.

Entry at Level 6 (16 month programme)

- Higher National Diploma in Engineering or related subject with a Merit grade.
- Foundation Degree in Engineering or related subject, following an assessment of qualification content suitability by the course director.

Applicants not formally meeting the entry requirements above may be considered on a case-by-case basis.

Modules will normally be delivered as shown below:

| Week no | Delivery method |
|---------|---|
| 1 | ½ day synchronised virtual delivery |
| 2 | ½ day synchronised virtual delivery |
| 3 | 3 days face to face delivery on campus |
| 4 | ½ day synchronised virtual delivery |
| 5 | ½ day synchronised virtual delivery |
| 6 | ½ day synchronised virtual delivery |
| 7 | 3 days face to face delivery on campus |
| 8 | ½ day synchronised virtual delivery |
| 9 | ½ day synchronised virtual delivery |
| 10 | ½ day synchronised virtual delivery |
| 11 | ½ day synchronised virtual delivery |
| 12 | Revision / reading week. 1 hour remote Tutorial |
| 13 | Exam/ CW Submission. |

Module delivery style is subject to change depending on the nature of the topic.

BEng (Hons) Mechanical Engineering Design

| | Semester 1 | Semester 2 | Semester 3 |
|------------------------------|--|--------------------------------------|---|
| Level 4 16 Months | Engineering Science | Mathematical modelling for Engineers | Engineering Design, Materials and Manufacture |
| | Semester 1, 2 or 3 (Work Context module) Engineering Operations and General Skills | | |
| Level 5 16 Months | Solidmechanics and Thermofluid Analysis | Instrumentation and Control | Design, Material and Manufacturing Integration |
| | Semester 1, 2 or 3 (Work Context module) Engineering Product Analysis and General Skills | | |
| Level 6 16 Months | Mechatronic Systems and Automation | Applied Mechanical Science | New Product Introduction and Project Management |
| | Semester 1, 2 or 3 (Work Context module) Individual Design Project | | |

BEng (Hons) Automotive Engineering Design

| | Semester 1 | Semester 2 | Semester 3 |
|------------------------------|--|--------------------------------------|---|
| Level 4 16 Months | Engineering Science | Mathematical modelling for Engineers | Engineering Design, Materials and Manufacture |
| | Semester 1, 2 or 3 (Work Context module) Engineering Operations and General Skills | | |
| Level 5 16 Months | Solidmechanics and Thermofluid Analysis | Vehicle Systems | Design, Material and Manufacturing Integration |
| | Semester 1, 2 or 3 (Work Context module) Engineering Product Analysis and General Skills | | |
| Level 6 16 Months | Vehicle Dynamics, Structural Safety and Aerodynamics | Powertrain and Functional Safety | New Product Introduction and Project Management |
| | Semester 1, 2 or 3 (Work Context module) Individual Design Project | | |

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