



APPRENTICESHIPS IN

Security Design Engineering



Where do you see yourself five years from now? Do you picture travel? Qualifications? Professional status? Join this programme and you'll find all three, and more besides. Our Security Design Engineering degree apprenticeship is open to school-leavers, career-changers, and anyone with a keen interest in design and overseas travel. It's your chance to gain a well-respected degree and launch your career, whilst also helping us ensure the security and safety of government sites and buildings worldwide.

Over the course of the programme, you'll combine academic modules with practical work on live government projects. You'll study digital circuit design at university, then shadow a senior colleague as they design the CCTV for an embassy. Or you'll learn the concepts of advanced engineering mathematics, and balance that with working on a project to design intruder detection systems for a secure government compound. Every new module will inform the work you do every day, and that practical side will bring your studies to life too, so that by the end, you'll be a well-rounded professional with a whole field to explore, countries to see, and challenges to take on. In short, we think you'll find your world just got bigger.

YOUR PROGRAMME

If you're successful in your application, you'll start your apprenticeship in September or October, launching straight into a balance of academic study and practical work. You'll attend university on a day-release basis, over the course of the next five years.

Then, when you're not at university, you'll be working with the team at our Hanslope Park office, developing your skills and working on live projects alongside professional Engineers, Surveyors and Project Managers. You'll find out how to design and install the security doors that protect government server rooms; how to design CCTV that covers every stretch of perimeter for a new embassy; how to ensure security systems that don't fail, even in countries with unreliable power infrastructure. You'll go on plenty of overseas project work during that time, when your coursework allows for it.

KEY FACTS

- Degree apprenticeship
- Based at Hanslope Park, Milton Keynes
- Starting salary: £18,611 per year plus £1,750 location allowance
- Up to five-year programme - with a potential career at the end
- Combination of practical work and study
- Applicants need:
 - At least one of the following:
 - A minimum of three A Levels or equivalent, at grades BBB, including Maths and one other related STEM subject, e.g. Physics, IT, Computing or Electronics
 - BTEC National Diploma DDM
 - An Access to HE qualification with at least 24 credits at Distinction and 21 credits at Merit, including 3 Distinctions in Maths and 3 Merits in Physics
 - Equivalent Level 3 qualifications worth 128 UCAS points (or 320 UCAS points if gained pre-2017) which must include Maths or a Physical Science subject
 - All of the following:
 - Five GCSEs (or equivalent, e.g. O Levels) at grade 9-5 (A*-C) including English and Maths
 - Genuine interest in design and overseas travel
 - British citizenship, having lived in the UK for the last 3 years before the first day of the apprenticeship, and for at least 5 of the last 10 years
- Candidates will need to undergo Security Check (SC) clearance before joining, and Developed Vetting (DV) clearance shortly after joining



Your university work will be a core part of how you develop, so here's a guide to the kinds of modules you'll study on your BEng (Hons) degree in Embedded Electronic Systems Design and Development:

- Design and Practice
- Engineering Principles
- Engineering Mathematics and Modelling
- Engineering Computing
- Introduction to Electrical and Electronic Engineering
- Introduction to Digital Electronics
- Advanced Engineering Mathematics
- Circuits, Signals and Systems
- Principles of Control
- Team Design Project
- Electrical Machines and Power Electronics
- Analogue and Digital Circuit Design
- Innovation and Enterprise
- Control Engineering
- Project
- Advanced Analogue and FR Electronics
- Digital Systems Design

COMPLETING YOUR APPRENTICESHIP – AND BEYOND

If you successfully complete the apprenticeship, you'll gain your BEng (Hons) degree in Embedded Electronic Systems Design and Development. But where to next?

Once you've completed your apprenticeship you'll have a range of options to make your future bigger. We'll do our best to find you a permanent position with us, working as a professional either in the UK or overseas. And if you do stay with us, we'll also support you if you apply for membership to a professional body, or if you want to work towards registration with the Engineering Council.

Whatever you decide, we'll do all we can to help you explore your interests and set your sights on what you want to accomplish next.

OUR ENTRY REQUIREMENTS

Our Security Design Engineering degree apprenticeship is open to candidates of all ages, but to be considered you must:

- Have at least one of the following:
 - A minimum of three A Levels or equivalent, at grades BBB, including Maths and one other related STEM subject, e.g. Physics, IT, Computing or Electronics
 - BTEC National Diploma DDM
 - An Access to HE qualification with at least 24 credits at Distinction and 21 credits at Merit, including 3 Distinctions in Maths and 3 Merits in Physics
 - Equivalent Level 3 qualifications worth 128 UCAS points (or 320 UCAS points if gained pre-2017) which must include Maths or a Physical Science subject
- Hold five GCSEs (or equivalent e.g. O Level, Standard Grade) at grade 9-5 including English and Maths
- Have communication skills and IT literacy
- Display genuine interest in design and overseas travel
- Candidates will need to undergo a colour blindness test if you reach assessment centre stage, since distinguishing between different colours of electrical wire will be a critical part of your role
- Be a British citizen, who has lived in the UK for the last 3 years before the first day of the apprenticeship, and for at least 5 of the last 10 years.



It takes a diverse team to protect a diverse world

