

Think **graduates & placements;** think Renishaw.

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From university to engineering: the graduate way

Join the Renishaw graduate scheme and you'll be starting a successful career with a worldwide leader in precision technology.

We have spent nearly 50 years engineering change. Our unique blend of pioneering science and product innovation helps our customers to push the boundaries of what is possible. From transport to agriculture, electronics to healthcare, our breakthrough technology touches billions of lives around the world.

At Renishaw, our graduate and placement programmes offer a perfect transition from university campus to a professional engineering environment and brings you the skills and experiences you will need for your career. For graduates with a minimum 2:2 degree in a relevant discipline, the programme covers various specialised engineering and commercial streams. These schemes are designed to meet the aspirations and career goals of the most talented graduates.

In 2019, Renishaw was ranked second by JobCrowd in the top companies for graduates to work for in the UK in the engineering and manufacturing sector. As a company, we are committed to supporting graduates and undergraduates with the best possible training and development programmes.

Help us to shape the future of engineering and make a real difference to the world we live in. Talk to Renishaw about our graduate and placement schemes, and how this could be your next step, in an exciting and successful career.

Renishaw provides a great environment for graduates to develop their careers. You will work within a culture that encourages innovation, whilst being mentored by hugely capable and experienced engineers. Together you will produce leading edge technology that will positively impact the world in which we live.

William Lee (Chief Executive)

William joined Renishaw in 1996 after completing a degree in physics at Oxford University. After heading various business divisions he was appointed to the Board in August 2016 and became Chief Executive in February 2018.



Applications Scheme

As an Applications Engineer at Renishaw you'll be working closely with customers to help them understand how our products are best applied to resolve demanding manufacturing problems and improve productivity.

Our graduate applications engineers are trained to a very high standard in multiple commercial and engineering disciplines and become some of the most experienced engineers in the company.

Applications engineering can involve national and international travel depending on customer location and the product line involved. Promotion leads to roles including: Senior or Principal Applications Engineer; Applications or Operations

Manager.

Relevant university degrees:

- · Aeronautical engineering
- Electronic engineering
- Manufacturing engineering
- Mechanical engineering
- Physics

Knowledge and skills developed:

- · Communication and presentation
- Project planning and control
- Team working
- Time management
- · Engineering principles and drawings
- Manufacturing processes

I didn't know what career I wanted whilst studying, but I knew I wanted a varied, hands-on, problem-solving role. As a Graduate Applications Engineer, I have gained practical knowledge and experience of medical robotics, additive manufacturing and precision metrology. I really enjoy finding solutions to our customers' problems.

Matt Lane (Applications Engineer)

Joined Renishaw after studying Medical Engineering at Swansea University and doing both a Summer and Industrial Placement at Renishaw.

Commercial Scheme

As a Commercial Graduate with Renishaw you'll be helping us to take our products to market, communicate effectively with customers and maintain our position as a worldwide technology leader.

You will get involved in all stages of the product life cycle, from conception and specification to global market launch and on-going development, marketing and sales.

From a Commercial Graduate position, promotion is typically to a senior commercial role, either within a product division, corporate function or sales subsidiary.

During your time on the commercial stream you will also be given an experienced mentor who will be able offer you

guidance.

Relevant university degrees:

- Business management
- Marketing
- · International business studies
- Engineering disciplines
- Law

Knowledge and skills developed:

- · Product marketing
- Marketing communications
- Business development
- · Communication and presentation
- · Project planning and control
- Team working
- Time management

What I like most about the scheme is not only the level of exposure it gives you in a variety of key business areas, but also the flexibility to try out new things. It has been really rewarding to apply what I learned at university and put it into practice.

Jack Heaven (Commercial Graduate)

Joined Renishaw after studying Business and Management at the University of the West of England (UWE).

Electronics Scheme

As a Graduate Electronics Engineer with Renishaw you'll be playing a vital role in helping us maintain our position as a market leader in electronic product design serving industry sectors throughout the world.

Involved in the conceptualisation, design and development of both existing and future Renishaw product ranges, you'll be tackling the competing challenges of miniaturisation, cost reduction and increasing performance.

Promotion within the field of electronics engineering at Renishaw leads to a variety of technical and management roles including: Senior or Principal Design Engineer; Technical or Design Manager.



Relevant university degrees:

- Design engineering
- Electronic engineering
- · Electrical and electronic engineering
- Mathematics
- Microelectronics engineering
- · Physics
- Robotics

Knowledge and skills developed:

- · Electronic devices and circuits
- Communication systems
- · Control systems
- Research and conceptual design
- Prototype assembly and test
- Design for manufacture and test
- Documentation and drawing

I chose my graduate role at Renishaw after completing a summer placement here that made me fall in love with analogue design. Now, I design electronic circuits for robotic machines, that can measure up to nanometre precision. Being given responsibility early on in my career is a great feeling!

> Shrouk El-Attar (Graduate Electronic Design Engineer)

Joined Renishaw after studying Electrical and Electronic Engineering at Cardiff University and doing a Summer Placement at Renishaw.

Manufacturing Scheme

Our graduate scheme for manufacturing engineers takes talented graduates and develops them into the skilled technical experts and managers that we need to advance and grow Renishaw's UK-based manufacturing activities.

This particular scheme is split into two specific streams, 'manufacturing' and 'electronics manufacturing' in order to better tune the training to match with the individual skillset and interests of the graduate trainee.

This more personalised scheme is composed of a series of three to six month placements covering a broad range of engineering disciplines. As a Manufacturing Engineer, you'll be based within our Manufacturing Services

Division, comprising

world-class machine shops and awardwinning assembly facilities.

Relevant university degrees:

- Manufacturing engineering
- Production engineering
- Robotics
- Automation
- Mechanical engineering
- Electronic engineering
- Mathematics
- Physics

Knowledge and skills developed:

- Manufacturing systems
- Manufacturing processes
- · Design for manufacture and test

I really enjoy the working environment at Renishaw and the variety of challenges and problem-solving opportunities I face in my manufacturing role. It is the perfect workplace in which to develop and has given me the opportunity to add real value to the work that I do.

George Utley (Graduate Manufacturing Engineer)

Joined Renishaw after studying Mechanical Engineering at the University of Liverpool.



Graduate mechanical engineers at Renishaw are involved in all aspects of the new product design process, from initial concepts, research and prototyping to volume manufacture and test.

Working to proven engineering principles and supported by a full array of modern design tools and manufacturing processes, you will be ensuring the success of future generations of innovative Renishaw products.

Graduates can progress to a managerial role, as a Technical or Design Manager or follow a more technical route as a Senior or Principal Design Engineer.

Relevant university degrees:

- Mechanical engineering
- Mechatronics

Knowledge and skills developed:

- Mechanical design
- Process design
- Manufacturing techniques
- · Design verification
- Mechanisms and control
- Mathematics
- Dynamics
- Thermodynamics
- Fluid mechanics

The scheme has given me the opportunity to learn and develop core engineering skills. I've worked in product design, process engineering and worked on different products across Renishaw. The level of responsibility and variety of work has effectively prepared me for the role of a Mechanical Engineer.

Richard Timbrell (Mechanical Design Engineer)

Joined Renishaw after studying Mechanical Engineering at Loughborough University.

Software Engineering Scheme

In-house software development is an absolutely critical ingredient in Renishaw's success and our software engineers experience a full range of languages, platforms and development methodologies.

As a Graduate Software Engineer you'll get involved in developing software for all manner of different uses: for our marketleading products, for our manufacturing testrigs, for specific customer applications – from desktops to MCUs.

Gain promotion within software engineering and become a Senior or Principal Software Engineer on the technical side, or take a managerial role as Technical or Department Manager.

Relevant university degrees:

- · Software engineering
- · Computing and IT
- Computer science
- Mathematics
- · Physics
- · Electronic engineering

Knowledge and skills developed:

- Languages: C, C++, C#, visual basic
- Platforms: Windows, Linux, embedded RTOS
- Sequential development: V-model, Waterfall
- Iterative development: Agile, Unified Process

On the graduate scheme I was able to work on various projects, with different teams. This allowed me to broaden my knowledge from university, helping me to gain more confidence and ability as a Software Engineer.

Jodie O'Reilly (Software Engineer)

Joined Renishaw as a Graduate Software Engineer after studying Computer Science at Plymouth University. gile,

Project Coordinator Scheme

As a Graduate Project Coordinator you'll be applying a wide-range of traditional project management skills, bringing together and organising mixed discipline teams from across the Renishaw organisation.

This is a highly varied roll within a technology environment involving a mix of problem solving, structured planning, strategy, process development and dayto-day administration. You will be negotiating at all levels with both internal and external suppliers.

Opportunities for project coordinators exist throughout the Renishaw Group in design, manufacturing, healthcare and corporate environments. Promotion leads to operations management and cross-divisional roles.

Relevant university degrees:

- Business management
- Mathematics
- · Physics
- Chemistry
- All kinds of engineering

Knowledge and skills developed:

- Work and project breakdown structures
- · Network diagrams and gantt charts
- Critical path and chain analysis
- Project cost reporting and forecasting
- Project risk assessment
- Communication and presentation
- Project planning and control
- Team working, leadership and coaching

The scheme has provided me with an opportunity to enter a position in project management. I have been able to experience a range of projects, working with different people in the company. I enjoy the responsibility and challenges of my role and look forward to working on future projects at Renishaw.

Lauren Taylor (Graduate Project Coordinator)

Joined Renishaw after completing a Masters in Chemistry with a Diploma in Industry at Loughborough University.

Physics and Scientific Scheme

Working for one of the world's leading engineering and scientific technology companies, our Physics and Scientific graduates face a wide variety of interesting and challenging engineering problems to be solved.

You will be supporting the strategic development of some of Renishaw's most innovative product lines, collaborating with all kinds of high-tech engineering disciplines to identify the optimum technological solution.

From complex error mapping of our 3D scanning probes, to optoelectronic design for our next generation encoders, you'll experience all kinds of product types and all kinds of demanding application requirements.

Graduates either follow a technical path to a position of Senior and then Principal Design Engineer, or a managerial path and the roles of Technical or Design Manager.

Relevant university degrees:

- Physics
- Mathematics
- Chemistry
- · Optical engineering

Knowledge and skills developed:

- Optics
- Lasers
- Holograms
- Material science
- Solid state physics
- Raman spectroscopy

The Physics Scheme has not just expanded my engineering knowledge, but also my understanding of physics. I have been working on a cutting-edge project from the start, and have been given the freedom to apply novel concepts and ideas, to progress the project rapidly.

Theodore Reeve (Physics Graduate)

Joined Renishaw after completing a Masters in Physics at the University of Lancaster.





Our Operational Management Scheme is a manufacturing services programme, offering graduates hands on experiences and varied operational responsibilities in manufacturing management.

You will gain experience in a number of core areas, such as production supervision, purchasing and finance, and material control and scheduling. The programme covers a variety of manufacturing functions, with graduates spending approximately six months in each area. Additional placements can be arranged in project management, production engineering, inspection, logistics, subsidiary sales and finance. Additional

> placements will be based on the needs of the business and your individual interests. Placements are based in our

Gloucestershire and South Wales sites.

The Operational Management Scheme will equip graduates for a variety of operational roles within manufacturing services such as production supervision (cell leaders), material controllers and buyers.

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Relevant university degrees:

- Business management
- Business studies
- Engineering
- Other degree subjects will be considered for candidates with an interest in high-tech manufacturing

Knowledge and skills developed:

- Management experience
- Commercial experience within manufacturing
- Interaction across all business areas and Renishaw subsidiaries

Renishaw has given me the opportunity to understand how a high-tech company operates. I was given a position of responsibility from the start and this has given me the confidence to further push and develop myself.

Christian Franklin (Operations Graduate)

Joined Renishaw after studying Business Economics at Sheffield Hallam University.

Process Engineering New Scheme

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As a Graduate Process Engineer, you'll be an integral part of our research and development team and will play a key role in bringing new products to market.

Process engineer graduates are involved in the early stages of product innovation. This can include working on the design and development of new products, data gathering, testing and measuring, and gaining experience in robotics and automation systems.

Graduates will rotate across different divisions and will gain an in-depth understanding of our various products and processes including volume manufacturing, automation, 3D scanning systems, and designing and developing equipment and software.

Upon completing the scheme, there are opportunities throughout the Renishaw Group in product development, process development, process improvement and assembly development. Graduates can pursue a career as a Process Development Engineer, leading to a role as a Senior Engineer, Principal Process Development Engineer or a LabVIEW Engineer.

Relevant university degrees:

- Mechatronics
- · Robotics and automation
- · Electrical and electronics engineering
- Mechanical engineering
- Software engineering
- · Communications engineering

Knowledge and skills developed:

- Data acquisition, system design and development
- Application development through LabVIEW
- Programmable logic controllers/robot programming
- Machine vision
- Motion control
- Statistical process control

Manufacturing Engineering: Electronics

Renishaw offers exciting opportunities for graduates within our Manufacturing Services Division.

You will follow a personalised and structured, two-and-a-half-year programme, based on a series of three to six month placements, covering a broad range of disciplines. Placements and projects will be 'tuned' to your ambitions and will always involve working on real projects and delivering tangible business benefits. The Electronics Manufacturing Scheme encompasses the latest high-precision, automated electronics assembly and interconnection processes, and challenging automated electronic test system design and development.

Relevant university degrees:

- · Electronics engineering
- Instrumentation
- Integrated engineering

Knowledge and skills developed:

- · Design for electronics assembly and test
- · Surface mount assembly
- Test engineering, NI TestStand
- · Enterprise resource planning
- Supervision
- · Six Sigma

Manufacturing Engineering: Mechanical

You will follow a personalised and structured, two-and-a-half-year programme, based on three to six month placements, covering a range of disciplines. Placements will be 'tuned' to your ambitions and will always involve working on real projects and delivering tangible business benefits.

Engineering experience will be gained in process improvement, new product introduction and production management. Renishaw's manufacturing and associated engineering, takes place in a challenging, high-variety, rapidly changing environment.

Relevant university degrees:

• Manufacturing engineering

- · Mechanical engineering
- Integrated engineering
- · Chemical engineering
- Scientific
- · Maths

Knowledge and skills developed:

- · Process design and development
- Design for manufacturing and assembly
- · Machining skills
- Enterprise resource planning
- · Supervision
- Six Sigma

Embedded Software Scheme

As a Graduate Embedded Engineer, you will be working within a multi-discipline team, involved in the development life-cycle of new and current Renishaw products.

Our Embedded Engineers use a variety of platforms, such as low-level dedicated operating systems, standard real-time operating systems in sequential processing and VHDL programming in FPGAs, when parallel processing is required.

Teams will pitch work at an individual level and there will be progressive personal development through the graduate scheme, aimed at creating confident and capable embedded engineers. **Relevant university degrees:**

- · Electronic and computer engineering
- Robotics
- · Computing for real-time systems
- · Other related degrees

Knowledge and skills developed:

• Languages: Assembly, C, C++, VHDL

For more information about our graduate schemes visit, www.renishaw.com/graduates



Industrial Placements

Complementing our graduate schemes are paid industrial placements for engineering undergraduates, required to spend a year in industry as a part of their university course.

To provide a fully immersive experience, these full-year placements are spent working within a specific product division, with projects and responsibilities allocated depending on interests and the engineering discipline studied.

Successful industrial placements can lead to undergraduate sponsorship through the Renishaw student bursary scheme or an offer to join the Renishaw Graduate Scheme.



What have you learnt from your experience at Renishaw?

I've learnt about the importance of teamwork in industry and have developed a range of technical and transferable skills including technical drawing, CAD, programming, time management and independent working.

Would you recommend applying for a placement within Renishaw?

I would highly recommend a placement; the experience of developing professional relationships is invaluable and gives you an edge over graduates who haven't taken a placement. The opportunity to learn more about different areas of work allows you to try them out and see what you enjoy, before committing to a full-time job. Working at Renishaw has increased my confidence in all areas.

Was the placement as you expected?

I have learnt so much during my placement. University does not compare to industry in practice and I'm grateful for the chance to develop my skills. I've been able to complete a variety of testing, investigations, product changes and process improvement.

What is the best thing about Renishaw as a company?

The environment is welcoming and my department is friendly and approachable. The opportunity to get involved with science, technology, engineering and maths (STEM) outreach has also been fantastic.

Written by: Isaac Sobey (Industrial Placement)

Summer Placements

For undergraduates studying a relevant engineering degree, Renishaw also offers paid summer placements. These placements are a minimum of six weeks in length and take place between June and September each year.

The summer placements comprise projects relating to the students' specific interests and the engineering-related subjects they follow. They provide an opportunity for developing practical skills of great value to a future career in engineering.

Successful summer placements can lead to undergraduate sponsorship through the Renishaw student bursary scheme, further placements or a position on the Renishaw Graduate Scheme.



What have you learnt from your experience at Renishaw?

At Renishaw I have developed manufacturing skills beyond those that I gained at university, such as running 3D printers to making PCBs.

Would you recommend applying for a placement within Renishaw?

The main reason that I would recommend this placement is that I was given responsibility for projects from the start. This has challenged me but has been really enjoyable and rewarding. This responsibility is something that many other placements lack.

How do you feel this placement has helped your career?

It has helped me decide on which branch of engineering to go down on my general course. I am now thinking about manufacturing engineering, having come into the placement without a clear thought about which direction I would go.

Was the placement as you expected?

I was surprised at how much responsibility I was given in my placement. I was given free reign for my projects which I really appreciated.

What is the best thing about Renishaw as a company?

I felt very welcome here and everyone was easy to get on with and willing to teach me, which was fantastic.

Written by: Robbie Blythe (Summer Placement)

The benefits Working at Renishaw

Our people are vital to our success, so we continually invest in their learning and development. We believe that all employees should have the ability to grow and reach their full potential.

Over the past 45 years, our loyal and hardworking employees have helped to make Renishaw a highly successful, globally respected company.

Many of our employees have worked with us for two or three decades, creating a wealth of specialised engineering expertise and experience that's shared with our new recruits.

We work hard to promote a workplace that encourages open communication and innovative thinking. We aim to ensure our people feel valued and can achieve their career goals.

Renishaw provides its graduates with:

- Tailored induction programme
- · In-house training and on-going support
- · Excellent working environment
- · Competitive salary
- 21 days holiday + four company days
- 9% non-contributory pension scheme
- · Private medical insurance
- · Onsite fitness centre
- · Subsidised onsite restaurants
- Annual membership to a professional institution
- Support to gain Chartered Engineer status
- Employee Assistance Programme



How? Applying for a graduate role or placement

To apply for any of the graduate and placement schemes described in this brochure, go to the Renishaw website at <u>www.renishaw.com/careers</u> and submit a covering letter and CV.

We begin our graduate and industrial placement recruitment in September and the application closing dates for both will be in November. Precise dates will be detailed on the website.

Summer placement recruitment will begin in December and will close at the end of January, please check our website for further details.

Please ensure your CV is up-to-date and includes the following:

- Full details of qualifications you have and are currently studying towards and your predicted grades.
- A current or recent job of any description that demonstrates maturity, responsibility and independence.

 Relevant hobbies and work experience through school or university would also be beneficial, though is not essential.

Use your covering letter to tell us:

- Why you are choosing a career in your relevant discipline and why you want to become a graduate, or do a placement, at Renishaw.
- What interests you have away from university that demonstrate your interest in your discipline.
- How you plan to travel to your place of work.

Assessment: Selected applicants will be invited to assessment and interview days where your aptitudes will be tested through a combination of interview, practical tasks and team exercises.

We look forward to receiving your application.

For more information about graduate and placement opportunities www.renishaw.com/careers



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