

Research: focus on industry

The University of Strathclyde offers flexible and attractive opportunities for your industry to grow. One of these is the opportunity for your staff to undertake continuing professional development in the form of postgraduate research study that will lead to the award of a PhD. This scheme is particularly suited to companies with high calibre graduate staff whose work entails the creation of new knowledge that, with sufficient guidance, input, and supervision from Strathclyde's academic staff, could lead to publications in learned journals and to a research degree, such as a PhD.

Benefits

The key benefits are

- upskilling of your existing staff in a framework that leads to the award of a PhD
- enhanced retention of your highly skilled staff
- improved recruitment of top graduates
- transfer of the latest research findings and intellectual and practical input from Strathclyde to your business.

Our experience indicates that organisations benefit from engaging their employees in postgraduate research study. Employees report being motivated by the opportunity to undertake postgraduate research study with immediate application to their work-based programmes and with the support of their employer. They view such academic collaboration as a significant element in their professional development, improving their performance in their current post and preparing them for potential career escalation. Motivation of this kind also supports employers in recruiting and retaining high calibre staff. Top graduates can choose to join your organisation and, in due course, complete a work-related PhD.

Having a highly-motivated workforce is not the only benefit. Integration of employees and their industry-based supervisors with the wider research community and transfer of knowledge from leading researchers both help to create a culture which promotes wider industry-based organisational learning.

An organisation will derive greatest benefit from such a programme when there is partnership with the University on a broader range of research and knowledge exchange activities.

Research Capacity

The University offers postgraduate study opportunities leading to the degree of master or doctor in all departments. The current research interests of departments are indicated below.

Computer and Information Sciences

Software engineering; information retrieval; mobile and ubiquitous computing; combinatorics; programming languages; security and semi-structured data analytics

Contact: Dr Anders Claesson, phone +44 141 548 3617
E-mail anders.claesson@strath.ac.uk

Institute of Photonics

Commercially-relevant research in photonics, in particular photonic materials and devices, neurophotonics, and advanced lasers.

Contact: Mrs Lynda McLaughlin, phone +44 141 548 4662
E-mail: iop@strath.ac.uk



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Being a participant on the University of Strathclyde/GSK MPhil programme has provided a unique opportunity to engage in scientific discussion and peer review with leading academics in my field. The process of writing formal scientific reports on my work has increased my scientific curiosity and I have built a greater depth of knowledge, which directly impacts my day to day work.”

Charlotte Hardy, MPhil student, December 2009
PhD student, June 2011-

Mathematics and Statistics

Mathematical and statistical analysis and modelling of real-world problems. Research groups in epidemiology, industrial mathematics, liquid crystal theory, mathematical biology, marine fisheries, and numerical analysis explore issues ranging from planning for a flu pandemic to filling ice-olly moulds.

Contact: Dr John Mackenzie, phone 0141 548 3668

E-mail j.a.mackenzie@strath.ac.uk

Physics

Experimental and theoretical research in pure and applied physics, with research groups in nanoscience, optics and plasmas. Current themes include laser-plasma accelerators, microwave and gyrotron devices, laser-cooled atoms and ions, photonics, quantum information, marine science and the physics-life science interface.

Contact: Dr Gordon Robb, phone +44 141 548 3358

E-mail g.r.m.robb@strath.ac.uk



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We have strong, mutually beneficial links with industry and the GSK programme is an ideal example of this. It's an effective model for investing in personnel and is already generating positive returns for GSK and their people.”

Professor William Kerr, University of Strathclyde

Pure and Applied Chemistry

Catalysis and synthesis; chemical biology, molecular medicine, synthetic biology; complex chemical systems; dynamics and structure; nanoscience and materials chemistry; forensic science.

Contact: Dr Christine Davidson, phone +44 141 548 2134

E-mail c.m.davidson@strath.ac.uk

Strathclyde Institute of Pharmacy and Biomedical Sciences

Cardiovascular research; cell biology; infection, immunity and microbiology; medicines use and health; neuroscience; pharmaceutical sciences

Contact: Dr Trevor Bushell, phone +44 141 548 2856

E-mail trevor.bushell@strath.ac.uk

Flexible Models

The attached case study of the unique and expanding collaborative GlaxoSmithKline-University of Strathclyde research degree programme describes the operation of a particular model of industry-based postgraduate research study.

The original programme has the following features:

- a) research is undertaken in GlaxoSmithKline (GSK) laboratories in the UK or overseas, rather than on the University campus, thus increasing the security of commercially-sensitive research and allowing participants to remain engaged on their work-based programmes;
- b) arrangements are in place to maintain security of research outputs throughout the research and assessment periods;
- c) supervision is provided remotely by University staff and locally by GSK staff;
- d) Strathclyde academics visit the GSK laboratories and GSK employees visit the University regularly, which facilitates supervision, research input, and knowledge exchange in both directions;
- e) accredited work-based learning and embedded processes substitute for aspects of University-led training;
- f) periods of PhD study are flexible, with periods ranging from 3 to 6 years;
- g) the programme now admits approximately 20 students per year.

Most of the features listed above can be varied to suit the needs of your company. For instance, you may prefer research to be undertaken at Strathclyde, using our internationally leading facilities. A professional doctorate (such as EngD or DPharm) may be more appropriate to your employees. The study mode might be a mix of full-time and part-time, depending on the circumstances of your company or individual employee. Supervision can be provided at the University, at the workplace, or remotely through a variety of mechanisms. Your employees, new or experienced, can be admitted as individuals or in groups.

In summary, we are committed to working with you to construct the framework for postgraduate research and continuing professional development, which best suits your organisation and its employees and draws on the strengths of each partner.

the place of useful learning

www.strath.ac.uk

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