



Operations Excellence MSc

2017-18

|| Cranfield University

We are an exclusively postgraduate university located in the heart of the UK. Our close collaboration with industry means we offer relevant, practical teaching that is firmly based on our transformational research.

Our passion for the areas we operate in and our long-standing relationships with some of the most prestigious companies in industry mean that studying at Cranfield will open doors for you.

4,600+ learners

UK
No.1

Engineering
and technology
postgraduates

A professional network of
60,000+ alumni

REF2014
Research Excellence Framework

81% of our research is **world-leading**
or **internationally excellent**.

Studying Operations Excellence at Cranfield

Operations Excellence is a world-leading programme developed by Cranfield University through a unique partnership with Rolls-Royce plc and the Institute for Manufacturing at the University of Cambridge. Designed for industry professionals to fit around demanding careers, the course has been designed to develop the skills to lead change in business.

'The Operations Excellence MSc has been invaluable to me; it is relevant to the real world and provides excellent learning that is applicable in industry. I have not only increased my academic knowledge, but been able to implement the learning in my workplace. I would thoroughly recommend this course to Operations professionals as this MSc adds value to myself and my company.'

Sarah Black-Smith, Head of Manufacturing, Siemens Ltd,
current student in MSc in Operations Excellence



Reasons to study **Operations Excellence** with us

1 **A commercial approach to excellence**

Companies seek out streamlined processes to enable them to be more efficient, improve quality and be more cost effective. The Operations Excellence course brings together expertise across several disciplines to inform industry and help companies stay ahead of their competitors.

2 **Learning from the best academics**

Most of our lecturers have worked in industry themselves, some at Managing Director level, and have real life experience of leading productivity improvements.

3 **Flexible study options**

This course allows you to fit your studies around your life and existing work commitments so you can gain a postgraduate qualification while continuing your career. Projects are chosen to suit company requirements, they come from the student's sponsoring companies, and are industrially relevant to each business.

4 **Outstanding facilities**

We have exceptional facilities many of which are unique in the university sector. Students on the course benefit from this infrastructure which also supports our work with industrial partners. Students also have access to computing facilities and laboratories suitable for general purpose and engineering applications. A vast range of specialist software applications are available including Witness, SAP and CAD IDEAS.

5 **Industry relevant courses**

We deliver high-calibre teaching with practical application, giving you an unparalleled competitive edge for real-world production issues.

6 **Networking opportunities**

Our considerable network of contacts - both in the organisations we work with and in the network you will be part of with your fellow students and as one of our alumni - gives you the opportunity to build useful connections.

7 **Broad portfolio**

We offer a wide range of study options – research degrees, taught degrees, executive education and short courses. Read more on our website.



Operations Excellence MSc

For those who recognise the potential for a long and successful career in manufacturing, Cranfield offers the ideal balance of academic study and practical work experience. This course addresses the need for highly trained operations professionals required to transform operations into a world-class business in all sectors of manufacturing.

The Operations Excellence course brings together expertise across several disciplines to inform industry and help companies stay ahead of their competitors.

You will be able to;

- Improve performance and productivity
- Drive efficiencies
- Improve quality
- Streamline processes
- Improve the bottom line.

Benefits

Global manufacturing is constantly undergoing dramatic change. The industry has transitioned from a traditional labour-intensive to a knowledge-intensive forward-thinking industry. Student on this programme will be able to accelerate their career while delivering bottom-line benefits to the business.

Group projects

The Group project gives a team of students the opportunity to take the responsibility for a consultancy type project working for an industrial sponsor.

To give you an idea of the range of clients and projects undertaken in this area, here are some previous project titles:

- **Weetabix:** Optimisation of combined heat and power plant
- **Linx:** Development of a new manufacturing facility
- **Rolls-Royce plc:** Evaluation of engine assembly methods
- **NCT Leather:** Maximising manufacturing capability
- **Laminar Medica:** Improving manufacturing performance using a DMAIC approach

Manufacturing Study Tour

The Manufacturing in Practice study tour allows students to visit a range of manufacturing companies to evaluate their operations excellence capabilities. Companies previously visited by Operations Excellence students include:

AG Barr	Lufthansa Technik
Airbus	Meggitt
Aston Martin Works	Morgan
Bentley	Owen Mumford
BMW Mini	Pirelli
British Motor Heritage	Renishaw
GKN	Roberts Bakery
Jaguar	Siemens
JCB	Sony
Land Rover	Weetabix



Course information

Operations Excellence MSc

The MSc comprises a two-day induction, a series of taught modules, a manufacturing study tour, a group project and an individual thesis project. The modules include lectures and tutorials, and are assessed through written examinations and assignments. These provide key information for subsequent project work. The Institute for Manufacturing (IfM) at University of Cambridge delivers two of the modules.

Modules;

- Business and Manufacturing Strategy
- Effective Factories
- Innovation Management
- Management Accounting and Human Resource Management
- Manufacturing Assessment and Improvement
- Production Planning and Control
- Realising Competitive Manufacturing
- Technology Management.

Industrially supported and relevant project work undertaken represents 60% of the total study time. It enables you to apply the knowledge and skills learnt from the taught element of the course and put them into practice. Projects are chosen to ensure delegates are able to relate the content directly to the performance of the business and its future success. The individual thesis work is particularly focused on the delegate's company with critical thinking encouraged and supported by thought leaders from the University.

Students learn from other cohort members, from industry practitioners and from developing solutions to individual issues through group and individual projects. These industry experts teach alongside academics from Cranfield and Cambridge who have a wealth of experience in operations excellence.

For full course information see: www.cranfield.ac.uk/opex

"I chose the Operations Excellence course for its reputation. Cranfield has a history of delivering great leadership courses for industry. The course is not just academic, you can actually demonstrate the principles through frameworks and tools. The course also enables you to develop a holistic view rather than just focussing on day-to-day activities. I would thoroughly recommend the course – it gives you a freshness on your return to work to think about things differently and change things for the better."

Marc Smoczyk, Operations Manager, Rolls-Royce plc



Key facts and statistics

Course structure

The Operations Excellence course is structured to allow maximum benefit from learning with minimum time away from the working environment.

The course comprises an induction week, a series of taught modules, a manufacturing study tour, a group project and an individual thesis project. The three elements of the course are assessed as follows:

Taught modules 40%

The modules include lectures and tutorials, and are assessed through written examinations and assignments. These provide the knowledge and skills for the group and individual projects. The University of Cambridge delivers two of the modules.

Group project 20%

The group project gives a team of students the opportunity to take on responsibility for a consultancy type project working for an industrial sponsor. (Note: A dissertation can replace the group project.)

Individual Project 40%

The individual project allows students to demonstrate their ability to think and work in an original way and overcome genuine real life challenges. It will be a project for the company you are working for.

Accreditation

This course is accredited by the Institution of Engineering and Technology (IET), the Institution of Mechanical Engineers (IMechE) and the Royal Aeronautical Society (RAeS).



Key facts



2 years



October



MSc



Fees

Please see the course page on our website for full fee information. Terms and conditions apply – see www.cranfield.ac.uk/fee-information

*Not all courses offer all awards, see course information pages on our website for details of awards offered, and start dates.

Across our Operations Excellence MSc



Geographic Spread

**88% UK
4% EU
8% Rest of World**



Average Cohort Size

20-25



33 years

Academic staff

You will be taught by a range of subject specialists at Cranfield University who draw on their research and industrial experience to provide stimulating and relevant input to your learning experience. Staff include:



Dr Patrick McLaughlin, Senior Lecturer in Manufacturing Management

Patrick has worked at director level in manufacturing operations for over twenty years, and has been responsible for several plant-wide lean manufacturing implementations. He has experience of implementing and managing change programmes to improve manufacturing performance in automotive, capital goods, industrial equipment and consumer durables.



Dr Denyse Julien, Senior Lecturer in Logistics, Procurement and Supply Chain Management

Denyse's areas of expertise include supplier management, quality management and statistical process control, food supply chains and materials handling. Prior to joining Cranfield she worked at Nestle.



Professor Keith Goffin, Professor of Innovation and New Product Development

Keith is Director of the Centre for Innovative Products and Services (CIPS). He has extensive experience of product development from both an industrial and an academic perspective. He previously worked for Hewlett Packard (HP) Medical Products.



Dr Andrey Pavlov, Senior Lecturer, Business Performance Management

Prior to coming to Cranfield and switching to a career in academia, Andrey worked in Moscow, Russia, as a financial analyst, assisting the executive teams first in a small pharmaceuticals distributor and then in a large chemicals manufacturer.

You will also be taught by guest lecturers from industry;

Alan Robertson – Business Cognition

Andie Hallihan – Applied Angle Consulting

Richard Maun – Primary People

Dr John Temple – Nissan

Dr Mark Khater – Cambridge

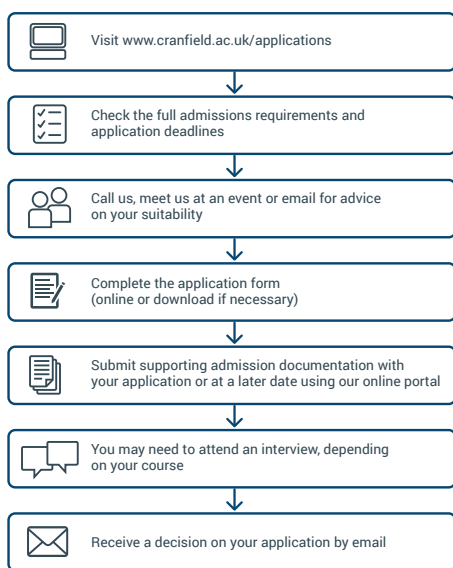
Dr Tim Minshall – Cambridge

How to apply

Entry requirements

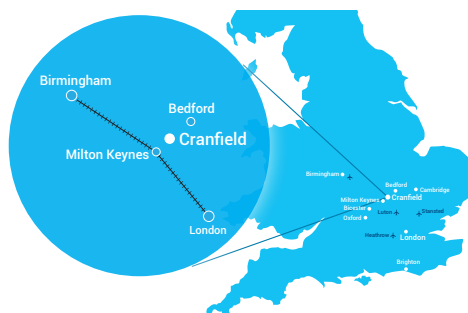
Candidates must possess, or be expected to achieve a first or second class UK Honours degree in a relevant science, engineering or related discipline, or the international equivalent of these UK qualifications. Other relevant qualifications, together with significant experience, may be considered. Where applicable students must achieve a minimum IELTS score of 6.5.

The application process



Location

Your course will be held at the Cranfield campus – a tranquil environment offering just the place to focus on your studies and work with a professional and international community. We are located just outside the village of Cranfield between Bedford and Milton Keynes. There is plenty to do in the area and many cities with a rich history can be visited on day trips. Several airports are easily accessible, offering a gateway to explore Europe and afar. There are also convenient transport links by rail and road.



Trains:

35 minutes from London (Euston) to Milton Keynes
55 minutes from Birmingham to Milton Keynes

For full course information see
www.cranfield.ac.uk/study

Cranfield University
Cranfield
MK43 0AL, UK
T: +44 (0)1234 758008
E: enquiries@cranfield.ac.uk

www.cranfield.ac.uk

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