



Engineering and Management of Manufacturing Systems

MSc/PgDip/PgCert

An established course developing professionals with a thorough understanding of the processes, skills and behaviours needed to create and manage competitive manufacturing operations. It majors on industrially relevant projects, team working, and transferable skills. Our graduates enjoy careers in a wide range of sectors from financial services through to health care. This course is suitable for graduates with science, engineering, IT or related degrees keen to develop careers in manufacturing or related industries, or academia; or graduates currently working in industry keen to extend their qualifications or pursue a career change; or individuals with other qualifications who possess considerable relevant experience. The MSc course is accredited by the Institution of Engineering and Technology (IET), the Institution of Mechanical Engineers (IMechE), and the Royal Aeronautical Society (RAeS) for meeting the further learning requirements for Chartered Engineer registration. Students benefit from dedicated facilities, including manufacturing laboratories, specialist software for discrete event simulation, statistical analysis, systems analysis and preparation of multimedia task support systems.

Course structure

The Engineering and Management of Manufacturing Systems programme is made up of three components: a formal taught component comprising eight modules (40%), Group Project (20%) and Individual Thesis Project (40%).

Individual project

The individual research project can be carried out within industry or academia. Part-time candidates may undertake this element of the course in their place of work. This part of the course allows you to apply the research skills acquired during the taught phase to a practical problem with competitive manufacturing operations, and acts as an opportunity to meet future employers.

Group project

Students work in teams to take responsibility for an industrially orientated consulting type project, delivering results to a high professional standard. Projects have the support of external organisations. Experience gained is highly valued by both students and prospective employers. For part-time students a dissertation usually replaces the group project.

Future career

The course takes you on to a wide range of manufacturing and associated roles such as management, operations, logistics, IT and consultancy.

Example modules

Modules form only part of the course, with the project(s) and these making up the balance. Please see the course structure for details.

The list below shows the modules offered in the 2019-20 academic year, to give you an idea of course content. To keep our courses relevant and up-to-date, modules are subject to change – please see the webpage for the latest information.

Compulsory:

- Enterprise Systems,
- General Management,
- Internet of Things,
- Manufacturing Strategy,
- Manufacturing Systems Engineering,
- Operations Analysis,
- Operations Management,
- Supply Chain Management.

Duration:

MSc: Full-time - one year, Part-time - up to three years,
PgDip: Full-time - up to one year, Part-time - two years,
PgCert: Full-time - up to one year, Part-time - two years.

Start date:

Full-time: October, part-time: throughout the year.

Location:

Cranfield Campus.

Entry requirements:

A first or second class UK Honours degree in a relevant subject or an equivalent international qualification or relevant work experience.

Please visit www.cranfield.ac.uk/entryrequirements for more information. Applicants who do not fulfil the standard entry requirements can apply for the Pre-master's in Engineering programme, successful completion of which will qualify you for entry to this course for a second year of study.

ATAS Certificate:

Students requiring a visa to study in the UK may need to apply for an ATAS certificate to study this course.

Contact details

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For further information please visit
www.cranfield.ac.uk/emmsystems