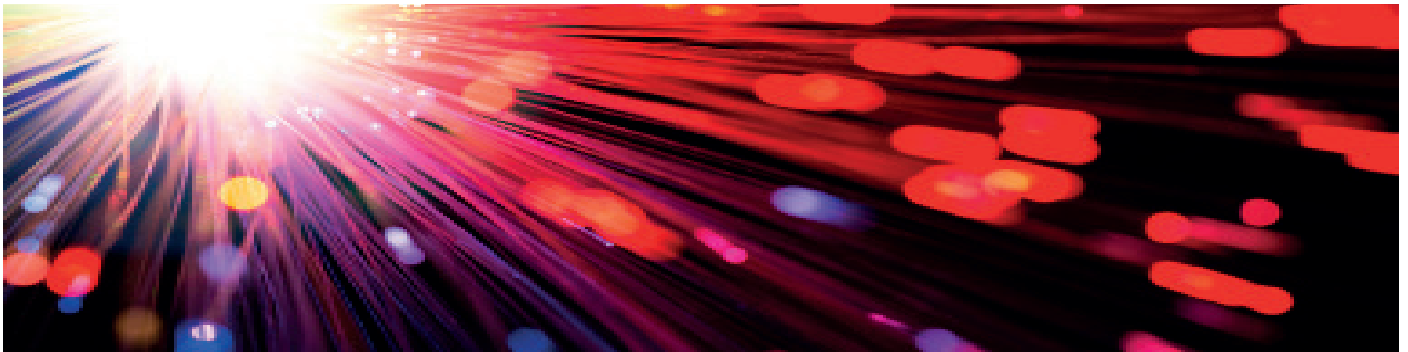




# Design Thinking

## MDes, PgDip, PgCert.



**Innovative companies today (large or small) strive for excellence to create the next breakthrough innovation - whether that be to advance technology, stay competitive in the market place, or to provide positive change for society. To achieve this, companies need to maintain their competitive edge, employing talented professionals with ideas and vision, coupled with the skills to innovate with confidence. We believe that Design Thinking is a powerful process that when mastered will empower our professional learners to unlock their creative potential to generate novel ideas and to translate these ideas into tangible and impactful outputs for innovation.**

**This course has been carefully designed to advance your knowledge of Design Thinking, working with confidence to generate convincing ideas, provide you with the opportunity to apply Design Thinking in practise with a company, improve your opportunity of job success, through the building of your professional skills and innovation design portfolio, and provide you with the 'know how' to develop your long term career as a creative professional.**

## Who is it for?

The course is designed for (but not exclusive to) creative professionals with an aspiration to use Design Thinking to advance their career. It aims to develop creative design literate engineers, scientists and management postgraduates providing tools and techniques to visualise complex data flows and strategic communication processes. It is suitable for graduates from a variety of disciplines.

## Course structure

- Five taught modules (40%),
- Group project or dissertation: (20%),
- Individual research project (40%).

## Informed by industry

This MDes is taught by subject specialists at Cranfield and invited guest speakers from industry. The course is designed to meet the training needs of industry and has a strong input from experts in the sector to reflect state of the art industrial practices and global trends such as digitisation and the circular economy.

## Future career

Successful students have turned their dreams into a reality developing diverse and rewarding careers in product, manufacturing and service industries in the private sector, public sector organisations such as environmental protection agencies, non-governmental organisations (NGOs), and design, environmental and business consultancies.

## Key information

### Duration:

MDes: one year full-time, two to three years part-time  
PgDip, PgCert: one year full-time, two years part-time.

### Start date:

Full-time: October.  
Part-time: October.

### Qualification:

MDes, PgDip, PgCert.

### Location:

Cranfield campus.

### Entry requirements

A first or second class UK Honours degree or the international equivalent of these UK qualifications. Other relevant qualifications, together with significant experience, may be considered.

# Overview of taught modules

## Example modules

Modules form only part of the course content with the projects and theses making up the balance. Please see the course structure for details.

The list below shows the modules offered in the 2019-2020 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 modules

(all the modules in this list need to be taken as part of this course).

### Creative Enterprise and Entrepreneurship

This module provides a forum for examining mindsets, methods, and managerial activities that are involved in the entrepreneurial process from opportunity recognition to growing ventures. While the most visible outcome of this module is a written business plan, we will cover a wide area of issues related to starting and growing new ventures. The module is intended to expose you to the main issues associated with the dynamic and uncertain environment of new ventures. During the module, you are therefore required to form teams around ideas for new ventures and to develop and present plans to launch your business idea.

### Consumer Trends

This module introduces you to new methods for observing and analysing tangible and intangible elements of behaviours, expectations, and associations of customer groups. It intends to provide an insight into how developing a deep understanding of user attitudes and behaviour enables organisations to connect to what is ultimately important to consumers. This can then help them to design innovative and strategic solutions that are appropriate for consumer use.

### Design, Technology and Prototyping

This is a specialised module that introduces you to industry prototyping design processes. It will also introduce the facilities and workshops available at Cranfield. This module covers CAD/CAE, mechatronics, 3D printing, CAD/CAE software, as well as providing the knowledge of advanced materials and processes.

### Project Management Introduction

As well as providing an introduction to project management, this module also provides a logical and simple process by which you may approach your own modules and objectives, and may well be a valuable source of confidence for taking on major elective projects later in the year. Project Management Introduction (PMI) demonstrates how management respects no boundaries (either in terms of functional silos – departments, etc. or theoretical disciplines). PMI provides additional opportunities to practice personal communication skills, and generally the module provides a basis for personal development and increased confidence and self-awareness.

## Whole System Design

This module aims to introduce you to strategies and tools that enable integrated sustainable product development to take place. In particular you will gain experience of the real life scenarios in which a holistic approach to designing for improved sustainability is required. Delivering environmental improvements in products requires organisations to take a longer-term integrated view of their product and service policies. To support this an appreciation for a range of tools and techniques, used to guide designers responding to the requirements for more sustainable development of products, services and organisational processes, will be developed.

Examples of recent group projects include:

- Scenario planning for a circular future,
- Changing nappies from disposable to biodegradable to renewable.

## Group project

The group project experience is highly valued by both students and prospective employers. You will work with other students to solve an industrial problem. The project applies technical knowledge and provides training in teamwork and the opportunity to develop non-technical aspects of the taught programme. If studying part-time you can prepare a dissertation on an agreed topic in place of the group project.

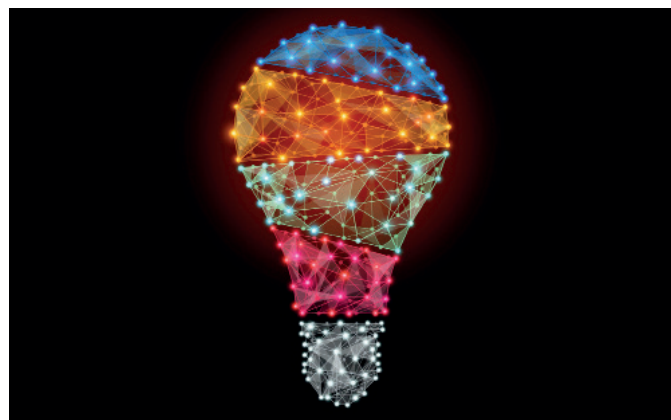
As a result of external engagement you can expect to enjoy a higher degree of success when it comes to securing employment. Prospective employers value the student experience where team working to find solutions to industrially based problems are concerned.

## Individual project

You will select your individual project in consultation with the thesis project coordinators. The individual thesis project offers you the opportunity to develop your research capability, depth of understanding and ability to provide world-class solutions to real problems in design strategy and leadership.

## Accreditation

The MSc of this course is accredited by the Chartered Society of Designers:



## Contact details

T: +44 (0)1234 758082  
E: [studydesign@cranfield.ac.uk](mailto:studydesign@cranfield.ac.uk)

For further information please visit  
[www.cranfield.ac.uk/designthinking](http://www.cranfield.ac.uk/designthinking)

Every effort was made to ensure that the information on this document was correct at the time it was produced. Please check our website for the latest information. September 2019.