

The School of Design, Engineering & Computing

If you are a graduate designer in full time employment, then this course will provide you skills that can give your career prospects a huge boost.

Duration:

2 years part time

During this course units are taught intensively, usually over 4.5 days, with assessment normally taking place 5-6 weeks after the delivery of the unit.

Start Date:

January

Entry Requirements:

A good IEng accredited honours degree or academic qualifications that have been approved at IEng level through the IED Education and Training Committee or equivalent.

If English is not your first language:

IELTS (Academic) 6.0 or equivalent.

Contact askBU:

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(International/EU callers only)
Email: askBUenquiries@bournemouth.ac.uk

Open Days:

Log on to: www.bournemouth.ac.uk/opendays

For more course information:

www.bournemouth.ac.uk/courses/MSEDI

Overview

If you have ambitions of being a Chartered Engineer (CEng) then this course will provide you with the ideal start. In order to achieve CEng status it is recognised that most Chartered Engineers will hold an appropriate masters degree like this one.

Because the course is delivered in intensive blocks, you won't find yourself having to take regular time out of your busy working week to juggle study and your career; instead you will be able to devote all of your attention to your studies for around a week at a time. Not only does this help you to study more effectively, it also means less disruption for your employer.

The aim of this course is to develop comprehensive knowledge and understanding of a wide range of materials, manufacturing processes and their limitations.

You will apply mathematical and computer-based models for solving problems in engineering design. The nature of this course is business driven and you will apply your knowledge to specific design problems.

The course will have an extended project element which is primarily research led involving an innovative design exercise relating to your particular area of interest.

This course has been accredited by the Institution of Engineering Designers (IED).

Course Content

Applied Maths for Designers (20 Credits)

The aim of this unit is to develop the knowledge and understanding of mathematical principles necessary to underpin education in engineering design.

You will apply mathematical and computer-based models for solving problems in engineering design, and the ability to assess the limitations of particular cases.

Materials Failure & Prevention (20 Credits)

You will develop the knowledge and critical understanding of the range of the more common failures that materials encounter in service or during processing. This unit will provide an understanding of the underlying reasons and mechanisms of materials failures in order to design against and diagnose failure in engineering materials.

Research Methods (20 Credits)

You will develop key research skills in areas such as literature reviews; critical analysis of research findings, project proposals, planning, experiment design and analysis, and dissemination. This unit will adequately prepare you for writing a project proposal and for conducting and disseminating the Masters project.

Extended Masters Project (120 Credits)

The unit aims to develop an understanding of the characteristics and implications inherent in the solution of a complex, real-world problem. The Extended Project is the mechanism through which you will demonstrate your ability to perform at masters level by conducting a substantial piece of independent research in an area related to your current employment.

This will allow you to: construct complex simulation environments, consider literature in detail, conduct substantial empirical/theoretical research and comprehensive analysis; engage with research at the forefront of the appropriate discipline that demonstrates originality in the application of knowledge and analysis of findings.

Course Provision

There are individual and group-based development activities, and seminar-based discussions and role-play activities. All assessments are on an individual basis. The emphasis throughout the delivery of the units is on the application of theory to relevant practical applications, using case studies where appropriate. Each unit is assessed either by coursework only or via a combination of coursework and an examination.

Research Centres

The School of Design, Engineering & Computing is active in research and enterprise and have a well established base in Sustainable Design and Design Simulation.

All members of the academic team are members of either The Sustainable Design Research Centre or Design Simulation Research Centre and accordingly are active in research and publication within these fields or in associated enterprise.

Please note:

The University reserves the right to introduce changes to the information given, including the addition, withdrawal, re-location or restructuring of courses.