

## Engineering and Design (With or Without Work Placement)

In all Brunel University London postgraduate Engineering degrees, students develop a range of skills valued by employers such as communication, critical thinking, analysis, research and project management skills. Each programme has a strong contemporary feel and relates theory and concepts to the practical issues facing employers and employees in the 21<sup>st</sup> Century. Successful completion of the postgraduate degree can lead to career opportunities in IT, computing, social networking, project management and information systems development. In this Pre Masters you will take the following four core modules. If you also **choose** the work placement option you will take an additional module:

You will study four core modules:

- Interactive Learning Skills and Communication
- Critical and Creative thinking
- Applied Concepts
- Research Methods

If with work placement \*, you will also study:

- Work Placement and Preparation

Please note the generic route applies to the following:

- MSc Advanced Engineering Design
- MSc Advanced Instrumentation and Smart Systems
- MSc Advanced Multimedia Design and 3D Technologies
- MSc Biomedical Engineering
- MSc Digital Design and Branding
- MSc Engineering Management
- MA Design and Branding Strategy
- MA Design Strategy and Innovation
- MSc Integrated Product Design

### Module Overview

#### Interactive Learning Skills and Communication

Students will develop a range of academic and communicative skills necessary for successful study at postgraduate level. They will also develop a range of transferable communicative skills (written and oral) that prepare students for professional life and develop independent learning and encourage students to take responsibility for their personal, academic and professional development.

#### Critical and Creative thinking

The Critical and Creative Thinking module has been designed to assist learners in developing a range of critical and analytical thinking skills necessary for successful study at postgraduate level. This will be achieved by learners gaining an understanding of concepts used in critical thinking; interpreting the arguments of others and developing effective arguments of their own whether in spoken or written form.

#### Research Methods

This Research Methods module has been specifically designed for students who are required to demonstrate appropriate research and study skills at Masters level at Brunel University. Successful completion of this module indicates that students have obtained a good understanding of and ability to apply the requisite skills involved in understanding, evaluating, conducting, and reporting research. This module is designed to assist students in developing a critical awareness and familiarity with research methods; and provide students with underpinning knowledge and understanding of research methods and methodologies and a solid grounding for the more advanced research skills required in postgraduate study.

#### Applied Concepts

This module has been designed to guide students through the key activities and concepts which need to be undertaken and applied for the production of a written report at postgraduate level. The students are encouraged to reflect upon their approach in constructing their report, through continual feedback in tutorials, developing skills that will help in the re-evaluation of the decisions they make, drawing upon theory and its relation to practice. Students will produce a short appraisal of their self-reflection to accompany the completed report. The students will be required



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to present their work both in written and oral form. This module will enable students to apply concepts which they have studied in the complementary modules on the Pre Masters programme element.

### **Work Placement and Preparation \***

This Work Placement and Preparation module has been specifically designed to challenge students to think about themselves, their career aspirations, their short term work placement/experience aspirations post Pre-Masters study, graduate careers available and to match themselves to those careers post Masters study.