

## Courses – September 2012 entry

### MSc Innovation Management and Entrepreneurship

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#### Course structure:

All taught course units are 15 credits

#### Semester 1

- **High Technology Entrepreneurship**

The objectives of this course are to give participants a strong contextual grounding in theories relevant to entrepreneurial behaviour, and its role as the key driving force in bringing innovations to market and creating growth in new and established businesses at all scales of operation. Second, the course will familiarise the course participant with attitudes to risk-taking and the areas of entrepreneurial expertise necessary in order to found and/or grow a business enterprise.
- **Innovation and the Knowledge Economy**

The purpose of this course unit is to introduce students to a range of foundational concepts in understanding the knowledge economy. It will explore the characteristics of knowledge, the processes and institutions that generate progress in knowledge, and the spread of innovations throughout society. The course tackles key approaches and theoretical perspectives from the sociology and history of science, technology and innovation to build a view of how economies are transformed through successive gales of creative destruction.
- **Innovation Management**

The unit is an introduction to the nature of innovation within firms and their motives for innovation. It covers fundamental issues such as the organisation of innovation and R&D within the firm, the way in which innovation is managed, how and why firms collaborate with other firms in networks and strategies to protect their own position. The role of standards and the impact of disruptive technologies are also discussed.
- **Financial Appraisal and Investment Economics**

This course is taught by means of a series of lectures and an intensive period of group work. Students will work together to explore the uses and limitations of investment appraisal techniques. The appraisal case study selected will display feature characteristic of large scale technology projects such as prolonged time scale, uncertain outcomes and long lead times to completion and commissioning.

#### Semester 2

- **Research Methods**

This course unit provides the foundations of practical research training in social research with particular reference to the range of research methodologies commonly applied to innovation and entrepreneurship studies. Quantitative and qualitative methods are discussed in terms of their objectivity and subjectivity and the ways in which these influence the choice of methodology as well as the analysis and interpretation of research data. The module aims to assist you in the design of your dissertation and to provide the tools needed for its execution.

In addition to studying Research Methods in the second semester, we encourage you to make the most of our knowledge and real world experience in your choice of three optional course units and dissertation project, allowing you to develop an in-depth knowledge and understanding of a particular aspect of innovation.

Choose three optional course units (subject to demand) from:

- **Business Creation and Development**

This unit aims to explore the options open to an entrepreneur wishing to commercialise knowledge focusing on the critical success factors and acquisition of key resources. It focuses on the creation and sustainable development of a new venture. Key topics covered are identification and acquisition of key resources, development of workable strategies that will achieve defined objectives and the work and planning required to develop and present an effective business plan. Practical application of knowledge developed in the various learning environments allows the student to develop the necessary analytical skills and creativity needed to undertake these activities.
- **Case Studies in Technology Strategy and Innovation Management**

This module focuses on the management dilemmas posed by technological innovation and the tools and techniques that can be used to tackle those dilemmas. The elective considers how, by successfully harnessing innovation, businesses can open-up new markets and develop new ways to serve existing customers. The elective also considers how the rapid pace of technological change can threaten established businesses and undermine existing business models, how new entrants to markets can leverage these opportunities to establish themselves in an industry - and how established businesses can respond.
- **Developing Enterprising Individuals**

This module takes a broad look at entrepreneurs and enterprising individuals and the role they play in creating value in many different areas of society whether in business, science and the 'not-for-profit' sector. It explores the competencies, behaviours and traits that characterise such individuals and helps students develop their own 'enterprising capabilities' inspiring and motivating them to actively seek out and create opportunities that not only have the potential to positively impact on their lives, whether personal or professional, but also the lives of others.
- **Industrial Leadership and Innovation**

This course unit aims to give students an understanding of how innovation contributes to the international competitiveness of firms, industries, regions and national economies. The course examines the factors that have allowed industries in some locations to gain and retain supremacy in a selection of important manufacturing and service industries. In selected industries, firms in one or a very few countries have become the clear technological and commercial leaders internationally. In these industries, the locus of industrial leadership has changed, sometimes more than once. The focus of this unit is on the key factors supporting the emergence of international leadership in each industry, and the reasons behind the shifts when they occurred.
- **Innovation and Market Strategy**

This course unit develops an understanding of how innovations shape markets and how market structure and rivalry influence innovative behaviour. It also provides an introduction to some of the key strategic questions firms must consider when planning a strategy for innovation and new product development. The importance and validity of product life cycles are discussed in depth. The impact of technical change on the evolution of industries is considered in detail.
- **New Entrepreneurial Ventures**

The course unit allows you to research a 'live' value creating opportunity for an SME based within the Daresbury Science Innovation Campus network. You apply the knowledge and skills gained from the taught elements of the course to develop a range of competencies relevant to product, process, or service development appraisal, particularly within the context of an SME environment. The appraisal process features research, presentations, reports and client interactions. The module develops you as an active, self-directed independent and co-dependent learner able to effectively work within a team environment, and critically evaluate enterprising opportunities.

- Regional, National and Global Dimension of Science, Technology and Innovation**  
 The course unit aims to outline the challenges for regional, national and global development that emerge from an increasing pace of science, technology and innovation activities. It explores the conceptual and practical links between innovation and regional economic development and their implications for the design and implementation of appropriate policies across all levels, with special emphasis on European innovation policies and strategies.
- Service Innovation**  
 The course unit provides an introduction to business and policy issues, and related research themes and concepts, surrounding innovation in, and innovation associated with, services. It explores the issues raised by the growth of service activities and the features of service innovation. It explores innovation management in services, cases of successful and unsuccessful services innovation, efforts to build a service science, and the various ways in which different types of services can be usefully understood by innovation managers and policymakers.
- Sustainable Innovation Management**  
 This module explores the nature, determinants and consequences of innovation for sustainable development. It focuses on the strategic challenges facing firms with respect to sustainable innovation, and assesses how successful firms overcome them. It explores the key issues that inform our understanding of sustainable innovation and assesses the methods, tools and techniques firms use to embed sustainability
- Water and Sanitation Planning and Policy in Developing Countries**  
 This module provides you with an in-depth understanding of water and sanitation problems and solutions in developing countries. You examine the status quo conditions faced by households and firms in poor rural areas, urban slums and the rapidly growing megacities. You learn about supply-side issues in the water and sanitation sector and demand-side issues. Case studies are used to illustrate the concepts and empirical evidence.

By agreement, an optional unit from other Masters courses can be taken

All optional units are subject to demand

**Summer research period  
 Research dissertation (60 credits)**

You must complete a satisfactory dissertation to be awarded your MSc. This piece of work, undertaken in your third term and over the summer, gives you the opportunity to apply the techniques and theories you have learned during the taught modules. A list of dissertation topic areas will be presented to you toward the end of the first term: dissertation topics reflect the diverse interests and expertise of research-active academics who teach on the IME MSc Programme and other research and teaching staff in the Manchester Institute of Innovation Research (MloIR) and Manchester Enterprise Centre (MEC). Sometimes there are opportunities to undertake dissertations related to on-going research projects or in collaboration with industry. In the second term, supervision starts with small groups of students studying similar topics meeting with their supervisors, who then guide students in deciding on the focus for their individual dissertations. Later, more individual supervision is given. The dissertation itself normally consists of a literature review followed by a piece of empirical work, involving either qualitative or quantitative research.

Dissertations are highly diverse, exploring such topics as:

- How do Green Issues affect the IT industry?
- Factors contributing to the growth of on-line gambling in the UK

- Investigating the determinants of success of generational technologies in the video game industry
- The pattern of venture capital firm investment in early stage high technology companies in the UK
- Comparative research on the development of biotechnology SMEs in Taiwan and the UK
- The Rising Silicon Dragon - strategies adopted by high tech non government enterprises in China
- The importance of aesthetic design in innovation: how much effort do technology-based firms need to put in?
- The application and use of carbon labelling for product development
- Digital Convergence and the Music Industry: the application of "music information retrieval" in media services innovation

Usually there are opportunities to work collaboratively with a company or within ongoing research projects at the Manchester Institute of Innovation Research.

You develop high levels of analytical and critical skills values, and have the opportunity to develop specific skills such as roadmapping, investment analysis and analysis of business strategy. There is a strong emphasis on research training, development of personal communication skills, team-working and presentation which gives you an excellent basis to pursue a variety of careers across all sectors, academic research or teaching.

### **Postgraduate Diploma**

Exceptionally, candidates without the necessary qualifications for the MSc course may apply for the nine month postgraduate diploma, completing the taught portion of the course and a shorter extended essay. Diploma students achieving the desired standard in the course work and examination may be allowed to upgrade to the MSc course.

If you have any queries about a course, please contact the admissions office, by telephone on + 44 (0)161 306 1339 or by email to [pg@mbs.ac.uk](mailto:pg@mbs.ac.uk)

*Note: this document is prepared in advance of the academic year to which it relates, and some modules may change before the course begins in September 2012.*