

Foreword



“ For thirty years we have been educating the leaders of tomorrow and in recognition of this, we were proud to be awarded the Queen's Anniversary Prize for Higher and Further Education earlier this year. To receive this award is a tremendous honour and highlights that our philosophy of providing academic excellence with a clear business focus is a winning formula.

We have developed a leading centre for world class management studies attracting high calibre students who want to make an impact, whether in technology, management or as an entrepreneur. Modern leaders need an appreciation of science, technology, engineering and the marketplace in order to succeed. Collaborating with business we have developed a focussed programme based on real world scenarios, that will enable you to succeed in a constantly changing global environment.

By studying with us you are taking the first step to investing in your future, in return we will enable you to gain the skills to compete effectively in the global market. You will be joining one of the world's leading research groups, with state-of-the-art research and development facilities spread across four buildings at Warwick and collaborative partnerships with over 1000 leading global companies. You will have the opportunity to work with our leading edge researchers in areas including digital technologies, e-security and e-commerce, novel and sustainable materials, emerging manufacturing processes, hybrid automotive technology, robotics and visualisation. Your Master's degree will be awarded from the University of Warwick, giving you an internationally recognised qualification from the UK's most innovative highly ranked university.

Your journey to technology, management and entrepreneurial success starts here!



S.K. Bhattacharyya

Professor Lord Kumar Bhattacharyya, KB, CBE
Director of WMG, University of Warwick

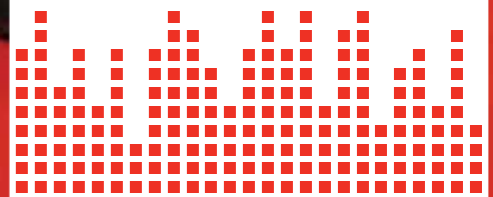
Contents

- Warwick: a top class university 04
- WMG: a unique institution 05
- Master's programme structure 06
- Entry requirements, tuition fees and funding 07

Programmes

- MSc Cybersecurity and Management 08
- MSc e-Business Management 10
- MSc Engineering Business Management 12
- MSc Enterprise Integration Management 14
- MSc International Technology Management 16
- MSc Management for Business Excellence 18
- MSc Manufacturing Systems Engineering 20
- MSc Process Business Management 22
- MSc Programme and Project Management 24
- MSc Supply Chain and Logistics Management 26

- After you graduate 28
- Full module list 30
- Getting in touch Back cover



Warwick: a top class university

The success and reputation of the University of Warwick lies in a unique blend of entrepreneurial spirit and commitment to absolute academic excellence.



Warwick is one of the UK's leading universities for teaching and research. Consistently ranked within the top ten since it was founded in 1965 and currently No 3 (Guardian, 2011), it has established itself as a truly international university and is set to be firmly placed within the top 50 world rankings by its 50th anniversary.

Warwick's international community contributes greatly to the vibrant, cosmopolitan atmosphere on campus. With over 100 different nationalities represented you will be working, living and communicating with people from all over the world. This experience is invaluable in today's global society and a tremendous advantage in the international business arena.

Warwick University's Campus is an award-winning 700 acre, self-contained campus in the heart of England yet just one hour from London. With fantastic facilities and excellent access to local towns, cities and countryside, it provides an attractive, safe and supportive environment in which to live and study.

Accommodation consists of modern, comfortable rooms, mostly en-suite and with high-speed internet and network access. Residences are set in pleasant parklands close to all the facilities on campus.

Warwick's Students' Union is one of the largest in the country with over 250 societies to choose from. Student events such as 'one world week' are internationally recognised and mirror the University's reputation for innovation and dynamism.

Warwick Sport provides every opportunity for you to try something new or compete in your sport. It offers over 70 different sport clubs, a swimming pool, gym, indoor climbing wall, all-weather tennis courts, 60 acres of outdoor playing fields and much more.

Warwick Arts Centre houses two theatres, a cinema, a 1,400 seater concert hall, the Mead Art Gallery and a specialised music centre. It is nationally recognised as an outstanding venue for both famous and new artists.

The Library holds over 1 million printed titles and 16,000 electronic journals and offers outstanding resources. The University's acclaimed 'Learning Grid' provides a 24/7 relaxed learning environment with an impressive range of multimedia equipment.

Warwick Careers Service gives students a real head-start in their job searches. Voted by students as the best in the country, the careers service provides outstanding guidance and support. Warwick University is widely recognised by employers as an ideal recruiting ground.

Language support is offered by The Centre for Applied Linguistics. The Intensive Course in English (ICE) prepares students in academic English over 1, 2 or 3 terms. A five-week pre-session English course may also be offered if you narrowly miss the English language criteria for Master's study.

Worship is encouraged by the multi-faith Chaplaincy which welcomes all members of the University community. It is home to Christian, Jewish and Muslim chaplains who, as a valued part of the University's welfare network, offer spiritual and emotional support.

The International Office provides a wide range of services for both prospective and current students, including immigration advice, welfare support and an orientation programme for those new to the UK.

WMG is a long established academic department of the University of Warwick occupying a unique position between academia and industry.

WMG was founded by Professor Lord Bhattacharyya in 1980 in order to reinvigorate UK manufacturing. Our success over the past 30 years is the result of cutting edge research and effective knowledge transfer, working with global companies such as JaguarLandRover, TATA, TVS, BAE Systems, AstraZeneca, Siemens, GlaxoSmithKline and Airbus to name but a few. Today we work across many sectors including automotive; aerospace and defence; digital; energy and utilities; food and drink; government; healthcare and pharmaceutical. The strength of our expertise spans across four themes: digital technologies; manufacturing technologies; materials and sustainability; operations and business management.

WMG education and research is applied and practical - all of our research projects are dedicated to finding solutions to real world problems. This enables our students to benefit from first-hand understanding of the issues facing modern business and industry.

We offer unrivalled postgraduate education to over 1,500 students around the world each year. Our teaching modules are continually updated to meet the requirements of new business and industry sectors and the opportunities of globalisation. The majority of our academic and teaching staff have industrial or business backgrounds which translate into innovative courses closely related to industry. This, coupled with academic excellence, has led to WMG becoming a global group with a number of overseas collaborative education centres. These include centres and collaborative agreements in India at the Confederation of Indian Industry, IIT Kharagpur and IIT Bhubaneswar;

WMG: a unique institution

“ Our mission – to improve the competitiveness of companies through the application of value adding innovation, new technologies and skills deployment, bringing academic rigour to industrial and organisational practice. ”

China at Hong Kong Polytechnic University and the Vocational Training Council; Russia at the University of Telecommunications Bronch-Bruevich, St. Petersburg; Singapore at SIM and SIMTech and Thailand at Chulalongkorn University.

Research Synergies

WMG is a pioneer in industry-sponsored research and has ongoing collaborations with several global companies.

We have extensive laboratory and workshop facilities including the world-class engineering hall and the £50 million International Digital Lab, which houses some of the most advanced digital research and education programmes in the world.

Some key research and consultancy areas of the Group include:

- E-Security: technology in risk management
- Hybrid automotive technology: intelligent and environmentally-friendly cars
- E-Commerce: using technology to grow businesses
- Robotics: in pharmaceuticals, horticulture and the automotive sector
- Visualisation and image analysis: healthcare research
- Product perception: the voice of the customer in product design
- Product life-cycle management: cradle-to-grave modelling
- Lean healthcare: applying lean to the healthcare environment
- Materials: modelling traditional and bio-materials in use in automotive and aerospace
- Business process, design and management for multi-national corporations
- Digital healthcare: health and wellbeing through innovative digital technologies



WMG Master's programme

Our integrated and flexible portfolio of Master's courses are designed to develop skills in management and leadership in technology based industries. They are suitable for students with a wide range of backgrounds and aspirations.

The academic programme is both challenging and rewarding. Innovative teaching methods are employed to ensure students engage practically with their studies and are well equipped on graduation to apply this to real work scenarios. The MSc Programme is structured so that each student takes a minimum of 10 taught assessed modules and executes a major research project.

MSc Programme structure

Foundation Sessions

(non-assessed – compulsory study skills modules)

Foundation Sessions

These are covered in the first few months of the programme and include Study Skills and Research Methodology.



Modules - core

(assessed by post module assignments)



Modules - elective

(assessed by post module assignments)

Modules

Modules consist of nominally 40 hours directed tuition usually delivered in an intensive, full-immersion one week block. A variety of innovative teaching methods are used to maximise learning and ensure students are equipped to apply their knowledge on completion of the course.

Core modules are compulsory and relate specifically to the course you have chosen to study. A combination of key business and management modules are common across our MSc programme and complement modules specific to each course (see course pages 8-27 for details and back inside page for comparison).

Elective modules are chosen from the full list on page 30-31 to supplement core modules*

Up to two non-assessed modules can be taken in addition to your ten assessed modules*

*subject to availability and suitable qualification



Project

(50% of MSc degree credit assessed by dissertation and oral examination)

Project

Each student has to undertake a major individual research project. This accounts for 50% of the overall credit and is submitted in the form of a dissertation of c.20,000 words. An oral examination is held upon completion.

Near the start of the course you will be provided with a list of projects relevant to your degree course. However, we can also usually accommodate supervision of projects proposed by students specifically focused on their individual career paths or aspirations. The project must fulfil the academic requirements of the course. All projects are supervised by a WMG member of staff or associate and many relate closely to research developments in industry or research at WMG.

Work on your project runs concurrently with your module work. In addition to face-to-face meetings, supervisors may expect you to use online tools such as Warwick Forums or Warwick Blogs. You are expected to devote an appropriate portion of your time and intellectual effort to the project during the year i.e. approximately 900 hours or 6-9 months study.

Entry requirements

For admission to the MSc programmes, you should normally have obtained at least a British second class honours degree (or equivalent qualification) in a business, engineering or scientific discipline. Candidates with good honours degrees in other disciplines who can show proof of satisfactory numeracy may also be considered. Work experience, although welcomed, is not a prerequisite.

Applications are made online. You can access the application form at www.warwick.ac.uk/go/wmgmasters/entry

With the application form we require:

- Two academic references
- Academic certificates and transcripts
- English language qualification (IELTS or TOEFL) (where applicable)

Tuition Fees

Fees for our full-time Master's course for 2011/12 are:

For UK and EU nationals: £7,500
For overseas students: £16,000

Please note that fees can be paid in instalments if required.

Duration

Our Master's courses run for 12 months full-time and begin in October each year.

Learning Style

The taught component of the programme is a blend of formal lectures, seminars, syndicate work, practical exercises and case studies to encourage teamwork and practical grounding of the material. E-learning and forum activities are widely used to complement these activities.

Modules are taught in an intensive one week block allowing you to be fully immersed in each subject area.

Tutors are highly qualified and are supported by external speakers working in organisations at the forefront of their fields.

Assessment

Performance is assessed on completion of each module by a post module assignment. This is typically a further 40 to 60 hours of work and consolidates your learning. There are no written examinations, however some modules will also include an in-module individual or group assessment.

Academic regulations

For the award of MSc you are required to:

- Successfully complete nine modules
- Pass nine assignments with an average of 50% from your best nine
- Pass the project and oral exam both with a minimum of 50%.

Industrial visits

WMG runs a programme of industrial visits to local companies available to all students. Recent visits have been made to Rolls-Royce; Jaguar; Pedigree Masterfoods; TNT Logistics; Evesham Technology; Severn Trent Water; Caterpillar; Taylor Hobson.

Scholarships and Early Acceptance Scheme (EAS)

WMG are offering scholarships and bursaries totalling over £250,000 for 2011 entry.

For committed students the EAS offers a fee reduction of £1,000 on receipt of a deposit.

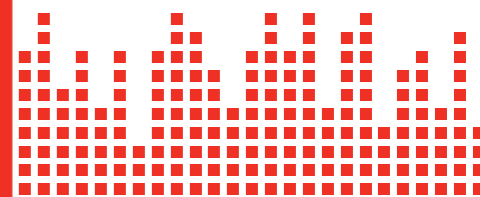
Visit www.warwick.ac.uk/go/wmgmasters/finance for up-to-date information, deadlines and how to apply.

Key Features

- Pioneer in industry-sponsored research
- Applied courses with real, up-to-date industrial relevance
- Unique intensive learning structure
- Innovative and proven teaching methods
- No written examinations
- Assessment by assignment and project
- Flexibility of study and extensive choice of elective modules
- Supportive study environment
- Ability to take additional non-credited modules
- Programme of industrial visits
- Distinguished speaker series with guests from industry and government
- Post-Master's placements and internship programme
- Enhanced career opportunities
- Truly international environment

Overall programme development by Professor Sujit Banerji, Executive Director of Postgraduate Programmes

s.banerji@warwick.ac.uk



Cybersecurity and Management

Delivering effective cybersecurity in a global business context



Cybersecurity increasingly pervades every part of global business and modern society. This course is designed for students wishing to develop a career as a cybersecurity professional, or to take a leading technical or managerial role in an organisation critically dependent upon data and information communication technology.

All of our cybersecurity specialist modules include elements which teach the relevance of security technologies to an enterprise risk management strategy. They examine the economic drivers and considerations which should impact any procurement and risk-based decisions. All of our management modules have specialised cybersecurity case studies.

The course will provide

An advanced understanding of managing cybersecurity within the enterprise. You will be taught the techniques and technologies used in enterprise security architectures and cover key areas of information risk management and network defence. The course also prepares students in the broad skills required for effective management and leadership excellence.

Project

Students will have the opportunity to pursue projects in collaboration with industry in areas spanning both cybersecurity technologies and management issues. These might include risk management, security policy design, enterprise security cultures, intrusion detection, security architectures, cloud exploitation and procurement strategies, data forensics, privacy, social media, and security testing.

After you graduate

Graduates can expect to go on to work within corporate information - security and technology teams, consultancies, government information-security departments, management tracks in information critical organisations and cybersecurity related research.

Cybersecurity and Management is WMG's most recent MSc course having been developed by WMGDIGITAL for 2011 entry.

“ We operate in a content-centric world, where corporate and personal data and information is critically valuable and must be protected. There is no such thing as 100% security, and the investment made in protection methods must be balanced against the risk faced. This new fully integrated MSc programme recognises that effective cybersecurity can only be achieved in the context of business management. We aim to deliver graduates with both a broad technical understanding of the cybersecurity domain and the essential business-management insight and skills required of future team leaders and risk owners. ”

Professor Sadie Creese, Director of Cybersecurity, WMG. MSc (Computation, Oxford) DPhil (Computer Science, Oxford)

Professional experience in IT security, privacy and trust issues in complex business and operational environments. Research interests include tangibility of risk in cyberspace, privacy, usable security, infrastructure protection, modelling and analysis.

Formerly Director of Strategic Programmes, QinetiQ; creator of the UK's Cyber Security Knowledge Transfer Network; expert reviewer for European Commission, Department for Business, Innovation and Skills, and the Engineering and Physical Sciences Research Council.



Core Modules

Financial Analysis and Control Systems

This module provides an understanding of the main accounting statements together with an awareness of basic accounting principles, terminology and techniques which will enable students to interpret financial reports and information. An introduction to management accounting practices as an aid to effective operational financial planning and control is also included.

Globalisation and Outsourcing

The business world is becoming increasingly interrelated and interdependent. Key drivers and initiatives in recent business innovation and globalisation include outsourcing, offshoring and the move towards cloud services. Students entering business and industry today will invariably face outsourcing and offshoring situations that transgress company and national boundaries. This module is intended to equip students in what is involved in handling such situations.

Information Risk Management

This module will develop your ability to establish and maintain an information risk management framework in order to guarantee that security and assurance strategies are aligned with business objectives and are consistent with legal and regulatory obligations. A strong focus will be put on cost-effectiveness and value in relation to the objectives of the business or enterprise.

Information-Security Governance

Students will gain an advanced understanding of how to organise information-security management within an enterprise in order to protect day-to-day business and to establish the capability to detect, respond to and recover from information-security incidents.

Leadership and Excellence

Students will learn how leaders develop, facilitate and manage the achievement of the mission and vision via a clear stakeholder focused strategy, supported by relevant policies, objectives, targets and plans ensuring that the organisation's management system is developed and implemented.

Organisations, People and Performance

This module will provide knowledge and understanding of the importance of strategic management of the people in organisations and how this relates to the wider business strategy. It is based on the premise that people are the most important resource in organisations and translate other resources into added value. It explores all elements of successful and effective people management practice.

Network Defence

This module will develop a broad understanding of the key techniques and technologies used to defend information communication networks from attack. It will enable students to identify the enterprise context within which network defences are deployed and how they may impact wider enterprise activities.

Security Architectures and Data Protection

Students will gain an advanced understanding of the key techniques and technologies that make up an enterprise security architecture and learn how to design one. The module also provides an awareness of enterprise requirements for protecting data, data-leakage threats and vulnerabilities, and key prevention and detection technologies.

Key Facts

Academic background

Computer Science, Information Technology, or course with significant component of either

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT - 92

Study programme

10 taught modules – assessed by:

- Post module assignments (approx 3,000 – 5,000 words each)
- In-module assessment (additional for some modules)

Research project - assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Financial Analysis and Control Systems
- Globalisation and Outsourcing
- Information Risk Management
- Information-Security Governance
- Leadership and Excellence
- Organisations People and Performance
- Network Defence
- Security Architectures and Data Protection

Elective Modules

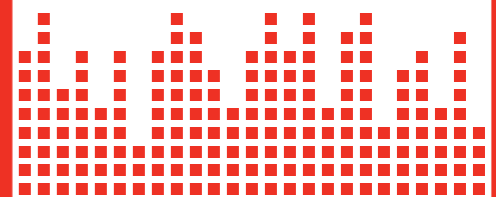
Two to be chosen from full module list on pages 30 - 31

Applications

www.warwick.ac.uk/go/wmgmasters/entry

Contact

wmgmasters@warwick.ac.uk



e-Business Management

Operate and manage effectively in the e-business environment



Our MSc in e-Business Management has been designed for those who wish to operate effectively in the e-business environment and to manage or lead either the transformation of existing business processes or creation of new e-business activity. This course is suitable for graduates from a whole range of science, engineering and business backgrounds as well as those with a qualification in IT.

The course will provide

The techniques to manage the strategic development of e-business based organisations and appropriate enabling e-business technologies. You will learn how to evaluate, manage and improve the operational functions of an organisation and apply the concepts of systems integration to the design and development of products and services through market analysis.

Project

This should normally be related to management or technology-related issues in companies involved in e-business and e-commerce. Recent projects have covered areas such as:

- Investigation of virtual communities for competitive advantage
- Measuring success for business websites
- Technical computing projects/ systems design
- The impact of mass-customisation in the on-line environment
- The impact of Distributed Denial of Service attacks on SMEs
- Comparison of effectiveness of online advertising to traditional media

After you graduate

Graduates can be expected to be employed in information technology and software related companies or enterprises with existing or developing online e-business initiatives, particularly those in the engineering and/or manufacturing sector. Graduates will also often go into IT and e-business consultancy roles, both self employed and in large consultancy groups.

Core Modules

Creating Profitable e-Business

Current concepts concerning the market positioning of new e-businesses are introduced and students learn to apply a focused model to the creation of profitable e-businesses. Key stages covered include e-business concept creation and evaluation; designing a competitive and compelling customer value proposition; exploring models for capability delivery; investigating key issues in implementing e-business opportunities.

e-Customer Relationship Management

This module includes the factors of relationship marketing, direct marketing and database marketing that are required to target, acquire and retain customers in the context of traditional CRM and e-CRM.

Finance for e-Business

This module will provide a broad understanding of finance for e-business including the control of business resources, financial metrics, reporting, security and the valuation of businesses. You will gain an appreciation of the implications of managing shareholder and stakeholder values and of the stages of development businesses follow from incorporation to flotation, insolvency and other forms of exit.

Global e-Business

In this module you will critically examine the processes and organisational structures that enable future manufacturing and service enterprises to win business, deliver systems, products or services and maintain relationships in the radically more complex global business landscape.

Information Systems Management

This module provides an understanding of the roles and responsibilities of an IT manager by exploring the three key areas of technical, organisational and information management, including system and network management, software management, people management, financial management and data and risk management.

“ For me the big thing about WMG’s e-Business Management course is that we look at today’s manufacturing companies and the challenges they face, then work with others to develop effective solutions. Rather than just learning, you’re constantly learning by doing. That makes it all much more memorable and powerful. The course is challenging and stretching, but there’s a very collaborative atmosphere at Warwick. If you ever need help or guidance on any aspect of your studies or university life, it’s always there. ”

Paulina Rovira-Sanchez, student of E-Business Management, 2009-2010

Undergraduate degree in Electrical Systems Engineering, Tecnológico de Monterrey, Mexico

As an add-on to Paulina’s studies at WMG she took the SAP certification course, gaining the highest marks of any student in the UK and Ireland. As a result, she was invited to present at SAPHIRE, a conference organised by the SAP University Alliances program. The event was held simultaneously in Frankfurt and Orlando, attracting some 16,000 delegates.



Information and Communications Technologies

Aimed at students without an IT background, this module introduces the information and communications technologies and tools available so you can apply them intelligently in a business environment. Key areas covered include enterprise application integration and web services; security vulnerabilities and technology; data communication and network technologies; enterprise, information, data and system architectures; system development tools and programming; website design and creation.

Supply Chain Integration

Understanding the appropriate use of supply chain integration is a vital ingredient in corporate success, where effective exploitation of supply chain collaborative principles and computer-based systems for managing internal and external logistics have introduced new opportunities and threats. This module covers a range of topics including supply chain models, planning and control, integration syndicate exercises, operations management tools, e-procurement, customer-supplier relationships and collaborative product design.

Key Facts

Academic background

Science, Engineering, Business, IT

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT – 92

Study programme

10 taught modules – assessed by:

- Post module assignments (approx 3,000 – 5,000 words each)
- In-module assessment (additional for some modules)

Research project – assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Creating Profitable e-Business
- e-Customer Relationship Management
- Finance for e-Business
- Global e-Business
- Information Systems Management
- Information and Communications Technologies*
- Supply Chain Integration

* exemption will be granted to students with a background in IT / Computer Science

Elective Modules

Three to be chosen from full module list on pages 30 - 31

Recommended electives include:

- Collaborative Product Development
- e-Commerce
- Enterprise Information Systems
- Computer Programming
- Visualisation and Computer Graphics
- e-Health Technologies

Applications

www.warwick.ac.uk/go/wmgmasters/entry

Contact

wmgmasters@warwick.ac.uk

Engineering Business Management

Become a professional manager with a broad understanding of manufacturing, engineering and business functions



The MSc in Engineering Business Management is designed for those who want to become managers and leaders in technology-based businesses. This course is suitable for graduates from a wide range of science, engineering and business backgrounds.

The programme focuses on the key value adding activities of market, product and process development; operations, logistics and supply chain management; core and emerging competitive technology. The focus on value creation for technology based organisations is a key differentiator of the course.

The course will provide

A broad education in business and management with the analytical tools and techniques to improve both internal and external operations. In addition you will gain a broad understanding of the processes and technologies used by engineering businesses. You will develop skills in the research, analysis and evaluation of complex business problems and gain a methodical approach to problem solving and decision making.

Project

This should cover the broad area of Engineering Business Management and can be related to the management of companies in a wide range of different industrial sectors. Various aspects of business management can be addressed such as operations, financial, human resource, supply chain or strategic management issues.

After you graduate

Graduates can expect to be employed as leaders of business development, manufacturing, quality assurance, human resources or customer service in a wide variety of manufacturing or service organisations, particularly where technology plays a significant part in business success.

“ Being offered a scholarship to study at WMG was the beginning of an exciting journey of academic, professional and personal development.

The MSc in Engineering Business Management surpassed my expectations. The practical elements of the programme were a huge benefit so, as well as academic study across a range of subjects including project management, logistics and supply chain management, strategic marketing and financial control, there were lots of real-life case studies.



Cindy Liu, Taiwan
Engineering Business Management Graduate 2007 - 2008

Cindy is currently working at DHL in Aberdeen as a Project Co-ordinator handling major accounts such as BP, GE, Subsea7 and some of the biggest oil and gas companies in the world.



Core Modules

Financial Analysis and Control Systems

This module provides an understanding of the main accounting statements together with an awareness of basic accounting principles, terminology and techniques which will enable you to interpret financial reports and information. An introduction to management accounting practices as an aid to effective operational financial planning and control is also included.

Strategic Marketing

This module introduces the marketing concept as a philosophy of business management and considers the techniques and strategies available to the marketing practitioner. Key areas covered include the marketing environment; strategic planning; managing the marketing mix; market types; research and analysis; the impact of IT and e-business on marketing; international marketing.

Organisations, People and Performance

This module will provide a knowledge and understanding of the importance of strategic management of the people in organisations and how this relates to the wider business strategy. It is based on the premise that people are the most important resource in organisations and translate other resources into added value. It explores all elements of successful and effective people management practice.

Logistics and Operations Management

Logistics is recognised as a key function in meeting market requirements quickly, flexibly and without incurring punitive inventory costs. This involves the management of external companies supplying materials or services to the company as well as the management of operations internally. This module provides an introduction to the fundamentals of logistics and operations management.

Project Planning, Management and Control

This module provides an understanding of the principles, philosophies and methods of project management. It establishes an appreciation of, and an ability to apply current tools and techniques for project planning and control, including the selection and management of project teams.

Operations Strategy for Industry

The existence of a properly formulated and explicit strategy is essential to the development and success of the business. This module will present a variety of frameworks, methods and examples of how operations strategy can be formulated and implemented in manufacturing and related industries. You will learn how to select appropriate practices for implementing operations strategy in different environments.

Product Design and Development Management

Innovation and introduction of new products to the market is one of the fundamental processes in industry. Through this module you will gain an understanding of the integrated approach to the management of product development concentrating on the processes of product design, development, and introduction from the ideas and concept stage to delivery.

Quality, Reliability and Maintenance

This course treats quality, reliability and maintenance as integral parts of manufacturing, showing how philosophies, systems, employee involvement, techniques and technology should all contribute to improving quality and reducing costs.

Manufacturing Technology

Manufacturing technology is of paramount importance to the manufacturing industry and covers a diverse range of disciplines and their interaction including computer aided design and manufacture, materials, processes and automation. The course is specifically designed and structured for students without a background in engineering. It aims to introduce the subject in broad terms and looks at the application of technology in the manufacturing industry. The module is augmented by laboratory demos, practical hands-on sessions and an industrial visit.

Key Facts

Academic background

Engineering, Business or a Science related discipline

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT - 92

Study programme

10 taught modules - assessed by:

- Post module assignments (approx 3,000 - 5,000 words each)
- In-module assessment (additional for some modules)

Research project - assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Financial Analysis and Control Systems
- Strategic Marketing*
- Organisations, People and Performance*
- Logistics and Operations Management
- Project Planning, Management and Control
- Operations Strategy for Industry
- Product Design and Development Management
- Quality, Reliability and Maintenance
- Manufacturing Technology**

*Only one of these courses needs to be chosen
**For students with a non-engineering background

Elective Modules

Two to be chosen from full module list on pages 30 - 31

Applications

www.warwick.ac.uk/go/wmgmasters/entry

Contact

wmgmasters@warwick.ac.uk



Enterprise Integration Management

Specify and manage IT solutions in technology-led engineering businesses



The MSc in Enterprise Integration Management is aimed primarily at students with an IT/computing background who wish to develop their knowledge and expertise in matching system architectures and software tools to the needs of manufacturing companies. The course is also suitable for students with a manufacturing or other engineering background who wish to develop knowledge and understanding of how IT can be harnessed to effectively promote competitiveness. EIM is taught in our £50 million state-of-the-art International Digital Lab.

The course will provide

The knowledge of how leading companies use information technologies to plan, create, develop and bring new products to market. You will learn how to analyse business information needs and understand the management issues of selecting appropriate software systems and how to integrate them.

Project

The project is your opportunity to undertake significant research and can serve to prepare you for your subsequent career. You should select a project that interests you and that meets the requirements of the Enterprise Integration Management degree. Some previous projects have considered:

- The integration of digital manufacturing technologies with Enterprise Resource Planning systems
- Improving adoption of technologies in small and medium sized enterprises
- The use of alternative web technologies to deliver enterprise applications

After you graduate

There are opportunities throughout the world depending on the skills and interests you have acquired at Warwick. Those with an interest in putting these technologies to work in business might start in an industrial organisation, a value added reseller or a PLM/ERP consultancy company. Those with an interest in the technology itself may wish to consider approaching one of the major software companies. From initial work in supporting new implementations you are likely to progress into consultancy work, technical sales or account management.

“ The biggest thing I learned at Warwick: how to think creatively to explore and discover new solutions that make a positive impact on business.

My dissertation project focused on how business can use software to more effectively support new product development from initial concept and design through to manufacture. I explored new ways of working because for many companies there are too many gaps in the process. I wanted to create a mechanism that would improve communication between design and manufacturing teams, pulling key information together to fulfil both technical and business requirements.”



Zhang Yang, Graduate of MSc Digital Manufacturing Management (former title of Enterprise Integration Management), 2007-2008

Core Modules

Digital Design and Collaboration

This module introduces the way in which new products are designed and projects managed. Using computer-based tools, you will model and analyse the design information and management process and investigate the capabilities of the current generation of commercial software.

Enterprise Resource Planning Integration

Enterprise Resource Planning (ERP) systems have become the most significant systems by value that many global companies invest in today so using them effectively has become critically important. This module focuses on the integration of ERP systems in various business settings. Formal lectures are combined with syndicate exercises and hands-on exercises using a live SAP system.

Information Modelling and Systems Analysis

This module provides the necessary IT background for the course. It teaches the techniques used in systems modelling and analysis and those used to develop system architectures linking user requirements to system specifications. You will develop skills in using commercial UML and XML software tools.

Logistics and Operations Management

Logistics is recognised as a key function in meeting market requirements quickly, flexibly and without incurring punitive inventory costs. This involves the management of external companies supplying materials or services to the company as well as the management of operations internally. This module provides an introduction to the fundamentals of logistics and operations management.

Project Planning, Management and Control

This module provides an understanding of the principles, philosophies and methods of project management. It establishes an appreciation of, and an ability to apply current tools and techniques for project planning and control, including the selection and management of project teams.

The Virtual Factory

This module will help you investigate how digital manufacturing concepts and tools can be used to speed up the design process for new facilities. You will learn to evaluate how information systems technologies can be used to develop detailed plans for manufacturing facilities and to model the information and process flows that are needed to support an effective virtual factory project.

Key Facts

Academic background

Science, Engineering, Business, IT

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT – 92

Study programme

10 taught modules – assessed by:

- Post module assignments (approx 3,000 – 5,000 words each)
- In-module assessment (additional for some modules)

Research project – assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Digital Design and Collaboration
- Enterprise Resource Planning Integration
- Information Modelling and Systems Analysis
- Logistics and Operations Management
- Project Planning, Management and Control
- The Virtual Factory

Elective Modules

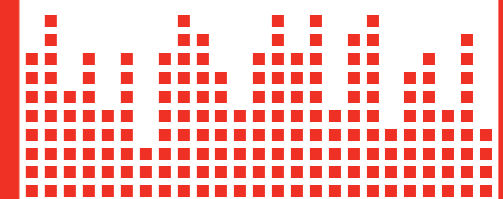
- Four to be chosen from full module list on page 30 - 31

Applications

www.warwick.ac.uk/go/wmgmasters/entry

Contact

wmgmasters@warwick.ac.uk



International Technology Management

Manage technological change in a global business environment



Our MSc in International Technology Management is designed for those wishing to take a leading role in managing innovation and technological change in an international environment. It provides an interdisciplinary perspective on the key issues facing global organisations and is suitable for those from a wider range of educational backgrounds and work experience.

The course will provide

The knowledge to manage the development, acquisition and operation of technology in a globally competitive environment. You will develop the skills to generate solutions through product and process development, learn about the impact of e-business technologies and develop skills to contribute to the strategic aspects of design management. This course is designed to produce well-trained analytical thinkers who are equipped to tackle the intellectual and practical challenges of managing innovation and technological change to enhance competitiveness.

Project

The project will relate to the management of technology or technical functions in an international context. Some examples of project areas include:

- Business process outsourcing
- The effects of globalisation on the UK automotive industry
- Learning and knowledge in managing technology
- International trade regulation and manufacturing
- The real costs and risks of global sourcing: A comparison of India and China

After you graduate

Successful completion of this course can lead to employment as managers and leaders in a wide variety of key functions within manufacturing or service organisations, particularly where technology plays a significant part in business success.

Having developed a strong understanding of how technology can best be exploited to contribute to global success, students will be especially suited to roles in companies which operate internationally.

After gaining his engineering degree in 2007, Saken worked for GSM Kazakhstan, a major telecommunications provider in his home country.

“ It was a great job, I was learning lots and my career was going well but to get where I wanted to be professionally, I really needed to strengthen my business skills and gain a Master's degree. I wanted to study abroad, so I looked at what was on offer from the top world-wide universities.

The course at Warwick has really lived up to expectations. Tutorial staff are real professionals who've build their expertise with some of the best companies around. They have a genuine passion for their subjects which certainly rubs off on you!

”

Saken Akhmetov, Student of International Technology Management, 2009-2010

Bolashak Scholarship winner from Kazakhstan



Key Facts

Academic background

Variety of disciplines; good level of numeracy required

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT – 92

Study programme

10 taught modules – assessed by:

- Post module assignments (approx 3,000 – 5,000 words each)
- In-module assessment (additional for some modules)

Research project – assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Collaborative Product Development
- Financial Analysis and Control Systems
- Global Business Environment
- International Joint Ventures
- Organisations, People and Performance
- Product Design and Development Management
- Supply Chain Integration
- Technology Management

Elective Modules

Two to be chosen from full module list on pages 30 – 31

Recommended electives include:

- Automation and Robotics
- e-Commerce
- Enterprise Information Systems
- Industrial Engineering
- Information and Communications Technology
- Manufacturing Process Technology
- Project Planning Management and Control
- Quality Reliability and Maintenance
- Manufacturing Technology*
- Globalisation and Outsourcing

*recommended for students without an engineering background

Applications

www.warwick.ac.uk/go/wmgmasters/entry

Contact

wmgmasters@warwick.ac.uk

Core Modules

Collaborative Product Development

This module is based on the imperative of 'Product to Market' as quickly and effectively as possible to maximise market penetration. The strategic business issues of product development are considered in relation to companies globally collaborating with e-commerce technologies as a core competence.

Financial Analysis and Control Systems

This module provides an understanding of the main accounting statements together with an awareness of basic accounting principles, terminology and techniques which will enable you to interpret financial reports and information. An introduction to management accounting practices as an aid to effective operational financial planning and control is also included.

Global Business Environment

This module has been designed for students with no prior knowledge of economics and seeks to explain the workings of the domestic and international economic systems and examine key aspects of the economic environment which affect the business climate. You will explore how globalisation impacts business and how businesses can formulate and act in response using concepts, models and frameworks that can be applied to increase the probability of success for organisations.

International Joint Ventures

Gain an understanding of the reasons why joint ventures and other collaborative associations now form an increasingly important part of business and commercial activity. The module will provide an overview of the practical, cultural, legal and financial aspects of joint ventures which can be critical in ensuring successful project implementation.

Organisations, People and Performance

This module is intended to provide a knowledge and understanding of the importance of strategic management of the people in organisations and how this relates to the wider business strategy. It is based on the promise that people are the most important resource in the organisation and translate other resources into added value. It explores all elements of successful and effective people management practice.

Product Design and Development Management

Innovation and introduction of new products to the market is one of the fundamental processes in industry. Through this module you will gain an understanding of the integrated approach to the management of product development concentrating on the processes of product design, development, and introduction from the ideas and concept stage to delivery.

Supply Chain Integration

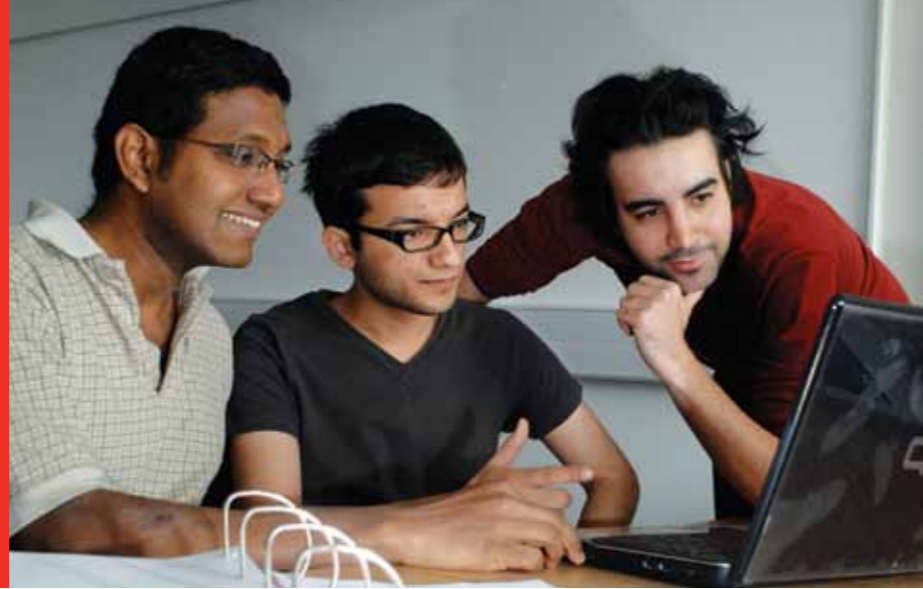
You will gain an understanding of supply chain integration requirements for the effective coordination of customers and suppliers, and be able to identify the management approaches, planning systems, cultural requirements, relationships and IT support needed for effective supply chain integration.

Technology Management

This module generates an appreciation of the role of technology in the business and shows how technological change through capture, development, integration and even divestment can be used to raise performance.

Management for Business Excellence

Develop key management and technology skills, including leadership, in order to drive excellence across a business



Management for Business Excellence is an innovative MSc degree course designed for those who want to become leaders and managers of business excellence in technology-based organisations. It is suitable for high achievers who want to be challenged in the way they think about business management and problems. The framework for the degree is the European Excellence Model created to help organisations develop towards achievement of sustainable excellence.

The course will provide

A detailed understanding of the philosophies, strategies, processes and techniques that enable change and the management of excellence in a business. You will develop key management and technology skills, including leadership, customer focused product and process development, asset and resource management, and six sigma.

Project

The research project allows further integration of understanding. Recent dissertation titles have included:

- An investigation into the links between Corporate Social Responsibility (CSR) and the European Excellence Model
- Application of Excellence Models in Chinese Engineering Enterprises
- Creating a suitable improvement and learning model to achieve fundamental improvement in the Construction industry
- Developing a Tool to Audit Organisational Learning From Six Sigma Projects
- Driving competitiveness to Columbian companies through excellence: An analysis based on the impact of the US-Columbia Free Trade Agreement.

Core Modules

Creating Business Excellence

This module introduces the fundamental concepts that underpin non-prescriptive approaches to creating sustainable excellence in an engineering business. It examines key principles and practices of organisational learning and compares various excellence models.

Financial Analysis and Control Systems

This module provides an understanding of the main accounting statements together with an awareness of basic accounting principles, terminology and techniques which will enable you to interpret financial reports and information. An introduction to management accounting practices as an aid to effective operational financial planning and control is also included.

Knowledge-based Asset Management

This module will enable participants to understand how organisations plan and manage resources and assets, to support a business's policy and strategy and to ensure the effective operation of its processes. In particular, it focuses on the use of quantitative and qualitative data, together with creative problem solving, to maximise engineering asset and resource potential.

Leadership and Excellence

You will learn how leaders develop, facilitate and manage the achievement of the mission and vision via a clear stakeholder focused strategy, supported by relevant policies, objectives, targets and plans ensuring that the organisation's management system is developed and implemented.

Process Improvement using Six Sigma

Gain an understanding of how organisations manage and improve processes to support policy and strategy and generate increasing value for customers and other stakeholders. This module focuses on the reduction of waste, variability and associated costs through six sigma approaches. It includes focused e-learning through collaborations with Process Management International (a Deming-oriented six sigma consultancy).

After you graduate

Graduates of this course could expect to find employment as managers and leaders of business development, new product development, manufacturing, quality assurance, human resource management or customer services.

Depending on experience, you could expect to attain a key executive role and be responsible for leading strategy and policy. You will have the skills and knowledge necessary to benchmark organisational performance against world best-in-class and the ability to drive corporate transformation and improvement, leading to international recognition of the enterprise for all aspects of corporate performance including market share, customer satisfaction, employee development and financial results, to name but a few.

Jane Daniel, Graduate of MSc Engineering Enterprise Excellence (former title of Management for Business Excellence), 2006

Jane joined the WMG PhD programme in 2007 and is researching how an organisation can overcome the barriers of Strategic Corporate Responsibility to improve its CSR response from being merely cosmetic to being truly excellent.

“ Studying with WMG was a welcome change from the ‘fire and forget’ mentality of a lot of other university work.

In the course there is significant emphasis on self assessment.

I believe this skill will help me in my future career as the ability to critically examine my own performance will help me produce better results.”



Product Excellence using Six Sigma

You will learn how organisations develop, manage and plan design processes to support policy and strategy and generate increasing value for customers and other stakeholders. It uses the design-for-Six Sigma methodology as an approach to design for excellence. In particular it focuses on the management and reduction of risk as well as capturing customer requirements. It also considers all the factors affecting excellence in design.

Organisations, People and Performance

This module is intended to provide a knowledge and understanding of the importance of strategic management of the people in organisations and how this relates to the wider business

strategy. It is based on the promise that people are the most important resource in the organisation and translate other resources into added value. It explores all elements of successful and effective people management practice.

Robust Decision Making

You will learn how organisations can make decisions in a logical, intelligent and data driven manner that allows them to ensure they are able to make choices that support their business's policy and strategy and increase value for their customers. In particular, this module examines a number of decision making tools that will ensure robust decisions.

Key Facts

Academic background

Variety of disciplines including Business, Engineering, Science, Economics; good level of numeracy required

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT – 92

Study programme

10 taught modules – assessed by:

- Post module assignments (approx 3,000 – 5,000 words each)
- In-module assessment (additional for some modules)

Research project – assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Creating Business Excellence
- Financial Analysis and Control Systems
- Knowledge-based Asset Management
- Leadership and Excellence
- Process Improvement Using Six Sigma
- Product Excellence Using Six Sigma
- Organisations, People and Performance
- Robust Decision Making

Elective Modules

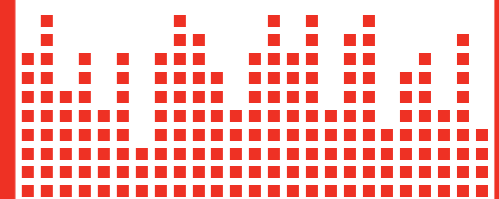
- Two to be chosen from full module list on pages 30 – 31

Applications

www.warwick.ac.uk/go/wmgmasters/entry

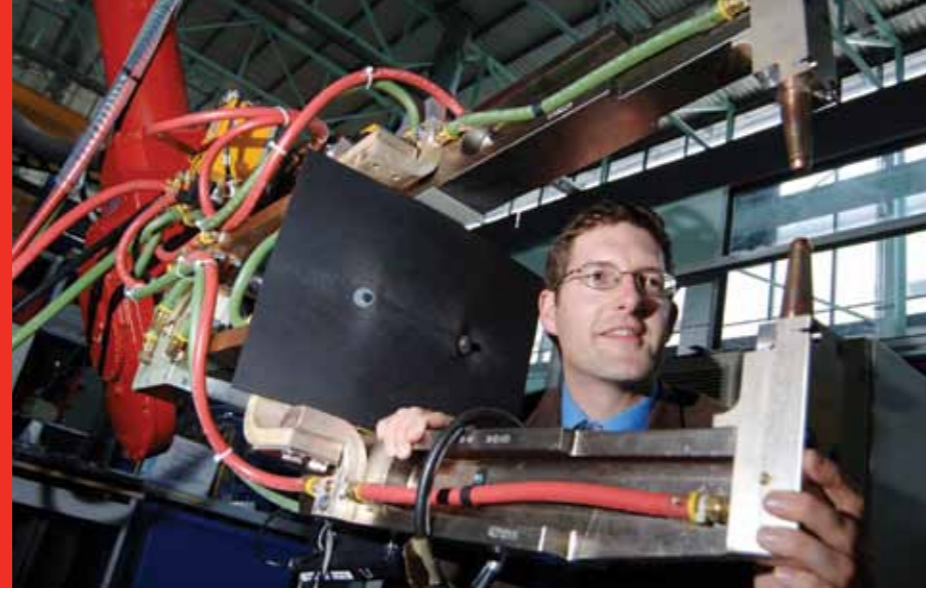
Contact

wmgmasters@warwick.ac.uk



Manufacturing Systems Engineering

Equip engineers with the necessary skills to manage manufacturing systems within engineering organisations



The MSc in Manufacturing Systems Engineering is designed for engineering graduates interested in manufacturing systems and operations management. It is suitable both for graduates with little or no work experience and for engineers working in industry who want to make the transition to engineering manager.

The course will provide

An up-to-date knowledge of manufacturing techniques and processes, applications of technology and quality tools and the techniques to improve operations within organisations.

You will develop an understanding of the concepts of manufacturing systems and the skills to analyse, design and implement manufacturing systems in practice. This will be combined with a broad understanding of the strategic and operational management of organisations.

Project

This should be centred around manufacturing systems or manufacturing technologies and their management. Projects will often focus on manufacturing processes, process planning and improvement or machining and machine tools. Some examples of recent projects include:

- In-process inspection using CNC machine tools
- Optimising the design of a bonded coach joint to maximise joint stiffness
- The sustainability of manufacturing in the West Midlands/United Kingdom

After you graduate

Graduates can expect to be employed as leaders in general or manufacturing engineering management.

Recent graduates of this course have gone into roles including:
Production Planner/ Materials Planner, Colgate Palmolive Greece; Project Engineer, Beijing Automotive Centre; Lead Engineer, TVS Motor Company; Manufacturing Manager, AWE (Atomic Weapons Establishment); Human Resources Manager, Corus Strip Products (Steel Manufacturing Company).

“It was very exciting to be part of WMG - right from day one you know you're part of one of the world's most advanced institutions.”

Jesús Cervantes, Manufacturing Systems Engineering Graduate (2007) focused his dissertation on warehouse management for manufacturing industries – a project that saw him carry out an in-depth analysis of a live business case. Looking at a major steel processing company, Jesús compared its systems with those used in other organisations, developing suggestions that would improve its model.

“My aim was to create a more robust model of warehouse management that would be appropriate for businesses in Mexico. In everything I did at WMG, I was constantly looking back to my home country to see how current thinking and innovation could help industries there to compete better on a global stage.”

Now in his current role leading the Operations Planning Team at Heineken, Jesús manages a wide range of projects that improve efficiency across six factories. “We're working on new plants and developing world-class systems that put the business at the forefront of manufacturing innovation. Without doubt, I could not be doing what I am without the skills and understanding I gained at WMG.”



Jesús Cervantes, Manufacturing Systems Engineering Graduate, 2007 Operations Planning Chief, Heineken

Core Modules

Industrial Engineering

This module provides an introduction to the Industrial Engineering tools and techniques and teaches you how these can be used to fully support business objectives and productivity improvements. You will explore applications of the tools and techniques in various situations in order to understand how to maximise potential benefits.

Project Planning, Management and Control

This module provides an understanding of the principles, philosophies and methods of project management. It establishes an appreciation of, and an ability to apply current tools and techniques for project planning and control, including the selection and management of project teams.

Logistics and Operations Management

Logistics is recognised as a key function in meeting market requirements quickly, flexibly and without incurring punitive inventory costs. This involves the management of external companies supplying materials or services to the company as well as the management of operations internally. This module provides an introduction to the fundamentals of logistics and operations management.

Manufacturing Process Technology

This module provides an appreciation of the application capabilities and limitation of primary and secondary manufacturing processes. Learn to identify the properties of materials which influence their selection and behaviour during processing, understand the influence on engineering properties of different processes, and recognise the capabilities and limitations of commonly used traditional and advanced manufacturing processes.

Operations Strategy for Industry

The existence of a properly formulated and explicit strategy is essential to the development and success of business. This module will present a variety of frameworks, methods and examples of how operations strategy can be formulated and implemented in manufacturing and related industries. You will learn how to select appropriate practices for implementing operations strategy in different environments.

Problem Solving with Statistics

This module describes the general context in which the use of statistical techniques can be used for problem solving and decision making. It shows how basic tools can be extended into more powerful techniques for investigating processes to gain insights to support future development and improvement.

Quality, Reliability and Maintenance

This course treats quality, reliability and maintenance as integral parts of manufacturing, showing how philosophies, systems, employee involvement, techniques and technology should all contribute to improving quality and reducing costs.

Key Facts

Academic background

Engineering

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT – 92

Study programme

10 taught modules – assessed by:

- Post module assignments (approx 3,000 – 5,000 words each)
- In-module assessment (additional for some modules)

Research project – assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Industrial Engineering
- Project Planning, Management and Control
- Logistics and Operations Management
- Manufacturing Process Technology
- Operations Strategy for Industry
- Problem Solving with Statistics
- Quality, Reliability and Maintenance

Elective Modules

Three to be chosen from full module list on pages 30 – 31
At least one of the following should be included:

- Automation and Robotics
- Machining Technology
- Advanced Materials and Processes
- Digital Design and Collaboration
- The Virtual Factory

Applications

www.warwick.ac.uk/go/wmgmasters/entry

Contact

wmgmasters@warwick.ac.uk

Process Business Management

Effectively manage key systems and business functions in process and chemical industries



This course is designed for those wishing to develop management careers within process and chemical industries. It would most suit candidates from chemical engineering or related disciplines, but students from other disciplines who wish to move into this sector may also apply.

The course will provide you with

A range of tools and techniques required to manage a process business and a methodical approach to decision making.

You will understand the management and operational requirements of a process business and gain a broad overview of industrial processes and process engineering. You will understand the essence of strategic thinking and management and the implications of the local and international environment in which engineering businesses operate.

Project

This can be related to the management of companies or processes in the petro-chemical, pharmaceutical or process industry sectors and can address many different aspects of those businesses. Examples of recent projects include:

- Developing a database of product development wastes
- Recent development and economic analysis of combined heat and power
- The current energy situation and future strategies in China
- Net carbon benefits in using bio-fuels for transport in the UK

After you graduate

Graduates from Process Business Management can expect to work in chemical, oil, gas, electricity and other process industries, as well as a wide range of engineering organisations.

Recent graduates of this course are now working as:
Plant Engineer for Syngenta, France;
Technical Manager Purchasing for PZ Cussons, Nigeria; Project Manager for Astra Zeneca Pharmaceuticals, UK;
Production Management Manager for a UK based biotechnology company.

“Academically and socially, Warwick has really exceeded all my expectations. My initial aim in studying for a Master's was to take my technical knowledge and learn how to apply it in an industrial context – this has definitely been fulfilled! The classes are not only informative and interesting but genuinely enjoyable. Using simulation exercises really helps you develop a true understanding of what is required in real work scenarios. On top of that, I've had the opportunity to develop my project in one of the most important energy companies in Europe.”

Karol Villamil, Student of Process Business Management 2009 – 2010
Undergraduate Degree, BSc Chemical Engineering, Universidad de los Andes, Colombia



Core Modules

Business Strategy and Strategic Management

The increasingly dynamic and complex global business environment in which most organisations operate requires managers to be aware of the impact of strategic decision-making on their business. This module introduces the main features of strategic thinking and the strategic management process including the strategy formulation process.

Financial Analysis and Control Systems

This module provides an understanding of the main accounting statements together with an awareness of basic accounting principles, terminology and techniques which will enable you to interpret financial reports and information. An introduction to management accounting practices as an aid to effective operational financial planning

and control is also included.

Design for the Environment

The aim of this module is to train a new generation of product designers and managers who will play a major role in the move towards sustainable development. In particular the module examines the environmental impact of products and processes, waste management and pollution prevention, environmental management standards, strategies for lean manufacturing and renewable energy sources.

Fundamentals of Process Engineering

Students are introduced to a range of fundamental operations used by process engineers to perform chemical reactions on a large scale and separate raw products into finished materials suitable for the market place. The module covers processing options for handling and separating combinations of gases, solids and liquids. It aims to develop process engineering skills which will enable students to select the appropriate methods to produce the required end product.

Industrial Processes

The module gives a broad view of current chemical and biotechnical processes looking at both the main types of processes and the chemical and biotechnical principles on which they are founded. It concentrates on discussing the external features that affect the establishment and operation of these industries in a modern environment.

Project Planning, Management and Control

This module provides an understanding of the principles, philosophies and methods of project management. It establishes an ability to apply current tools and techniques for project planning and control, including the selection and management of project teams.

Logistics and Operations Management

Logistics is recognised as a key function in meeting market requirements quickly, flexibly and without incurring punitive inventory costs. This involves the management of external companies supplying materials or services to the company as well as the management of operations internally. This module provides an introduction to the fundamentals of logistics and operations management.

Technology Management

This module generates an appreciation of the role of technology in the business and shows how technological change through capture, development, integration and even divestment can be used to raise performance.

Key Facts

Academic background

Engineering, Business or Scientific discipline most suitable for Chemical Engineers

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT – 92

Study programme

10 taught modules – assessed by:

- Post module assignments (approx 3,000 – 5,000 words each)
- In-module assessment (additional for some modules)

Research project – assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Business Strategy and Strategic Management
- Financial Analysis and Control Systems
- Design for the Environment
- Fundamentals of Process Engineering
- Industrial Processes
- Project Planning, Management and Control
- Logistics and Operations Management
- Technology Management

Elective Modules

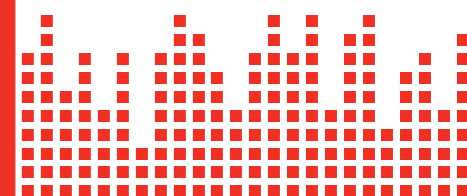
Two to be chosen from full module list on pages 30 – 31

Applications

www.warwick.ac.uk/go/wmgmasters/entry

Contact

wmgmasters@warwick.ac.uk



Programme and Project Management

Contribute effectively to the development and management of both small and large scale projects and programmes



Our MSc in Programme and Project Management is designed for those wishing to move into project management, either in their current technical and business field, or into a new field of expertise. Participants on this course can have a very wide range of academic and work backgrounds. It is suitable for those with work experience as well as those with little or no background in business.

The course will provide you with

The methodologies, tools, principles and philosophies of successful project management. You will learn about human resource management in projects and programmes as well as risk management and change management. You will also develop a methodical approach to the management of the financial aspects of projects and programmes.

Project

This can be related to projects in a number of different industrial sectors and can address many different aspects of project or programme management. Examples of recent projects include:

- Managing change in organisations/ teams/projects
- Developing a serious game for training in project management techniques
- Risk-based design for Project Management Systems
- Creating change capability in organisations

After you graduate

Graduates can expect to be employed in service industries, information technology, engineering or any other business area needing project management skills.

Recent graduates of this course have gone into roles including: Project Manager for BAE Systems; Project Planner for Alstom Power, UK; Strategic Project support for Ashford and McGuire, a Nigeria based Financial Management Consultancy; Engineer Planner for Network Rail; Assistant General Manager for a ceramic export company in China; International Trader.

“ The collaborative style of teaching was very refreshing: a lot of the learning was based on teamwork, co-operation and open discussion. With the help and guidance of teaching staff, I changed the way I thought about things: my approach to project management first, but also the way I viewed my choice of career path.

I learned to question things and I felt inspired and motivated to do what I enjoy – and to stretch myself at every opportunity. That has stayed with me, and I’m sure it always will.”



Taofen Zeng, Programme and Project Management Graduate, 2008

Core Modules

Financial Analysis and Control Systems

This module provides an understanding of the main accounting statements together with an awareness of basic accounting principles, terminology and techniques which will enable you to interpret financial reports and information. An introduction to management accounting practices as an aid to effective operational financial planning and control is also included.

International Joint Ventures

Gain an understanding of the reasons why joint ventures and other collaborative associations now form an increasingly important part of business and commercial activity. The module will provide an overview of the practical, cultural, legal and financial aspects of joint ventures which can be critical in ensuring successful project implementation.

Management of Change

Organisations today operate in a rapidly changing business environment that demands ever higher standards of operation, business efficiency and customer service. This module is designed to give participants an understanding of change and the reasons for it, strategic models, tools and measures as well as the hands-on experience of managing change and dealing with the consequences of change within a simulated business environment.

Managing the Multi-Project/Programme Environment

This module builds upon the knowledge of the essentials of project management established by the Project Planning Management and Control module. The ability to apply management tools and techniques in a single project will now be extended to the larger, more complex scenario of multiple projects where the interactions and risks present a further dimension of challenges to success.

Organisations, People and Performance

This module is intended to provide a knowledge and understanding of the importance of strategic management of the people in organisations and how this relates to the wider business strategy. It is based on the promise that people are the most important resource in the organisation and translate other resources into added value. It explores all elements of successful and effective people management practice.

Project Planning, Management and Control

This module provides an understanding of the principles, philosophies and methods of project management. It establishes an appreciation of, and an ability to apply current tools and techniques for project planning and control, including the selection and management of project teams.

Key Facts

Academic background

Any discipline

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT – 92

Study programme

10 taught modules – assessed by:

- Post module assignments (approx 3,000 – 5,000 words each)
- In-module assessment (additional for some modules)

Research project – assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Financial Analysis and Control Systems
- International Joint Ventures
- Management of Change
- Managing the multi-project / programme Environment
- Organisations, People and Performance
- Project Planning, Management and Control

Elective Modules

Four to be chosen from full module list on pages 30 - 31

Recommended electives include:

- Collaborative Product Design
- Enterprise Information Systems
- Global e-Business
- Information Systems Management
- Product design and Development
- Quality, Reliability and Maintenance
- Supply Chain Management

Applications

www.warwick.ac.uk/go/wmgmasters/entry

Contact

wmgmasters@warwick.ac.uk



Supply Chain and Logistics Management

Contribute positively to the management of your organisation within its global supply chain



Our MSc in Supply Chain and Logistics Management is designed for the further development of people who want to work in logistics and supply chain engineering and management in manufacturing and service organisations. The central content is the concept of a supply network, constructing the relationships which bring it into being, commissioning the technologies which enable it to operate, managing the input, the material and information flow, and distributing the product. This will be supported by the availability of personal development opportunities in more generally applicable competencies such as statistical methods, quality management, business and industrial law and improving personal performance.

This course is suitable for those with work experience as well as those with little or no background in business. Participants can have a wide range of academic qualifications.

The course will provide

The tools and techniques to evaluate, manage and improve service, operational and supply chain processes and conduct market analysis. You will learn to use enterprise resource planning systems in order to improve the operational functions of a business and develop a broad understanding of strategy development and design. This course is accredited by the Chartered Institute of Purchasing and Supply (CIPS) and their conditions apply.

Project

The project can be related to a number of different industrial sectors and can address various different aspects of logistics management.

Some examples of recent projects include:

- Management of inventory of packaging materials
- Are third-party logistics (3PL) companies innovative enough to satisfy their customers?
- Forecasting demand in a changing market

After you graduate

Graduates can expect to be employed in many different manufacturing and service companies including providers of third party logistics, or as specialists in supply chain, planning or logistics.

Recent graduates of this course have gone into roles including: Supply and Inventory Planner for Sabic Ltd, Netherlands based petro-chemical company; Director of Operations for Abhi Impact Logistics Pvt. Ltd, India; Export Supervisor in the Logistics Department, Decathlon, China; UK Logistics Specialist for Innocent Drinks; Supply Planner for TYCO Fire and Safety Products; Operations Planner for Unilever.

“ Postgraduate study is much less about just learning facts and concepts. While a lot of the topics covered are new to me, I find the most valuable aspect of study is to think about everything critically and to discuss the ideas presented in the lectures.

My fellow students have such diverse backgrounds that it is always enriching to hear about their experience in so many different industries apart from just Aviation which I am used to.



Sarah Schiffling, Student of Supply Chain and Logistics Management, 2009-2010

Undergraduate degree: BA in Aviation Management, International University of Applied Sciences Bad Honnef – Bonn, Germany

Sarah received funding for her Bachelors and Master's study from the German National Academic Foundation and the ISTAT Foundation, which supports students aiming to work in the aerospace industry.



Core Modules

Financial Analysis and Control Systems

This module provides an understanding of the main accounting statements together with an awareness of basic accounting principles, terminology and techniques which will enable you to interpret financial reports and information. An introduction to management accounting practices as an aid to effective operational financial planning and control is also included.

Logistics and Operations Management

Logistics is recognised as a key function in meeting market requirements quickly, flexibly and without incurring punitive inventory costs. This involves the management of external companies supplying materials or services to the company as well as the management of operations internally. This module provides an introduction to the fundamentals of logistics and operations management.

Organisations, People and Performance

This module is intended to provide a knowledge and understanding of the importance of strategic management of the people in organisations and how this relates to the wider business strategy. It is based on the promise that people are the most important resource in the organisation and translate other resources into added value. It explores all elements of successful and effective people management practice.

Problem Solving with Statistics

This module describes the general context in which the use of statistical techniques can be used for problem solving and decision making. It shows how basic tools can be extended into more powerful techniques for investigating processes to gain insights to support future development and improvement.

Supply Chain Management

This module covers a wide range of topics in supply chain strategies, design, planning, operations and development. Emphasis has been laid mainly on the perspective of integrated supply process. You will learn about releasing value in business through relationship management, cost reduction and lean supply. The module also provides many real world cases of supply chain management, which illustrate ways of achieving enduring business competitiveness.

Key Facts

Academic background

Variety of disciplines; good level of numeracy required

Entry requirements

British Second Class Honours degree or overseas equivalent

Language requirement

(applies to non-native English speakers only)

IELTS 6.5 (no component lower than 6.0)
Toefl: iBT – 92

Study programme

10 taught modules – assessed by:

- Post module assignments (approx 3,000 – 5,000 words each)
- In-module assessment (additional for some modules)

Research project – assessed by:

- 20,000 word dissertation
- Oral examination

Core Modules

- Financial Analysis and Control Systems
- Logistics and Operations Management
- Organisations, People and Performance
- Problem Solving with Statistics
- Supply Chain Management

And at least two modules from:

- Procurement and Inventory Management
- Storage and Warehouse Techniques
- Transportation Techniques and Management

Optional Modules

Three to be chosen from full module list on pages 30 – 31

Applications

www.warwick.ac.uk/go/wmgmasters/entry

Contact

wmgmasters@warwick.ac.uk



After you graduate

Companies who visited/advertised/recruited directly from WMG last year include:

TATA Technologies
Crane
Intel
BMW
Reckitt-Benckiser
JLR
Apple
IBM
Proctor and Gamble
Caterpillar
Associated British Foods
Phoebus Software Ltd
Intercede.com



Finding a job

Leveraging our strong industrial links, WMG has recently established a successful Placements Scheme through which suitable internships, knowledge-transfer schemes and full-time jobs are frequently offered by local and international companies. A series of company presentations and careers fairs are held at WMG in collaboration with the University of Warwick Careers Service. These highlight job opportunities for all streams of the WMG Master's programme and offer a wide range of graduate careers.

Research Degrees

During your Master's programme you will have become aware of the expertise and advanced facilities at WMG which enable our ground-breaking multi-disciplinary research to be conducted. The MSc programme equips students who wish to continue their studies. Our research degrees offer the opportunity to combine doctoral-level education with industrial relevance. We are globally renowned for our business focus which has led to the development of programmes benefitting both the individual and company. Challenging accepted norms and inspiring innovation provides the opportunity to find solutions to real world problems and apply them to give a competitive edge.

Alumni

WMG is developing a strong international Alumni network. We have seen more than 30,000 individuals studying with WMG over the past 30 years and over 8,000 Master's degrees have been awarded. The high standards, quality and general preparedness of WMG graduates in the work place has helped enhance our enviable reputation.

Recent WMG graduates have been employed by:

- Price Waterhouse Cooper (Business Analyst)
- KPMG (Audit Assistant)
- Proctor and Gamble (Project Manager)
- HP Company (Business Information Manager)
- IBM Business Consulting Services (Consultant)
- Porsche (Marketing Research Executive)
- Schneider Electric (Product Marketing Engineer)
- National Grid (Investments Strategy Engineer)
- Energis Communication (Contracts Manager)
- Ericsson (Project Manager)
- Dyson (Research Design and Development Engineer)
- MOD (Reliability and Maintenance Specialist)
- TVS Motor Company (Lead Engineer)
- Kulkarni Power Tools India (General Manager, Operations)
- Beijing Automotive Centre (Project Engineer)
- Marconi (Proposals Manager)
- Lloyd's Register EMEA (Senior Pipeline Engineer)

Visit our alumni website:
www.warwick.ac.uk/go/wmg/alumni



“ One thing became clear very soon after I started my job at TATA Technologies: everything about the WMG course was designed to prepare me for life in business. My MSc at Warwick gave me a broad picture and an understanding of today's business environment. A really important part of this is understanding where Tata fits into the scheme of things on a global basis. But more than that, WMG gave me an all-round knowledge of how business works – from financing, logistics and HR to marketing and resourcing. I was able to walk into the company with a wide-ranging awareness of how everything fits together to keep the organisation running.”

Ifiok Esang, EBM Graduate 2008-2009
Current role – Project Manager, TATA Technologies, Coventry.

“Ifiok has adapted exceptionally well to working in a very challenging environment. He has consistently delivered when asked to take responsibility for a range of key activities and has become an invaluable member of the team.”

Chris Meeson,
Senior Project Manager, TATA Technologies

Full Module List

A total of ten assessed modules will be taken by all students as well as the foundation sessions of Study Skills and Research Methodology (see page 6 – MSc Programme Structure)



The core modules for each degree are shown on the table on the opposite page. Elective modules can be chosen from those in the table and the additional module list below.

Additional Module List

- Advanced Materials and Processes
- Automation and Robotics
- Business and Operations Design
- Computer Programming
- Computer Graphics and Visualisation
- Eco-Design and Sustainable Manufacturing
- e-Commerce
- e-Health Technologies
- Enterprise Information Systems
- Financial Decision Making
- Financial Strategy
- Informatics
- Innovation Strategy
- Lean Principles and Application
- Legal Aspects of Global Business
- Machining Technology
- Operations and Supply Chain Integration
- Packaging Technology and Development
- Product Financial Management
- Quality Management Techniques
- Service Design and Delivery
- Simulation of Operation

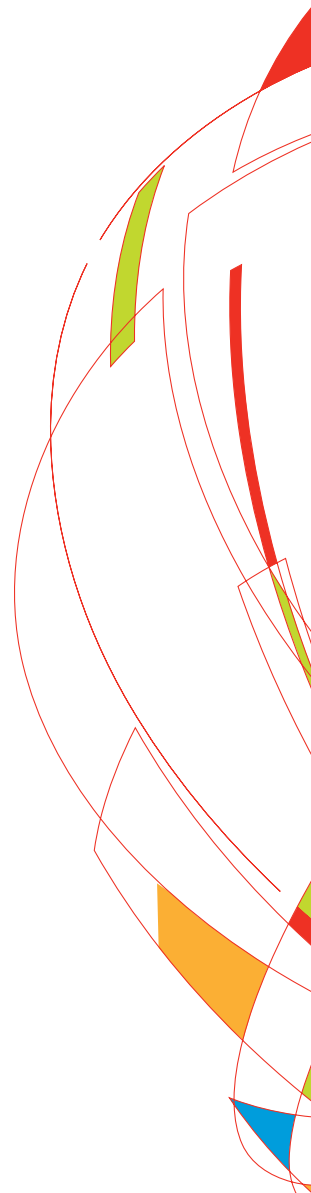


At WMG you will have the opportunity to take the "Integration of Business Processes with SAP ERP" course in addition to your MSc programme modules. This course is your first step in becoming an SAP ERP Business Process Expert and the SAP Consultant Certification: **Solution Architect** ERP - Integration of Business Processes with SAP ERP 2005 is awarded to those passing the exam.

Degree Programmes

Core Modules for each programme are summarised and compared here:

Core Modules	CSM	e-BM	EBM	EIM	ITM	MBE	MSE	PBM	PPM	SCLM
Business Strategy and Strategic Management								■		
Collaborative Product Development					■					
Creating Business Excellence						■				
Creating Profitable e-Business		■								
Design for the Environment								■		
Digital Design Collaboration				■						
e-Customer Relationship Management		■								
Enterprise Resource Planning Integration				■						
Finance for e-Business		■								
Financial Analysis and Control Systems	■		■		■	■		■	■	■
Fundamentals of Process Engineering								■		
Global Business Environment					■					
Global e-Business		■								
Globalisation and Outsourcing	■									
Industrial Engineering							■			
Industrial Processes								■		
Information and Communication Technologies		■								
Information Modelling and Systems Analysis				■						
Information Risk Management	■									
Information-Security Governance	■									
Information Systems Management		■								
International Joint Ventures					■				■	
Knowledge Based Asset Management						■				
Leadership and Excellence	■					■				
Logistics and Operations Management			■	■			■	■		■
Management of Change									■	
Managing the Multi-Project Environment									■	
Manufacturing Process Technology							■			
Manufacturing Technology (exemptions apply)			■							
Network Defence	■									
Operations Strategy for Industry			■				■			
Organisations, People and Performance	■		■		■	■			■	■
Problem Solving with Statistics							■			■
Process Improvement using Six Sigma						■				
Procurement and Inventory Management										■
Product Design and Development Management			■		■					
Product Excellence using Six Sigma						■				
Project Planning, Management and Control			■	■			■	■	■	
Quality, Reliability and Maintenance			■				■			
Robust Decision Making						■				
Security Architectures and Data Protection	■									
Storage and Warehousing Techniques										■
Strategic Marketing			■							
Supply Chain Integration		■			■					
Supply Chain Management					■					■
Technology Management					■			■		
The Virtual Factory				■						
Transport Techniques and Management										■
Number of electives to be chosen	2	3	2	4	2	2	3	2	4	3



Excellent transport and road links

- 1 hour to London by train
- Nearest Airport – Birmingham International – 12 minutes
- Nearest Station – Coventry

Getting in touch

- W** go.warwick.ac.uk/wmgmasters
- E** wmgmasters@warwick.ac.uk
- T** +44 (0)24 7652 3691

WMG Full-time MSc Programme
International Manufacturing Centre
University of Warwick
Coventry
CV4 7AL
United Kingdom

The information contained in this prospectus was correct at the time of going to print.
For updates and latest information, please check our website.