

# MSc Economics for Business Intelligence and Systems (THES-AFM30)

## Course and Award Details

<b>Course title</b>	MSc Economics for Business Intelligence and Systems
<b>Route(s)</b>	MSc Economics for Business Intelligence and Systems
<b>Awarding body</b>	University of Bath
<b>Award</b>	Masters Degree not mainly by Research
<b>Award name</b>	Masters - Postgraduate Taught
<b>Course mode of delivery</b>	Full time
<b>Course length</b>	1 years
<b>Entry point</b>	September 2023
<b>Main location of study</b>	University of Bath, Main Campus, Claverton Down
<b>Course-owning school/department</b>	Economics

## Course Description

<b>Course Summary</b>	Develop sought-after skills in quantitative economics and business, on this innovative, cross-disciplinary master's.
<b>Course Description</b>	<p>As businesses seek to innovate and develop in the 21st century, there is a growing need for economists with broader knowledge and skills, who can effectively input into new products and policies.</p> <p>This is borne out in The UK Government's 'Industrial Strategy - Building a Britain fit for the future' (<a href="https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future">https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future</a>), which calls for a new type of university graduate and manager: one who can operate successfully at the interface of economics, business, mathematics and computer science.</p> <p>Drawing on the extensive expertise from across the Departments of Economics(/departments/department-of-economics), Computer Science (/departments/department-of-computer-science) and Mathematical Sciences (/departments/department-of-mathematical-sciences), and the School of Management (/schools/school-of-management), this MSc sets out to educate and prepare economically literate scientists, and scientifically confident economists, for the future.</p> <p>The course has a strong quantitative focus, while also covering other relevant areas such as computer programming, software development and econometrics. You will learn to apply economic and mathematical units and programs to real-business problems, while building a compelling set of skills in areas such as data analysis, data mining, software applications and statistics.</p> <p>The cross-disciplinary nature of the course makes it noticeably different from other economics master's course. You will be taught by subject specialists in each field, allowing you to study each topic in greater depth. Developed with close input from well-known employers, and the relevant departments from across the University in combination, the course offers a coherent, and mutually-complementary, mix of technical and soft skills.</p>

If you study this course, you may be eligible for a scholarship. Scholarships are open to applicants of all nationalities and worth up to £12,000..

The units culminate in a special Practice Track project (<https://www.bath.ac.uk/campaigns/practice-track-solve-a-real-world-business-challenge-as-part-of-your-degree/>) in the summer, where you will apply what you have learnt to a consultancy project with one of our partner employers.

You'll conduct appropriate research, analyse data (if necessary) and share your solution as a written report and presentation. The Practice Track is usually a group activity, but you can do it alone.

You will benefit from our well-established business connections across a variety of sectors, both in the UK and overseas.

Your skills will be particularly relevant to technology companies, consultancy firms, and finance and banking organisations, but also applicable to other business sectors, government and academia.

You could go on to work as a data analyst, credit analyst, financial analyst, economist or business analyst.

You could also progress your studies to doctoral level.

#### **Delivery methods**

The following list provides an indication of some of the learning and teaching methods used on the course:

- Field course
- Design projects
- Video materials
- Interaction and networking
- Laboratory sessions
- Lectures
- Online resources
- Practical sessions
- Seminars
- Tutorials
- Workshops
- Real-life case studies

#### **Assessment methods**

The following list provides an indication of some of the assessment methods used on the course:

- End point assessment
- Blog
- Data analysis practical
- Online web-forum contributions
- Presentations
- Coursework
- Essay
- Multiple choice examination
- Practical work
- Residential
- Seminar
- Written examination
- Other
- Take-home examination

#### **Budgeting statement**

You will need to budget at least £100 for the cost of photocopying, printing and binding. You will also need to budget for the cost of textbooks. Some courses involve visits away from campus and you may be required to pay some or all of the costs of travel, accommodation and food and drink. If you're on a placement, you're responsible for your own travel, accommodation and living costs. You should also consider the financial implications if you go on an unpaid or overseas placement.

<b>Applicable Assessment Regulations</b>	NFAAR-PGT - <a href="https://www.bath.ac.uk/publications/nfaar-pgt-and-appendices/">https://www.bath.ac.uk/publications/nfaar-pgt-and-appendices/</a>
<b>Exemptions from Regulations</b>	N
<b>Course Progression Requirements</b>	NA

## Course Structure

### Year 1

Period of study	Module code	Module title	Module status	Level	Credits	Option choice rules
AY	ES00000	Academic integrity training & test	Extra	Foundation (FHEQ level 3)	0	
DIS	ES50156	Practice track	Part 4 Project/Diss Designated Essential Option	Masters UG & PG (FHEQ level 7)	30	
S1	ES50152	Quantitative methods for economics and game theory	Part 4 Taught Designated Essential Unit	Masters UG & PG (FHEQ level 7)	10	
S1	ES50171	Principles of programming and software engineering	Part 4 Taught Designated Essential Unit	Masters UG & PG (FHEQ level 7)	10	
S1	MN50744	Databases and business intelligence	Part 4 Taught Designated Essential Unit	Masters UG & PG (FHEQ level 7)	10	
S2	ES50153	Game theory, mechanism design, and experimental methods	Part 4 Taught Designated Essential Unit	Masters UG & PG (FHEQ level 7)	10	
S2	ES50154	Financial derivatives	Part 4 Taught Designated Essential Unit	Masters UG & PG (FHEQ level 7)	5	
S2	ES50155	Data mining, machine learning and econometrics	Part 4 Taught Designated Essential Unit	Masters UG & PG (FHEQ level 7)	10	
S2	ES50172	Programming applications	Part 4 Taught Designated Essential Unit	Masters UG & PG (FHEQ level 7)	5	

#### Additional rules for module selection

None

## Year 1

No units found

## Learning Outcomes

**By the end of the course, you will be able to**

	Knowledge and Understanding	Intellectual Skills	Professional and Transferable Skills	Placement	Study Year Abroad
Demonstrate a systematic and comprehensive understanding of essential tools, theories, models and framework - relating to economics, econometrics, data analytics, and business, and their relationship to one another.	✓				
Graduating MSc students will add to this: Understand and show critical awareness of the current state and future directions of technological advances and their relation to economic and business intelligence and systems.	✓				
Work effectively as part of a team in the analysis, design and development of software-based systems			✓		
Consider alternative models of problems and apply practical and theoretical understanding to select appropriate, possibly innovative, solutions.			✓		
Present succinctly rational and reasoned arguments using appropriate conceptual tools to address a given systems problem.			✓		
Understand and apply relevant ethical, legal and professional standards in the context of business and economic systems development			✓		

development.

Apply problem solving and analytical skills in a wide variety of practical situations.

✓

Undertake decision-making and evaluation in complex situations.

✓

Plan, organize and prioritize time.

✓

Demonstrate an ability to work constructively and effectively as a member of a team, communicate and persuade others through informed opinion.

✓

Demonstrate the ability to apply chains of reasoning in economic and mathematical models to derive hypotheses capable of empirical testing.

✓

Acquire skills and information needed for continuing professional development.

✓

Apply formal and rigorous methods of analysis and description to the specification, documentation, implementation and analysis/verification of systems;

✓

Evaluate and synthesize relevant information and data from a variety of sources, integrate, analyse and critically evaluate, to gain a coherent understanding of theory and practice;

✓

Critically analyse and evaluate existing systems and approaches to solving problems, and design innovative solutions;

✓

Demonstrate a critical understanding of professional, legal, social, cultural and ethical issues related to economics and

✓

business, and an awareness of societal and environmental impact;

Demonstrate an ability to engage in a peer review process that involves the critical review of papers, software and proposals, coupled with positive advice for improvement. ✓

Critically analyse, evaluate and reflect upon own contributions; demonstrate self-direction and originality in tackling and solving economic and business problems; ✓

Graduating MSc students will add to this: Undertake an individual innovative practice track project; ✓

#### Alternative Courses and Exit Awards

**Designated Alternative Courses (DAC)** THES-AFL30: PG Dip Economics for Business Intelligence and Systems THES-AFC30: PG Cert Economics for Business Intelligence and Systems

#### Exit Awards

**Requirements for named exit awards** Please refer to your Director of Studies for further information