

BSc(Hons) Economics and Mathematics (UHES-AFB12)

Course and Award Details

Course title	BSc(Hons) Economics and Mathematics
Route(s)	BSc(Hons) Economics and Mathematics
Awarding body	University of Bath
Award	Undergraduate Degree with Honours
Award name	Bachelor with Honours
Course mode of delivery	Full time
Course length	3 years
Entry point	September 2024
Main location of study	University of Bath, Main Campus, Claverton Down
Course-owning school/department	Economics

Course Description

Course Summary	Achieve a grounding in economic theory and explore the different statistical approaches needed to analyse complex financial data.
Course Description	<p>During this course, you'll develop your understanding of the tools and key theories within economics and mathematics. You'll use these skills to analyse contemporary problems and policy.</p> <p>Mathematics is the foundation of economic analysis. By learning how mathematical language enables the development of economic and financial theory, you'll develop the skills needed to analyse complex financial data.</p> <p>In Year 1, you'll learn about key concepts in microeconomic and macroeconomic theory. This will help you develop your skills in mathematical and statistical theory and applications.</p> <p>During Year 2, you'll take part in more advanced study of economic theory, mathematics and statistics, and acquire a deeper understanding of economic relationships.</p> <p>In your final year, you will select from a wide range of optional units. This will give you the freedom to focus on your interests and career ambitions. These units will broadly cover advanced topics in economics and mathematics.</p> <p>Throughout this course, you'll explore mathematical methods and techniques such as algebra, analysis, probability and statistics. You'll also learn the programming skills to implement computational modelling and analysis in economic contexts.</p>
Contact hours	<p>Contact hours</p> <p>Timetabled contact hours, which may be made up of lectures, seminars, tutorials and workshops vary throughout your course and between courses but are typically between 12 and 15 hours a week in your first year.</p> <p>Our teaching for this course is delivered through in-person learning on campus,</p>

supported by high quality online provision. A small proportion of these contact hours may be delivered online, with the significant majority taught on campus. This may be supplemented by additional activities such as a small number of online learning sessions (not live), skills development sessions, and personal tutorials.

The amount of timetabled sessions on campus in later years may vary based on the options you choose, with a greater emphasis on independent learning. Project and dissertation units will generally have fewer scheduled sessions to allow you time for your independent work - this may also mean the number of hours of timetabled sessions each week will vary within a year.

Independent learning

In addition to timetabled contact hours, you are expected to undertake independent learning and assessment activities. Typically, this might be around 20 to 28 hours per week in your first year, and include individual research, reading journal articles and books, working on individual and group projects, preparing coursework assignments, presentations, or revising for exams. After your first year, the emphasis on independent learning becomes greater, for example, you may do a final year project in the final year. You'll be expected to work both on your own and as part of a group.

Delivery methods

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

- Lectures
- Seminars
- Tutorials
- Workshops

Assessment summary

You will be assessed in a range of methods designed to develop and test your skills and knowledge.

50% to 75% of your course will be assessed through examinations.

25% to 50% will be assessed through essays, reports, and presentations.

The balance of assessment methods may vary throughout your degree.

The final degree classification is determined by your second and final year marks and each contributes 32% and 68% respectively.

You will primarily be assessed as an individual, but may also be assessed as part of a group.

We can make reasonable adjustments to assessment procedures for students with disabilities, take a look at our Disability Service's pages(/professional-services/disability-service/) for information.

Assessment methods

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

- Report
- Examinations
- Presentations
- Essay

Specialist Facilities

Informed teaching to advance your learning

You'll learn from teaching staff with diverse backgrounds and expertise in different areas of economics. Their passion, knowledge and research shape their teaching with the aim of enhancing your learning experience.

Benefit from specialist resources

You'll have access to some of the latest industry-standard statistical, mathematical and econometric software. This will allow you to access up-to-the-minute data on real-world trends to enhance your learning experience.

Budgeting statement

You will need to budget at least £100 for the cost of photocopying, printing and

Placement/Study Year Abroad details

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.

We also offer this course with a professional placement or study abroad(/courses/undergraduate-2024/economics/bsc-economics-and-mathematics-with-professional-placement-or-study-abroad/) option in Year 3. This allows you to take advantage of our links with a range of organisations in different sectors, experience a new culture, or even combine the two.

A professional placement(/campaigns/enhance-your-employability-with-a-humanities-and-social-sciences-placement/) is a great way to get insights into the career path you want; contribute to projects and services; have fun, make friends and build your professional network; and even earn a salary.

If you decide to study abroad(/campaigns/studying-abroad-as-part-of-your-undergraduate-degree/), you will spend time at one of our partner institutions across the globe. During this time, you will study a course that complements your existing learning while experiencing a new culture.

Careers and professional development

Develop your professional skills

We work to provide you with the tools and support to prepare you for employment and further study.

These include:

- critical and analytical thinking
- quantitative skills to apply to real-world economic challenges
- presentation and communication skills
- adaptability and resilience

Prepare for your future career

Many of our economics graduates have gone on to careers in both the private and public sectors, working as economists, financial or business analysts, researchers, accountants and tax professionals.

They have worked for organisations such as:

- Deloitte
- Bank of England
- HSBC
- Ministry of Justice
- PwC

Course Assessment Regulations

Applicable Assessment Regulations	Undergraduate assessment regulations - https://www.bath.ac.uk/publications/undergraduate-assessment-regulations/
Exemptions from Regulations	N
Weighting of each Study Year	Stage 1: 0% Stage 2: 32% Final Stage: 68%
Is this Course Standalone or Co-Existent?	SA

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	
AY	ES12001	Microeconomics 1	Part 1 Stage 1 Compulsory	Certificate (FHEQ level 4)	15	
AY	ES12002	Macroeconomics 1	Part 1 Stage 1 Compulsory	Certificate (FHEQ level 4)	15	
S1	MA12012	Core pure and statistical mathematics A	Part 1 Stage 1 Compulsory	Certificate (FHEQ level 4)	15	
S2	MA12013	Core pure and statistical mathematics B	Part 1 Stage 1 Compulsory	Certificate (FHEQ level 4)	15	

Year 2

Period of study	Module code	Module title	Module status	Level	Credits	Option choice rules
AY	ES22012	Econometrics	Part 2 Stage 2 Compulsory	Intermediate (FHEQ level 5)	10	
S1	MA22014	Statistics 2A	Part 2 Stage 2 Compulsory	Intermediate (FHEQ level 5)	10	
S2	ES22014	Microeconomics 2	Part 2 Stage 2 Compulsory	Intermediate (FHEQ level 5)	10	
S2	MA22015	Statistics 2B	Part 2 Stage 2 Compulsory	Intermediate (FHEQ level 5)	5	

Title Year 2 Options

Total credits in this study yr 25

Overview of options in this study yr In Year 2 you will study 25 credits of optional units with 15 being in semester 1 and 10 in semester 2. Options cover a range of topics.

****Economics options****

You'll choose from units covering either macroeconomics or financial economics and financial institutions.

****Mathematics options****

You'll choose from units covering topics such as:

- algebra
- machine learning

- numerical analysis
- probability theory

Year 3

Period of study	Module code	Module title	Module status	Level	Credits	Option choice rules
Title		Final Year Options				
Total credits in this study yr		60				
Overview of options in this study yr		<p>Your final year is entirely made up of options that you choose, adding up to 60 credits across the year. You'll be able to choose from a wide range of optional units. This will give you the freedom to specialise your knowledge and focus on your career aspirations and interests.</p> <p>**Economics options**</p> <p>Options cover topics, such as:</p> <ul style="list-style-type: none"> - econometrics - economic history - game theory - industrial organisation <p>**Mathematics options**</p> <p>Options cover topics, such as:</p> <ul style="list-style-type: none"> - data science - modelling and data analytics - numerical optimisation - probability and finance <p>Some unit choices will depend on optional units chosen in Year 2.</p>				

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
Explain core concepts within economic science	✓				
Use and explain relevant techniques for empirical analysis	✓				
Employ the concepts and principles of economics in the solution of economic problems		✓			

Develop coherent arguments and assess assumptions made in economic analysis		✓	
Use software and research techniques appropriate for a graduate career as an economist			✓
Work effectively both independently and as a part of a team			✓
Plan, manage and reflect on their own learning and practice			✓
Apply fundamental mathematical principles, concepts and key theorems to solve problems, both within and beyond mathematics contexts	✓		✓
Select, utilise and synthesise a broad range of mathematical skills, methods and techniques, including definitions, to present solutions to problems	✓		✓
Utilise effectively a broad range of techniques for data analysis	✓		✓
Compose written mathematical arguments across a wide range of contexts, justifying your approach by using mathematical reasoning appropriately			✓
Explain core concepts within economic science	✓		

Alternative Courses and Exit Awards

Designated Alternative Courses (DAC) and exit awards

This course has no designated alternative course (DAC).
Exit awards:
Diploma of Higher Education
Certificate of Higher Education