

1. Programme Title(s) and Code(s):

<i>Programme Title</i>	<i>UCAS Code</i>	<i>GU Code</i>
BSc (Hons) in Finance and Mathematics	NG3C	NG3C-2208

2. Academic Session:

2018-19

3. SCQF Level (see [Scottish Credit and Qualifications Framework Levels](#)):

10

4. Credits:

500

5. Entrance Requirements:

Please refer to the current undergraduate prospectus at: <http://www.gla.ac.uk/undergraduate/prospectus/>

6. ATAS Certificate Requirement (see [Academic Technology Approval Scheme](#)):

ATAS Certificate not required

7. Attendance Type:

Full Time

8. Programme Aims:

Finance is the study of the theory and practice of financial decision-making. It is particularly concerned with the theory and practice of risk reduction in financial decision-making, the operation, role, behaviour and implications of financial markets (such as the markets for companies' shares, loan finance and foreign exchange), and the operations and structures of leading financial institutions (such as banks and insurance companies). Through the operation and fluctuations of global markets, Finance affects businesses, governments, nations and individuals across the world.

¹ This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if full advantage is taken of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each course can be found in course handbooks and other programme documentation and online at www.gla.ac.uk/

The accuracy of the information in this document is reviewed periodically by the University and may be checked by the Quality Assurance Agency for Higher Education.

The central theme of Mathematics is the use of reasoned argument from basic postulates and principles to explain the pattern and structure of the world we observe, to suggest pattern and structure as yet unobserved, and in general, provide tools that can be used to understand and manage the universe in which we live. In Pure Mathematics these postulates often take the form of concepts from geometry or properties of numbers, whereas in Applied Mathematics the postulates typically take the form of laws that can be tested rigorously by experiment. So at one level Mathematics provides practitioners with a sophisticated toolbox for use in the manipulation of information, but at a higher level it provides them with the means to impose pattern and structure on that information. Mathematics has been central to the development of Accounting and Finance for hundreds of years, and indeed a significant fraction of our Honours graduates find employment in the commercial sector, be it *inter alia* in insurance, accounting, finance or banking.

This degree programme aims:

- to provide students with a solid grounding in the principles and theory of Finance and Mathematics by means of which they may make ethical and valuable contributions to the work of the financial sector and contribute to the general welfare of the United Kingdom.
- to enhance students' ability to formulate complex arguments either of a technical nature or of a conceptual nature, and have the facility to communicate these arguments to others.
- to enable students to develop their personal and inter-personal skills through written and oral presentations of work both as individuals and as members of a group
- to enable students to develop their problem-solving skills through using mathematical computer packages and through the acquisition of programming skills.
- to enable students to develop professional attributes, such as critical reflection leading to improved practice, the ability to work collaboratively within a diverse professional team and an appreciation of the contribution that business should make to a democratic and dynamic society.
- to prepare students for employment in a wide variety of contexts where financial and mathematical skills are valued, or for further study, and for engagement in lifelong learning.

9. Intended Learning Outcomes of Programme:

This programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas.

Knowledge and Understanding

On completion of this programme, students will be able to:

- apply knowledge of the nature, principles and development of Finance
- display a broad and critical understanding of the global business context in which the UK financial sector operates, including its main institutional frameworks
- apply knowledge of the fundamental concepts, principles, theories and methods of Mathematics
- take complex problems expressed orally and verbally, reformulate them within the framework of Mathematics and solve them using the tools of Mathematics, finally communicating their solutions in oral and verbal form.
- display an understanding of how the practices and methods of mathematics can contribute to professional practice and research in finance.

Skills and Other Attributes

Subject-specific/practical skills

On completion of this programme, students will be able to:

- demonstrate a sound understanding of the framework of finance
- evaluate literature in finance and apply relevant ideas to business practice
- describe business and professional practices in relation to social, political and environmental contexts
- appreciate how to proceed to impose pattern and structure on complex information by association with how this is achieved in the development of Mathematics.
- Make appropriate use of the tools of mathematics to solve real problems, obtaining arithmetically correct results by means of scientific calculators in simple cases and mathematical software packages or a

programming language for more complex problems

- make appropriate use of ICT facilities, including specialist financial and mathematical software packages in addition to text/word-processing packages.
- appreciate the ethical issues that arise within the finance profession and the broader ethical issues that face the business community.

Intellectual skills

On completion of this programme, students will be able to:

- apply knowledge of finance in relation to specific business organisations, tasks and contexts
- apply critical skills to the operation and practice of finance within organisational contexts
- take a problem for investigation, identify the important features of the problem and construct a framework to capture these features within a mathematical model.
- select and apply appropriate mathematical methods and tools to solve the equations arising in the mathematical model, and be aware of the assumptions made and the limitations that these assumptions impose on the usefulness of the solution obtained.
- interpret the results of the mathematical analysis with the intention of accepting these results or further refining the mathematical model to incorporate further realism within the model, as appropriate.
- adopt a broad perspective and to engage in informed criticism of existing financial systems and practices and the underlying mathematical methods and models employed therein.
- present a reasoned personal professional stance and justify this within the wider framework of finance and mathematical issues

Transferable/key skills

On completion of this programme, students will be able to:

- think logically and analytically
- adopt a structured approach to problem solving
- apply the techniques and structured procedures of mathematics to help solve problems in other disciplines
- assess graphical and numerical information critically
- make efficient use of computers for analysing and presenting information
- communicate clearly and appropriately, both in writing and orally
- work independently, with the support of experienced supervisors available.
- work effectively with others in a group or team setting
- manage time and meet deadlines
- be self-aware and self-critical and understand education as a life-long process to adopt a rational and critical approach to choice and decision-making, based on research and evidence-gathering
- draw upon relevant principles, perspectives and theories to inform professional values and practices, in particular in relation to the discharge of the public and economic functions of finance professionals

10. Typical Learning and Teaching Approaches:

- Use of the virtual learning environment Moodle for e-learning
- Individual Level 4 project prepared in LaTeX (or Word) potentially involving the use of other software packages such as MatLab, Mathematica or Maple
- Visiting lecturers and day trips
- In both degrees, if the dissertation is pursued in accounting and finance at level-4 then the course RTTR must be completed at level-3.

11. Typical Assessment Methods:

Is examined in unseen degree examinations, compulsory project work of an individual nature.

12. Programme Structure and Features:

This degree programme extends over four years of full-time study in the College of Science and Engineering and the result will be a BSc (Hons) in Science. A candidate for the Honours degree must obtain a minimum of 500 credits, 240 of which must be awarded for Honours courses. The four years of study are divided into two pre-Honours years, in which introductory courses are studied, followed by two Honours years in which the student specialises in Mathematics and Finance. In all cases, students must take 260 credits in the first two years.

Year 1

MATHS1001 Maths 1R 20 credits or MATHS1004 Maths 1X 20 credits
MATHS1002 Maths 1S 20 credits or MATHS1005 Maths 1Y 20 credits
MATHS1006 Maths Skills Test 0 credits

ACCFIN1003 Finance 1 20 credits
ACCFIN1004 Financial Accounting 1 20 credits
ACCFIN1007 Management Accounting 1 20 credits

STATS1002 Statistics 1Y 20 credits
STATS1003 Statistics 1Z 20 credits

Year 2

MATHS2001 Maths 2A 10 credits
MATHS2004 Maths 2B 10 credits
MATHS2005 Maths 2C 10 credits
MATHS2006 Maths 2D 10 credits
MATHS2007 Maths 2E 10 credits
MATHS2008 Maths 2F 10 credits

ACCFIN2002 Finance 2 20 credits
ACCFIN2003 Financial Accounting 2 20 credits

ECON1*** Introductory Economics 20 credits

Years 3 and 4

This programme is governed by the generic undergraduate regulations and by the supplementary regulations for the BSc and MSci. The regulations include the requirements in relation to:

- Award of the degree, and
- Annual progress, and
- Entry to Honours

See : <http://www.gla.ac.uk/services/senateoffice/calendar/>

In addition to the generic requirements, students require a minimum of a D3 in each of Mathematics 2A, 2B, 2C, 2D, 2E and 2F (with a GPA of 12 across these courses), and a minimum of a D3 in each of Financial Accounting 1, Management Accounting 1, Finance 1, Financial Accounting 2, Management Accounting 2 and Introductory Economics for entry to year 3.

The current curriculum for Combined Honours in Finance and Mathematics is shown below. Students must choose, as their independent piece of work, either a project in the School of Mathematics and Statistics or a dissertation in the Adam Smith Business School.

For progression to Year 4, students are required to obtain a GPA of 9 across the Year 3 Mathematics courses and a GPA of 9 across the Year 3 Finance courses.

Mathematics In Year 3, students must take courses (60 credits) from the list of available courses defined in

the School Handbook, which may change from year to year.

In Year 4, they will take either: (a) courses (60 credits) from the list of available courses defined in the School Handbook, which may change from year to year; or (b) courses (40 credits) from the list of available courses defined in the School Handbook, which may change from year to year, and complete a project in the School of Mathematics and Statistics:

MATHS4061P Mathematics Project 4 (20)

Accounting Over Years 3 and 4 students will either (a) take 6 of the following courses:

ACCFIN4010 Capital Markets Theory (20)

ACCFIN4015 International Financial Management (20)

ACCFIN4013 Financial Statement Analysis and Valuation (20)

ACCFIN4012 Financial Markets & Financial Institutions (20)

ACCFIN4040 Derivative Securities (20)

ACCFIN4063 Behaviour Finance (20)

ACCFIN4064 Mergers and Acquisitions (20)

ACCFIN4XXX Corporate Finance (20)

or (b) take 4 of the above courses and complete a dissertation in the Adam Smith Business School in Year 4:

ACCFIN4001P Dissertation (40)

13. Programme Accredited By:

14. Location(s):

Glasgow

15. College:

College of Science and Engineering

16. Lead School/Institute:

Mathematics and Statistics [REG30500000]

17. Is this programme collaborative with another institution:

No

18. Awarding Institution(s):

University of Glasgow

19. Teaching Institution(s):

20. Language of Instruction:

English

21. Language of Assessment:

English

22. Relevant QAA Subject Benchmark Statements (see [Quality Assurance Agency for Higher Education](#)) and Other External or Internal Reference Points:

QAA Subject Benchmark – Finance

<http://www.qaa.ac.uk/en/Publications/Documents/SBS-Finance-16.pdf>

QAA Subject Benchmark – Mathematics, Statistics and Operational Research

<http://www.qaa.ac.uk/en/Publications/Documents/SBS-Mathematics-15.pdf>

23. Additional Relevant Information (if applicable):

Support for students is provided by the Postgraduate/Undergraduate Adviser(s) of Studies supported by University resources such as LEADS (www.gla.ac.uk/myglasgow/leads/), Counselling & Psychological Services (www.gla.ac.uk/services/counselling/), the Disability Service (www.gla.ac.uk/services/studentdisability/) and the Careers Service (www.gla.ac.uk/services/careers/).

IT facilities

Students are expected to carry out a variety of tasks using computers (e.g. word-processing reports or essays) and we prefer to keep in contact with students via e-mail. Students will enjoy the use of computing labs, equipped with modern PC's running a range of word-processing, spreadsheet, database, accounting and statistical software. Software purchase schemes organised by the University of Glasgow allow students to obtain personal copies of these items of software, for their own home use, free or at greatly discounted prices.

Student support systems

Students will automatically be assigned an Adviser of Studies in the College of Science. They will also have available the support of Effective Learning Advisers and, for those with specific educational needs, Special Needs Advisers. A wide range of other support on offer is detailed on the following web page: <http://www.gla.ac.uk/student/support.html>.

Employability

Accounting & Finance has close links with professional bodies and employers, many of which offer placement opportunities to their students. Some professional firms run presentations and drop in sessions for prospective graduates and also run separate events to give students a chance to interact with their staff. All students undertaking joint degree programmes have equal access to these events. As students in the College of Science, they will also be offered generic employability training in their first two years. This includes encouragement in Personal Development Planning.

Feedback from students

Both subjects have a Staff-Student Committee, in which student representatives may obtain further information about administrative matters, raise concerns and suggest improvements to their courses. Each year group within Accounting & Finance elects at least two students to their Staff-Student Committee, each Mathematics class elects at least one of its members to the Mathematics Staff-Student Committee. Student representation on other University committees and bodies (such as Senate) is the responsibility of the Students' Representative Council (SRC).

Support for students is provided by the Postgraduate/Undergraduate Adviser(s) of Studies supported by University resources such as the Effective Learning Adviser located in the Student Learning Service (<http://www.gla.ac.uk/services/tls/sls/>), the University Health Service (<http://www.gla.ac.uk/services/health/>), the Student Counselling and Advisory Service (<http://www.gla.ac.uk/services/counselling/>), the Student Disability Service (<http://www.gla.ac.uk/services/studentdisability/>) and the Careers Service (<http://www.gla.ac.uk/services/careers/>).

24. Online Learning:

No

25. Date of approval:

09/05/2017