



MSc Financial Mathematics

Course Handbook for Postgraduate Students

Academic Year 2023-24

Table of Contents

Content	<i>Error! Bookmark not defined.</i>
Introduction	3
Course Information MSc in Financial Mathematics	4
Choosing your modules	5
Key Contacts	5
Mode of Attendance	5
Assessments	6
Submission of coursework and feedback	6

My Module > Assignments

Search for assignment

Upcoming assignments

Report A2 Week 2 (1,000 words)
Available until 27 Sep | Due 20 Sep at 16:00 | -/100 pts

Past assignments

Essay T1 Week 8 (2,000 words)
Closed | Due 15 Aug at 16:00 | 66/100 pts

Feedback to students	7
Support for your learning	8
Study Skills and Resources	8
Turnitin.....	8
Skills Hub.....	8
Referencing.....	8
Student Support Unit.....	9
Academic Development Support.....	9
Academic Integrity and avoiding Academic Misconduct.....	9
Academic Integrity.....	9

Academic Misconduct	9
<i>Your module feedback</i>	10

Introduction

Welcome to the MSc in Financial Mathematics at the University of Sussex!

This program has been meticulously crafted to provide you with an exciting, rigorous, and rewarding experience, equipping you for the rapidly evolving landscape of Financial Mathematics.

Our course design leverages our globally recognised expertise in Financial Mathematics, Statistical Analysis, Finance, and IT, combined with our extensive teaching background, resulting in an advanced curriculum.

Ultimately, the MSc degree revolves around your experiences, aiming to be both engaging and invigorating. To further enhance your learning journey, we will make use of a virtual learning platform. This platform will provide access to all relevant materials from the instructional modules, facilitate communication with peers, module convenors, and tutors. If you have any queries about your course, the course convenor and the support team from the Postgraduate Office will always be available to assist you.

This student handbook offers a comprehensive overview of essential contacts, the course structure, module particulars, and glimpses into the opportunities this degree will present.

In addition to this handbook, the university-wide information is available in the Student Handbook at www.sussex.ac.uk/students/handbook

We warmly and eagerly welcome you as you commence this course. Our hope is that you thoroughly enjoy your academic journey here and actively participate in the vibrant university community!



Dr Yuliya Kyrychko

y.kyrychko@sussex.ac.uk

Course Convenor, MSc in Financial Mathematics

Course Information MSc in Financial Mathematics

For the full details of module content, module aims, and learning outcomes

www.sussex.ac.uk/mps/internal/departments/mathematics/pg/pgcourses

This course comprises of comprehensive '**core**' training in financial mathematics, bank risk management, corporate and financial risk management, financial analytics and programming. This is covered by **6 core modules**:

Autumn Term:

- Computing for Data Analytics and Finance (854G1)
- Corporate Finance (831L1)
- Financial Mathematics (G5078)

Spring Term:

- Financial and Time Series Econometrics (821L1)
- Financial Portfolio Analysis (849G1)
- Mathematical Models in Finance and Industry (832G1)

This is complemented by training provided by optional modules, which allows you to choose between statistics-oriented modules and financial modules – **you must choose one optional module** in each term. The optional modules are:

Autumn Term:

- Advanced Numerical Analysis (852G1)
- Linear Statistical Models (971G1)
- Partial Differential Equations (G1114)
- Probability Models (973G1)
- Programming through Python (823G5)

Spring Term:

- Dynamical Systems (G5126)
- Financial Investment and Corporate Risk Analysis (861G1)
- Monte Carlo Simulations (865G1)
- Numerical Solution of Partial Differential Equations (845G1)
- Random Processes (862G1)
- Statistical Inference (867G1)

No matter whether you choose to do further studies or built a career in industry, a crucial training of any graduate is the ability to work under guidance as well as independently on a project and produce reports with your findings. This course provides you with such training

through a **core Dissertation module**, which runs in the Summer Term. This module will give you an excellent and exciting opportunity to choose the topic which you like, apply financial mathematics and statistics methods to address a substantial research problem, and present the results of your analysis in a detailed report.

Choosing your modules

You will be able to select your option modules when you register online. If you require any help with choosing your modules, please contact the course convenor (Dr Yuliya Kyrychko, y.kyrychko@sussex.ac.uk) and they will be happy to assist you with choosing the options.

If you are unhappy with your choice of optional modules, you can apply to change one or more of your modules. In order to do this, you must contact the School Office mpspgtooffice@sussex.ac.uk. This must be done by the end of Week 2. **Important:** No option changes are possible after Week 2.

Key Contacts

The course is managed and developed by the Department of Mathematics within the School of Mathematical and Physical Sciences, and the course convenor is Dr Yuliya Kyrychko (y.kyrychko@sussex.ac.uk).

Additional help is provided by the School Office for the School of Mathematical and Physical Sciences, which can be contacted via mpspgtooffice@sussex.ac.uk

Mode of Attendance

Full time, One year

The **academic year** runs from September to September and comprises of the Autumn, Spring and Summer terms. Lectures take place during the Autumn (September-December, Weeks 1-11) and Spring (January-April, Weeks 1-11) terms. Details of the term dates can be found at

<https://www.sussex.ac.uk/about/term-dates>

Exams are held each year in January (assessment period A1) and May-June (assessment period A2), after which the dissertation is being prepared during the Summer term (June-August). The details of assessment for each module are presented are given at

www.sussex.ac.uk/mps/internal/departments/mathematics/pg/pgcourses

The attendance is compulsory and students are expected to be available for attendance at the University throughout the year.

Resit examinations normally take place at the end of August- beginning of September during the assessment period A3.

The graduation ceremony takes place at the end of January each year.

Assessments

The course uses a number of different modes of assessment including unseen examinations, coursework, project work and dissertation. The details of assessments for each module are presented in can be found at

www.sussex.ac.uk/mps/internal/departments/mathematics/pg/pgcourses

In order **to pass** a particular module you will need a mark of at least **50%**. This mark may be derived from a single exam or as the weighted average of several units of assessment (exam, coursework, etc.). Coursework is submitted during the period of the module and all submission dates will be provided to you in advance. Formal submission dates are noted on your Sussex Direct pages (<https://direct.sussex.ac.uk>).

Please note that module convenors and tutors are not allowed to provide extensions or make any changes to the official submission deadlines.

We encourage you to regularly check your study timetable in Sussex Direct and e-mails. The MSc Dissertation is submitted on a specified date during the Summer Term. Your Sussex Direct account will tell you how to submit the dissertation (usually via Canvas).

Submission of coursework and feedback

Modules are offered across different departments. Each module has its own procedure for handling coursework and the module convenor will provide detailed information to you regarding the submission of coursework.

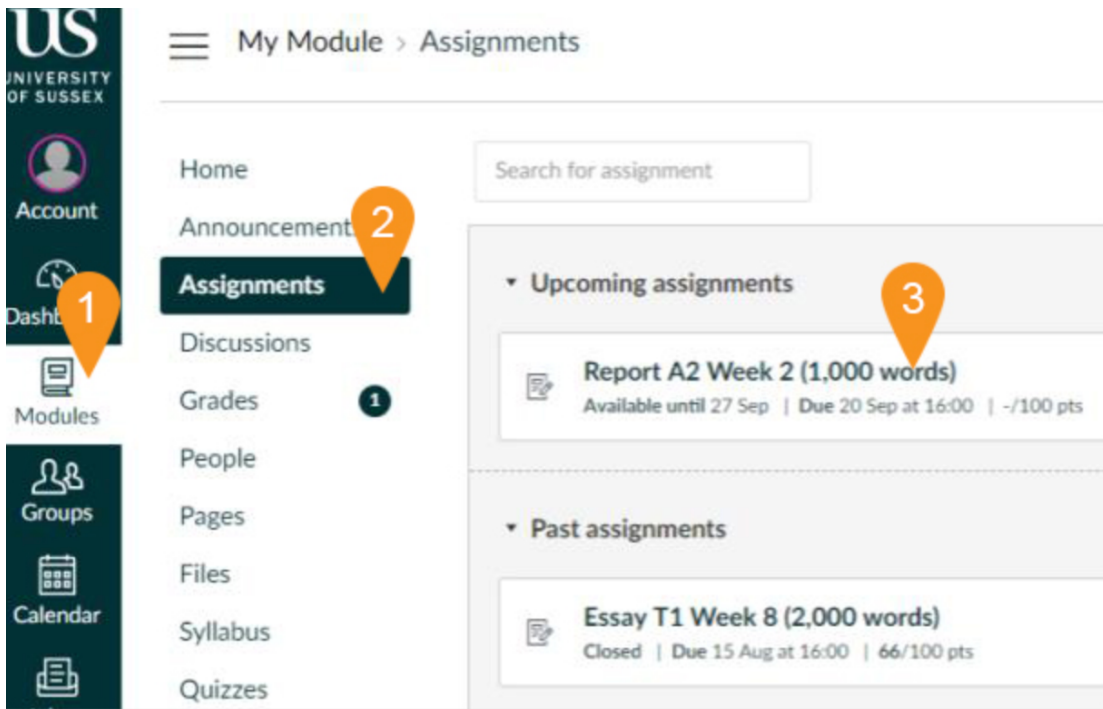
Online submissions

Each module of this course will have its own Canvas webpage. You can view all of your Canvas modules by logging into <https://canvas.sussex.ac.uk>

If you need to submit your assessment through Canvas, please follow the following procedure:

- Login to Canvas and select the module you wish to submit your work to from either the '**Dashboard**' or '**Modules**' page
- Select the '**Assignments**' tab from the module navigation menu. Each assignment includes a **Due** date and time (deadline for submission) and **Available until** date and time (deadline for late submissions).

- Select the assignment you wish to submit to. When the page opens, you will see further information on the assessment and instructions for the submission.



For further information regarding online Canvas submission of assignments, please visit <https://canvas.sussex.ac.uk/courses/14493/pages/submitting-canvas-online-assignments>

It is important that all submission deadlines are met. The University applies a system of penalties to assessments that are submitted late. For more details, please consult the University Examinations and Assessment Regulations:

<http://www.sussex.ac.uk/adge/standards/examsandassessment>

You can make an exceptional circumstances claim if you experience something sudden, temporary and unforeseen, which could have an impact on one of your assessments. If you would like to submit an exceptional circumstances claim, please visit

<https://student.sussex.ac.uk/assessment/exceptional-circumstances>

Feedback to students

There are a number of ways in which you will receive feedback regarding your progress:

- **Marked coursework** - you will get feedback each time you have a coursework marked, which can be accessed through Canvas and during a lecturer's feedback/student office hour.

Lecturers' feedback hours - for details, please search Sussex web pages for the relevant staff member and their feedback/student hours for the week will be displayed.

Support for your learning

Canvas

Each module in the course is supported by its own Canvas webpage. This virtual learning platform is used by students across the University, so you will never feel alone. Please make sure that you familiarise yourself with Canvas as it is the key source of module information. In order to sign in into Canvas, please visit <http://canvas.sussex.ac.uk>

Email

All students are given a Sussex email address when they start the course. We will be communicating with you about your course through the Sussex email address, so it is crucial that **you check your email every day**.

In addition to your MSc course convenor, you will have a dissertation supervisor. If you have any queries with a specific module, you should contact the module convenor during their advertised feedback/student office hours. You can also get valuable information, advice and support from the Student Centre (<https://student.sussex.ac.uk/centre/>). They can help you with many issues including:

- personal concerns affecting study progress or well-being;
- funding and finance including scholarships, bursaries and hardship funds;
- sources of help to improve academic performance – identifying obstacles to learning;
- understanding university systems and regulations in relation to assessment, services, complaints, conduct, and discipline;
- progression, intermission and withdrawal processes;
- referrals to other professional services on campus;

Study Skills and Resources

Turnitin

Turnitin is an online 'text matching' tool that compares a student's work to a huge database of other files and shows where there are strong similarities. It is often referred to as plagiarism detection software.

Skills Hub

The University's Skills Hub gives advice on writing well, including hints and tips on how to avoid making serious mistakes. Visit and make use of the resources there. You will also find helpful guides to referencing properly and improving your critical writing skills.

<http://www.sussex.ac.uk/skillshub/?id=1>

Referencing

These are some useful websites and places to go to for advice on how to reference essays and dissertations:

- Skills Hub website on referencing <http://www.sussex.ac.uk/skillshub/?id=251>
- Use the resources on Canvas pages of your modules.

Student Support Unit

The Student Support Unit is a team of specialist advisors who work with students who may need support at the university due to a long term condition.

<http://www.sussex.ac.uk/studentsupport/>

Academic Development Support

The Sussex Language Institute runs free 'English Language and Study Skills Support' sessions for international students, including in-depth guidance on referencing. There is also advice on how to reference using the Harvard, Vancouver, Numeric and MLA referencing styles.

<http://www.sussex.ac.uk/languages/english/acadev>

Academic Integrity and avoiding Academic Misconduct

Academic Integrity

The University of Sussex has a set of Academic Integrity Values which all students are expected to follow. These values are:

- **Honesty:** The work you produce for assessment is your own and where you have used other's work, this is clearly acknowledged: this is done by adding references to your assessments.
- **Trust:** Your tutors and fellow students can trust you to be honest about the work you produce and submit for assessment.
- **Fairness:** You agree that all students should be fairly treated and that you do not try to gain advantage by not producing your own work for assessment.
- **Respect:** You treat other members of the academic community with respect: fellow students, your tutors and the admin staff.
- **Responsibility:** You take responsibility for your own learning and follow the University of Sussex Academic Integrity values and assessment regulations.

Academic Misconduct

Academic misconduct includes

- collusion
- plagiarism
- personation
- misconduct in unseen exams

- fabrication of results

There are strict rules on academic misconduct and penalties are severe. The University's regulations and policy on Academic Misconduct are published in Section 2.9 of the Examination and Assessment Regulations Handbook available on the following web pages:

<http://www.sussex.ac.uk/adge/standards/examsandassessment>

Guidance on avoiding academic misconduct can be found Skills Hub

<https://student.sussex.ac.uk/complaints/against-you/misconduct>

Your module feedback

You will receive an email mid-term and at the end of each term to participate in the module satisfaction survey. The survey is not only feedback of good and bad elements of the module, but is an opportunity for us to hear how we can improve the modules we offer. Therefore, your participation in the survey is very important and helpful. It is worth noting that **your feedback is anonymous**.

In addition to the formal student satisfaction surveys, you are encouraged to talk to your lecturers during their student office hours, if you have any concerns about the module. You can also discuss any concerns you have with the Course Convenor, Dr Yuliya Kyrychko (y.kyrychko@sussex.ac.uk) or the Head of Department, Professor Peter Giesl (P.A.Giesl@sussex.ac.uk).

You can also give feedback to your student representative. Student reps are democratically elected to represent their peers. They enable a useful and effective communication link between staff and students. They provide helpful feedback to staff on modules, raise concerns in a constructive manner, give feedback to other students on why particular decisions are made, and can help to pre-empt concerns becoming serious issues.

To find the details of your student rep, please check the noticeboard in the school, or visit:

<http://www.sussex.ac.uk/mps/internal/departments/mathematics/studentreps>

We hope that you thoroughly enjoy your course and have fun and productive time at Sussex!