Welcome to MSc Applied Mathematics!

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Contact details

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- Lecturer in Applied Mathematics
- Programme Tutor for MSc in Applied Mathematics
- Research interests: Partial differential equations and numerical methods related to nonlocal phenomena

My role as Programme Tutor

As Programme Tutor, I have a broad oversight of the MSc Programme:

- Welcoming students
- Coordinating information on modules, timetables, deadlines etc.
- Advising on optional modules
- MSc dissertations, including allocation and liaison with external sponsors.

You will be allocated an academic advisor (should be me), who you should meet regularly to discuss your progress and any problems you have having with the course in general. You might also need a reference lette from me for PhD applications or other jobs.

Induction activities

(Applied) Mathematics MSc-specific sessions this week

- Wednesday 24 September, 10am, Welcome by the PGT director
- Wednesday 24 September, 12pm, Buffet Lunch
- Wednesday 24 September, 13pm, Welcome by the Applied MSc programme tutor, Alan Turing Building G108
- Wednesday 24 September, 15am, Careers Talk by Peter Johnson, Roscoe Building 1.003
- Friday 26 September, 13:00-16:00, Faculty Student Community Fair
- Wednesday 1 October, 15:00-15:30, Meet your Academic Advisor Roscoe 5.9

Other resources

During this week, you should prepare and investigate:

- Your university email account: Update it on your record and check emails frequently.
- Matlab: You can download and install on your personal computer. Remeber to register with your university account (more formal sessions in Week 2 and 3).
- Latex for typesetting in Mathematics. Overleaf is very popular for you to access the files online.
- C++: see Blackboard page for scientific computing (MATH69111).
- Canvas and the video portal.
- The library, to access academic papers and electronic books (including most recommended books for the modules you are taken)

You are very likely to use the programming/writing skills when doing the dissertation.

Mandatory and optional modules

- Semester 1:
  - MATH69111 Scientific Computing
  - MATH64071 Introduction to Uncertainty Quantification
  - MATH64151 Mathematical Methods for PDEs
  - One option MATH64041 Dynamical Systems or MATH66101 Numerical Linear Algebra
- Semester 2:
  - MATH65740 Transferable skills (starts in semester 1, with most of the coursework in semester 2)
  - Three optional modules: MATH64082 Advanced Uncertainty Quantification, MATH65032 Stability Theory, MATH65062 Continuum Mechanics, MATH65122 Transport Phenomena and Conservation Laws, MATH66052 Approximation Theory and Finite Element Analysis, MATH66132 Numerical Optimization and Inverse Problems or UCIL60312 Creating a Sustainable World.
- Summer: Dissertation

Credits and degree

- 15 credits for each module and 60 credits for the dissertation
- You need to pass (≥ 50 of the total marks) all 180 credit to get the Master degree. otherwise you might get a PG diploma or PG certificate
- Do check that you have the correct number of credits/modules in each semester (one optional for Semester 1 and two for Semester 2)

You can find more information from the Applied MSc programme page (accessible from "Taught master's courses" under "study" in the department webpage).

Blended Learning

All courses this semester are delivered by Blended Learning, with a mix of:

- Pre-recorded (asynchronous) videos or reading to digest in your own time.
- Review sessions.
- Problems classes/tutorials.
- You should also spend time on problems sheets in particular!

Review sessions will be recorded, but the tutorials may not.

More information are available for specific modules on Blackboard, with exams from middle January or middle May (or resit exam near the end of August).

Scientific computing is 100% coursework, with other courses having smaller coursework assignments.

More on dissertations

- There will be another information session by Denis and me (for Applied MSc only)
- You will be given a list of possible topics, and you are free to talk to potential advisors
- Then you have to fill a form with several preferences (hopefully your favorite one is allocated)
- You are expected to use different skills from different modules
- You start to work on the disseration from June (once finishing your exams), and have to submit it by early September

Seminars

Talks from external industry speakers

- Organised by Dr. Latz primarily for this MSc programme (as part of the Transferrable Skill module)
- 4-5 spread over the year
- Focused on: problems of current industrial interest, applicability of mathematics beyond academia, future careers.
- May have relevance to dissertation topics
- You are expected to attend!

Informal applied mathematics seminars:

- Organized by PhD students in the department, usually on Friday afternoons
- An excellent opportunity if you are considering for a PhD

Getting help

You can contact:

- maths.assessment@manchester.ac.uk for assessment queries: coursework deadlines, extensions, submission problems
- maths.welfare@manchester.ac.uk for welfare queries: sickness, mental health, wellbeing
- mathematics@manchester.ac.uk for other maths queries, e.g. course unit selection (or ask your academic advisor)
- Student Services via phone or email for registration, fees, student cards, letters, council tax

Alan Turing Student hub can be used for:

- General campus life enquiries, help with registration and start of year questions
- Advice and referrals specific to your subject area
- Welfare, student support and student service general queries

Academic advisor and other staff

- You can also ask your academic advisor (most likely me) first, if you are not sure whom you should contact
- Attend the advising meetings, so that your advisor knows you well to write reference letters for you (either for PhD or job)
- You are encourage to talk to the staff, to get a second reference letter (for PhD applications) or to pick your favourite dissertation topic.