MSc in Advanced Computer Science and IT Management

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Information, information, information

• You have received a lot of information today
  – And there is more to come

• This session
  – My role in your MSc
  – Programme structure
  – Mitigating circumstances
  – Select student representatives
  – What next?

• But you are studying IT management
Welcome to Manchester

- Manchester is vibrant and nice city

- **But** be careful: the rate of crime is relatively high
  - and in particular in the student areas
  - and in particular in the early days of Semester 1
  - and in particular during certain times

- Welcome week activities around the city
Your MSc programme

- MSc in Advanced Computer Science and IT Management

- Run by the School of Computer Science in collaboration with Alliance Manchester Business School (AMBS)

- But, your degree is managed/awarded by SCS
  – this is a Computer Science MSc and general SCS rules apply
  – but AMBS courses run under AMBS rules (see later)
Your Programme Director

• Dr Eva Navarro López
  – Passionate about research and science
  – With Manchester since 2008.
  – Teaching: advanced algorithms, complex networks, mathematics, creativity
  – Research: hybrid systems, cyber-physical systems, control engineering, formal methods, neuroscience, and more! (http://staff.cs.manchester.ac.uk/~navarroe/)

• Contact
  – Email: eva.navarro@manchester.ac.uk
  – Office: Kilburn 2.103
  Please, call me Eva
My role in your MSc

Ensure that your studies run as smoothly and efficiently as possible

- Help with *academic* choices and decisions
  - e.g. selection/changes of themes, modules – you will need my approval
- Help when *things are not working* out
  - Personal problems that (may) affect your studies
  - Escalated problems with any units/projects
  - Mitigating circumstances
- **General management** of the ACSwITM programme
  - e.g. ensure that all rules are followed (and explain them), check that you have enough credits to get the degree, etc.
Other people involved in your MSc

- **Course lecturers**
  - First point of contact for any issues regarding the course
  - E.g. course materials, lab/coursework extensions, explanation of lab/coursework marks

- **Your project supervisor**
  - You will spend half of your programme with your supervisor
  - They will advise and help with your project which is worth half of your degree
  - Your personal tutor from the moment the project starts
  - First point of contact for any issues with your project

- **Director of Post-Graduate Teaching** (Caroline)
  - General management of all PG teaching
  - The (almost) final instance in any issues
Other people involved in your MSc

- **Student Support Office** (SSO – based in Kilburn, LF21)
  - Provides advise and administrative support for timetables, attendance, registration, locations, timing of exams, assessment, changing units, university services, disability support
  - Submissions of course work and dissertation
  - Forms and paperwork (illness, interruption, etc)
  - First point of contact for anything else

- **AMBS Post-graduate Taught (PGT) Office**
  (in the Dover Street building, room G0.17)
  - Submissions of course work for AMBS units
  - Forms and paperwork for AMBS units
  - First point of contact for anything else related to AMBS
Other people involved in your MSc

• University support
  – e.g. Career services, Counselling, Legal team, Health, etc.

• It is always a good idea to contact **SSO** first and ask if they can help. If they cannot help, they will always know who to contact next.

• External Examiner
  – An independent expert who is external to our University and who oversees the running of the whole programme
  – Currently, Dr Yin Leng Tan (University of Reading)
Contact me for the following

- Organisation/running of the MSc programme
  - If SSO tells you to contact me (i.e. they can’t resolve it)

- Personal issues that may affect your study
  - related to your personal & family life, health, etc.
  - if you have some circumstance to be taken into consideration when marking your exams **complete a mitigating circumstances form in time**
  - All information provided for mitigating circumstances is treated in the strictest confidence.
  - Don't be late with it!

- Anything else that (may) affect your study and is not resolved by first points of contact
  - e.g. dysfunctional relation with your supervisor/course lecturer
Your MSc programme – overview

• **3 modules from Computer Science** (3 * 15 credits)
  – 2 course units in Semester 1: follow one *theme*
  – select another course unit in Semester 2

• **3 modules from AMBS** (3 * 15 credits)
  – choice from nine (subject to timetabling constraints)
  – 2 course units in Semester 1, 1 in Semester 2

• **MSc project** (90 credits)
  – half of your degree
  – dissertation due in early September (7th September 2019)
Courses

- A CS course runs in one **period** (six weeks), one day per week
  - two periods per semester (P1, P2, P3, P4)
- An AMBS course runs for the full semester, ~half day per week
- Attendance is **compulsory**
  - slide hand-outs won’t give you the same insight
  - full picture, details, important points, only in lecture
- Attendance is **monitored for full 12 months**
  - either through clickers, or signatures on roster
  - if you have to miss classes, let lecturers know
Your MSc year (in principle)

- **Semester 1**
  - Period 1: T1 CS1, AMBS C1, AMBS C2
  - Period 2: T1 CS2, AMBS C1

- **Semester 2**
  - Period 3: T3 CS1, AMBS C3
  - Period 4: Project

- **Exams**

- **Project**
Your MSc programme – semester 1

In Semester 1, choose from

- **One CS theme**, from:
  - Data on the Web
  - Security
  - Software Engineering 1
  - Data Engineering and Systems Governance
  - Learning from Data
  - Parallel Computing in the Multi-core Era

- **One AMBS theme**, from
  - IT Management 1
Your MSc programme – semester 1

Alternative:

• **Pathway**
  – Information Management
AMBS courses – semester 1

• IT Management 1 theme:
  – Strategic Project Organising (BMAN70391)
  – Simulation and Risk Analysis (BMAN73941)
  – Mathematical Programming and Optimisation (BMAN60101)

Choose two of these
(check the timetables)
Tuesday 12:30-13:00
Introduction to themes/options

- Data on the Web       Wednesday 9:00-9:30
- Data Engineering and System Governance Tuesday 10:00-10:30
- Learning from Data   Tuesday 10:30-11:00
- Security             Tuesday 12:00-12:30
- Software Engineering Wednesday 11:00-11:30
- Parallel Computing in the Multi-Core Era Wednesday 9:30-10:00

- Business courses     Tuesday 12:30-13:00
Data on the Web theme

• CS modules
  – Modelling Data on the Web
  – Querying Data on the Web

• AMBS options (Semester 1):
  – Mathematical Programming and Optimisation
  – Simulation and Risk Analysis
  – Strategic Project Organising
Data Engineering and System Gov.

- CS modules
  - Data Engineering
  - IT Governance

- AMBS options (Semester 1):
  - Mathematical Programming and Optimisation
  - Simulation and Risk Analysis
  - Strategic Project Organising
Learning from Data theme

• CS modules
  – Foundations of Machine Learning
  – Modelling and Visualisation of High-Dimensional Data

• AMBS options (Semester 1):
  – Mathematical Programming and Optimisation
  – Simulation and Risk Analysis
  – Strategic Project Organising
Security theme

• CS modules
  – Cryptography
  – Cyber Security

• AMBS options (Semester 1):
  – Mathematical Programming and Optimisation
  – Simulation and Risk Analysis
  – Strategic Project Organising
Software Engineering theme

• CS modules
  – Software Engineering Concepts in Practice
  – Agile Software Development

• AMBS options (Semester 1):
  – Mathematical Programming and Optimisation
  – Simulation and Risk Analysis
  – Strategic Project Organising
Parallel Computing theme

• CS modules
  – Parallel Programs and their Performance
  – Designing for Parallelism and Future Multi-core Computing

• AMBS options (Semester 1):
  – Mathematical Programming and Optimisation
  – Simulation and Risk Analysis
  – Strategic Project Organising
Semester 2

• Choose one CS unit
  – Automated Reasoning and Verification (COMP60332)
  – Component-based Software Development (COMP62532)
  – Mobile and Energy Efficient Systems (COMP61232)
  – Principles of Digital Biology (COMP60532)
  – Text Mining (COMP61332)
  – Computer Vision (COMP61342)
  – Introduction to Health Informatics (COMP60542)
  – Mobile Communications (COMP61242)
  – Ontology Engineering for the Semantic Web (COMP62342)
  – Pattern-based Software Development (COMP62542)
  – Efficient Computing at the IoT-Edge (COMP61242)

• Choose one AMBS unit
AMBS courses – semester 2

- IT Management 2:
  - Risk, Performance and Decision Analysis (BMAN60092)
  - Data Analytics for Business Decision Making (BMAN60422)
  - Decision Behaviour, Analysis and Support (BMAN73272)
  - Information and Knowledge Management (BMAN71652)
  - Business Feasibility Study (MCEL40042)
  - Essential Risk Management for Business (MCEL63402)

Choose one of these
Information Management pathway

"Cutting-edge computing for managing and analysing information”

• Need for effective and efficient data/information management and analysis within business, scientific, educational, entertainment and organisational contexts

• This pathway focuses on information capture and usage from “big data”

• Strongly industry motivated
  – IBM 2013 Faculty award for Big Data Engineering
Information Management pathway

- Examines the entire information management life cycle, including data strategy, management, design and warehousing, data analytics and information governance.

- This pathway was designed to address specific content and consequently does not allow much flexibility in course unit choice.
Information Management pathway – semester 1

Theme Data Engineering and Systems Governance (compulsory):
• Data Engineering (COMP60711)
• IT Governance (COMP60721)

Theme Information Management 1 (choose two units):
• Foundations of Machine Learning (COMP61011)
• Mathematical Programming and Optimisation (BMAN60101)
• Simulation and Risk Analysis (BMAN73941)
Information Management pathway – semester 2

Theme Information Management 2 (choose two units):

- Data Analytics for Business Decision Making (BMAN60422)
- Information and Knowledge Management (BMAN71652)
- Text Mining (COMP61332)

• Remark: To ensure a balance of units delivered by the AMBS and CS, either Foundations of Machine Learning (COMP61011) or Text Mining (COMP61332) must be taken, but not both.
Course syllabi

Carefully check the syllabi for all course units you consider taking

http://studentnet.cs.manchester.ac.uk/pgt/2018/
Advice on course selection

• Choose a theme and AMBS courses that make sense for what you wish to learn
  – you should be expanding your knowledge
  – choose carefully

• Think of the kind of project you may wish to undertake
  – find right courses

• Make sure the timetable works!
  – Look at the supplied documents carefully
Advice on course selection

• You have until this Friday to make choices

Changes of course units:

• For Period 1 course units:
  – changes are only allowed until end of week 1 – so next Friday 28th September for a good reason!
  – You will need my approval for that

• For Period 2: 5th October (end of week 2)

• For periods 3 and 4: 11th January 2019
Assessment
Your exams

• Exams are in January and May/June
• You will learn how long each exam is
  – typically 2-3 hours
• Most modules have a combined final mark consisting of exam and coursework
• But some modules are 100% coursework
  – Rarely 100% exam.
Your exams

• Pass mark is 50%
  –failed exams need to be re-sat (only once)
  –only some marks can be compensated (up to 30 credits, when marks are 40-49%)
  –this is strict: 49% is not 50%; 39% is not 40%
  –maximum allowable failure (at the first attempt) is 45 credits (3 courses)

• Failed MSc could lead to a PG diploma or certificate
Coursework

• Most (if not all) courses will have coursework which is marked
  – check individual course units

• Coursework submission dates and deadlines
  – please, read your handbook carefully
  – please, check with your module leaders/SSO
  – rules might be different for CS and AMBS courses
  – deadlines are strict: no late submissions
Coursework – Advanced CS modules

- Penalties for late submission are set by University:
  - Basically, **10 marks** off for every day being late, for the first five days
  - After 5 days, it is sat to 0 marks

- Applies to both taught part and project
MSc project
Your MSc project

- Half of your MSc degree
- Normally involves both some research and system development, plus dissertation
- Project selection and allocation
  - Takes place in the first semester
  - Choose from a list of many suggested projects or talk to staff about your ideas or areas of interest.
  - Consider industrial projects
    - exploit any industrial contacts you have
Your MSc project

- The project is yours: you can shape it
  - talk to your supervisor

- It should be your chance to exploit and expand your skills
  - be curious; be inquisitive
  - be imaginative
  - learn new skills, approaches
• Writing in English
Essay writing skills

- Many courses will be assessed by essay writing, including your dissertation and background report.
- Criteria include:
  - Clarity (writing skills; proof reading);
  - Organisation, flow, structure
  - Originality, insight – putting some of yourself into the work
  - Plagiarism will be detected and is punishable…
  - Useful Web site: http://www.humanities.manchester.ac.uk
  - See the “Scientific writing” section in the handbook
- Practice speaking English
- English language classes – check the timetable
• Malpractice
Academic malpractice

• The School and University are very serious about
  – plagiarism
  – collusion
  – fabrication or falsification of results

• Complete 'Plagiarism and malpractice course'

• Ignorance is no excuse!
  – it may cost you your MSc, so be careful
• Help, support and issues
If there is a problem or you need help

- Finding your way in a new city/country/Uni/continent can be stressful & difficult
  - you might need help to find your way around
  - you are not alone!
- You’ll probably have to work hard -- but that should be an enjoyable experience
- Here to help:
  - Programme Director
  - Student support office (SSO)
  - Lecturers
  - Counselling service
  - Student union
  - [http://www.sos.eps.manchester.ac.uk/](http://www.sos.eps.manchester.ac.uk/)
Mitigating circumstances

• What is it?
  – A means of informing our examination system of some problem/s you have that may need to be taken into account when considering your assessment.

• When do you use it?
  – If you have a problem that is affecting your work.
  – If you have a problem that may affect your work.

• What should you do?
  – Tell your Programme Director
  – Get a Mitigating Circumstances Form from SSO or online
  – Provide as much evidence as possible with the form
  – Get your Programme Director to sign it.

• Strictly confidential
Requesting extensions

- “I need more time” is not a relevant request
  – wouldn’t be fair to other students
- Health/personal issues
  – failing IT equipment is usually not acceptable either
- For individual course units
  – Speak to the lecturer or SSO first
  – **Speak to AMBS PGT office and lecturers (for AMBS modules)**

- For MSc project, speak to Project Coordinator
  – Before the deadline – no requests will be granted after it’s passed (unless special mitigating circumstances)
  – Extensions are only granted as a result of mitigating circumstances
Please talk to me

• As soon as you experience something that might seriously affect your studies, please, let me know
  – Personal problems
  – Health issues, including depression, stress, illness
  – Family issues
  – Financial problems
  – Inter-personal problems (e.g. with your supervisor, lecturer, etc.)

• You’d need to tell me about problems BEFORE it is late
  – e.g. BEFORE the deadline or exam.
Attendance

• This is a **12-month** programme
  – So, until next September

• You are expected to be here during this time
  – Check your visa conditions!
  – There are breaks for Christmas and Easter, but otherwise you are expected to be working on your studies
Student representation & feedback

• Is taken seriously and we value it

• Staff-Student Consultative Committee
  – Two representatives from the ACS & ITM programme for student representation
  – formal mechanism for complaint, feedback, query, and so on
  – meets three times per year

• Your representatives?
Check online documents

http://studentnet.cs.manchester.ac.uk/pgt/

- MSc Handbook
  - general information about your MSc, School
  - project, course units, rules, regulations, responsible people
  - health and safety
  - should and must be read!

- Supervision standards and expectations
Check online documents

http://studentnet.cs.manchester.ac.uk/pgt/

- Study and curriculum
  - themes, MSc handbook, syllabi, timetable

- Student services
  - School Student Support Office (sso@cs.man.ac.uk), reporting absence, mitigating circumstances form, help etc.

- Technical support
  - IT support: http://www.itservices.manchester.ac.uk/contacts
  - environment: environ@cs.man.ac.uk

- Resources
  - software, e-learning, exam techniques, ...

- ...


What's next?

- Talks about
  - the six CS pathways on Tuesday and Wednesday
  - AMBS courses Tuesday afternoon 12:30 pm
  - See also talks on Semester 2 units!
- Introductory lab sessions (Tuesday afternoon)
  - make sure that everything works (emails, accounts, etc)
- Online resources, plagiarism (Thursday morning)
- English language issues and testing (Thursday afternoon)
What's next?

- Finalise your course selection by 10:00am on Friday 21st September

- This week is your ‘warming up’ period – next week, we start with full speed
Changing programmes

• If you want to move to MSc in Advanced Computer Science
  – You need to talk to Sandra Sampaio

• If you want to move to MSc ACSwITM
  – Need to talk to me
  – Possible BUT ACSwITM is not a programme with no programming: you will still need to know/learn that!
Contact with me

By email. Please, do not expect an immediate reply

- If your query cannot be solved by email, send me an email to schedule a meeting, and I will tell you when I am available. Please, do not expect a meeting for the same day.

- Please, remember that your first point of contact is the SSO.

- When your project is assigned, your personal tutor will be your supervisor.
Contact

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