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, Maths
  – 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** (Norman)
  - 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 Valentina Tamma (University of Liverpool)
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 eleven (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 2018)
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
- Period 2: T1 CS2, AMBS C2

**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:
  – IS Strategy and Enterprise Systems (BMAN60111)
    • In the printed MSc Handbook, it appears in Semester 2
  – Managing projects (BMAN70391)
  – Social Media and Web Analytics (BMAN71641)
  – Decision Behaviour, Analysis and Support (BMAN73271)
  – Mathematical Programming and Optimisation (BMAN60101)

Choose two of these
(check the timetables)
Tuesday 12:00-13:00
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            Wednesday 11:00-11:30
- Software Engineering Wednesday 11:30-12:00
- Parallel Computing in the Multi-Core Era Wednesday 9:30-10:00
- Business courses   Tuesday 12:00-13:00
Data on the Web theme

- CS modules
  - Modelling Data on the Web
  - Querying Data on the Web

- AMBS options (Semester 1):
  - Social Media and Web Analytics
  - Mathematical Programming and Optimisation
  - Decision Behaviour, Analysis and Support
Data Engineering and System Gov.

- CS modules
  - Data Engineering
  - IT Governance

- AMBS options (Semester 1):
  - Managing Projects
  - IS Strategy and Enterprise Systems
  - Decision Behaviour, Analysis and Support
Learning from data theme

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

- AMBS options (Semester 1):
  - Managing Projects
  - IS Strategy and Enterprise Systems
  - Social Media and Web Analytics
  - Mathematical Programming and Optimisation
Security theme

- CS modules
  - Cryptography
  - Cyber Security

- AMBS options (Semester 1):
  - Managing Projects
  - IS Strategy and Enterprise Systems
  - Decision Behaviour, Analysis and Support
Software Engineering theme

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

• AMBS options (Semester 1):
  – Managing Projects
  – IS Strategy and Enterprise Systems
  – Decision Behaviour, Analysis and Support
  – Social Media and Web Analytics
  – Mathematical Programming and Optimisation
Parallel Computing theme

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

- AMBS options (Semester 1):
  - Managing Projects
  - IS Strategy and Enterprise Systems
  - Decision Behaviour, Analysis and Support
  - Social Media and Web Analytics
  - Mathematical Programming and Optimisation
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)

• Choose one AMBS unit
AMBS courses – semester 2

- IT Management 2 theme:
  - Information and Knowledge Management (BMAN71652)
    - In the printed MSc Handbook, it appears in Semester 1
  - Risk, Performance and Decision Analysis (BMAN)
  - Simulation and Risk Analysis (BMAN)
  - Data Analytics for Business Decision Making (BMAN)
  - Business Feasibility Study (MCEL)
  - Essential Risk Management for Business (MCEL)

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

Mandatory units:

- Data Engineering (COMP60711)
- Foundations of Machine Learning (COMP61011)
- IT Governance (COMP60721)
- IS Strategy and Enterprise Systems (BMAN60111)
- Information and Knowledge Management (BMAN71652)
Information management pathway

Optional unit:

• Choose one from the following:
  – Data Analytics for Business Decision Making (BMAN60422)
  – Text Mining (COMP61332)
  – Simulation and Risk Analysis (BMAN70142)
Information Management pathway

Note:
there are more efforts in Period 1 than in other themes
Course syllabi

Carefully check the syllabi for all course units you consider taking

http://studentnet.cs.manchester.ac.uk/pgt/
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 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 29th September for a good reason!
  – You will need my approval for that

• For Period 2: 6th October (end of week 2)

• For periods 3 and 4: 12th January 2018
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 course-work which is marked
  – check individual course units

• Course-work 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)*
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 five CS pathways on Tuesday and Wednesday
  - AMBS courses Tuesday afternoon 12:00 noon
  - See also talks on Semester 2 units!
- Introductory lab sessions (Tuesday)
  - make sure that everything works (emails, accounts, etc)
- Online resources, plagiarism (Thursday)
- English language issues and testing (Thursday)
- Manchester United tour (Friday, ~13:00)
What's next?

• Finalise your course selection by 10:00am on Friday 22\textsuperscript{nd} 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

Please, send me an email – this is the best way to contact me quickly

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