

Computer Science MSc and Data Analytics MSc

Prof Victor Sanchez

- Director of Postgraduate Teaching
- **Department of Computer Science**
- University of Warwick
- 2024-2025 academic year

Purpose of this session

Brief introduction to:



- 1. The Department
- 2. Course structure & modules
- 3. Department access and systems
- 4. Extra support and other activities

Additional relevant material on the induction website:

https://warwick.ac.uk/fac/sci/dcs/admissions/newstudents/msc_studies/

The Department of Computer Science



- The Department of Computer Science is now in its 5th decade
- There is a wide range of research interests in the department:
 - Algorithm Design and Analysis
 - Distributed Computing
 - Multimedia Processing and Computer Vision
 - Computational Neuroscience
 - Health Informatics
- Two MSc programmes:
 - MSc Computer Science
 - MSc Data Analytics

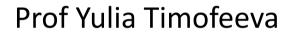
The Department of Computer Science

- > 80 Academics
- > 22 Technical and Admin Staff
- >120 Research associates and PhD students

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- >850 undergraduates
- >80 MSc students in each academic year

Head of Department







Director of PGT

Prof Victor Sanchez

Responsible for the MSc programmes





Deputy Director of PGT

Dr Paolo Turrini

Co-responsible for the MSc programmes





MSc Administrator and Student Engagement and Experience Coordinator





Emma Woollacott

Administration of academic matters and queries on university processes

DCS.PGT.Support@warwick.ac.uk



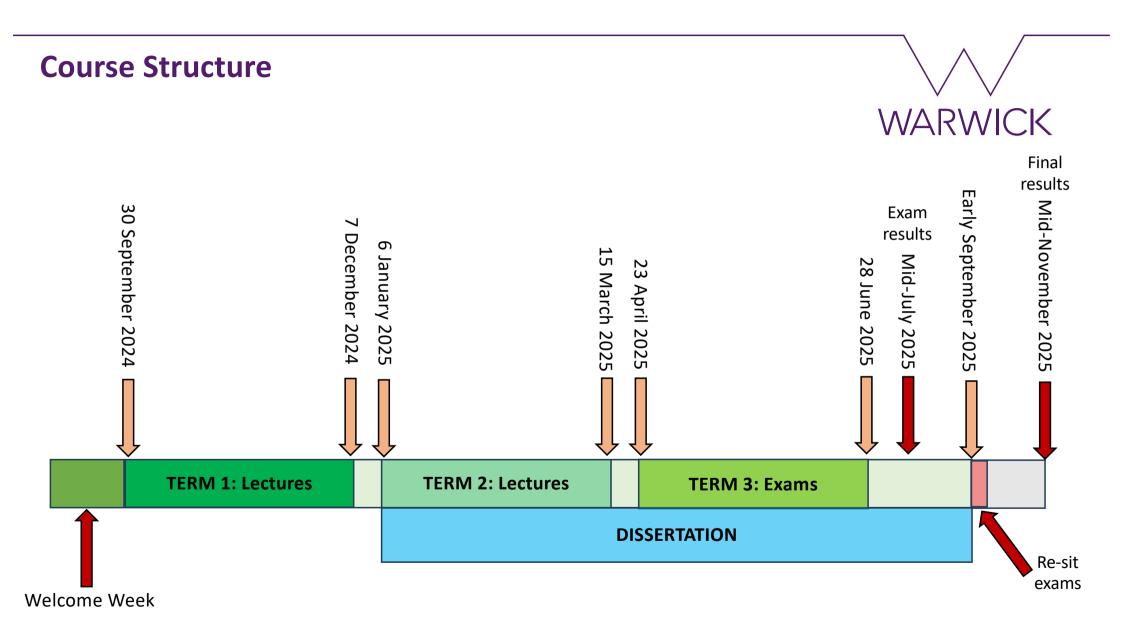
Lea Barton

Organization of several events to complement your academic experience



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Course Structure



Course Structure



The period of study is 12 months (October to September):

- Term 1: October December
- Term 2: January March
- Term 3: April June

- Taught component: Terms 1 & 2, with exams in Term 3
- Dissertation Project: January September
 - non-term based \rightarrow runs from January throughout September

When do I start?

- The academic year (Term1) starts on Monday, September 30th, 2024
- Induction activities on campus scheduled for *Welcome Week*
 - ✓ Q&A sessions
 - ✓ Linux tutorial
 - ✓ Careers
 - ✓ Social events

Departmental Activity	Date	Time	Place
Welcome Talk	Monday, September 23rd, 2024	9:30 am- 10:30 am	Room CS1.04
DCS Social/Computer Society Social	Monday, September 23rd, 2024	11:00 am - 1:30 pm	DCS ground floor
Q&A Brunch SSLC	Wednesday, September 25th, 2024	11:00 am- 12:30 pm	Room CS1.04
Academic Support/Library/Skills /Careers Talk	Thursday, September 26th, 2024	11:00 am- 12:00 pm	Room CS1.04
Linux lab	Thursday, September 26th, 2024	1:30 pm - 3:00 pm	Room CS0.06
Quiz	Thursday, September 26th, 2024	3:00 pm - 6:00 pm	Room CS1.04

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Personal Tutor

- Every student is assigned a personal tutor
- First point of contact in the department
- Regular group or 1:1 meetings
- Can advise on academic questions and wellbeing services





CS: Core Modules



Code	Name	Term	CATS Credits
CS908	Research Methods	1	15
CS907	Dissertation Project (MSc Computer Science)	2, 3 & Summer	60
CS917	Foundations of Computing	1	15

CS: Optional Modules

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Code	Name	Term	CATS Credits
CS922	High Performance Computing	2	15
CS924	Agent Based Systems	2	15
CS929	Algorithmic Game Theory	1	15
CS932	Formal Systems Development	1	15
CS933	Image and Video Analysis	1	15
CS939	Quantum Computing	2	15
CS904	Computational Biology	2	15
CS909	Data Mining	2	15
CS910	Foundations of Data Analytics	1	15
CS912	Sensor Networks and Mobile Data Communications	1	15
CS915	Advanced Computer Security	1	15
CS918	Natural Language Processing	2	15

DA: Core Modules



Code	Name	Term	CATS Credits
CS908	Research Methods	1	15
CS909	Data Mining	2	15
CS910	Foundations of Data Analytics	1	15
CS913	Dissertation Project (MSc Data Analytics)	2, 3 & Summer	60
CS917	Foundations of Computing	1	15

DA: Optional Modules

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Code	Name	Term	CATS Credits
CS922	High Performance Computing	2	15
CS924	Agent Based Systems	2	15
CS929	Algorithmic Game Theory	1	15
CS933	Image and Video Analysis	1	15
CS912	Sensor Networks and Mobile Data Communications	1	15
CS915	Advanced Computer Security	1	15
CS918	Natural Language Processing	2	15
ES4C4	Optical Communication Systems	2, 3	15
ES96T	Advanced Wireless Systems and Networks	2	15
ES4E7	Information Theory and Coding	1, 3	15
IM919	Urban Data - Theory and Methodology	1, 2	15
IM942	Visualisation Foundations	1	15

General Information on Modules



- Modules have lectures and labs/seminars
 - details may be found on the module webpage
- Expect up to three lectures per week plus one lab/seminar per week
- Labs/seminars are important to the understanding of the concepts covered in class
 - attendance to labs/seminars is recorded
- Modules may have coursework/assignments with deadlines in Term 1, 2, or 3

Optional Modules

- You must take 180 CATS (credits) in total:
 - A module is usually worth 15 CATS, dissertation is worth 60 CATS
 - no overloading, no underloading, auditing modules is possible
 - CS: Core modules = 90 CATS \rightarrow enrol in 6 optional modules of 15 CATS each
 - DA: Core modules = 120 CATS \rightarrow enrol in 4 optional modules of 15 CATS each
- Look at the module details and select according to your previous experience, current interests, and future plans
- Consult with your personal tutor, if needed
- Some modules have pre-requisites listed on their webpages:
 - **do not apply to MSc students** → use them as a guide
 - you may have to do additional reading or self-studying



Non-CS Optional Modules



For **Data Analytics** students:

- modules offered by the School of Engineering (ESxxx)
- modules offered by the Centre for Interdisciplinary Methodologies (IMxxx)

The Centre for Interdisciplinary Methodologies (CIM) has different rules and regulations regarding module registration – **limited spaces**

1.	IM942	Visualisation Foundations	15 CATS
2.	IM919	Data Infrastructures	15 CATS

Registration to IMxxx Optional Modules offered by CIM



There is a sign-up form on the induction website:

- You may sing up starting Wednesday, September 25th, 2024, at 9 am (any submissions made before this date will not be considered)
- Deadline: Friday, September 29th at 12noon

Do not register for IMxxx modules via eMR until your place is confirmed by us

CS907/913 – Dissertation Project (core)

A dissertation project of **60 CATS** is undertaken individually on a relevant topic:

- flexibility in choosing a topic
- plan ahead → think about potential topics early and discuss them with potential supervisors
- work on this is from January to September
- you will give a presentation, deliver an interim report, and write your dissertation



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Module leader: Prof Christian Ikenmeyer

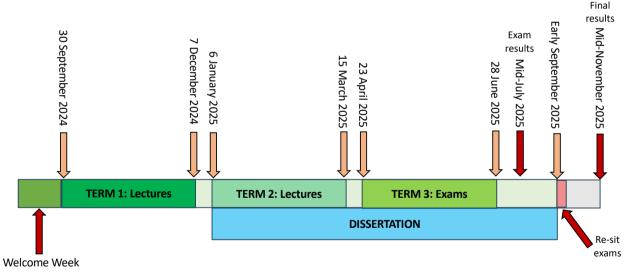
Module Registration – optional modules



- Module registration via eVision (eMR):
 - opens on September 25th, 2024
 - closes for students on October 14th, 2024
- eMR accessible for the few first weeks of Term 2 to finalise/revise module choices
- You may register for more modules than you need and then revise your registrations in Term 2
- Students may not de-register from any module after 10% or more of the assessment for that module has been submitted or undertaken

Module Registration Advice

- Think carefully about how to balance your time between the two terms
- The dissertation usually takes up most of the time starting Term 2



Suggestion: 4 modules per term → this will help you to manage your workload

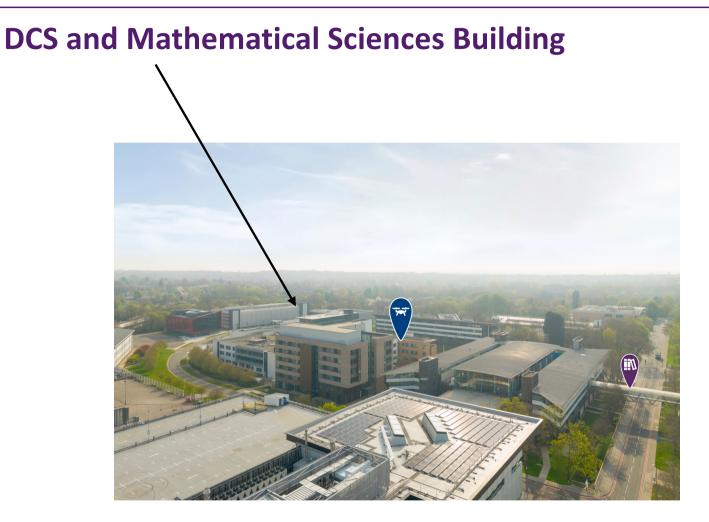


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Department Access and Systems



https://warwick.ac.uk/study/undergraduate/virtualtour/





https://warwick.ac.uk/study/undergraduate/virtualtour/

Department Access and Systems



- Your university card gives access to these buildings
- It commonly provides 24-hour access to the buildings
- The Department and the University IT Services have separate systems:
 - same user code and email address, but they have separate file-systems

MSc space

- We have MSc spaces in the Mathematical Sciences building (MSB)
- This is on the 3rd floor MB3.18
- Please follow any guidelines posted in these area related to opening times



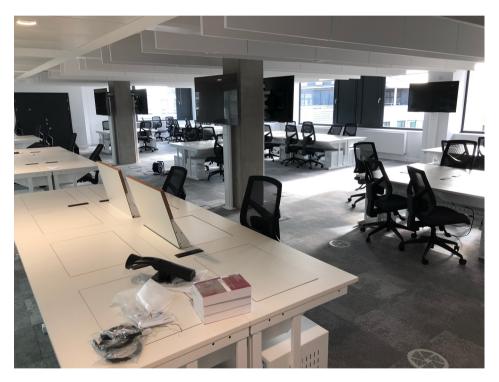


MSc space



• We also have a large MSc lab in MB3.17

• Please follow any guidelines posted in these area related to opening times



University Systems: Tabula



Tabula (tabula.warwick.ac.uk) is the main student system.

You will be using it for:

- recording personal tutor meetings.
- submitting assignments.
- recording meetings with your dissertation supervisor.
- your timetable.
- results of final exams
- results for your course

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	× 40	1 09:00 CS GENERAL Computer Science Meeting (CS 10.1) 09:00 CS GENERAL Computer Science Meeting (CS 10.4) 11:00 CS GENERAL Computer Science Meeting (CS 0.0) 11:00 CS GENERAL Computer Science Meeting (CS 0.06)		6	7 09:00 CS345 Sensor Networks and Mobile Data Communications Lecture 10:00 CS342 Machine Learning Lecture	8		10	
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University Systems: Tabula



- The timetable on Tabula only contains your core modules right now!
- When you have registered for your optional modules they will appear in your timetable

University Systems: Handbook



The policies and procedures that apply to you while studying can be found in the *Student Handbook*

The *Student Handbook* covers:

- ✓ Course regulations
- ✓ Requirements to get the MSc degree
- ✓ Guidance on Academic Support
- ✓ Mitigating circumstances
- \checkmark Health and safety

University Systems: Handbook

Department of Computer Science

Study with us - | Teaching - | Research - | People - | News | Events - | Outreach - | Welfare - | Vacancies | Intranet

Student Handbook 24/25

Student Handbook 2024 / 2025

All students in the Department are required to have read and understood the Student Handbook each year.

The Department of Computer Science is committed to being as accessible as possible to all people, regardless of individual needs or technology considerations. If you would like a copy of this document in an alternative format, for example in hard copy, large print or a different font, or on a coloured background, please email dcs.ug.support@warwick.ac.uk (UG students) or dcs.pgt.support@warwick.ac.uk (PGT students), or speak to the Student Support Office on the ground floor of the Computer Science building.

Action Required

Complete and submit through Tabula:

- Student Handbook Declaration Form to confirm that you have read and understood the contents.

- Health and Safety in the Lab Form to confirm that you have read and understood the requirements

This is the handbook for the coming academic year - if you require last year's handbook, an archived copy of the

Student Handbook 2023-24 is available.

Handbooks for recent years: <u>2022-23</u>, <u>2021-22</u>, <u>2020-21</u>, <u>2019-20</u>, <u>2018-19</u>.

This version of the handbook is currently locked. The only changes permitted will be those that are essential. All changes must be clearly tracked. In order to ensure this protocol is followed, all changes must be actioned by Lea Barton.

Handbook Index

Front page Introduction First Year Students **Emergency Information Staff Responsibilities** Undergraduate Degrees **MSc Degrees Course Specifications Course Structure** Coursework Attendance Assessment Exam Boards **Examination Advice** Mitigating Circumstances Academic Support and Pastoral Issues Administrative Matters Visas **Other Support Services Computing Facilities** Health and Safety Addendum

Search handbook

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Please sign:

- Student Handbook Declaration Form to confirm that you have read and understood the contents
- Health and Safety in the Lab Form to confirm that you have read and understood the requirements.

Forms to be submitted on Tabula

University Systems: Email



- All correspondence will be sent to your Warwick email address
- Please ensure that you check it **at least once a day**

Online interaction: Microsoft Teams



Although all activities are face-to-face, MS Teams allows to collaborate remotely.



Use your Warwick account to log-in: <u>username@live.warwick.ac.uk</u> (e.g., u1234567@live.warwick.ac.uk)





Requirements to get the MSc degree

MSc degrees

Student handbook

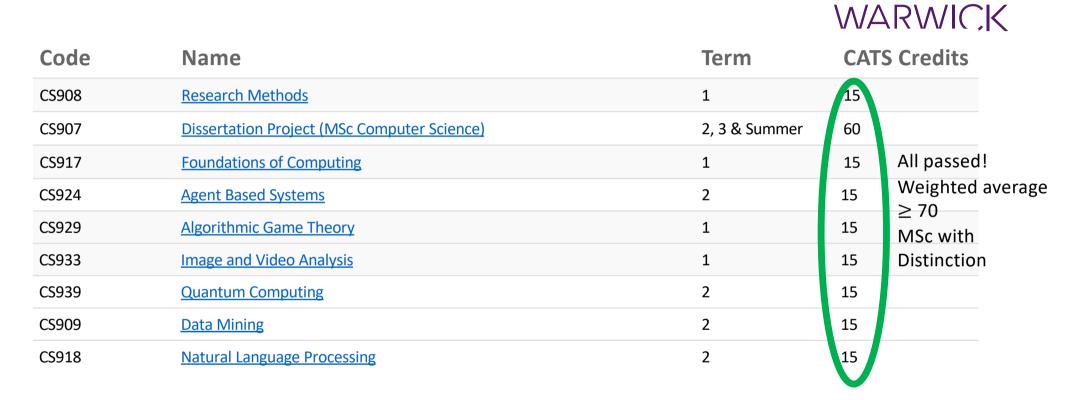
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Exam Boards \rightarrow MSc Exam Board Guidelines and MSc Degree Classification

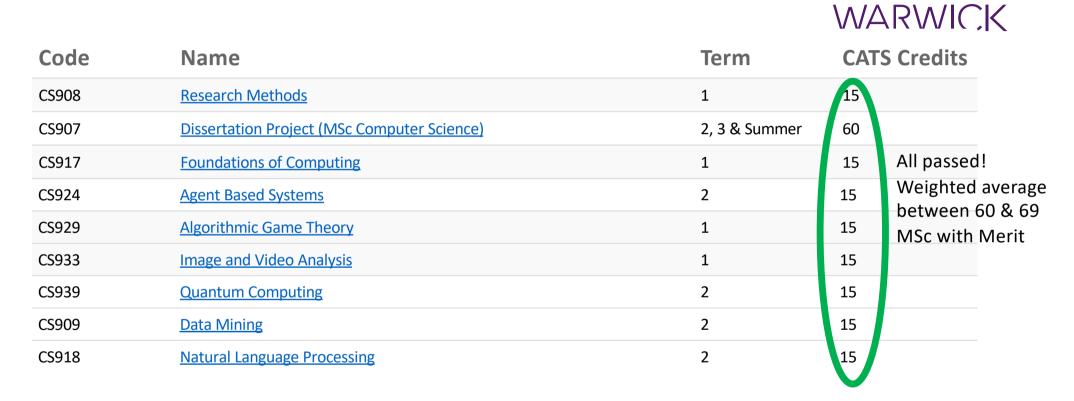
- ✓ Pass mark for MSc students is 50% final mark combines final exam plus any coursework
- ✓ MSc with Distinction \rightarrow exceptional performance, overall mark of at least 70/100
- ✓ MSc with Merit \rightarrow excellent performance, overall mark of 60/100 to 69/100.

✓MSc \rightarrow 150 credits, all core modules passed

- this means that there could be some failed optional modules
 - any failed module can be re-sat in early September final mark will be based only on the re-sit exam and capped at 50/100
- if after re-siting exams, there are still failed optional modules, these should have a mark no less that 40/100 to be eligible for the MSc degree + 150 credits (all core modules passed)



TOTAL CATS: 180



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Code	Name	Term	CATS Credits
CS908	Research Methods	1	15
CS907	Dissertation Project (MSc Computer Science)	2, 3 & Summer	60
CS917	Foundations of Computing	1	15 All passed!
CS924	Agent Based Systems	2	15 Weighted average < 69
CS929	Algorithmic Game Theory	1	¹⁵ MSc
CS933	Image and Video Analysis	1	15
CS939	Quantum Computing	2	15
CS909	Data Mining	2	15
CS918	Natural Language Processing	2	15

TOTAL CATS: 180

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Code	Name	Term	CATS Credits
CS908	Research Methods	1	¹⁵ Core modules
CS907	Dissertation Project (MSc Computer Science)	2, 3 & Summer	60 passed
CS917	Foundations of Computing	1	15
CS924	Agent Based Systems	2	¹⁵ 4 optional
CS929	Algorithmic Game Theory	1	15 modules passed
CS933	Image and Video Analysis	1	15
CS939	Quantum Computing	2	15
CS909	Data Mining	2	15 Two optional
CS918	Natural Language Processing	2	15 modules failed ≥ 40 (after re-sits)
		TOTAL CATS	5: 180 MG

MSc



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Extra support

Senior Tutors



Prof Mike Joy



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Dr Rossella Suma

- The senior tutors:
 - oversee the personal tutor system
 - deal with issues escalated by your personal tutor
 - can provide additional support if your personal tutor is unavailable
 - can also liaise with the University Senior Tutor's office, if necessary

SSLC

- The Student-Staff Liaison Committee (SSLC) is the official forum for discussion between students and staff in the Department:
 - consists of student representatives and staff representatives
 - meets at least once a term → suggestions for improvement and discussion of any issues
 - we need 3 volunteers from each course to act as SSLC representatives → gain leadership and management experience and help us shape the MSc programme!



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Dr Amina Asif Deputy Director of Student Experience SSLC convenor

Other support

- We have an on-campus health centre to help with any medical issues
- Mental health is taken seriously, and support services are also available
- When you start looking for jobs, we have an entire careers department and our own careers liaison, who provided support tailored to Computer Science



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Students Union and other activities

Life is not all work! There is a wide range of sport clubs and societies that you may choose to get involved with!

see *warwicksu.com* for more details

The Department of CS also organises a wide range of activities throughout the academic year:

- Coffee catch-ups
- Pub quiz
- Board games
- Sports events
- Guest lectures from industry





Coffee catch-ups

- Informal events to chat about the course
- Great opportunity to meet classmates
- Stop by and grab a coffee!
- Every other Thursday, starting October 3rd
 - 2:00 2:30 pm
 - Room MB3.18







Finally



We hope that you have a successful and enjoyable year!

If you have any questions over the coming weeks then please do not hesitate to contact me, your personal tutor or Emma Woollacott at:

DCS.PGT.Support@warwick.ac.uk

We know it can be hard to settle in somewhere new, so please don't be shy about asking for help