

MSc Dissertation Project

What is the dissertation?

Why do we have a dissertation project?

How are projects allocated?

When does everything happen?

What is the dissertation project?

- A substantial and extended piece of **individual** project work
- Could be theoretical, or design-and-build
- Evidence that you can plan and manage your own work

Why do we have a dissertation project?

- Opportunity to pursue specialised interest
 - Projects can be proposed by staff and students
- Builds on taught modules
- Provides evidence that you can plan and manage your own work
- Essential in programme accreditation

What makes a good dissertation?

- Careful analysis
 - What has already been done?
 - What are the requirements?
- High quality implementation
 - Good experimental design
 - Evaluation of evidence
 - Evidence of original thought
- A well-written report
 - Communicates aims, results, and further work
 - Places project within wider context

Project modules

- SSIT / Data Comms:
 - COM6910 Dissertation Project
- Data Analytics:
 - COM6912 Individual Data Analytics Dissertation Project
- Cybersecurity and Artificial Intelligence:
 - COM6013 Cybersecurity and AI Dissertation Project
- ACS / ASE / CSSLP:
 - COM6905 Research Methods and Professional Issues
 - COM6906 Dissertation Project

(note: COM6905 is the 2nd semester module)

Some constraints ...

- Cybersecurity and Artificial Intelligence:
 - must select a project involving both cybersecurity and AI themes
- Data Analytics:
 - should have a theme that involves data analysis, such as a topic based on machine learning (ML), or where ML is applied to some task, eg. a natural language processing task
- SSIT / Data Comms / ACS / ASE / CSSLP:
 - consider whether your choice is broadly suitable for your programme

Project supervision

- Projects will have an academic as supervisor
 - Each academic may supervise multiple projects, but there is a predefined upper limit
- You rank projects by your interests, while academics may rank students by suitability to their projects
- Matchmaking algorithm to pair up students and projects
- Your final dissertation, and presentation, will be marked by your supervisor and an independent second marker

Staff proposed projects

- Some are generally available, some are restricted by programme or skill set
 - You will only see projects available to your programme
 - You should check the required skills and ensure you have them
 - If a skill is *recommended* you don't have to have it, but be prepared to do some extra work if you don't have it. (You will be expected to develop that skill.)
- Popular topics will have a lot of interested students
 - If you are interested in a particular topic, let the supervisor know! After the student ranking period, they will rank their preferences for students. If you *really* want to do a particular project, you want that supervisor to rank you first.
- If you see a topic that is interesting but you want to do something slightly different, contact the supervisor – they are usually flexible
- Some topics can be undertaken by more than one student
 - But they have to work on different aspects of the topic – every project must demonstrate individual work

Who is this person??

- You've only had classes with a small subset of the staff in the department
 - Maybe you'd particularly like to work with someone
 - Many staff in the department in various fields of research
 - Some new staff arriving in January/February 2020
- Bear in mind that there are many other staff whom you have never met
 - Don't ignore the opportunities to learn new things
- Equally, many staff won't know who *you* are
 - **It is a good idea** to discuss their project with them so that they *do* know have an idea who you are
 - Contact them by email to start communication
 - You may even meet them in person if they are available

Student proposed projects

- You are free to propose your own project
- But you can do your own project only if a staff member is willing to supervise it
 - Make a staff member **want** to supervise your project!
- A good project idea has a clear aim, is relevant to the course, and is feasible within the timescale
 - You have access to create your own proposal. **Only one.**
 - Staff will read the proposals, and may have questions for you – **check your email!**

Selecting your project

- We have a new system! 😊
 - <https://comapps.shef.ac.uk/projects/> – use your CiCS username / password
- New features are still being added – but core functionality is in place
 - You can browse projects
 - You can search projects (based on free text strings and/or predefined tags)
 - You can “favourite” projects
 - You can rank your project preferences (from your set of favourites)
 - You can add a self-proposed project

Project allocation timetable

from Thursday 14th November

- You can browse projects
- You can search for projects
- You can contact staff members with questions about particular projects
- You can favourite projects and rank your favourites
- You can think about self-proposed projects and enter **one** into the system

Project allocation timetable

by Monday 2nd December

- You must have ranked your preferences
- The more preferences you include, the better chance you have of getting one of them
- Even if you self-propose a project, you should rank your preferences for some staff-proposed projects (there is no guarantee that a staff member will be willing to supervise your own project)
- If you self-propose a project, and you have particular staff in mind to supervise that project, it is a good idea to contact them to discuss the project (better chance than that they will be willing to supervise)

Project allocation timetable

from Monday 2nd December

- You can no longer make changes
- Staff will see all students who have expressed interest in each of their projects (but not their level of interest)
- For each staff-proposed project, staff have the opportunity to rank the students who have expressed interest
(note) "expressed interest" == favoured project, even if you didn't rank it
- Staff can express interest in student-proposed projects

Project allocation timetable

from Monday 9th December

- System is frozen from both the students and the staff sides
 - Project matching starts:
 - If you rank a project #1 and staff ranks you #1 for that project, you will be assigned to that project
 - There is then a trickle-down process, until all projects and students are paired
- E.g.
- Student A ranked project X #1, project Y #2
 - Student B ranked project Y #1, project X #2
 - Staff members for X and Y *both* rank Student A #1, Student B #2
 - Student A will get project X, Student B will get project Y
- If you don't rank enough projects, there is a risk you will be assigned randomly (impossible to say precisely what "enough" is)

Project allocation timetable

in mid December

- Hopefully we will complete the project allocation process and we will notify you of your project and supervisor match.
- if you land on one of projects you ranked as favourite: contact the supervisor to find meeting time and project schedule
- If you end with randomly assigned project: contact the assigned supervisor immediately to discuss the topic, then either
 - You agree with one of projects suggested by the supervisor, or
 - You propose your own idea that is agreed by the supervisor

Project starts ...

- Dissertation project modules are 60 credits – to be completed during the summer months 2020
- 60 credits means 600 hours of work – you must plan well

So ...

- Contact your supervisor to discuss how/what/when/where to start
- Meet with your supervisor regularly (e.g. weekly, biweekly ...)
- Be prepared to report on your progress against agreed objectives
- Your supervisor's responsibility is to guide you, *not* to tell you what to do – project is **your** independent work!

Project schedule

- Project background report: Wednesday 20th May 2020 at 15:00
 - For COM6905 (ACS / ASE / CSSLP) only
 - No background report for other students
- Project presentation: Wednesday 9th September 2020
- Final dissertation: Wednesday 16th September 2020

More info ...

- Student handbook:
<https://sites.google.com/sheffield.ac.uk/compgtstudenthandbook/menu/msc-dissertation-project>
(Blackboard – COM PGT Student Hub - Computer Science Taught Postgraduate Student Handbook – Menu – MSc Dissertation Project)
- Project webpage:
<http://www.dcs.shef.ac.uk/intranet/teaching/public/projects/index-pgt.html>