MSc Project Summary Notes

Outline

- Why do you need to do a project
- How to do your project
- How not to do your project
- Extensions
- What happens if you fail

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Sources

The University of Southampton Quality Handbook describes the Masters degrees we offer

- http://www.soton.ac.uk/quality/approval/masters_degree.html (old link)
- https://sharepoint.soton.ac.uk/sites/ese/quality_handbook/default.aspx (current link)

Our standards are, we believe, compatible with those of the English, UK and European Qualifications Frameworks

- http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/The-framework-for-higher-education-qualifications-in-England-Wales-and-Northern-Ireland.aspx

Bologna Process

Nearly 50 countries have now signed the Bologna Treaty which aims to create a European Higher Education Area (EHEA)

- common standards promote mobility, increase employability, and improve the quality of life

The EHEA has three cycles of higher education:

- in the UK these lead to Bachelors, Masters and Doctoral degrees
- the “Dublin descriptors” provide standard descriptions of the learning outcomes of each cycle
- part of the EHEA qualifications framework

Masters Degree Outcomes

These standards all define the abilities of Masters students in similar ways
The University of Southampton and NQF expect:

- systematic/comprehensive understanding
- at the forefront of the discipline/profession
- **originality in the application of knowledge**
- **the ability to learn independently and**
- **continue developing knowledge/skills**
- **understanding/evaluation of research methodologies and techniques**
- **critique/evaluation of current research**
- **where appropriate, propose new hypotheses**

Generically:

- **judgement/decision-making/responsibility**
- **deal systematically/creatively with complex and unpredictable situations/incomplete data**
- **self-direction/originality in solving problems**
- **communication to specialists/non-specialists**

Masters Projects and Reports

All your reports should, where possible:

- show advanced knowledge/understanding
- apply this knowledge with confidence to solve problems, preferably in a creative/original way
- cite relevant research/standards/white papers
- critically evaluate the literature/state of the art
- reflect on your own achievements

Differences from Undergraduate Projects

Masters project reports and dissertations should contain an extended survey of relevant literature.

Show innovation/creativity in the application of your knowledge to solve the problems that arise.

Emphasise your use of advanced/state of the art tools/technologies/techniques

- avoid or summarise standard material/techniques

Include critical, comparative & self-evaluation relative to the literature/state of the art/your goals

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Role of Supervisor

Supervision:

- Your supervisor will help you find a topic for your project and provide guidance throughout the process
- Primarily your supervisor who you should meet on a regular basis

  Find out your when your supervisor is on holidays or conferences!

Meeting with your supervisor regularly

Your Activities

9 – 5pm weekdays, it is full time!

Planning & Time Management

- Budget your time and manage it well

Research

- You must be able to discuss the problem, possible solutions and the one you chose as an engineer/scientist (qualitatively and quantitively)
- On a "design and build" you are expected to find the best existing solutions/techniques and use them

Practical

- From the research you will have done questions will arise which you need to plan and carry out experiments to answer
- Prototypes may have to be constructed

Good Strategies If you Hit a Problem

Before you talk to your supervisor:

- Take some time to try and figure it out. Internet first, manuals and books later. Document what you tried. This is worth marks!

Move on to something else:

- Supervisors are often busy and can't answer immediately
- Writing up things for the dissertation is always worthwhile
- Come back later and fix it!

Asking a Question

Anatomy of a "Good Question":

1. Clear and short statement of problem
2. List of attempted solutions and research

Before you talk to your supervisor:

- Write a list of questions in the form above

When talking with your supervisor:

- Try to use the time wisely

Use your Logbook!

Document everything

- success, failure, possible solutions, sources of information, future work, interesting ideas…..

Use only 1 logbook and stick to it

- Loose paper gets lost, disordered and is worthless – glue it in your logbook

Date everything

- You will need to know for the writeup and for clarity in case of mixups

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Plagiarism

The Power of the Web

With the rise of the internet, the World Wide Web, and search engines such as Google, anyone with access to a computer has an unprecedented amount of information available to them “at their fingertips”.

This is good news to you when researching your essays, reports, and projects.

But with power comes responsibility.

And the increased need for academic integrity

What is Plagiarism?

Plagiarism is using someone else’s work…

…without indicating that it is not your own

…without crediting the original author

In some countries/cultures students may expect to copy

Teachers may want students to repeat exactly what is in text books or lecture notes.

At the University of Southampton, however, all work you submit for marking must be your own original creation

Range of Penalties

- Your mark for the affected work may be reduced
  - for example, by ignoring any plagiarised material
- A mark of zero may be returned
- You may fail the whole module
- You may fail the whole year
- Your degree classification may be reduced
- Your studies may be terminated
- You may be deprived of a degree
  - even after it has been awarded

How to Avoid Plagiarism

Quote any material copied from elsewhere

- It may be appropriate to paraphrase rather than copy and quote, as discussed below

Follow the quotation (or paraphrased material) with a citation such as [3] which clearly identifies an item in your bibliography

Put the bibliography at the end of your report

- This must give bibliographic details such as title, author, and year for each source you have cited

You must do this for all sources

Outside Help

Occasionally you may ask a friend for help

They can go through the material to you, and try to clarify any misunderstandings, but what you submit must be your own work

- You must be able to explain it when asked to do so

If you copy or paraphrase some material from your friend's solution you must declare this

- This is my own work except for <material> which I have copied from <friend>

Similarly if you download code from the Internet

- This is my own code except for <class/method> which I have downloaded from <Internet site/author>

Collaboration and Collusion

Occasionally when you have worked on a problem together it is difficult to know who should get the credit – this is collaboration

You should also declare

- This is my own work except for <material> which <friend> and I developed together

If you don't declare your collaboration, this is called collusion which will be treated as a breach of academic integrity

Further Information

Plagiarism slides are taken from "Academic Integrity Talk" by Andy Gravell, Michael Kraft and Su White, 20th November 2006

University of Southampton Academic Skills Guides provides advice on academic integrity, and how to research, cite, and reference your sources

- http://www.academic-skills.soton.ac.uk/

University of Southampton Plagiarism Policy

- Student Handbook: http://www.southampton.ac.uk/studentservices/handbook/index.html
- Calendar: Plagiarism and Cheating: Policy and Procedures http://www.calendar.soton.ac.uk/sectionIV/sectIV-index.html

ECS Student Handbook

- Section 3.1.2 Originality of Work http://www.fpas.soton.ac.uk/student_handbook

Why MSc Projects Fail

- Allowing paid work to take up time
- Taking too many days holiday, or not working hard enough
- Bad planning
- Plagiarism
- Not talking regularly with supervisor….
- Being unhappy through loneliness
- Spending too much time on practicalities and not the dissertation

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What happens if you fail

You will be given four weeks after the announcement of the results to submit a revised version

Extensions

We grant extensions for “mitigating circumstances”

- You need to fill in the correct form and include all the details on that form
- This covers things like: illness, depression and family problems

We don’t grant extensions for:

- Industrial placements (except when done with the School’s blessing)
- Job interviews
- Minor housing problems
- Computer data loss
  - Computer files are lost all the time. Keep them safe on your ECS filestore. Take backups. Keep a USB memory key updated!