Thesis Projects @ IT department

Justin Pearson
exjobb@it.uu.se

http://www.it.uu.se/student/thesis_project/master
Thesis Projects @ IT department

- What is a thesis project (and how to find it)
- Requirements to start a thesis project
- The specification
- Roles

- Assessment
  - Writing a report
  - Presentation and opposition
- Questions
Thesis projects

Thesis projects can be done at
• a company or public body
• UU (IT-department or nearby)
• another university, possibly abroad

This organisation
• ”owns” the problem that you are to study (solve)
• provides the workplace and (daily) supervision
Thesis project course

• The thesis project is a **course**
  – Course goals that are assessed by the university
    • The report must meet academic requirements
      web: “evaluation criteria” (.setLayout: bedömningskriterier)
    – The project must make this possible

• During the thesis project, you are a student
  – Other roles replace the teacher role:
    • reviewer
    • examiner
    • supervisor
    • coordinator
Selected evaluation criteria

Scope and size
• 30 credits = 5-6 months (45 cr.)
• relevant for the study program
  – Computer Science / IT Engineer / Embedded / ... 

Advanced level
• Builds on knowledge from courses on advanced level
• Integrates knowledge and skills from different disciplines
• The student has searched and embraced new knowledge
Selected evaluation criteria

• Problem (to solve or study)
  – described in a clear, practical and relevant way
  – clear motivation and context
  – divided into issues (questions, tasks)
    • are relevant to the problem described
    • can be evaluated

• Method (= what you do to solve it)
  – appropriate scientific method

It may be original scientific work – but that is not required
Thesis project goals

Student (and UU) goals

- Study a problem in depth
- Gain experience, learn
- Produce an approved report
- Pass the course within a reasonable time
- Produce a result that can be used in a job application
- Get a degree!

Employer goals

- Get the problem solved
- Get an insight in the problem
- Get a working system
- Make a prototype, separate technical documentation
- Finish the job within a reasonable time
- Hire the student, asap
- Hire the student, but not before the report is approved
How to find a thesis project (exjobb)

• WWW
  – IT department
  – companies
  – ...

• Contacts
  – Teachers
  – Guest lecturers
  – UTNARM
  – ...

• An advertisement is just that: It may say "exjobb", but
  • is it one?
  • is it a good one?
  • is it a good one for you?

• The advertisement is
  • not the specification
  • but it’s a starting point
The specification

See http://www.it.uu.se/student/thesis_project/master/specification

- Title (not too long – preliminary)
- Background: company, context, motivation
- Problem, and its issues (related work, references) related to which scientific area?
- Method(s): how to solve it - prototypes, interviews, ...
- Delimitations – what you don’t do
- Time plan (realistic; other courses, vacation?)
- Relevant courses (that you took)
Formal start

Hand in (both email to exjobb@it.uu.se and physical):
• Application (signed by you and by your supervisor)
• Specification
• Transcript of records (from Studentportalen)
• Certificate of attendance (from this meeting)
Roles and start process

Student

Supervisor – "owner" of the problem
– help with daily work

Application

Coordinator
• lecturer at UU
• reviews content
• helps with report

Reviewer

Admin
• registration

Examiner
• (program director)
• examination of report
• and presentation

Feemaster
What is in a report?

- Motivation
- Background to project
- Methods and techniques used
- Relevant theory, research and development
- Description of own work
- Evaluation, Analysis, Testing
- Conclusions including future work

Write for a student at the same level of studies as yourself before beginning the thesis.
Assessment of the report

• Disposition and quality of expression
• Knowledge of prior work and development
• Technical content and complexity
• Elements of own work
  – elements of creativity (literally: what did you create?)
• Demonstrated depth of understanding
• Evidence of critical evaluation
• Guidelines for future work
• Conclusions, including objective reflections
Assessment – apart from report

• Midcourse meeting
  – oral presentation
  – context, background, methods, related work

• Opposition
  – critical assessment of other work
  – use this to think about your own work (in progress)!

• Final presentation
During the work

• Stay in contact with your reviewer
  – About once per month
  – If problems (delays) occur

• Write continuously
  – Get feedback from reviewer

• Ensure academic standard on your thesis
  – Not always what an external company requests

• Finish it! Writing problems? Use the Language Workshop
  www.sprakverkstaden.uu.se