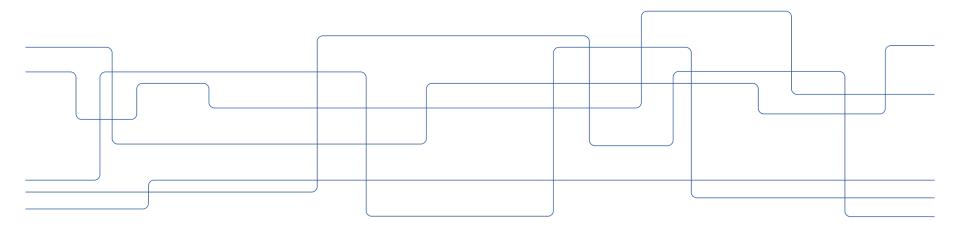




Master's Programme in Computer Science Introduction to Year 2

Philipp Haller, Programme Director Associate Professor, School of Electrical Engineering and Computer Science





Course Contents

- What is the structure of the Computer Science Master's programme?
- How do advanced-level studies work at KTH?
- Study visits at companies
 - either at a distance or in person

Also: "secondcycle" or "postgraduate"

- Workplace culture, ethical responsibilities of a computer scientist, life-long learning
- Self-reflection



Reflection Seminars

- Depth vs Breadth in Master's Education
- Channels to find interesting jobs
- International opportunities and contexts
- Future of Computer Science as a Profession
- The road towards the Degree of Master
- Mono vs multi cultural workplaces
- Ethical responsibilities
- Life-long learning



Reflection Seminars

- Depth vs Breadth in Master's Education
- Channels to find interesting jobs
- International opportunities and contexts
- Future of Computer Science as a Profession
- The road towards the Degree of Master
- Mono vs multi cultural workplaces
- Ethical responsibilities
- Life-long learning



Reflection Seminars

- Depth vs Breadth in Master's Education
- Channels to find interesting jobs
- International opportunities and contexts
- Future of Computer Science as a Profession
- The road towards the Degree of Master
- Mono vs multi cultural workplaces
- Ethical responsibilities
- Life-long learning



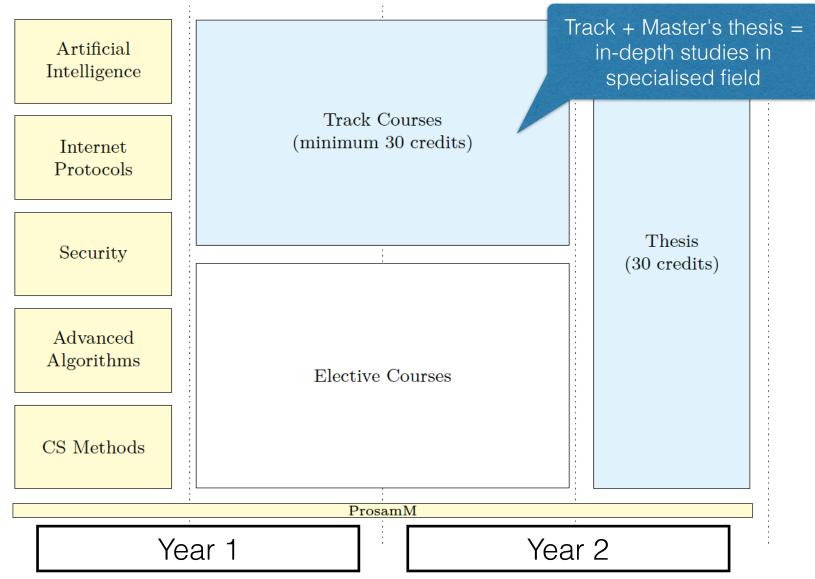
Advice from Students

- "Start in time, write your reflection once, wait a day re-read it re-write and you'll be ready for the seminar"
- "Mark the deadlines in a calendar, otherwise they'll sneak up on you."
- "Give yourself time to read others' reflections, it's worthwhile."
- "Do the seminar assignments as soon as possible. Before all good comments have already been made by your fellow classmates."
- "Go to a small company for the study visit. The big ones surely have student events during the year, so you can visit them anyway."
- "Be active during the seminars, it makes it a lot more interesting."
- "Question your values as much as others. Reflection is key to personal growth."
- "Don't take the course too seriously."

KTH ROYAL INSTITUTE OF TECHNOLOGY



Programme Overview





Degree Requirements

Requirements for Degree of Master of Science, Computer Science:

- 120 ECTS credits
- 90 ECTS credits second-cycle CS, including:
 - 60 ECTS credits specialization, including:
 - At least 30 ECTS credits track
 - 30 ECTS credits Master's thesis
 - All mandatory courses



Degree Requirements

Requirements for Degree of Master of Science in Engineering (Civ.Ing.):

- 300 ECTS credits
- 180 ECTS credits computer science
- 45 ECTS credits mathematics and science
- 90 ECTS second cycle
- 60 ECTS credits specialization, including:
 - At least 30 ECTS credits track
 - 30 ECTS credits Master's thesis
- All mandatory courses



Master's Thesis

- Investigation/analysis of a significant problem
- Scientific approach
- Interesting for a broader public
- Builds on/part of the specialisation
- Approved project plan



Master's Thesis

- Project plan: specification and time plan
- Survey of the state of the art
 - Literature study, esp. scientific articles
- Research
 - Analysis, design, implementation, experimental evaluation, case studies, formalisation, mathematical modeling, etc.
- Thesis report (introduction, method, results, case studies, discussion and conclusions)
- Oral presentation
- Review of another student's thesis



Master's Thesis

Requirements for <u>starting</u> the Master's thesis project:

- All courses required for Bachelor's degree
- 60 ECTS credits second-cycle courses
- DA2210 Introduction to the Philosophy of Science and Research Methodology for Computer Scientists (6 credits)
- All required knowledge to perform the thesis project



Master Coordinator

- Johanna Pirttikoski
- Contact: <u>cs-master@kth.se</u>
- Student counseling
- Track and course registration issues
- Certificates, visas, CSN, etc.
- Deviations from study plan
- ... etc.







Questions?

Master's Programme in Computer Science



KTH ROYAL INSTITUTE OF TECHNOLOGY

Backup Slides

Breadth in

Computer Science



Mandatory Courses

- Regular courses
 - DD2440 Advanced Algorithms, 6 credits
 - DD2395 Computer Security, 6 credits
 - IK2218 Protocols and Principles of the Internet, 6 credits
 - DD2380 Artificial Intelligence, 6 credits
- Cross-cutting and integrating courses
 - DA2210 Introduction to the Philosophy of Science and Research Methodology for Computer Scientists, 6 credits
 - DD2300 Program Integrating Course in Computer Science, 2 credits