



Aalto University  
School of Electrical  
Engineering

# ELEC-E0110

# Academic Skills in Master's Studies

*Start lecture*

*4.9.2023*

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# Welcome to the course

- **Background of the course**
- **Course content and instructions**

# What are academic skills?

Answer in presemo:  
[presemo.aalto.fi/elece0110](https://presemo.aalto.fi/elece0110)

Recognizing own strengths and weaknesses – self-awareness

Problem-solving skills

Information and digital literacy – critical thinking

Self-leadership skills (eg. time management)

Learning and study skills

Scientific practices and ethics

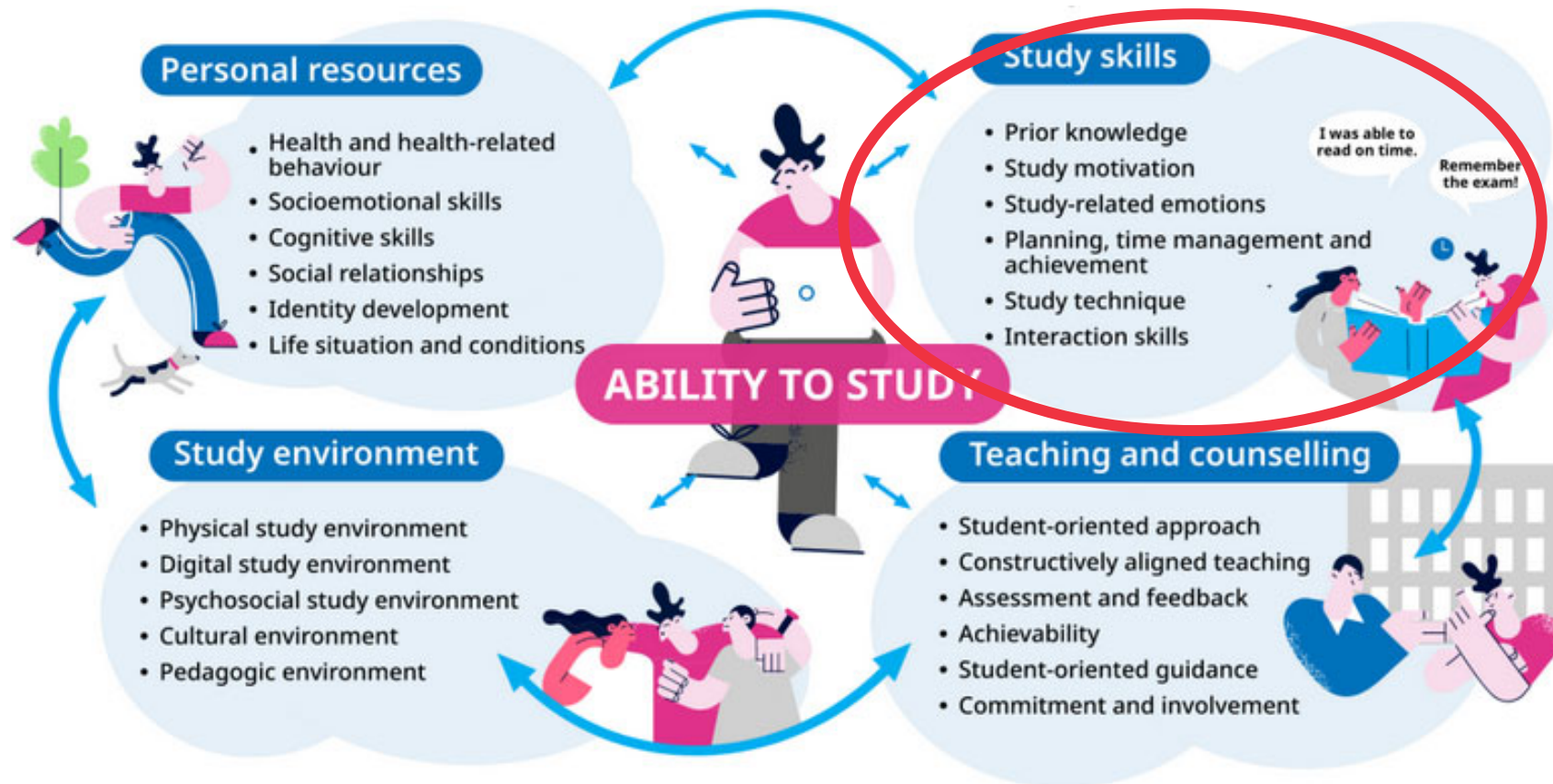
Communication skills

Future thinking, normative thinking

Life-long learning

# Why?

- **Academic skills are the skills that you will need in order to take full advantage of the new knowledge at your disposal during your university studies.**
- **For example learning is a skill you can practice like any other skill – allow your brain more bandwidth.**
- **Requirements in master-level studies differ from bachelor's studies – you are required even more self-leadership and analytical approach.**



The study ability model updated in 2022 is based on the model published by Kristina Kunttu (2006).

source [www.yths.fi](http://www.yths.fi)

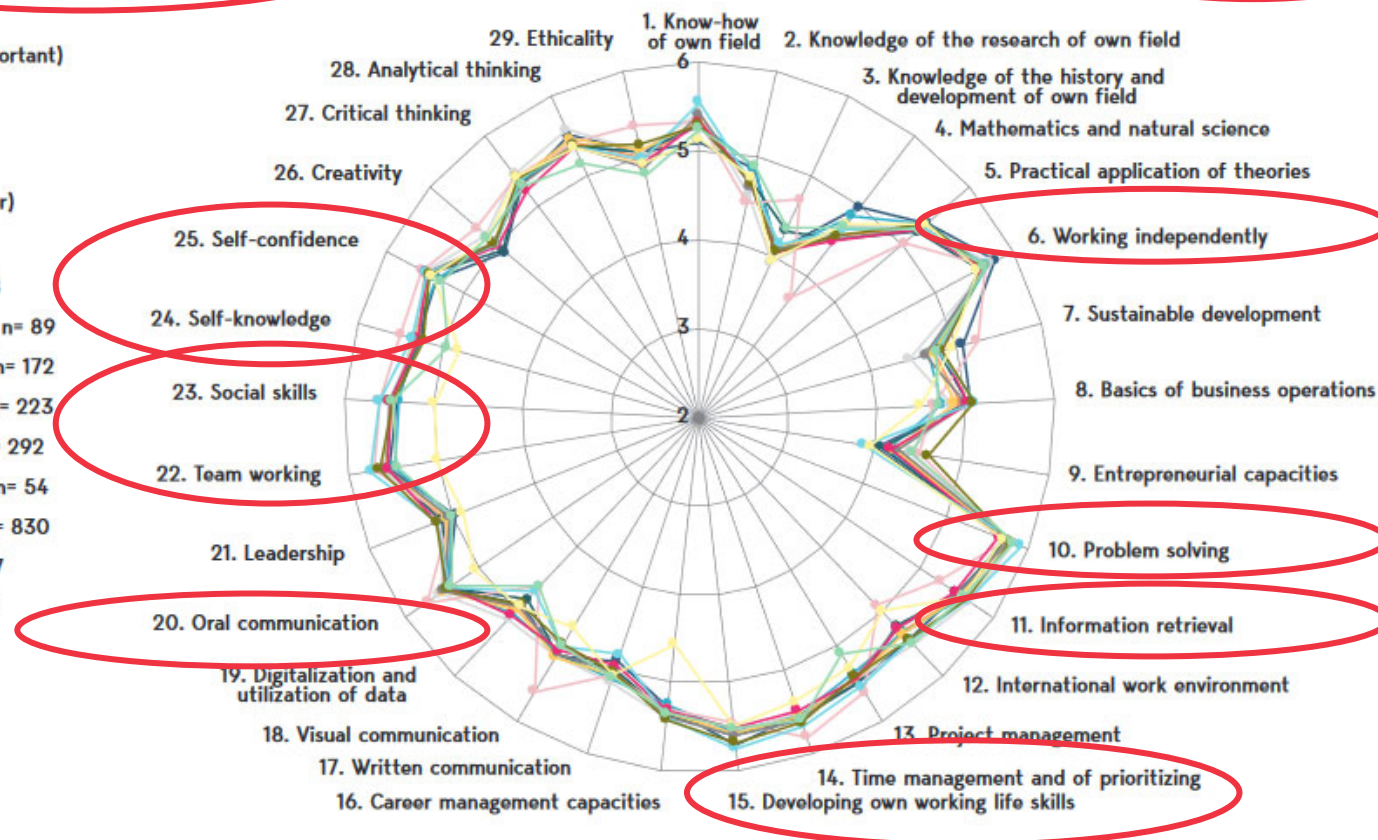
# Expertise and skills

## Importance for own career

©TEK Graduate Survey 2019

SCALE  
 1 = Not at all (important)  
 2 = Very little  
 3 = Little  
 4 = Somewhat  
 5 = Much  
 6 = Very much  
 (7 = Cannot answer)

- ALL, n= 1988
- Aalto CHEM, n= 89
- Aalto ELEC, n= 172
- Aalto ENG, n= 223
- Aalto SCI, n= 292
- Aalto ARTS, n= 54
- Aalto ALL, n= 830
- TUNI, n= 507
- LUT, n= 436
- UO, n= 106
- UT, n= 64
- AAU, n= 22
- UV, n= 23



# Towards working life

- **Working life skills**
- **Complex world is not becoming any easier**
- **Learning doesn't end after school**
- **Tools for future work-life - experts and managers show the way**



# Something for all?

- **Alternative assignments – possibility to choose assignments to match your need and interest.**
  - Enhance learning skills and academic writing
  - Ethical analysis or design thinking
  
- **The course has been planned in co-operation with student psychologists, pedagogical experts, teachers and learning services.**

# Feedback from last year

- **Overall feedback has been roughly: 75% positive, 20% neutral, 5% negative.**
- **Some of the content has overlapped with ELEC BSc programme**
  - Students in the course come from very different backgrounds (half of students with BSc not from Aalto)
  - More different alternatives have been added, and common assignments have been modified
  - **DO NOT** choose assignments that are already familiar to you!

***All in all I think this course was really helpful, since people have different backgrounds and I myself had a bit of a break between my bachelor's and master's studies, so this course helped me to get my study motivation and study related skills back.***

***By following these tips, I feel like I gained back the ability to concentrate well again and I've drastically improved my studying abilities, which has made a huge difference for my life and my well-being!***

***Overall, I feel like I have done more improvements than gone to the opposite direction despite the very exceptional and frustrating situation.***

***In summary, I think that the course provided very good tools for improvement. After this course I wish to implement these tools the best I can for better academic and career performance as well as better well being.***

# Course content and practicalities

# Content of the course

## Three common parts

- Self-assessment – beginning and end of the course
- Sustainability in engineering – essay assignment
- Thesis process start

## Two elective assignments

### (7 options to choose from):

1. Academic writing
2. Ethics in Technology
3. Getting things done workshop
4. Learning skills online workshop
5. Radical Creativity workshop
6. Reading assignment: The superstudent - how to optimise your learning and memory with science
7. Time management

# Common assignments, period 1

# Writing assignment: self-assessment

## Beginning of the course

- you assess where you are at the moment with your academic skills and with your study plans; which academic skills you should or want to improve during the course.
- meant to help you to choose the elective assignments that benefit you the most.
- Includes optional material for those who want a deeper evaluation for forming their goals for the master's studies.
- deadline 24.9.2023

## End of the course

- you evaluate what has changed during the course, and did you achieve the goals you have set for yourself
- deadline 17.2.2024

Learning objective: self-reflections skills

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# Essay assignment: the impact of an electrical engineer in society

- Reading and video material about ethics in technology, sustainability and planetary boundaries and signals of the future
- Writing part challenges you to think about your future role and values as a professional electrical engineer.
- Deadline 15.10.2023

Learning objective: futures thinking, normative thinking, systems thinking



# Elective assignments. Period 2 (and/or 3)

# Choose two assignments, periods II-III

## 1. Academic writing, individual workshop

- Learning objective: possesses better awareness of student's personal writing profile in writing academic/research-based text.

## 2. Ethics in Technology (online)

- Learning objective: understand the theoretical background and know how to use the practical tools for ethical analysis.

## 3. Getting things done workshop

- Learning objective: identify procrastination behavior and the reasons behind it, learn ways to cope with procrastination.

## 4. Learning skills (online)

- Learning objective: understand how learning and studying routines may be improved, aim in developing learning routines that would make learning deeper, more meaningful and long-lasting.

## 5. Radical creativity workshop

- Learning objective: have understanding on creative thinking for complex problem solving.

## 6. Reading assignment: The superstudent - how to optimise your learning and memory with science (online)

- Learning objective: understand the basics of the theoretical background of learning process, learn practical tips for more effective learning.

## 7. Time Management (online)

- Learning objective: review and identify the status of time management skills, learn to make efficient schedules

# Choose two assignments

- Choose the elective assignments that offer you **the most learning experience**. Challenge yourself - do not select the topics that you are already comfortable with!
- Read the descriptions carefully.
- Take advantage of the findings you have made in the self-assessment.
- Schedule wisely - if your period II is full, select period III versions instead.
- Ask if you need more information.
- *Choose two optional assignments by 24.9. in MyCourses page.*
- Assignments start in period II and they are not open before that.
- A start message will be sent in the course Forum when the assignments start.

# Common assignments, period 3

# Thesis process start

- **The goal of this part is to provide you with basic information about master's thesis and planning tools for a smooth thesis work during the second year of your master's studies.**
- **This part consists of four parts that are completed during III-IV periods**
  1. Thesis info lecture in January 2024
  2. Thesis review assignment
  3. Thesis brainstorming assignment

# Evaluation and grading

# Requirements to pass – a summary

**Submission of all assignments is required. Check the instruction of each assignment for details.**

## **Common assignments:**

- 2 self-assessments
- 1 essay assignment

## **Thesis process start:**

- Lecture
- 2 assignments

## **Elective assignments:**

- 2 assignments (requirements vary, there may be teaching sessions and/or online submissions)

# Study plan and mentoring in Msc studies



# Personal study plan (HOPS) for the MSc

- **Self-assessment – beginning of the course provides material for forming the goals for your master's studies.**
- **Complete your study plan (HOPS) in Sisu by the end of period 1.**
  - Apply for approval for the elective studies
  - Changes can be done at any point later

# Academic advisor ie. mentor

- You will be assigned a professor or other academic faculty member from your major as your mentor – sign up to a group by 11.9.2023 (course start page).
- List questions you have in mind – use the self-assessment, beginning of the course –material.
- **Use the opportunity** – in general over 80% have considered the meetings useful or very useful.
- You will receive information on your mentor and the meeting arrangements after 11.9.2023.

# Contact

masters-elec@aalto.fi

# First things to do!

- **Enrol to a mentor group**
  - Enrolment tool is open on the course start page in MyCourses
  - Deadline on 11.9.2023
- **Start the first self-assessment assignment**
  - Deadline on 24.9.2023
- **Select the elective assignments**
  - Deadline 24.9.2023
- **Start the essay assignment**
  - Deadline 15.10.2023

# Questions?