FEO3120 From Research to Impact 3.0 credits

Från forskning till Impact

This is a translation of the Swedish, legally binding, course syllabus.

Establishment

The official course syllabus is valid from the spring semester 2026 as decided by the Faculty Board: dnr PA-2026-0008. Decision date: 2026-06-16.

Grading scale

P, F

Education cycle

Third cycle

Specific prerequisites

All graduate students and teachers with at least one scientific publication.

Intended learning outcomes

After the course the student should be able to

1. systematically assess and plan how to move technology research outcomes ahead on the TRL ladder.

2. concisely present their research in various format to a specific target audience.

Course contents

The course will be designed around four practical deliverables D1-4. First the students get a lecture from specialists and small seminars from their peers, followed by practical work in small groups with peer feedback. Every communication deliverable will be aimed at Internet publication on the department, EE or KTH webpages:

1. Research implementation and commercialization

· Half-day workshop:

a) Moving up the TRL ladder.

i. Identifying your stakeholders

ii. Impact plan

Invited lecturer from KTH Innovation. Gustav Notander has developed a TRL Roadmap tool that can be done in a workshop format. The goal is to understand the process how technology is developed from research results into a final product or system that is in use on the market.

b) Small student seminars.

Every student gives a small presentation on a previously agreed topic. The standard approach would be to summarize a chapter from the complementary literature list, e.g., "The Handbook of Impact".

c) Examples of good practice.
EES (alumni) entrepreneurs, e.g. Tommy Haraldsson / Fredrik Carlborg / Sjoerd Haasl or others to give a short presentation about their start-ups.

· Practical work: D1 – Value proposition of your own research and identify your own TRL and plan how to reach the next level. Notander has a model called NABC to help define value propositions that is quite effective, and that works well in a workshop/exercise format.

2. Research communications

· Half-day seminars on

a) Communication planning.
How to incorporate communication in existing plans and how one should think. When should one communicate, why and to whom?

b) Online communication.
How to design a research website: What should go on the pages and in which order? What is necessary to have on a project page and how should one write it? How to use language that is appropriate for the target audience? How to keep track of website visits and whether you reach your target audience? How to prepare a pitch presentation?

c) Press & News releases.
How to prepare for a press release / how to approach a journalist / how to generate interest from a larger audience?

Seminars shall be given by speakers from central communication department and/or EES communication whose work is aligned with the course content, e.g., Annika Engström,

Peter Ardell, David Callahan, Kevin Billinghurst, Gabriella Hernqvist, Louise Gustafsson. Additionally, the students are again asked to give a short presentations on a previously agreed topic.

· Practical work: Online presence (all heavily built on peer feedback - final feedback from teachers and lecturers): Communicate your research via a website, Wikipedia and or social media. A (first) part has to focus on high-school students as target audience; a (second) part has to focus on MSc students in engineering as target audience:

a) D2 – Make your own research website, either an EE departmental project page, or on the student's personal profile page. For departmental project pages, the technical part (putting up the actual pages in Polopoly) should be done by either a communicator or the appointed web editor at the departments.

b) D3 – Communicate your research via social media or on Wikipediapages

Communicate your research on social media pages such as Twitter or Facebook. Add your research to existing Wikipedia pages or create new pages where necessary.

· Practical work: Outreach activities (all heavily built on peer feedback - final feedback from teachers and lecturers): D4: Plan and execute at least one significant outreach activities. Examples of such outreach activities are

i. Prepare for a news release about your latest research result/journal paper. Researchers themselves don't have to write press releases. That part is best left to the professional writers, but it would be really good to talk about how to put together good material for the writer to go from when creating the news item or press release. What should be included? What should be highlighted and how should one think? What are the "criteria" for something to become a press release? What is important to communicate in a news item or in a short Facebook entry? First peer feedback ; thereafter professional help from Louise (EE level news release) and Peter Ardell / Callahan (KTH level news release – they can pick the raisins amongst the suggestions).

ii. Make a 90 s "elevator pitch" movie about your research, with Bachelor in engineering students as target audience; aim at potential use in student recruitment for Master or PhD students.

iii. Make a short graphical presentation movie about your research, e.g. in style "Minute Physics" or "Dance your PhD", with Bachelor in engineering students as target audience; aim at potential use in student recruitment for Master or PhD students.

iv. Reach out to a lead user, contact a lead user of your research results who has the capability to enhance the technology readiness of your results, e.g., by visiting and providing a seminar where you transfer your knowledge.

v. Educational activity, prepare and organize seminar where you explain your research to the general audience, e.g., pupils of a gymnasium.

vi. Other (to be agreed by the course teacher)

Examination

• EXA1 - Examination, 3.0 credits, grading scale: P, F

Based on recommendation from KTH’s coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.