

A!ENG Research Lab

A course on science, research and scientific writing

Code: ENG-LV A!ENG Research Lab (14.4.-31.5.2021)
School of Engineering
Aalto University
Course Teacher Roza Yazdani (roza.yazdani@aalto.fi)

Today's Session

- **Introduction to A!ENG Research Lab** (*15 min*)
- **Aalto doctoral thesis process** by *Prof. Risto Lahdelma, Head of doctoral committee of ENG (12:30-13:45)*
- **Break** (15 min)
- **Science, research and scientific writing + Research plan** by *Prof. Marko Keskinen (14:00-15:30)*
- **Briefing for essay writing and next session**

A!ENG Research Lab

In this course you learn:

- Aims and requirements for doctoral degree in A!ENG
- Principles of science
- Role of research method in creating science
- Skills for scientific writing and outlining a scientific manuscript
- Management of time and research work
- Importance of paying attention to well-being
- Entrepreneurial mindset and project management
- Interactive, teamwork and reflection skills

In addition, you get a good chance to meet and discuss with your peers

A!ENG Research Lab

- Organized at School of Engineering
- Course teacher: D.Sc. Roza Yazdani (roza.yazdani@aalto.fi)
- Course assistant: Judit Nyari (judit.nyari@aalto.fi)
- For doctoral candidates in early phase of research and studies
- 3 credits (ECTS)
- Seven sessions, **only one absent is acceptable- Login to Mycourse & mark your attendance**

The screenshot displays the MyCourse interface for the course 'ENG-LV - A!ENG Research Lab, 12.04.2021-29.05.2021'. The left sidebar contains navigation options: Participants, Grades, Sections (with a dropdown arrow), and Assignments (highlighted). The main content area shows the breadcrumb 'Dashboard / My own courses / eng-lv - a!en... / Sections / Assignments' and a list of assignments. The first assignment is 'Scientific writing project', which requires a one-page introduction to be uploaded by Tuesday 25.5.2021 and feedback to be given by Monday 31.5.2021. Below the assignment list, there is a card for 'Attendance' with a yellow icon and a checkmark. The right sidebar shows a list of attendance sessions, each with a calendar icon, the title 'Attendance', and the date and time range.

ENG-LV - A!ENG Research Lab, 12.04.2021-29.05.2021

Dashboard / My own courses / eng-lv - a!en... / Sections / Assignments

Turn editing on Syllabus

- **Scientific writing project:** Write a **one-page introduction** to your research by **Tuesday 25.5.2021** and upload it in Peergrade link in Mycourse. The introduction needs to discuss your research problem, existing solutions and their shortcomings, and your solution. All participants are required to **give feedback, by Monday 31.5.2021**, on the logic, coherency and storyline of your scientific writing of their fellow classmates' writings.

Attendance

- Attendance
Wednesday, 21 April, 12:15 » 13:00
- Attendance
Wednesday, 28 April, 12:15 » 13:00
- Attendance
Wednesday, 5 May, 12:15 » 13:00
- Attendance
Wednesday, 12 May, 12:15 » 13:00
- Attendance
Wednesday, 19 May, 09:00 » 10:00
- Attendance

Schedule and content

- **Wednesday 14.04., Doctoral thesis process, scientific principles**
 - **Wednesday 21.04., Research Craft**
 - **Wednesday 28.05., Research methodology & project management**
 - **Wednesday 05.05., Career and well-being**
 - **Wednesday 12.05., Career Planning & Entrepreneurial Mindset**
 - **Wednesday 19.05., Scientific writing**
 - **Wednesday 26.05., Wrapping-Up**
-
- Time: 12.15-16.00, but scientific writing seminar starts from 9:00 to 16:00
 - Location: Online
 - Check [Mycourse](#) for more info!

Teaching methods

- Online this year!
- Lectures by different guest teachers
- Pre-reading before the lectures (important to read)
- Discussion of pre-reading materials during breakout rooms
- Individual and group exercises during the sessions
- Reflective essays and peer-feedback
- Writing project
- Group homework assignment

Guest Lecturers

- **Prof. Risto Lahdelma**, *Department of Mechanical Engineering, Aalto University*
- **Prof. Marko Keskinen**, *Department of Built Environment, Aalto University*
- **Sen. Univ. Lect. Panu Kiviluoma** *Department of Mechanical Engineering, Aalto University*
- **Martti Kouhi**, *Solventor Ltd*
- **Assoc. Prof. Jani Romanoff** *Marine Technology, Aalto University*
- **Nina Lyytinen**, *Psychologist, Terveystalo*
- **Maria Törnroos**, *Psychologist, Learning services, Aalto University*
- **Aila Saloranta**, *Manager of Aalto Career Services*
- **Prof. Emeritus Bengt Lundberg**, *Uppsala University*

Course information and materials

- All is in MyCourses
- Course page in MyCourses:
<https://mycourses.aalto.fi/course/view.php?id=26910>
- Contact **Roza Yazdani** (roza.yazdani@aalto.fi)

Reflective essay instructions



Write essay from each session:

- All together 6 essays
- **1 page length** in Times New Roman 12 and linespacing 1.5
- You can find guiding questions for each essay in MyCourses
- Write with your own words what was discussed in each session together with your own personal perspective on the topic; You should not just repeat what was in the Power Point slides
- Return in pdf format (Return box in MyCourses)
- **Deadline a day before the next session**
- Instructions also in MyCourses

Reflective essay instructions

Essay assignment: Login into Mycourse → Assignments → Peergrade Assignments → Upload your essay

Peer-feedback assignment: Mycourse → Assignments → Peergrade Assignments → grade 2 essays of your classmates

The screenshot shows a Mycourse interface. On the left is a navigation menu with items: ENG-LV - AIENG Research Lab, 12.04.2021-29.05.2021; Participants; Grades; Sections (with a dropdown arrow); >> General; >> Materials; >> Assignments; Dashboard; and Site home. The main content area has a breadcrumb trail: Dashboard / My own courses / eng-lv - a!en... / Sections / Assignments. Below the breadcrumb is a list of assignments. The first item is 'Attendance' with a yellow icon and a checkmark. The second item is 'Peer-grade Assignments' with a blue speech bubble icon. A red callout box with the text 'Confirmation email' points to the 'Peer-grade Assignments' item. Below the assignments list is a text block: '• **Scientific writing project:** Write a **one-page introduction** to your research by **Tuesday 25.5.2021** and upload it in Peergrade link in Mycourse. The introduction needs to discuss your research problem, existing solutions and their shortcomings, and your solution. All participants are required to **give feedback, by Monday 31.5.2021**, on the logic, coherency and storyline of your scientific writing of their fellow classmates' writings.' On the right side of the interface, there is a 'Turn editing on' button and a 'Syllabus' button. Below these is a list of attendance events, each with a calendar icon, the title 'Attendance', and a date and time range: Wednesday, 21 April, 12:15 » 13:00; Wednesday, 28 April, 12:15 » 13:00; Wednesday, 5 May, 12:15 » 13:00; Wednesday, 12 May, 12:15 » 13:00; Wednesday, 19 May, 09:00 » 10:00; and Wednesday, 26 May, 12:15 » 13:00. At the bottom right of the attendance list is a link: 'Go to calendar...'

Next session: Research Craft

- **Pre-Reading:** Ling, Charles X., and Qiang Yang (2012) [*Crafting your research future : A guide to successful master's and ph.D. degrees in science & engineering*](#). San Rafael, Calif, Morgan & Claypool.
- **Six groups:**
 - Group 1: Basics of Research and Goals of PhD Research
 - Group 2: Getting Started: Finding New Ideas and Organizing Your Plan
 - Group 3: Conducting Solid Research
 - Group 4: Writing and Publishing Papers
 - Group 5: Misconceptions and Tips for paper writing
 - Group 6: Writing and Defending a PhD Thesis and Life after PhD
- **Reading materials available in MyCourses. [Need to login!](#)**

Next Session:

- Group discussion
- Every group needs to be able to participate in class discussion.
Read well.

Tips:

- While reading, try to make notes on the key points of the text.
- Start reading well before the next session, not at the last minute!