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

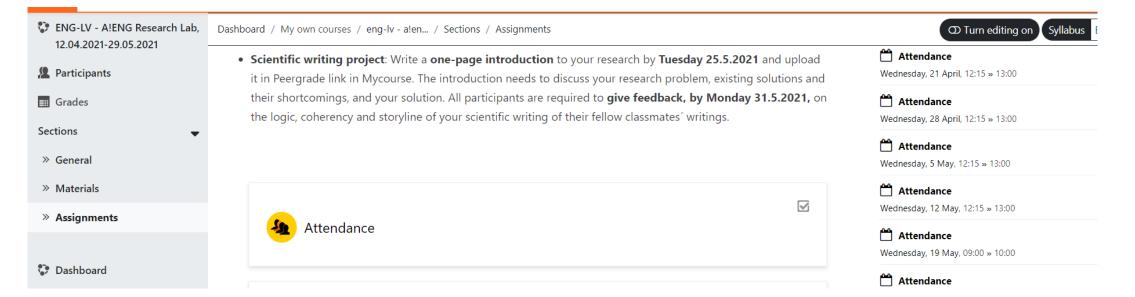
In this course you learn:

- Aims and requirements for doctoral degree in <u>A!ENG</u>
- 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



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., Wraping-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

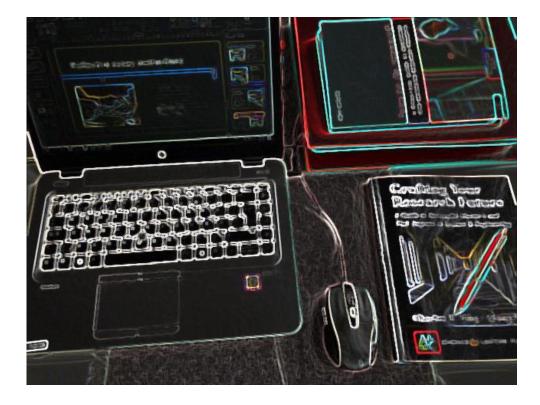
Guest Lecturers

- 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, Upsala University

Course information and materials

- All is in MyCourses
- Course page in MyCourses: <u>https://mycourses.aalto.fi/course/view.php?id=26910</u>
- 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 \rightarrow Assignments \rightarrow Peergrade Assignments \rightarrow Upload your essay **Peer-feedback assignment:** Mycourse \rightarrow Assignments \rightarrow Peergrade Assignments \rightarrow grade 2 essays of your classmates

ENG-LV - A!ENG Research Lab,	Dashboard / My own courses / eng-lv - a!en / Sections / Assignments	① Turn editing on Syllabus
12.04.2021-29.05.2021	• 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 Wednesday, 21 April, 12:15 » 13:00
III Grades		Attendance Wednesday, 28 April, 12:15 » 13:00
Sections * General		Attendance Wednesday, 5 May, 12:15 » 13:00
 » Materials » Assignments 	Attendance	Attendance Wednesday, 12 May, 12:15 » 13:00
" Assignments		Herein Attendance Wednesday, 19 May, 09:00 » 10:00
DashboardSite home		Attendance Wednesday, 26 May, 12:15 » 13:00
	Peer-grade Assignments Confirmation email	Go to calendar

Next session: Reseach Craft

• **Pre-Reading:** Ling, Charles X., and Qiang Yang (2012) <u>Crafting your research</u> <u>future : A guide to successful master's and ph.D. degrees in science &</u> <u>engineering</u>. 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!