NETs@Helmholtz Module Handbook

Transferable Skills Courses

About NETs@Helmholtz

The NETs@Helmholtz Research School is the structured graduate school program of the DACStorE Project (www.dacstore-project.com). It is addressed to young scientists (researchers, PhD-candidates, postdocs) who work on the DACStorE project, or are supervised by a DACStorE scientist.
The NETs@Helmholtz Research School trains young scientists in the field of negative emission technologies. The comprehensive approach fosters transdisciplinary thinking and networking and a critical but open mindset while providing the tools to conduct good scientific practices and pursue a fulfilling career. A strong focus is on technology and knowledge transfer, thus providing the next generation of researchers with the necessary skills to make a visible impact to the ramp-up of negative emission technologies.

NETs@Helmholtz offers the following measures:

- Lecture Series "Fundamentals of NETs with a focus on DACS"
- Webinar Series "Current Developments in NETs"
- Fireplace Talks with role models and influential people in the field
- DACS Talks (given by research school members to a broad audience)
- Transferable skills courses
- Research School Project
- Annual retreats
- Peer mentoring (S-Teams)
- Funding for conferences and stays at other institutions
- Writing counselling for paper drafts
- Mentoring, Shadowing and field trips
- Diversity measures (transitional funding for parental leave and childcare)

Achievements to qualify for a certificate of participation:

- Attend at least 1 retreat
- Regularly attend the lecture series, webinar series and fireplace talks
- Give 1 DACS Talk
- Attend 6-8 days of Transferable Skills Courses (certificates of comparable classes will be accepted)

Contact

NETs@Helmholtz coordinator: Dr. Dhana Wolf (d.wolf@fz-juelich.de)
NETs@Helmholtz speaker: Prof. Dr. Roland Dittmeyer (roland.dittmeyer@kit-edu)
NETs@Helmholtz student speaker: Phillip Kahl (p.kahl@fz-juelich.de)

Transferable Skills Courses

Transferable Skill Courses are offered as group courses for all NETs@Helmholtz doctoral researchers. In order to achieve a NETs@Helmholtz certificate, you must attend a minimum of 6 days. This equals 3-5 courses, depending on the seminar format (1-day or 2-day courses). You are free to choose the courses according to your preferences.
The courses are booked via JuDocS, a center for transferable skills training for doctoral researchers at FZJ (see https://www.fz-juelich.de/de/forschung/wissenschaftlicher-nachwuchs/judocs for more information). You will get access to the registration portal MS DOC and will be able to sign up for the available courses (listed below). The dates of the courses will be announced by the NETs@Helmholtz coordinator (Dhana Wolf) and are visible in the registration portal as soon as they are available.

Certificates for courses covering comparable content attended elsewhere will also be accepted. Hand in the corresponding certificate to the NETs@Helmholtz office for examination.

Course List

- Scientific Writing (2 days)
- Advanced Presentation Skills (1 day)
- Management of a doctoral project (2 days)
- Leading M.Sc. Students (1 day)
- Preparing for the Defense (1 day)

Scientific writing (2-day course)

Trainer:
Dr. Vera Leberecht, Dr. Astrid Schürmann, David Kreitz

About:
The workshop supports doctoral researchers in the challenging tasks associated with producing scientific texts. Participants reflect on their own approaches to writing and develop professional strategies to deal with the difficulties and challenges they encounter in their writing processes. Participants get to know specific methods and techniques that they can transfer to their ongoing writing projects immediately and that facilitate effective, efficient, and successful professional writing. In addition, they

get to know and discuss standards and prerequisites of getting papers published in international journals. Issues of correct, clear and appropriate language and style receive attention, too.
After the two-day workshop, participants produce a scientific text (e.g., an abstract) based on what they have learned and practiced in the workshop. They receive individual text feedback from the trainer, as well as writing coaching based on their personal writing strategies and the stage of their current research and writing processes. This ensures that participants can transfer the workshop contents into their daily work routines, to become more confident, reflexive, and successful writers in their fields of research.

Objectives

- Participants learn to organize their research and writing processes effectively and efficiently,
- get to know and apply various techniques for structuring, writing, and revising scientific texts,
- Learn to develop focused, structured texts with clear lines of argument,
- Get to know and are enabled to reflect on standards and rules for publishing in international, English-medium journals,
- Learn to recognize and use appropriate, professional writing styles and wording for international publications,
- Learn to give and receive professional, constructive text feedback,
- Use their insights from the workshop to produce short professional scientific texts (e.g., abstracts), and
- Revise and improve their own texts, based on individual feedback from the trainer.

Main topics

- A professional approach to the process of academic writing
- Useful techniques for getting started, finding and organizing ideas
- Structuring and presenting information in comprehensive and reader-friendly ways
- Useful academic vocabulary for presenting ideas and arguments by other authors
- Language matters: avoiding typical problems in formal written English
- Giving and receiving constructive text feedback
- Revising and improving scientific texts
- Scientific writing: useful resources

Methods

- Individual and small group exercises (writing, reflecting, discussing)
- Plenary discussions
- Trainer input

Advanced presentation skills (1-day course)

Trainer:
John Kluempers PhD, Julie Stearns

About:
Required preparation: Participants will be required to prepare a short presentation in advance. You will receive more information after registration and in time before the course.
Course Description
This workshop is designed for young academics who already have a good level of experience in presenting their research and who want to prepare for future career steps.
In the course of the workshop, all participants will give their presentation in front of their fellows. Each presentation will be followed by a discussion slot and an intense 360-degree feedback given by fellow participants and the trainer.
After the workshop, participants will have a clear, realistic impression about their individual strengths and about aspects they should work on to become more successful.

Objectives

- To identify and improve both verbal and non-verbal speaking strategies
- To adapt content to the audience's needs and interests
- To strengthen exchanges with the audience, particularly non-expert audiences

Methods

- Presentations
- Specific feedback model

Management of a doctoral project (2-day course)

Trainer:
Dr. Alexander Schiller, Dr. Jan Stamm, Dr. Juliane Handschuh

About:
The successful execution of a doctoral project requires a high level of professional competence. One element of this is the efficient organization and use of the scarce resources available. Another factor in success is proactive communication with the supervisor and within project teams. This workshop imparts effective project and time management tools so that doctoral researchers can use their time optimally and successfully advance their research. In addition, the participants acquire basic knowledge in the areas of constructive communication and teamwork. Furthermore, important topics, such as the basics of advanced self-management, the intercultural dimension of successful communication and resilience in dealing with setbacks, are taught. The aim of the course is to equip the participants with management techniques, communicative tools, and reflected self-knowledge, so that they can hit the ground running.

The methodology of the workshop is based on two basic principles of interactive training: "You learn more outside the comfort zone" and "Experience makes you wise - reflection on your own experience makes you even wiser". Therefore, the course consistently focuses on practical simulations and reflection on the importance of one's own experiences for everyday project work. In addition, all units contain suggestions for the systematic deepening of the learned concepts and advice.

Main topics

- Basics of project and time management
- Self-management in creativity, efficiency and productivity
- Constructive communication strategies with supervisors and within project teams
- Feedback
- Team dynamics
- Impact of intercultural differences on cooperation
- Typical crises and pitfalls during a dissertation project

Methods

- Interactive lectures and plenaries
- Moderated group discussions and review sessions
- Activities in order to learn from first-hand experience in a safe, yet challenging course environment
- Learning handout which will be offered to aid the training process of participants
- Encouragement to establish ongoing support from their learning groups to enable continuing networking, mentoring, and further group interactions

Preparing for the defense (1-day course)

Trainer:
Dr. Jan Stamm

About:
The defence of the PhD thesis, called disputation, is an important milestone on the way to the doctoral degree. Giving an oral presentation for the defence is a big challenge and is often linked with insecurities and stage fright. The disputation is of critical importance: firstly, it is an integral part of the PhD examination and, secondly, it shows your ability to argue and present your achievements and the results of your research convincingly.
This workshop aims at preparing doctoral researchers for their defence. They will be introduced to formal regulations and frameworks, procedures and typical settings in a defence. There will also be simulated scenarios to practise thinking on their feet during the questions and answers session as well as responding strategies to typical defence questions.
Coaching techniques and video-recording will be used to support the training of individual coping strategies to gain more confidence during the defence

Objectives

- Clarification of general frameworks in a defense
- Preparation of the examination process
- Development of preparation and coping strategies

Main topics

- Getting aware of formalities and deadlines
- Formal procedures and regulations
- Do's and Don'ts in oral PhD examinations
- Training units for preparation of the talk and the defense
- Coping strategies for unexpected or difficult questions

Methods

- Knowledge Transfer
- Groupwork
- Coaching

Video-Recordings

Leading MSc Students – First Steps in Teaching (1-day course)

Trainer:
Dr. Gaby Schilling

About:
When Bachelor's or Master's students join the lab, responsibility is often given to PhD students to guide, instruct and supervise them. Having neither formal authority for leadership nor experience in mentoring people, this can be a challenging task.
In this workshop the participants will reflect on the role they occupy between MSc students on the one hand and the group leader on the other hand. What are the expectations of them from the MSc students' and the supervisor's perspective? What kind of tasks can be delegated? Who is responsible for the outcome? We will also look at different communication strategies and see how gender and cultural aspects influence communication and delegation.
The participants will have the opportunity to test themselves in various scenarios.

Objectives

- Reflect on the participant's own role and on the principles of leadership
- Understand how motivation works and how to give feedback
- Know how to decide if a job can be delegated or better not
- Know how to give direction and support Bachelor's and Master's students in their theses

Methods
Impulse lectures, presentations, group work, work in pairs, individual work, exercise scenarios.