TU/e PROOF program
The TU/e PROOF program is specifically aimed at PhD students, and aims to support PhD students in the development of transferable skills, needed to successfully finish their PhD as well as to prepare for the next career step.

The below table shows which courses are suggested in which phase of the PhD project. The courses are designed to match the specific PhD phase. However, PhD students are free to follow the courses at any other time during their PhD project. Scientific Integrity is the only course mandatory for all TU/e PhD students. Departments may choose to obligate their PhD students to take other courses.

### 1ST YEAR
- Taking Charge of your PhD Project
- Scientific Integrity
- Information Literacy and Research Data Management
- PhD Project Planning and Time management
- Poster Pitch

### 2ND YEAR
- Giving an Audience-Focused Presentation
- Writing Articles and Abstracts
- Taking Charge of your PhD Project: the follow up
- Supervising Msc Students
- Supervision on Supervising skills
- Teaching Skills for PhD Students
- Exploitation of Research Results

### 3RD YEAR
- Exploitation of Research Results
- How to start your own business

### Registering for courses
TU Delft, TU Twente and Wageningen University PhD students may register for PROOF program courses by filling out the webform (www.tue.nl/index.php?id=53611). After filling in and submitting this form, you will receive confirmation once your registration has been completed. Three weeks in advance of the course you will receive further information on the course location, your trainer, and, if applicable, assignments to be send to the trainer in advance of the course.

In case we receive too few registrations for a course, the course will be canceled, usually three weeks in advance. If the course is cancelled, you will be informed, and you are free to register for another course. If for some reason you are unable to attend the course you registered for, please inform us as soon as possible (dpo.trainingsupport@tue.nl), so we can make your place available to other PhD students.
Taking Charge of your PhD Project

General

Recent studies show that just a small percentage of all PhD-students finish their project within 4 years. The main reason for PhD-students to suffer delays or to quit the project altogether appears to revolve around the relationship with their supervisor. Further factors of influence include social and expert network, and planning of the project.

The work environment of the PhD-student is characterized by uncertainty and obscurity. Negotiating clarity about planning and supervision is therefore crucial, especially in the early stages of the PhD-project. Subsequent management of the project is mainly executed by interpersonal communication. This course intends to help you to manage your project effectively by optimizing the success factors (technical conditions, planning, social and expert network) and focuses on personal communication skills by training difficult situations with an actor.

Program and content

Day 1:
- Drivers and barriers in the PhD-project
- Formal conditions and clarifying working conditions
- Planning research projects
- Professional and social help networks
- Participants practice conversation skills such as progress meetings or discussions about planning, negotiations and (professional and emotional) conflicts with their supervisor (played by the actor)

Day 2:
- Discussing homework: formal conditions, planning and reader
- Time management: getting things done!
- Theory & exercises on conflict management skills in conversations
- Practicing cases with the actor

Target group

This course is for all PhD candidates preferably in the second half of their first year. Participation in later years is also possible. This course will be held in English.

2017-2018

Date 14-11-2017 - 28-11-2017
Time 10.00 - 17.00

Date 18-01-2018 - 01-02-2018
Time 10.00 - 17.00

Date 27-03-2018 - 10-04-2018
Time 10.00 - 17.00

Date 17-05-2018 - 31-05-2018
Time 10.00 - 17.00

This course will take two days in total. Course dates are subject to change.
Scientific Integrity

General

This course on scientific integrity is mandatory for all TU/e PhD candidates.

Objectives

The aim of the course is to create or increase awareness of possible scientific integrity issues in research. At the end of this course participants will be able to identify a number of categories of scientific integrity issues, recognize situations in which scientific integrity can be jeopardized, respond to possible integrity issues, relate issues of integrity to central values of science, identify which policies TU/e has to deal with integrity issues.

Content

The course starts with a discussion of a well-known case of scientific fraud. The main part of the course consists of two or three activities, each of which focuses on a specific sub-area of scientific integrity. The activities are introduced by a presentation of a taxonomy for scientific integrity breaches. At the end of the course another exemplary case is discussed, but one that is more complicated than the introductory case, and more difficult to discern if scientific integrity was violated and by whom.

Target group

This course is for PhD candidates who recently started their PhD project. This course will be held in English.

PLANNING 2017-2018

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This course will take 3.5 hours in total. Course dates are subject to change.
Information Literacy and Research Data Management

General

This course in the PROOF program focusses on the steps involved in performing a literature study and which aspects are important when managing your (experimental) data.

The course will cover practical aspects of information literacy and research data management. It will help PhD candidates become effective and efficient researchers by developing their skills and competencies in:
- retrieving, evaluating and managing scientific literature, and
- managing their research data before, during and after their research project

Content & Program

The course covers the following topics regarding information literacy and research data management.

Information literacy
- Analyze and define your research topic
- look for background information and search scientific information in relevant resources (databases)
- evaluate your results
- manage and organize your search results
- cite your references

Research data management
- Data management plans, or data management in order to meet requirements of research funders
- data labs, or data management in order to protect and secure existence, usefulness and intelligibility of research data during your research
- data archives, or data management in order to share or publish research data

Target group

This course is for PhD candidates in their first year.
This course will be held in English.
Poster Pitch: Designing and Presenting a Poster

General

Poster Pitch - Designing and presenting a poster
If you attend a business meeting, a scientific congress, or you meet the jury of the Nobel prize in the elevator... you have the opportunity to present yourself and your research. This course supports you in optimizing your presentation for such an occasion, when there is no time to waste.

Program
During this half-day course you will be given the opportunity to practice a 2-minute pitch in which you will present your poster to your audience. You will receive feedback on your pitch as well as the poster you made. You will leave the training with a bag of do’s and don’ts about designing and presenting an eye-catching poster.

Target group
This course is for PhD candidates in their first and second year who present posters at conferences.

This course will be held in English.

PLANNING 2017-2018

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This course will take 3.5 hours in total. Course dates are subject to change.
Giving an Audience-Focused Presentation

General
In this two day course you will explore five core aspects of presentations from the point of view of the audience. Knowing what your audience needs, will enable you to present much better.

This course focusses on five aspects:

Content
- Preparation: how to figure out what to present and what to leave out.
- How to structure your content so that your audience will remember your key message well.

Expression
- The use of starting blocks to control your nerves and to appear confident.
- To use your voice well and to provide your spoken information with a clear lay-out.
- How to make gestures to make your research visible and tangible.

Relation
- How to truly deliver your content to your audience so you can see their response and are able to react on that.
- Dealing with questions in a professional way.

Appeal
- To establish the goal of your presentation and how to appeal to your audience.
- To plan your strategy accordingly regarding content, expression and relation.

Visual aids
- How to create visual and concise slides.
- To present slides in an audience-focused way, instead of screen-focused.
Way of working
On the first day you will be given the building blocks of an audience-focused presentation. You will apply these to your own material and continue with a short presentation about your research on day two. On both days you will receive a lot of personal feedback and stage directions. You can regard the course as a rehearsal space. The instructors all have a background in theatre. They will direct you and help you to optimize the way you present.

Film
You will receive the film “Giving an audience-focused presentation”. It shows all the theory of the course in a clear and attractive way.

Target group
This course is for PhD candidates in their second and third year who hold oral presentations at conferences. This course will be held in English.

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Date 13-11-2017 - 04-12-2017
Time 09.15 - 17.15

Date 16-01-2018 - 06-02-2018
Time 09.15 - 17.15

Date 07-03-2018 - 28-03-2018
Time 09.15 - 17.15

Date 24-05-2018 - 14-06-2018
Time 09.15 - 17.15

Date 16-07-2018 - 30-07-2018
Time 09.15 - 17.15
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This course will take two days in total. Course dates are subject to change.
Writing Articles and Abstracts

General
This course aims to facilitate the improvement of your scientific writing skills in order to reach a publishable standard in your discipline. During the course, you must be able to write and submit an academic article suitable for publication in a journal or for inclusion in conference proceedings, so it is important that you have the necessary data on which to base your article.

Content
The course focuses on writing a journal or conference article, and revising it by incorporating instructor and peer feedback, as well as through self-reflection of your own work.

You will be able to plan, create and revise articles that incorporate the core writing principles presented in the course, related to content and argumentation, structure and organization of the article, academic and field-specific conventions and style, and use of academic English.

Target group
PhD candidates in their second or third year who wish to improve their writing skills in order to reach a publishable standard in their discipline. The entry level in terms of English skills is C1 on the CEFR scale. This course will be held in English.

PLANNING 2017-2018

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This course will take 20 hours in total spread over 5 half days. Course dates are subject to change.
Supervising Master Students

General

This module will help you to improve the way you supervise your Master's students (or Bachelor's students) and it helps you to supervise your students in a systematic way. The module is divided into two separate courses, for which you can register separately.

The first course, 'Supervising Master Students', covers the tasks of the supervisor, the timeline of Master projects and how to assess the final project. You will get tips and tricks to best deal with problems you may face as a supervisor. The ideal moment to follow this course is if you are going to supervise a Master student within the next two months. The course is intended for PhD students with no or very little experience in supervising Master students.

During the second course, 'Supervision on Supervising skills', you will have the opportunity to share your experiences as a supervisor and help other supervisors with the problems you face with supervision. Also, you will develop more insight in your personal qualities as a supervisor. Mandatory for this course is writing your own case situation. This implies the course is suitable if you are actually supervising Master students, and want to discuss challenges you came across.

These courses can be taken separately, i.e. it is not necessary to have followed the course 'Supervising Master Students' in order to register for 'Supervision in Supervising skills'.

Supervising Master Students

Program

- Phasing the work of your students and an overview of the general supervision tasks in each phase;
- Motivating your students;
- Meeting with your students (for the first time);
- Time saving measures;
- Giving feedback;
- Assessment.

Target group

This course is intended for PhD students who are starting with supervising MSc and/or BSc students, and have no or very little experience in supervising.

* Note: this course will be held in English

Supervision on Supervising Skills

Program

- Your qualities as a supervisor;
- Collegial consultation;
- Supervision by a professional on didactical skills.

Target group

This course is intended for PhD students in their second year who are currently supervising MSc and/or BSc students, and who want to discuss challenges or questions related to the supervision process.

* Note: this course will be held in English

PLANNING 2017-2018

Supervising Master Students

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This course will take 3.5 hours in total

Supervision on Supervising Skills

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This course will take 3.5 hours in total

Course dates are subject to change.
Teaching Skills for PhD Students

General
This course focuses on equipping you with the skills you need when teaching students in a lecture, tutorial or lab session.

Content
The following topics are addressed during this one-day course:
- Conditions of learning
- Learning models
- Designing & giving a tutorial
- Designing & giving a lecture
- Activating students in a lecture
- The international classroom

Target group
This course is for PhD students in their second or third year who have or are going to have teaching tasks.
This course will be held in English.

PLANNING 2017-2018

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This course will take one day in total.
Course dates are subject to change.
How to start your own business

General
In a short time span PhD students interested in entrepreneurship gain insight in the main aspects of starting up a business.

Content
How to commercialize research results will be one of the topics discussed during the workshop. We will focus on what kind of support you can get from the TU/e Innovation Lab.

In addition to a presentation there is room for interaction and discussion. The participants will form groups and try to develop a business case from a research idea of one of the PhD’s.

Program
- Welcome and introduction
- From idea to business: important aspects
- IP protection
- Financing
- Marketing
- Organization
- Group assignment: the business pitch
- Group presentations

Target group
This course is for PhD candidates in their third and fourth year who are interested in starting their own business.
This course will be held in English.

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This course will take 4 hours in total. Course dates are subject to change.
Introduction to exploitation of research results and knowledge transfer

General

Knowledge Transfer has become more important over the last couple of years. Academic researchers, however, are not always fully aware of what new opportunities this provides them with and how this affects their research.

This course, comprising of three lunch sessions of two hours, introduces the participants into the basic concepts of knowledge transfer and how this can benefit the researcher, the university and society. Each session focuses on one of the three main routes of knowledge transfer of university knowledge to society:

1. Contract & collaborative research
2. Patenting & licensing
3. Creating a new company (spin-off)

After following the course, participants are more familiar with the terminology of technology transfer and are able to talk more confidently about the topic. Participants can identify opportunities for knowledge transfer resulting from their own research. In addition, participants are able to apply the acquired knowledge to their own research situation, understand what actions to take and who to contact within TU/e Innovation Lab to pursue these opportunities.

Lunch is included in the program.
Program and content

Session 1 - Setting the Scene
In this first session the concept of technology transfer and how this affects academic researchers will be introduced. We will focus on the various modes of collaborative research, what you should take into account before entering into a collaboration and what to look out for in signing a collaboration agreement.

Topics:
- General concept of Knowledge Transfer or “Valorization”
- What’s in it for the researcher?
- What’s in it for the TU/e?
- Modes of collaboration, e.g. Public Private Partnerships
- Collaboration vs. contract research
- Concepts of Background, Foreground, Sideground
- Material Transfer Agreements and Confidentiality Agreements
- How to deal with IP in a collaboration

Session 2 - IP Protection & Patents
The second session will focus on IP protection and patents. We will start with the basics of identifying what an invention is and what criteria are used to decide whether an invention is patentable or not. Next, we will see the different steps in the patent application process and what costs are associated with this. Finally, we will discuss a case study of a patent application.

Topics:
- What is a patent?
- What is an invention?
- Why file a patent?
- Patenting vs publishing
- Patentability criteria: concepts of novelty and inventiveness
- Patent filing process and associated costs
- Case Study
Session 3 - Starting Spin-off Companies

This final session tackles the challenges of setting up a new spin-off company based on university technology. Great science or technology is a good starting point but usually more exploratory work is needed to discover whether there is commercial value as well. To develop a technology from an initial proof-of-principle in the lab to a commercial product takes time, money and a dedicated team. We will discover what is needed to build a strong business case and how to raise the required funding for development.

Topics:
- Why start a spin-off?
- Where do I start?
- Initial Business Case and Value Proposition
- Business Model Canvas
- Creating a Business Plan
- Raising initial funding and investment

Target group

This course is intended for all PhD candidates preferably in the second or third year, before the research results which the PhD candidate wants to ‘exploit’ are published.

*This course will be held in English.*

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This course will take 6 hours in total spread over 3 lunch sessions. Course dates are subject to change.
For more information on the content of the PROOF program, please contact:
dr. Beerkens, B.E.
T: +31 40 - 247 3117
E: B.E.Beerkens@tue.nl

For more information on planning, registration and cancellation of courses, please contact:
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T: +31 40 - 247 2520
E: dpo.trainingsupport@tue.nl