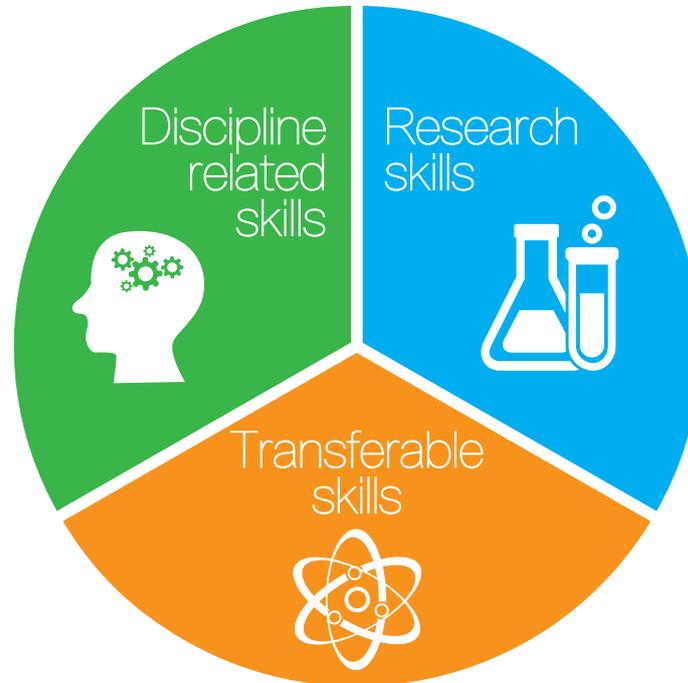


# DE programme - good practice



## Courses

- PhD start-up
- Achieving your goals and performing more successfully in your PhD
- Conversation skills
- English for academic purposes
- How-to survive your PhD, regain your flow!
- The art of presenting science
- Writing a scientific article in English
- Written English for technologists 1
- Career development: preparing the next step in your career

## Courses

- Academic videography production
- Context mapping skills
- Industrial design engineering research methodology
- Introduction to systems engineering

## Courses

- Project management of your PhD project
- Research design
- Becoming a creative researcher in academia
- Developing your academic skills
- The informed researcher

## Learning on-the-Job

- Addressing a major international audience
- Addressing a small audience
- Paper review
- Supervising a MSc student
- Teaching assistance: lecturer in the course
- Teaching: lecturer
- Writing a research proposal
- Writing the first conference paper
- Writing the first journal article

The above mentioned programme is one of the selected good practices and belongs to a PhD candidate of the faculty Industrial Design Engineering. It comprises a total of 60 GS credits.

## Discipline related skills



Has the breadth and depth of knowledge required in the field of doctoral research.

### D.1 Scientific Knowledge:

acquires and internalises existing scientific knowledge in the field of the PhD project.

### D.2 Engineering and Design:

acquires and internalises the design and engineering skills to execute the PhD project.

## Research skills



Has the ability (research skills) to conduct scientific research.

### R.1 Research Management:

formulates and designs the research strategy including the planning and carrying out of the project and evaluation/validation.

- a. **Designing:** understands and defines the sequence of steps to be taken in the 4 year PhD project.
- b. **Project-management:** objectively monitors the progress in each step and to achieve defined goals.
- c. **Problem solving:** objectively takes decisions and finds solutions regarding termination of research steps and moving forward.
- d. **Valorisation:** understands the processes for funding and evaluation of research; contributes towards the formulation of research proposals in line with the department plan.

### R.2 Academic Thinking:

evaluates the value of a statement or a fact, to question matters and to make clear reasoned judgements. Is able to actively and creatively look for improvement.

- a. **Conceptual thinking:** applies creative, conceptual and inductive reasoning to identify patterns and correlations, which are not self-evident, and to deduce from them specific suggestions and original and practicable solutions.
- b. **Analytical thinking:** understands problems / situations by gradually examining them and by systematically studying and identifying causes, key factors and constituent parts.
- c. **Synthetic skills:** smoothly combines data and integrates a complex multitude of data into a coherent whole. Is able to present alternatives and to develop them into a convincing conclusion.
- d. **Critical thinking:** evaluates the value of a statement or a fact and questions matters. Is able to actively and creatively look for room for improvement.

- e. **Creativity & Innovation:** proposes novel ideas and integrates different perspectives in a creative way. Is able to recognise the need for renewal and to go beyond the status quo.

### R.3 Academic Attitude:

makes choices that reflect integrity and responsible behaviour. Within the TU Delft, scientific integrity implies that the researcher commits to the principles of conduct stated within the TU Delft scientific code of ethics.

- a. **Societal context:** positions the project in a dynamic societal context.
- b. **Ethics:** spots and answers ethical dilemmas in the project.

## Transferable skills



Focuses on personal and professional development, which facilitates your growth now and in the future career.

### T.1 Effective communication:

passes on ideas and opinions to diverse audiences in a clear language. Is able to prepare and give clear and fluent presentations in a confident manner.

- a. **Presenting:** effective in a variety of formal presentation settings, both inside and outside the university; prepares in advance, commands attention, can manage group process during the presentation and can manage questions and objections.
- b. **Writing skills:** writes clearly and succinctly in a variety of communication settings and styles; can get messages across that have the desired effect.
- c. **Storytelling:** develops and creates stories that build a coherent picture of events.
- d. **Language skills:** ability to communicate effectively in reading, writing, listening and speaking in the English language (and other languages needed to carry out your work).
- e. **Listening:** Demonstrates attentive and active listening; listens to what someone has said and understands the meaning / value, to engage in discussion.

### T.2 Working with others:

Works well with academic staff, peers and supervisor; sets a tone of cooperation within the work group and across groups; coordinates own work with others; values working relationships; when appropriate facilitates discussion before decision-making process is complete.

- a. **Networking:** builds and retains formal and informal relationships, thus creating a network of contacts with people who are (or could be) interesting or useful for achieving one's goals.
- b. **Collaboration:** cooperates with people (including supervisor) from diverse backgrounds to reach common goals.

- c. **Negotiation:** negotiates skilfully in tough situations with both internal and external partners; can win concessions without damaging relationships; can be direct as well as being diplomatic; gains trust quickly of other parties to the negotiations; has a good sense of timing.

- d. **Leadership:** clearly formulates goals and priorities when directing others.

### T.3 Teaching, supervising & coaching:

inspires students to develop knowledge and skills.

- a. **Teaching:** supports (groups) of students; gives & reviews assignments and exams; gives (work) lectures; develops course materials.
- b. **Supervising students/coaching:** guides, transfers knowledge and motivates appointed students/supervisees.

### T.4 Self-management:

manages time effectively and maintains a healthy work-life balance with an assertive, creative and confident attitude as well as being able to deal with change, stress and procrastination.

- a. **Autonomy:** Able to be independent in one's own thoughts and actions and willing to take responsibility for one's own actions and accomplishments, to correct failures and improve achievements.
- b. **Time management:** adequately estimates available time, means and guidelines, and uses that information to make and carry out an adequate, effective and realistic planning to achieve the goals set out.
- c. **Flexibility:** adjusts own behaviour and thinking according to the context so as to attain the desired goal. Able to adapt and function efficiently under changing circumstances and with different groups or people.
- d. **Perseverance:** pursues everything with energy, drive and a determination to finish; seldom gives up before finishing; especially in the face of resistance or setbacks.
- e. **Dealing with risk and uncertainty:** decides and acts without having the total picture; isn't upset when things are up in the air; can comfortably handle risk and uncertainty.
- f. **Entrepreneurship:** action-driven and pro-active. Notices and anticipates opportunities and threats.
- g. **Personal development:** personally committed to display an ongoing commitment to learning and self-improvement. Thinks about the next career step and takes action to prepare for applying for jobs inside or outside academia.