# Competency Development Guide

## Level 3

### Research Management
- Formulates and designs the research strategy including planning and carrying out of the project and evaluation/ validation without supervision.
- Consistently 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 communication support from supervisor.

### Academic Thinking
- Consistently 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.

### Academic Attitude
- Formulates and designs research strategy including the planning and carrying out of the project and evaluation/validation with regular supervision.
- Evaluates a statement or a fact. Requires limited support from supervisor to actively and creatively look for improvement.

### Research Data Management
- Follows and systematically updates the Data Management Plan as part of the regular research activities and suggests improvements to the management of research data/software within the project.
- Delivers ideas and opinions to diverse audiences.

### Effective Communication
- Consistently makes choices that reflect integrity and responsible behaviour.
- Follows and regularly updates the Data Management Plan and recommends best-practices for research data/software with advice from the supervisor, when needed.
- Is aware of principles of conduct stated within the TU Delft scientific code of ethics and demonstrates good choices that reflects integrity and responsible behaviour.

### Teaching, Supervising & Coaching
- Regularly delivers ideas and opinions to diverse audiences.
- Requires minimum guidance when teaching.

### Working with Others
- An experienced teacher who is able to inspire students to develop knowledge and skills. Designs curriculum and/or teaches different courses.
- Experience of participating in DE group coaching activities. Ideally completed DE courses on teaching and applied within a teaching assistance role.

### Self-Management & Autonomy
- 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.
- 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.

### Design
- Consistently demonstrates the ability to acquire and internalise the design skills to execute the PhD project.

### Engineering
- Requires minimum supervision on the design project.

### Scientific Knowledge & Skills
- Requires regular supervision on the engineering skills to execute the PhD project.
- Basic breadth and depth of knowledge required in the field of doctoral research.

## Level 2

### Research Skills
- Conducts a Data Management Plan with guidance from the supervisor.
- Is aware of principles of conduct stated within the TU Delft scientific code of ethics and recognizes the regulations, policies and/or legal requirements associated with the research data/software produced (and/or collected) within the project.
- Limited experience of delivering ideas and opinions to an audience. Requires support from supervisor to prepare a clear and fluent presentations.

### Transferable Skills
- Delivers lectures, workshops and offers coaching at Bachelor student level.
- Requires guidance regarding working with academic staff, peers and supervisor.

### Discipline Related Skills
- Experience of reviewing courses on coaching of individual students and project groups.
- Requires guidance regarding working with the scientific community.

## Level 1

### RESEARCH SKILLS
- Designs a Data Management Plan with guidance from the supervisor.
- Is aware of the importance of managing research data/software and recognises the regulations, policies and/or legal requirements associated with the research data/software produced (and/or collected) within the project.
- Limited experience of delivering ideas and opinions to an audience. Requires support from supervisor to prepare a clear and fluent presentation.

### Transferrable Skills
- Requires guidance regarding working with the scientific community.
- Limited experience of teaching.

### DISCIPLINE RELATED SKILLS
- Requires guidance regarding the design skills to execute the PhD project.
- Requires regular supervision on the engineering skills to execute the PhD project.
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What’s the purpose of the Competency Development Guide?

To help PhD candidates and their supervisors to review their competences and performance:
1. Define which competences require attention.
2. Discuss with your supervisor and assess your current performance level.
3. Define competency development actions.

Do you have suggestions or feedback on this guide? Please email Maddy Peters: M.M.Peters@tudelft.nl

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