

## 2024 EngD Annual Education Report

# Evaluation of Courses



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## KEY TAKEAWAYS

### Successes:

- Evaluations show that EngD generic courses are well received by participants (average score: 7,7).
- All EngD candidates now receive a 2.5 hour awareness training on ethical issues and related approvals at the start of their EngD as part of the EngD Introductory Workshop.

### Challenges:

- The mandatory *Professional Effectiveness* course (score: 8,1) will not run in 2025 because the university currently does not hire external teachers, and it lacks internal expert teachers on those specialized generic (transferable) topics. However, an alternative has been provided to candidates in the form of 4 courses (1 on campus, 3 self-paced online ones) which together cover the content of the Professional Effectiveness course. Four elective generic EngD courses which EngD candidates took in 2024 will not be offered either in 2025:
  - *Analytic storytelling* (score: 8,1) was taken by 2 candidates,
  - *Project management* (score: 5,6) was taken by 1 candidate,
  - *Science writing* (score: 8,5) was taken by 7 candidates, and
  - *Work smarter less stress* (score: 7,0) was taken by 1 candidate.
- Candidates were critical about the content of the two disciplinary courses i.e. Systems Design and Engineering for Eng D course (score: 6,1) and Technology Development and Management for Civil Engineering (score: 6,6).
- Some courses such as the EngD Introductory Workshop were offered only online due to increased costs of course rooms.

## 1. The EngD educational programme

The EngD educational program consist of disciplinary and professional development (transferable skills). These activities are either mandatory, elective or self-regulated. The programme is flexible as it allows an individualized mix of formal courses, on the job training or informal learning. For example, ECs can be claimed for taught courses, *Capita Selectas* (i.e. supervised self-learning), paper or poster presentations at conferences, teaching/supervision, organization of research events and peer-review. These educational activities are different ways of meeting the competences listed on Appendix 3 of the [EngD Study Guide](#).

Most EngDs fulfill their field-specific disciplinary needs via UT courses or courses from national research schools, the 4TU, summer/winter schools, master courses or *Capita Selecta* courses. For more information, refer to Section 5.3.1 of the [EngD Study Guide](#).

### Focus of this report:

This report focuses on the evaluation of UT EngD courses and on the EngD upgrade assignments of the UT master courses.

The feedback from EngD candidates about the quality of the courses was gathered by the council member of each EngD programme<sup>1</sup>. However, none of the two robotics EngD candidates submitted information to their EngD council member.

### 1.1 Mandatory courses

The EngD program consists of a minimum of 48ECs, 21.5 of which relate to mandatory courses covering basic transferable and disciplinary research skills. The mandatory courses together with other creditable activities listed in the [EngD Study Guide](#) are aligned with the Intended Learning Outcomes listed in Appendix 3 of that document. The mandatory EngD courses are:

- *EngD Introductory Workshop*. In 2024, this workshop included workshops on project management, *ethical issues and related approvals* and the first part of the *Academic integrity* course. The second part of the Academic integrity course is done online in a self-paced manner (1,5 EC).
- *Professional Effectiveness* (2,0 EC)
- *Data Management bootcamp*, which is mandatory for EngD candidates since September 2024, but only if the project is using or analyzing data. This course is linked to the Data Management Plan, a faculty requirement. Since data protocols and repositories are faculty-specific, this course is offered by the faculties (1 EC)<sup>2</sup>.
- *Systems Design and Engineering for Eng D course (SDE)* which should be preferably done in Year 1 (12 EC), and

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<sup>1</sup> An EngD candidate which represents the candidates of their particular EngD programme for the purpose of e.g. feedback coordination.

<sup>2</sup> If the candidate needs to follow the data management course, the amount of mandatory ECs is 22.5 instead of 21.5.

- *One programme-specific course.* Refer to Appendix 6 of the [EngD Study Guide](#) for the list of programme-specific courses. The candidate together with the Scientific Supervisor could choose a different mandatory course if the listed one(s) is(are) deemed unsuitable for the design project. Out of those courses, this report will include the ‘Technology Development and Management for Civil Engineering’ course, as this course is an EngD course.

## 1.2 Elective courses

The Twente Graduate School offers elective courses developed for (post-master) early career researchers such as PhDs and EngD candidates. The offer of elective courses has been developed mainly based on the competences listed in Article 4 of the [PhD Charter](#) and in Appendix 3 of the [EngD Study Guide](#), but also on requests from academic staff, support staff with academic background, the doctorate candidates themselves via course evaluations, the PE-NUT doctorate network and with input from the 4TU doctorate education working group.

Section 5.3 of the EngD Study Guide provides examples of courses linked to the Intended Learning Outcomes (ILOs).

### 1.2.1 Generic elective courses

The following UT elective generic courses were followed by EngD candidates in 2024:

1. *Analytic storytelling*
2. *Build your intercultural muscle*
3. *Creative and design thinking*
4. *Interview skills*
5. *Lean green belt*
6. *Presentation skills*
7. *Project management*
8. *Science writing*
9. *Taste of teaching*
10. *Work smarter stress less*

## 2. Quality assurance

The Twente Graduate School is responsible for the quality assurance process of the EngD courses. The input for quality assurance involves the course evaluations by candidates, the course improvement plans submitted by the lecturers and discussions with trainers, course coordinators, and programme directors. EngD candidates submit their course evaluations via their EngD council

member. The TGS also holds discussions with the PE-NUT<sup>3</sup> board and with candidates or supervisors who provide feedback outside of the formal course evaluation process.

The TGS Education Manager meets bi-laterally to discuss courses with the HR-CTD/CELT/ULTC/LISA education coordinators, NovelT and faculty lectures who provide doctoral generic courses. During these meetings, issues raised by participants in the course evaluations are analyzed and strategies are defined accordingly. In addition, potential pilots or new course set-ups are discussed as well. The TGS Education Manager also participates in periodic meetings attended by the HR-CTD/CELT/ULTC/LISA education coordinators. Those meetings take place at least 4 times per year and are used to keep the various educational units up to date regarding developments, to discuss issues related to venue access, course registration/evaluation infrastructure and to identify possible strategies or solutions for dealing with the various logistical challenges.

Regarding disciplinary courses, for the Systems Design and Engineering for EngDs course, the EngD Coordinator analyses the course evaluation and defines strategies together with the lecturers. For the Technology Development and Management for Civil Engineering, such discussions are handled by the EngD Coordinator, the Civil Engineering programme director and the lecturers.

## 2.1 Course evaluations

The evaluation questionnaire consists of 8 questions on these subjects:

1. The content of the course
2. The application in the practice
3. The teaching materials
4. The trainer name
5. The capabilities of the trainer
6. The (online) location
7. Likelihood of recommending the course to others
8. Additional comments about the course
9. Deepening of knowledge via extra assignment (only applicable to master courses)

Questions 1 thru 3, 5 thru 7 and 9 are on a 1-10 scale while questions 4 and 8 are open questions. Since the new questionnaire does not include a question on the course as a whole, we computed it on the basis of questions 1, 2, 3, 5 and 7. The venue question was left out. Question 9 is only applicable to master courses.

### 2.1.1 Course evaluation results

Table 1 on page 9 presents an overview of the scores of the evaluation questions per course. Given that 30 new EngD candidates started in 2024 and that the total active EngD population is 50, the number of evaluation responses received for some of the elective generic courses is low, even if all EngD candidates would fill in the evaluation questionnaire. For the mandatory courses, the response rate ranges between 20 and 54%.

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<sup>3</sup> The PhD & EngD Network of the University of Twente (PE-NUT) is the official PhD & EngD association at the university. PE-NUT was created and is run by PhDs and EngDs. Its objective is to connect candidates, inform them and represent them.

Evaluations show that EngD generic courses are well received by participants (average appreciation score: 7,7). However, it is important to note that since the average appreciation score of some courses are based on a few responses, we need to interpret these numbers with care. For example, the appreciation score of the project management course was 5,6 and was based on one response.

In the remaining of this section, we provide a summary of the qualitative participant feedback. Additional details regarding participant feedback are included in [Appendix 1](#).

The qualitative feedback related to the Academic Integrity course related to content and materials. Candidates mentioned that the course did not cover dilemma's/conflicts associated with working with a private company on design research. One EngD candidate mentioned content overlap between the in-person and the online parts. Another candidate mentioned that the material should be available in .pdf form so that notes can be taken more easily.

Some candidates felt that the level of applicability of the Systems Design and Engineering for EngDs (SDE) course varies per engineering discipline. However, in the evaluation forms there was no indication of which programme the feedback related to. Several candidates indicated a preference for an individual assignment linked to their project (possibly with peer review) rather than multidisciplinary group assignments. There was also a comment about expectations not being clear at the beginning of the course.

With regards to the Professional Effectiveness course, the only feedback received related to course availability. The recommendation was to give registration priority to EngD candidates.

#### Upgrade assignment

EngD candidates rated the upgrade assignments they did for master courses favorably as they consider that it allowed them to deepen their knowledge (see Table 2 on page 10). However, none of the EngD candidates provided additional (qualitative) information about the upgrade assignment.

## 2.2 Course Improvement Plans

The course improvement plans are submitted by course coordinators/trainers to the TGS Education Manager at the beginning of each year. The course improvement plan of the Building your Intercultural Muscle was not submitted despite reminders. The course improvement plans submitted by the lecturers are presented in [Appendix A](#).

Table 1: Summary of evaluation scores by EngD candidates for EngD courses.

	Course name	Partner unit or faculty	Type of course	1.Content (1-10)	2.Application of knowledge in the practice (1-10)	3.Teaching material - training (1-5)	5. Trainer's capabilities (1-10)	6. Venue (1-10)	7.Worth recommending (1-10)	N <sup>4</sup>	Average <sup>5</sup>
1	Academic integrity	BMS	mandatory	7,3	6,3	6,8	7,6	7,7	6,3	9	6,9
2	Professional effectiveness	HR	mandatory	8,0	7,8	8,2	8,3	8,2	8,2	6	8,1
3	Systems Design and Engineering for Eng D course (SDE)	ET	mandatory - disciplinary	6,1	7,0	6,0	6,4	7,6	5,4	14	6,2
4	Technology Development and Management for Civil Engineering	ET	mandatory CE programme-disciplinary	6,0	6,5	6,5	8,0	7,5	6,0	2	6,6
5	Analytic storytelling	HR	elective	7,5	8,5	8,5	7,5	8,5	7,5	2	8,1
6	Build your intercultural muscle	UTLC	elective	10,0	10,0	10,0	10,0	10,0	10,0	1	10,0
7	Creative and design thinking	HR	elective	9,0	9,0	9,0	9,0	9,0	9,0	1	9,0
8	Lean, green belt	HR	elective	9,0	6,0	7,0	10,0	8,0	8,0	1	8,0
9	Presentations course (previously 'Academic Presentations')	UTLC	elective	7,2	8,3	7,0	7,3	7,5	7,3	3	7,4
10	Project management	HR	elective	4,0	6,0	6,0	7,0	2,0	5,0	1	5,6
11	Science writing	UTLC/TCP	elective	8,3	8,7	8,1	9,0	8,3	8,3	7	8,5
12	Taste of teaching	CELT	elective	9,0	8,0	7,0	8,0	n/a	9,0	1	8,2
13	Work smarter less stress	HR	elective	6,0	8,0	7,0	7,0	7,0	7,0	1	7,0
	<b>Average score</b>			<b>7,5</b>	<b>7,7</b>	<b>7,5</b>	<b>8,1</b>	<b>7,6</b>	<b>7,5</b>		<b>7,7</b>

<sup>4</sup> Evaluation responses received.

<sup>5</sup> Not part of the questionnaire but was computed it on the basis of questions 1, 2, 3, 5 and 7.



Table 2: Scores by EngD candidates for the upgrade assignment of master courses.

	Master course name	Deepening via upgrade assignment (1-10)	N <sup>6</sup>
1	Academic research skills	10,0	1
2	Design for maintenance	6,0	1
3	Enterprise architecture	8,6	4
4	Maintenance engineering & management	8,0	1
5	Model-driven engineering	8,0	1
6	Structural health and conditioning monitoring	10,0	1
	<b>Average score</b>	<b>8,4</b>	

### 3. Outlook

The mandatory *Professional Effectiveness* course (score: 8,1) will not be offered in 2025 because the university currently does not hire external teachers, and it lacks internal expert teachers on those specialized generic (transferable) topics. However, an alternative has been provided to candidates in the form of 4 courses (1 on campus UT course, 3 self-paced online external courses) which together cover the content: the [Time Management](#) UT course plus these three Nature Masterclasses: [Networking for researchers](#), [Introduction to collaboration](#) and [Participating in a collaboration](#).

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<sup>6</sup> Evaluation responses received.

## APPENDIX A: Summary of participant feedback and course improvement plans

Table 1 on page 8 provides the course evaluation scores. This appendix provides further details by presenting:

1. A detailed summary of the qualitative feedback received from participants of the mandatory courses and of the Taste of Teaching bootcamp, which is mandatory for those EngDs who lecture. The qualitative feedback received was summarized by TGS and covers the following 6 topics:
  - course content and applicability to own situation,
  - course materials,
  - course management,
  - course mode(s),
  - course workload and,
  - qualities of the trainer(s).
2. The course improvement plans submitted by the trainers/course coordinators. The TGS Education Manager will hold discussions with (some) of the trainers/course coordinators of the generic courses about the implementation of the planned changes to the courses. For the disciplinary courses, this will be done by the EngD Coordinator (in the case of the SDE course) and the EngD Coordinator and the Civil Engineering programme director in the case of the Technology Development and Management for Civil Engineering course.

TGS contacted all external trainers to explain the importance of submitting the course improvement plan. Despite reminders, the plan of the Building your Intercultural Muscle course was not submitted.

Because the Webhare system is unable to provide information regarding the job function EngD, for the generic courses we are only able to provide indicators on the number of persons who reported having done the course and the scores they gave for the course.

### A.1 Academic integrity

#### A.1.1 Participant feedback summarized by TGS

##### **Course Content and Applicability to Own Situation**

Only three candidates who completed the mandatory Academic Integrity course provided feedback. The feedback given related to the content not covering dilemma's/conflicts when working with a private company on design research.

##### **Course Materials**

One candidate mentioned content overlap between the live and the online parts. Another candidate mentioned that the material should be available in .pdf form so that notes can be taken more easily.

### A.1.2 Course improvement plan

#### **Indicators partly from candidate evaluative questionnaire (SEQ):**

Indicators	
Feedback received from teachers	-
Number of candidates who finished the course	9
Overall course score (score given by candidates)	6,9

Note: This report forms part of the annual improvement plan of the PhD/EngD doctoral education. After analysing the data from the course evaluations and feedback received from the individual teachers, please complete the sections below taking care to address any issues highlighted in the data (red traffic lights) or highlighting any events that may have impacted the course. Please ensure that the views of **all** team members/components are represented.

#### **General overview & reflection**

##### Successes:

Grading overall for the integrity component is very good, particularly considering we are catering to students from a very diverse set of disciplines. Only a tiny minority seem to have very strong views against the course. Average grade last year was 6.7<sup>7</sup>.

Some of the survey results reflect previous changes made to the course in September. The overall length was cut and the language was improved. Complaints/comments on those issues have dropped as a result (existing complaints may be from students who took the course before the modifications). Relatively “low content” modules were removed.

##### Areas for Improvement:

- Students still have some issues with relevance to their particular work.
- There are still likely some issues with overall length

#### **How will you deal with red traffic lights?**

- Some effort will be made to find more representative case studies.
- Some more improvements will be made to reduce the text in the online components.

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

##### Actions and improvements planned for next year (3-4 bullet points recommended):

- I plan to talk to various groups and ask them for useful case studies from their own disciplines. I will also follow-up through my own investigations (online reports etc..)
- I plan to go through the text closely again, simplify and remove redundancies.

<sup>7</sup> The trainer is reporting the combined score from PhD and EngD candidate responses.

## A.2 Professional effectiveness

### A.2.1 Participant feedback summarized by TGS

#### Course Management

Only one candidate who completed the mandatory Professional Effectiveness course provided feedback. The feedback given related to the waiting time to start the course. The participant asks for EngD candidates to be given priority as the course is mandatory for them.

### A.2.2 Course improvement plan

#### Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	-
Number of candidates who finished the course	6
Overall course score (score given by candidates)	8,1

Note: This report forms part of the annual improvement plan of the PhD/EngD doctoral education. After analysing the data from the course evaluations and feedback received from the individual teachers, please complete the sections below taking care to address any issues highlighted in the data (red traffic lights) or highlighting any events that may have impacted the course. Please ensure that the views of **all** team members/components are represented.

#### General overview & reflection

##### Successes:

- The participants highly appreciate the training.
- Participants regularly mention during the course that they are able to apply elements of the course to their PhD/EngD immediately.

##### Areas for Improvement:

- Some participants find the online modules more tiring. We will make sure to prepare participants for the online modules, so that they can arrange a suitable workspace where they are not distracted or interrupted.

#### How will you deal with red traffic lights?

We will notice them during the program and/or on the evaluation form, discuss them and change parts of the program if necessary.

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

##### Actions and improvements planned for next year (3-4 bullet points recommended):

- Nothing, when we discover a fault/ improvement/ idea/ suggestion we (the trainers) adjust it immediately.

## A.3 System design and engineering

### A.3.1 Participant feedback summarized by TGS

Seven candidates who completed the mandatory System Design and Engineering course provided feedback.

#### Course content and applicability to own situation

Some candidates mention that the level of applicability of the course varies per engineering discipline. Several candidates indicated a preference for an individual assignment linked to their project (possibly with peer review) rather than group multidisciplinary assignments.

#### Course management

There was a comment about expectations now being clear at the beginning of the course.

### A.3.2 Course improvement plan

#### Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	-
Number of candidates registered for the course	27
Number of candidates who finished the course	26 (one currently doing repairs)
Drop-out rate $[100 - (\text{total finished} * 100 / \text{total registered})]$	0%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	6,2 (computed from evaluations provided by the EngD council members)
Average grade of candidates who passed the course (if pass/fail, this is n/a)	7,0
Evaluation questionnaire response rate	52%

Note: This report forms part of the annual improvement plan of the PhD/EngD doctoral education. After analysing the data from the course evaluations and feedback received from the individual teachers, please complete the sections below taking care to address any issues highlighted in the data (red traffic lights) or highlighting any events that may have impacted the course. Please ensure that the views of **all** team members/components are represented.

#### General overview & reflection

Course coordinator conducts own course evaluation. Student input used for team evaluation session below.

##### Successes:

- Since this is a course focused on organizing and executing technological design projects, the current structure of the topics to be discussed must be maintained since they add value to each phase of the design.
- I think the lectures and assignments in the first quartile are quite nice, as they are directly related to your own project and therefore also directly useful in the remaining time of your EngD.

- The subjects are very relevant and I would keep all of them.
- The focus on the students design project was the most reasonable aspect.
- The lecturers/teachers.
- The 'pressure cooker' way of delivering the individual assignment regularly, although more spread over time (to be able to spend more time at a good start to discuss the individual EngD/PhD assignments and prepare expectations. There is more room in Q2 than in Q1).

Areas for Improvement:

- I think that the first topic to be covered would be Introduction and Systems Engineering and SA. Each student should work on these two points from the beginning of the courses and optimize them until finishing all the topics.
- Personally, I feel like the group assignment in the second quartile did not really add much to the course. You have done all the assignments already for your own project (which was useful), but now you have to do them again in a group for a fictional case, so personally I don't really see the added value of it. I personally feel like making this like a 6 ECTS course for one quartile would be beneficial.
- I suggest to do an intake on the project and then discuss the expectations on how to approach the assignments. At the start (week 2 or 3?) let the students make an introduction to the project that can be used for all assignments (now requirements for the introduction varied and to fulfil those costs unnecessary time).
- Work on the project in every class, even if it is just a small part of it. Like Value Engineering did.
- The course definition is unclear. A student who just started the project (inofficially not even that) is having a hard time performing the tasks.
- Differences between engineering and computer science are too large to evaluate a reasonable application of the course's techniques in the other subject.
- Feedback should be short-term, in order to correct errors in a subsequent delivery.
- Although there is group work, and the focus is on applying the methodology, I consider that this exercise can be started earlier, and with continuous monitoring throughout the course.
- I would have preferred to work in groups on the individual assignments: peer review to get feedback.
- The group assignment at the end could be changed in an individual recap on all assignments directly linked to the PhD/EngD project. For example by making a consistent and concise end report (or the 'final' A3AO) of the own assignment with recommendations on how to proceed. Instead of working on a completely new project. These recaps could be presented and discussed in groups.

**How will you deal with red traffic lights?**

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for next year (3-4 bullet points recommended):

Course changes based on student input and teacher's experience:

- Grading: for now, we'll keep a grading system in place rather than move to attendance requirement or some other system. We will go to a simplified grading system (e.g., insufficient/sufficient/outstanding)

- Deadlines: various alternatives to deal with deadlines were discussed. No superior alternative to the current approach emerged. We'll do the best we can to accommodate individual trainees' circumstances, but basic structure remains.
- Individual assignments mostly as-is. Extend deadlines for last two assignments with 1 week due to holidays. We re-introduce safety and risk management as a topic. More in-class hand-on work as suggested by trainees.
- Group assignment remains, but is slightly changed. We appreciate trainees' feedback, but group work is deemed an important aspect our course. Timetable moved up a bit. Start earlier in parallel with individual assignments (might come with benefit of cross-fertilization between individual and group assignment). The proposal feedback session then also moves up. More time for proposal sessions and ideally on campus.

## A.4 Technology development and management for civil engineering

### A.4.1 Participant feedback summarized by TGS

None was provided in the submitted course evaluations.

### A.4.2 Course improvement plan

#### Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	-
Number of candidates registered for the course	3
Number of candidates who finished the course	3
Drop-out rate $[100 - (\text{total finished} * 100 / \text{total registered})]$	0
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	6,8 (6,6 computed from evaluations provided by the EngD council members)
Average grade of candidates who passed the course (if pass/fail, this is n/a)	6,7
Evaluation questionnaire response rate	66%

Note: This report forms part of the annual improvement plan of the PhD/EngD doctoral education. After analysing the data from the course evaluations and feedback received from the individual teachers, please complete the sections below taking care to address any issues highlighted in the data (red traffic lights) or highlighting any events that may have impacted the course. Please ensure that the views of **all** team members/components are represented.

## General overview & reflection

### Successes:

- 3 students passed the course. All of them worked on the implementation of their technology in practice

### Areas for Improvement:

- The “how can you use the things you learned in practice” question scored a 6.5. That is low, for a course that focuses on how things can be implemented better in practice.

## How will you deal with red traffic lights?

None

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for next year (3-4 bullet points recommended):

- We'll try to focus more on practical issues that students face. That is, assignment should revolve around real-world problems relating to the developed technology.

## A.5 Analytic storytelling

### A.5.1 Course improvement plan

#### **Indicators partly from candidate evaluative questionnaire (SEQ):**

Indicators	
Feedback received from teachers	Nothing about the overall course. We have an ongoing conversation throughout the year; if ideas come up, we discuss these immediately.
Number of candidates who finished the course	2
Overall course score (score given by candidates)	8,1

Note: This report forms part of the annual improvement plan of the PhD/EngD doctoral education. After analysing the data from the course evaluations and feedback received from the individual teachers, please complete the sections below taking care to address any issues highlighted in the data (**red traffic lights**) or highlighting any events that may have impacted the course. Please ensure that the views of **all** team members/components are represented.



## General overview & reflection

### Successes:

The quantitative evaluations were still good, some even slightly higher than 2023: the course received a 8,7 mark overall, with high marks for the applicability in practice (8,7), and the trainer (9,4)<sup>8</sup>.

There are very few qualitative comments, perhaps because of the new evaluation format? Almost all the additional comments are directed at the trainer / thanking the trainer.

### Areas for Improvement:

- Based on the remarks in the evaluations, only two things are mentioned by students: 4 students suggested the course would be better in person; 4 more students suggested they'd like to have more sessions and/or another round of feedback from the trainer.

## How will you deal with red traffic lights?

We see no reasons for concern. If you decide to offer the training again in the future, we could consider offering more offline versions, rather than online, as some people who participated in the online version thought they would have enjoyed a live version better.

The suggestions for more sessions/more feedback rounds is possible for us, we have different formats and can easily offer a longer program with more in-depth learning. The question is more for the UT: does the UT have the means and interest in extending the Analytic Storytelling course?

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for next year (3-4 bullet points recommended):

- None for now, as no negative points or suggestions for the content program have come up. Instead, participants were happy and satisfied. Moreover, no trainings are planned for the upcoming year.

## Evaluation of previous year's actions and improvements

Action point	Evaluation
The addition and finetuning of a visualization exercise/module. For the offline/in-person format, this is relatively straightforward; for the online format, we are exploring what works.	We have changed the afternoon program to include a visualization exercise. This has worked well. We can adapt the program on the needs/wishes of the participants, so decide to include the visualization or spend more time practicing making your story more tangible.

<sup>8</sup> The trainer is reporting the combined score from PhD and EngD candidate responses.

## A.6 Build your intercultural muscle

### A.8.1 Course improvement plan

#### **Indicators partly from candidate evaluative questionnaire (SEQ):**

Indicators	
Feedback received from teachers	yes
Number of candidates who finished the course	1
Overall course score (score given by candidates)	10

Note: This report forms part of the annual improvement plan of the PhD/EngD doctoral education. After analysing the data from the course evaluations and feedback received from the individual teachers, please complete the sections below taking care to address any issues highlighted in the data (red traffic lights) or highlighting any events that may have impacted the course. Please ensure that the views of **all** team members/components are represented.

The lecturers did not provide further details. This is possibly due to the fact that they can not run the course in 2025 because they are not internal trainers. In 2023 this course had been the highest rated course out of all the TGS courses.

## A.7 Creative and design thinking

### A.13.1 Course improvement plan

#### **Indicators partly from candidate evaluative questionnaire (SEQ):**

Indicators	
Feedback received from teachers	-
Number of candidates who finished the course	1
Overall course score (score given by candidates)	9,0

Note: This report forms part of the annual improvement plan of the PhD/EngD doctoral education. After analysing the data from the course evaluations and feedback received from the individual teachers, please complete the sections below taking care to address any issues highlighted in the data (red traffic lights) or highlighting any events that may have impacted the course. Please ensure that the views of **all** team members/components are represented.

## General overview & reflection

### Successes:

The changes made to the course compared to the 2023 editions have continued to yield positive results, with scores improving across all areas based on the latest report.

We have further enhanced the integration between pre-workshop reading and workshop discussions.

All practical aspects of the course, which participants appreciated, have been retained.

Additionally, we have decreased the workload by condensing the practical exercises and eliminating redundant exercises. This change has helped maintain engagement while reducing the course's overall mental workload.

### Areas for Improvement:

Participants did not indicate any areas for improvement. However, the trainers are seeking financial support to acquire additional props, such as plastic hats for the Six Thinking Hats exercise and the LEGO Set "Duplo Build Your Own Animals – As You Wish" (30503) for the introductory icebreaker activity.

## How will you deal with red traffic lights?

To ensure sufficient attendance of PhDs at the workshop, we will inform TGS of the course dates three months in advance.

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for 2025:

- Enhance visual resources (e.g., slide presentations) to improve clarity (e.g., framework adopted) and engagement in the workshop.
- Incorporate extra physical props for the icebreaker and creative exercises.
- Emphasize the diversity among PhD candidates by focusing on creative problem-solving that addresses challenges relevant to their needs.

## A.8 Lean green belt

### A.24.1 Course improvement plan

#### Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	-
Number of candidates who finished the course	1
Overall course score (score given by candidates)	8,0

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### General overview & reflection

Remarks: Due to the UT LCS accreditation for the international Lean Certificates, the procedure of evaluation is a bit different. All participants have to fill in a final course evaluation at the end of this course. Without this evaluation form, they do not receive their certificate.

#### Successes (from the participants evaluation):

- Topics, hands-on experience, and games.
- A real case to apply the learnings.
- Interactiveness of the course.

#### Areas for Improvement:

1. More explanation, adjusted templated of the A3 template.
2. More practice with the value stream mapping skill.
3. Slide deck.
4. Add the topic of six sigma (out of scope of this course).
5. Lower drop out rate (from the trainers).

### How will you deal with red traffic lights?

The course participants did not report any red traffic lights. However, areas for improvement were mentioned (yellow/orange traffic light).

Procedure after each course:

Course trainers together reflect on participants remarks. Select those areas where we will improve next course. Brainstorm about possible countermeasures and implement a selected countermeasure.

Once a year a calibration session is organized between the Dutch and English course (some PhD participants also join the Dutch course).

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for next year (3-4 bullet points recommended) – related to the areas of improvement mentioned by the participants:

- Ad. 5: drop out rate: (root cause: participants are not aware that attendance is mandatory) Before the course send a mail to all participants with the requirements of attendance of this course (6 days mandatory). Highlight the fact that without attendance they will not receive the certificate. Ask them to cancel their registration whenever they can not meet the requirements.
- Ad. 1: Already in the reminder e-mail ask the participants tot think about a topic for their assignment.
- Ad. 2. Further improve the slide deck and remove all the hidden slides that are background information in case of any questions.

- Ad. 3. More exercises. The course is already full of exercises. We will pay extra attention during the course to practicing.
- Ad. 4. This topic is out of scope for the UT and will not be provided during this course.

### Evaluation of previous year's actions and improvements

Action point	Evaluation
More clear expectations	Before we started participants received an explorative e-mail to share expectations and to ask them to confirm their attendance. We will keep this information e-mail to the participants.

## A.9 Presentation skills

### A.3.1. Course improvement plan

#### Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	-
Number of candidates who finished the course	3
Overall course score (score given by candidates)	7,4

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### General overview & reflection

- The Nature Masterclasses were appreciated well.
- Participants did indicate to have too little time to do both Nature Masterclasses and the homework assignments in the given time.
- Participants found the conference-style interactive day very useful, but quite intensive and tiring.
- Some participants thought the reliance on peer feedback was too heavy. They preferred to have more feedback from a trainer.

### How will you deal with red traffic lights?

The course will not continue under the 2024 setup because it was ran by external expert trainers. UTLC can not find internal staff with availability to teach the course. A different design will be implemented in 2025.

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for next year (3-4 bullet points recommended):  
This course design will not be de used in 2025 due to financial measures affecting the use of external trainers. However, if this course design had continued to be used, the trainers reported that they would have:

- Added more time between the Kick-off and the interactive day to leave more time for the Nature Masterclasses and the homework assignments
- Considered adding more trainers to rely less on peer feedback. However, this would have made the course more expensive.

## A.10 Project management

(old course format; this course will be replaced by the workshop at the TGS Introductory Workshop)

### A.26.1 Course improvement plan

#### **Indicators partly from candidate evaluative questionnaire (SEQ):**

Indicators	
Feedback received from teachers	-
Number of candidates who finished the course	5,6
Overall course score (score given by candidates)	1

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#### **General overview & reflection**

Successes:  
The training had a evaluation score of 7.9<sup>9</sup>.  
A few negative marks dealt mainly with the fact that participants already took a course in which the topics were covered.

Areas for Improvement:  
We will better align the other, longer course with this one, in order to avoid duplications.

#### **How will you deal with red traffic lights?**

<sup>9</sup> The trainer is reporting the combined score from PhD and EngD candidate responses.

We will notice them during the program and/or on the evaluation form, discuss them and change parts of the program if necessary.

What is the text about **course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for next year (3-4 bullet points recommended):  
Nothing, when we discover a fault/ improvement/ idea/ suggestion we (the trainers) adjust it immediately.

## A.11 Science writing

### A.31.1 Course improvement plan

#### **Indicators partly from candidate evaluative questionnaire (SEQ):**

Indicators	
Feedback received from teachers	-
Number of candidates who finished the course	7
Overall course score (score given by candidates)	8,5

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#### **General overview & reflection**

- In general, participants found the 5 consecutive mornings not convenient.
- Pre-recorded video's were not appreciated that much.
- The on-campus and in-person version of the course was preferred.
- The session on avoiding plagiarism was generally felt as too long.
- Some participants asked to include some information about collaborative writing

#### **How will you deal with red traffic lights?**

The course will not continue under the 2024 setup because it was ran by external expert trainers. UTLC can not find internal staff with availability to teach the course.

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for next year (3-4 bullet points recommended):  
 This course will not run in 2025 due to financial measures affecting the hiring of external trainers. Internal expert trainers were not found. However, if this course design had continued to be used, the trainers reported that they would have:

- Re-structured the course in a different time format, possibly spread out over more weeks.
- Reduced the content on plagiarism and add info on collaborative writing and the use of AI.
- Given more individual feedback on writing tasks by professional trainers, less use of peer feedback.
- Worked in field specific writing groups under the guidance of a trainer who has a similar background.

## A.12 Taste of teaching

### A.33.1 Course improvement plan

#### **Indicators partly from candidate evaluative questionnaire (SEQ):**

Indicators	
Feedback received from teachers	Informal
Number of candidates who finished the course	1
Overall course score (score given by candidates)	8,2

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#### **General overview & reflection**

##### Successes:

- See successes previous year
- Interaction with the peers
- The training makes participants more open/interested in teaching
- Mini lectures are highly valued
- Putting theory in practice
- The models that are used (e.g. Nine events of Gagné)

##### Areas for Improvement:

- Improve the focus of the first assignment (PhD's do not see the value of this assignment)
- More practice for supervising
- More information on how to engage students
- Clearer instructions for the 2<sup>nd</sup> assignment (PhD were somewhat confused)



- Practicing giving feedback (participants are sometimes hesitant because they do not want to offend their colleague)
- Add more resources to Canvas

#### How will you deal with red traffic lights?

The above areas for improvement are not seen as 'red lights'. If there are any, they will be addressed immediately. The trainers have drawn up an action plan to address the areas for improvement, which will be finalised in the coming months.

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for next year (3-4 bullet points recommended):

- Improve the focus of the first assignment (PhD's do not see the value of this assignment)
- More practice for supervising
- More information on how to engage students
- Clearer instructions for the 2<sup>nd</sup> assignment (PhD were somewhat confused)
- Practicing giving feedback (participants are sometimes hesitant because they do not want to offend their colleague)
- Add more resources to Canvas

### A.13 Work smarter stress less

#### A.35.1 Course improvement plan

##### **Indicators partly from candidate evaluative questionnaire (SEQ):**

Indicators	
Feedback received from teachers	-
Number of candidates who finished the course	1
Overall course score (score given by candidates)	7,0

Note: This report forms part of the annual improvement plan of the PhD/EngD doctoral education. After analysing the data from the course evaluations and feedback received from the individual teachers, please complete the sections below taking care to address any issues highlighted in the data (red traffic lights) or highlighting any events that may have impacted the course. Please ensure that the views of **all** team members/components are represented.

## General overview & reflection

### Successes:

- multiple participants report orally to the trainer that they find this course the most useful they have had so far. They indicate as key factors: peer support as organized within this course, practical tips and individual coaching.
- The course lowers the threshold for struggling PhD's to seek help from e.g. psychologist or ombudsman and supports PhD's with previous issues (such as burnout, depression, anxiety, and culture shock) to prevent relapses and to transfer insights from their therapies to day-to-day PhD life.

### Areas for Improvement:

- struggles of EngD candidates differ significantly from those of 3rd and 4th year PhD candidates and fit less well in the course group.
- enhance effectiveness: self-study modules offer flexibility (esp. for distance learning PhD's), but are less effective, compact training days are long and intense.
- peer-group contact through Whatsapp does not seem to add much benefit for participants and is quite time consuming for the trainer.

## How will you deal with red traffic lights?

n/a

What is the **text about course improvements you want to be published** on the quality assurance website (bullet list of planned actions and improvements).

Actions and improvements planned for next year (3-4 bullet points recommended):

- adjust course description: not recommended for EngD candidates
- consider restructuring the course into smaller chunks to shorten training days
- connect peer groups for mastermind sessions in different way

## Evaluation of previous year's actions and improvements

Action point	Evaluation
Online on-demand course offering	Not desirable or feasible. We have decided to focus on campus course set-up with a backup option of online self-study modules.
Long, intense training days	This is the draw back of a flexible and compact in person course set-up. It is a choice that we made.