

2023 Annual Education Report

Twente Graduate School



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KEY TAKEAWAYS

Successes:

- Evaluations show that PhD/EngD generic courses are very well received by participants.
- The *Academic Publishing* and *Academic Presentations* pilots are examples of education innovation. The pilots were a great success; they involved incorporating the Nature Journal's Masterclasses as part of the curriculum. The piloted course changes are therefore adopted in 2024.
- The pilot 'Qualifier Workshop for PhD Supervisors' was successful; the course will be therefore offered on a regular basis.
- The *TGS Introductory Workshop* now includes a workshop on *Project Management*, focusing on time management.

Challenges:

- The Scientific Information bootcamp experiences longer than desired waiting times for candidates to be able to begin the course due to staffing issues at LISA. Solutions are being sought.
- The execution of the Training & Supervision Plan's 30EC activities is sometimes not monitored by the supervisory team during annual interviews. This can lead to unnecessary defence delays and extra admin work for TGS. TGS will launch an awareness campaign.
- With five faculties covering many disciplines with sometimes only a few PhDs graduating each year, TGS cannot provide disciplinary courses. The free PhD courses at other 4TU universities may help, but often include generic content that TGS also offers. Some candidates struggle to find suitable disciplinary courses. TGS aims to tailor its advice to these PhDs.
- Many TGS course operations shifted away from UPark due to rising concerns over increasing costs, dietary restrictions, and cancellation inflexibility. Lunches during TGS courses are being phased out. We are challenged to find suitable alternative venues as booking rooms for PhD courses on campus is only possible after allocating rooms for bachelor and master courses has taken place. We consider moving some courses away from campus and increase the offer of courses that mix f2f presence with online content.

1. INTRODUCTION

The acquisition of transferable skills, those abilities that transcend disciplinary boundaries and empower individuals to adapt, innovate, and communicate effectively are increasingly recognized as key for good performance inside and outside of the academic sector. On behalf of the Doctorate Board, the Twente Graduate School (TGS), through its course offer, empowers PhD and EngD candidates to thrive during their UT trajectory and their future career.

Since University of Twente (UT) has 5 faculties and often disciplines have only a few new PhDs/EngDs per year, TGS isn't able to offer disciplinary courses other than a limited number of research methodology and programming courses. TGS therefore focusses on delivering generic skills courses.

This report summarizes the results of the 2023 course participant evaluations and presents the envisaged improvement plans of the lecturers. It also describes the main innovation initiatives which were piloted during 2023 and explains the results and conclusions. This report also explains challenges faced, how these are being pro-actively handled and presents the priorities for 2024.

This report also serves as a testament to the collaborative efforts between the education units HR-CTD, CELT, ULTC and LISA, NovelIT, several research groups and external training bureaus which are involved in either co-coordinating or teaching doctorate courses. The Twente Graduate School deeply values their involvement and commitment to delivering high-quality relevant generic doctoral training.

2. STRUCTURE OF THE DOCTORATE EDUCATIONAL PROGRAMS

Both the PhD and the EngD educational programs consist of generic (transferable) and disciplinary components. With the exemption of some programming and remedial research methodology courses, all disciplinary courses and related activities are handled by the faculties. PhD and EngD candidates are able to follow courses free-of-charge at UT and also at 4TU universities. However, with the exception of one 4TU university, the local graduate schools all offer mainly generic courses and not disciplinary ones. Often this means that candidates are referred to the national research schools or summer/winter schools for disciplinary courses or training. In some fields, PhD disciplinary courses are very limited or unavailable.

The regulations of both the [PhD](#) and the [EngD](#) programs allow an individualized mix of formal courses, on the job training or informal learning. For example, ECs (up to a certain limit) can be claimed for paper or poster presentations at conferences.

Focus of this report:

This report focuses on courses paid for from the TGS education budget.

2.1 MANDATORY COURSES

2.1.1 PhD programme

The PhD program consists of a minimum of 30ECs. 6.5 ECs relate to mandatory courses covering basic transferable research skills. The mandatory courses together with other creditable activities listed in the [Doctoral Education Guidelines](#) are aligned with the Intended Learning Outcomes (ILOs) listed in Article 4 of the [PhD Charter](#). The mandatory PhD courses are:

1. *TGS Introductory Workshop*. Since September 2023, this course includes a workshop on *Project Management* and the introductory part of the *Academic integrity* course. The rest of the Academic integrity course is done online on a self-paced manner,
2. *Academic Publication bootcamp*,
3. *Academic Presentations bootcamp* (currently 1.5EC, from 2024 onwards 2.0 EC to account for the inclusion of the poster presentations topic),
4. *Scientific Information bootcamp* and,
5. *Data Management bootcamp*. This course is linked to the Data Management Plan, a faculty requirement. Since data protocols and repositories are faculty-specific, this course is run for individual faculties.

2.1.2 EngD programme

The EngD programme currently ranges from 48 to 53 ECs depending on the specific programme. Candidates need to follow a minimum of 6 and a maximum of 10 ECs in generic courses, out of which the following 2 are mandatory:

1. *TGS Introductory Workshop* (see description above) and,
2. *Professional Effectiveness*

The exit criteria of the EngD programme were revised in March 2024 and are intended to take effect as of September 2024.

2.2 ELECTIVE COURSES

The list of elective courses has been developed mainly based on the competences listed in Article 4 of the [PhD Charter](#), but also based on requests from academic staff, support staff with academic background, the doctorate candidates themselves via course evaluations, the P-NUT doctorate network and with input from the 4TU doctorate education working group.

The new EngD Study Guide links the Intended Learning Outcomes (ILOs) to specific courses. Similarly, during 2024, the exit criteria of the PhD programme will be revised. Thereafter, the list of PhD courses will be examined against the (revised) ILOs to assess whether extra courses are needed, some require redesign or some aren't relevant.

2.2.1 Generic elective courses

The following are the elective generic PhD courses available at UT:

1. *Advanced workshop (systematic) literature reviews*
2. *Analytic storytelling*
3. *Brain training – speed reading & memory techniques*

4. *Build your intercultural muscle*
5. *Career orientation and application*
6. *Career prospects young professionals*
7. *Creative and design thinking*
8. *English for lectures*
9. *Entrepreneurial researcher*
10. *Focus management*
11. *Getting ready for your first individual research grant*
12. *Interview skills*
13. *Lean green belt*
14. *Professional effectiveness*
15. *Project management (course now integrated into the TGS Introductory Workshop)*
16. *Science writing*
17. *Taste of teaching*
18. *Visual storytelling*
19. *Work smarter stress less*

Which the exception of *Professional Effectiveness* course, which is a mandatory EngD course, and the Taste of Teaching bootcamp (EngDs are not allowed to teach according to the [EngD Charter](#)), all of the courses listed in this section are also elective options for EngD candidates.

2.2.2 Research methodology and data science elective courses

The Twente Graduate Schools offers a limited number of disciplinary courses on topics related to research methodology and data science. Such courses are offered by TGS if a) they are of interest to candidates from at least 2 faculties, b) they have been requested via the open question in the course evaluations by several candidates or c) have been requested by several supervisors. These are the courses which were offered in 2023:

1. *Introduction to R,*
2. *Data visualization using R,*
3. *Python,*
4. *Matlab,*
5. *C++,*
6. *Research methodology and descriptive statistics.* This is a pre-master course which is offered to doctorate candidates who need to build knowledge from scratch. If possible, doctorate candidates who enroll in this course are put in a separate group because of the expectation that they will learn faster and need more advanced assignments.
7. *Inferential statistics.* Same comment above applies.
8. *Qualitative data and analysis using ATLAS Ti.*

2.2.3 Courses for PhD supervisors

In 2023, TGS successfully piloted:

1. *Qualifier workshop for PhD supervisors.* This workshop had been run once in Faculties ET and ITC. The TGS pilot involved a cross-faculty workshop to encourage the use of a more standard approach to the qualifier interview.

Since this course is for doctorate supervisors and not for doctorate candidates, as of 2024 HR-CTD will coordinate this course.

2.2.4 New courses or course redesigns

Courses redesigned incorporating Nature Journal's 'Nature Masterclasses':

ULTC and TGS piloted improvements for the *Academic Presentations* and *Academic Publishing* mandatory courses. The pilots tested whether a blended course format incorporating course material from the Nature Masterclasses learning platform could:

- a. increase the quality of doctorate education and,
- b. provide more flexibility to doctorate candidates due to the self-pacing nature of the Nature Masterclasses.

Both pilots were very successful. The overall course ratings were 9.4 and 9.6 respectively, both higher than the 'old' course designs. Decision was therefore made to adopt the new course designs.

Additional advantages include:

- Participants receive Nature Masterclass course certificates in addition to the UT course certificates.
- The blended design format implies less venue bookings and less reliance on external trainers. According to figures produced by ULTC as part of the pilots, the annual licensing fee for access to the Nature Masterclasses platform would be covered by the venue and trainer savings.
- Since the license is university-wide, all staff and students will be able to use it via single sign-on. UT-wide communication about access to the Nature Journal Masterclasses platform will be done during the first quarter of 2024. TGS will involve M&C in communicating about the Nature masterclasses to the wider UT community.

Pilots and new courses starting in 2024:

1. *Coding clinic.*
2. *Fundamentals of science communication and citizen science.* Since only about a third of doctorate graduates stay in academia, this course aims to help candidates build skills to communicate well outside academia and with the general public.
3. *Qualifier workshop for PhD candidates.*
4. *Reactions to feedback and to a negative qualifier outcome.* This course is for PhD supervisors and its goal is to complement the *Qualifier Workshop for PhD Supervisors*. This course is for doctorate supervisors and not for doctorate candidates, as of 2024 HR-CTD will coordinate this course.
5. *Intervision training for doctorate candidates.* The objective of this training is to provide group-based problem solving skills. This course is on negotiation phase.
6. A pilot related to the Science Writing course will be conducted during fall of 2024. The pilot will test format changes and will address group composition to improve peer-feedback.

3. QUALITY ASSURANCE

The Twente Graduate School is responsible for the quality assurance process of the PhD/EngD courses paid from its budget. Until 2023, the input for quality assurance involved the course evaluations and discussions with trainers/course coordinators.

TGS takes an active role in the organization of course evaluations. It makes sure that all PhD/EngD courses are evaluated using the same questionnaire and it is responsible for requesting participants to fill in the evaluations for about a third of the PhD/EngD courses. HR-CTD/CELT/ULTC/LISA request participants to fill in an evaluation questionnaire for the remaining two thirds of the PhD/courses.

The TGS Education Manager meets bi-laterally with the HR-CTD/CELT/ULTC/LISA education coordinators, NovelT and faculty lectures who provide PhD/EngD courses. The meetings focus on improvement/innovation of the curriculum or of the approach used. For most mandatory courses, discussions are done in 2 stages due to the number of lecturers involved: first meetings are held between the lectures and the course coordinator and then between the course coordinator and the TGS Education Manager.

In addition, the TGS Education Manager participates in a 2 monthly meeting organized by HR-CTD. Those meetings are used to keep the various educational units up-to-date regarding developments, to align procedures, to discuss issues related to venue access, course registration/evaluation infrastructure and to identify possible strategies or solutions.

3.1 Course evaluations

All the courses are evaluated using a standard questionnaire consisting of 5 questions on these subjects:

1. the application of the knowledge and skills acquired to the own situation,
2. the qualities of the trainer,
3. the teaching materials,
4. a general score to the course as a whole and,
5. further comments about the course or suggestions for improvement.

The first 3 questions are on a 1-5 scale, question 4 is on a 1-10 scale and the last one is an open question.

[Table 1](#) on the following page presents an overview of the scores of the evaluation questions per course and summarizes issues which are already being handled. [Appendix 1](#) presents a summary of the qualitative feedback received via question 5 for the mandatory courses.

Table 1: Summary of evaluation scores and comments.

Scores: questions 1-3 (1= very low; 5= very high); question 4 (1= very low; 10= very high).

	Course name	Partner unit or faculty	Type of course	1.Application of knowledge and skills (1-5)	2.Qualities of the trainer(s) (1-5)	3.Teaching material - training (1-5)	4.Overall course score(1-10)	N ¹	General comments or possible causes for lower than average overall mark
1	Academic integrity	BMS	mandatory	3.8	3.9	3.4	6.8	31	Main issues reported by participants: a) Some participants claim that (part of) the content was dealt with during their BSc or MSc programme, b) workload considered higher than the advertised 1 EC and c) some content duplication exist throughout the course. Check is necessary. The lecturer acknowledges a little content overlap inside the course and will remove it. Regarding content overlap with UT BSc/MSc courses, the lecturer proposes that as part of the Hora Finita registration procedure, TGS asks candidates whether they've had training on academic integrity and if so, which topics were covered. This would allow identifying whether this issue applies to a few or to a considerable amount of candidates and hence, requires further discussion.
2	Academic presentations bootcamp	UTLC	mandatory	4.6	4.7	4.3	8.9	218	A pilot incorporating some online self-paced course material from the Nature Journal's masterclasses was launched at the end of 2023 (refer to Section 2.2.4). Evaluation results were higher than those of the 'old' course design. The 'new' course design provides flexibility and the possibility to earn some non-UT qualifications.
3	Academic publishing bootcamp	UTLC	mandatory	4.6	4.8	4.4	9.1	215	A pilot incorporating some online self-paced course material from the Nature Journal's masterclasses was launched at the end of 2023 (refer to Section 2.2.4). Evaluation results were higher than those of the 'old' course design. The 'new' course design provides

¹ Evaluation responses received.

Course name	Partner unit or faculty	Type of course	1.Application of knowledge and skills (1-5)	2.Qualities of the trainer(s) (1-5)	3.Teaching material - training (1-5)	4.Overall course score(1-10)	N ¹	General comments or possible causes for lower than average overall mark	
								flexibility and the possibility to earn some non-UT qualifications.	
4	Data management bootcamp	LISA	mandatory	3.9	4.3	3.9	7.3	110	Course is faculty specific and taught by faculty data specialists. On occasions there hasn't been enough availability for EEMCS and TNW. Issue has been discussed with LISA and is currently under control.
5	Project management workshop (new)	TGS	mandatory	3.9	4.3	3.7	7.5	75	Some participants have project experience and therefore, want more advanced topics during the workshop. Note: this course takes place at the TGS Introductory Workshop. It focusses on time management. Candidates are referred to the Professional effectiveness course as an optional follow-up course.
6	Scientific information bootcamp	LISA	mandatory	4.1	4.1	3.7	7.2	68	Two main issues: staffing levels and last minute registration cancellations. The staffing issue has been discussed with LISA. Pilot to determine if number of participants can be raised. The lecturers report many last minute cancellations, which contribute to the waiting period before candidates can start the course. An external online course might be an alternative to decrease the backlog.
7	Advanced workshop (systematic) literature reviews	LISA	elective	3.7	3.9	3.9	7.1	15	There seems to be overlap between this course and the mandatory Scientific Information bootcamp. The issue has been raised with the lecturer of the Advanced Workshop.
8	Analytic storytelling	HR	elective	4.5	4.6	4.5	8.6	50	
9	Braintraining: speedreading & memory techniques	UTLC	elective	3.9	4.2	3.7	7.8	9	Nothing particularly revealing on the qualitative responses

Course name	Partner unit or faculty	Type of course	1.Application of knowledge and skills (1-5)	2.Qualities of the trainer(s) (1-5)	3.Teaching material - training (1-5)	4.Overall course score(1-10)	N ¹	General comments or possible causes for lower than average overall mark	
10	Build your intercultural muscle	UTLC	elective	4.8	4.9	4.9	9.6	11	
11	Career orientation and application	HR	elective	4.8	4.7	4.6	9.4	15	
12	Career prospects young professionals	HR	elective	4.3	4.5	4.1	8.6	8	
13	Creative and design thinking	HR	elective	4.1	4.4	4.0	7.5	11	Nothing particularly revealing on the qualitative responses
14	Data visualization using R workshop	BMS	elective - disciplinary	4.3	4.5	4.1	7.9	15	Nothing particularly revealing on the qualitative responses
15	English for lectures	UTLC	elective	4.8	4.8	4.6	9.1	13	
16	Entrepreneurial researcher	TGS	elective	4.3	4.5	4.3	8.6	16	
17	Focus management	UTLC	elective	4.4	4.1	4.0	8.3	21	
18	Getting ready for your first individual research grant	HR / SBD	elective	4.6	4.7	4.3	8.5	18	
19	Inferential statistics	BMS	elective - disciplinary	5.0	5.0	5.0	8.5	2	This is a 5EC pre-master course offered to doctorate candidates as remedial option. It is scheduled across many dates (e.g. 20), which some candidates don't find doable. We will search for an online self-paced course to recommend as alternative to those candidates who have limited availability.
20	Interview skills	UTLC/TC	elective	4.7	4.6	4	8.8	10	
21	Introduction to R workshop	BMS	elective - disciplinary	4.1	5.0	4.5	8.5	8	
22	Lean, green belt	HR	elective	4.8	4.5	4.0	8.6	6	2023 course finishes in first trimester of 2024; figures quoted are of previous course which finished in January 2023.
23	Professional effectiveness	HR	elective	4.1	4.8	4.3	8.5	10	

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Course name	Partner unit or faculty	Type of course	1.Application of knowledge and skills (1-5)	2.Qualities of the trainer(s) (1-5)	3.Teaching material - training (1-5)	4.Overall course score(1-10)	N ¹	General comments or possible causes for lower than average overall mark	
24	Project management (old, to be decomissioned)	HR	elective	4.0	4.7	3.9	8.0	31	
25	Python, Matlab, C++	ET	elective - disciplinary	2.8	3.4	2.6	5.9	12	Participants expected course to be for beginners. New teacher took over the course since 2023; lecturer possibly pitched the course above the expectation. Teacher has been contacted about fine-tuning the course description. Course description has already been modified.
26	Qualifier workshop for PhD supervisors	TGS	course for supervisors	3.8	3.9	3.6	7.3	12	This is a new course. After the first training, the trainer met the TGS Dean and the TGS Education Manager to discuss the course and suggest improvements to the qualifier form.
27	Qualitative data and analysis using ATLAS Ti	ITC	elective - disciplinary	4.3	4.7	3.7	8.3	3	
28	Research methodology and descriptive statistics course	BMS	elective - disciplinary	4.0	3.5	3.0	7.5	2	This is a 5EC pre-master course offered to doctorate candidates as remedial option. It is scheduled across many dates (e.g. 36), which some candidates don't find doable. We will search for an online self-paced course to recommend as alternative to those candidates who have limited availability.
29	Science writing	UTLC/TCP	elective	4.6	4.7	4.3	8.8	88	A pilot will be conducted in fall 2024 to test format changes and content modifications. Candidates with similar backgrounds will be put together for the purpose of group work such as peer review.
30	Taste of teaching	CELT	elective	4.2	4.4	3.8	8.0	26	
31	Visual storytelling	TGS	elective	4.5	4.5	4.2	8.9	11	
32	Work smarter less stress	HR	elective	4.2	4.6	4.2	8.1	17	
	Average score			4.3	4.4	4.0	8.2		

3.2 Course Improvement Plans

As of 2024, TGS strengthened its quality assurance process by requesting the submission of individual course improvement plans using a standard template. These plans should be submitted by the lecturer by the end of January (or course coordinator in case several lecturers are involved in a particular course). Out of these plans, Annex 1 of this document presents the general figures and the summary of the course improvements that the lecture(s) wants to implement.

The course improvement plans are currently being reviewed by the TGS Education Manager and meetings are being set up with some lecturers to address particular issues.

4. CHALLENGES AND RESULTING STRATEGIES

The delivery of doctorate education comes with some organizational challenges. The following sections describe these challenges and how TGS has addressed them.

4.1 Late registration cancellations and drop-outs

Cancelling course participation a few days before or even the night before the start of the course, not showing up on Day 1 or dropping out during the course of the training is a phenomenon which has increased since the Covid-19 pandemic ended. This phenomenon is not unique to the doctorate programs, in general it seems to affect courses which are free-of-charge.

TGS actively raises awareness about this during the Intake meeting in Month 1. Candidates are told that failing not to communicate on time the decision to not attend a course creates unnecessary waiting lists, impacting others and wasting financial resources. The course registration confirmation emails highlight this and kindly asks for cancellations to be done well in advance of the start day.

TGS has discussed this problem at length with the educational units and the faculty lecturers. A decision has been made to increase the maximum number of participants in courses who report high last-minute cancellations or drop-outs. This strategy has somewhat improved the situation.

However, some lecturers don't back this strategy because they don't want to risk having to cater for high numbers of candidates in one course iteration if no participants cancel or drop-out.

A strategy being currently considered is to invoice the research groups for last minute cancellations without a good justification or 'no-shows'. This is done at some universities in The Netherlands with very good results.

4.2 Venue availability and options explored

Finding suitable venues for doctorate courses is challenging, particularly for courses with a high numbers of participants. This is mainly because lecture rooms for doctorate courses can be booked only after the room bookings for the BSc and MSc programme have been finalized. The UPark has often been the only venue available. However, due to the considerable increase in prices and the lack

of an entirely vegetarian menu, TGS has explored several options and already made some changes during 2023:

- The DesignLab. Only two doctorate courses qualify to be hosted there: i.e. *Creative and Design Thinking* and *Visual Storytelling*.
- The Gallery. Many of the courses requiring large rooms which used to be held at the UPark were moved there during 2023.
- Logica. This building is a good option. It is currently unavailable because it is undergoing refurbishment.
- Waaier 4. TGS has communicated to lecturers and coordinators that Waaier 4 can host doctorate courses on (most) Mondays. Because most courses involve group work, few (if any) will be hosted at Waaier 4 because the room lacks tables.
- Blended education. This format is already being used and it is the preferred format for many lecturers and doctorate candidates. Part of the training takes place online, so it eliminates some venue costs. TGS will be evaluating during 2024 whether more courses could adopt this format.

4.3 Compliance with mandatory courses

The mandatory nature of some PhD/Eng course is communicated to all new PhD candidates during the 'Intake meeting' which all new candidates are asked to attend in Month 1 and is reiterated in the Training and Supervision Plan form which should be submitted on Month 3.

Compliance is currently very high and is increasingly improving. There are still occasionally a few candidates, however, who want to set a defence date and have to postpone their plans until the due coursework is completed. Although TGS often mediates to try to obtain a seat for the candidate on the next available course, it is not always possible. This not only involves extra admin but might even increase the PhD/EngD duration.

Closer monitoring of the Training and Supervision Plan by the supervisory team during the qualifier and annual meetings would help improve this situation. The TGS will launch an awareness campaign to increase compliance with the mandatory courses.

4.4 Unavailability of disciplinary courses

In 2023, the 4TU education working group discussed whether candidates were taking advantage of the agreement by which candidates can follow doctorate courses free-of-charge at other 4TU universities. The conclusion was that hardly any candidate follows courses at other 4TU universities because what they search elsewhere are disciplinary PhD courses. With 5 faculties and often disciplines with few new PhD/EngDs per year, TGS can't offer disciplinary courses.

4.5 Staffing issues

There is currently a reduced staff capacity at the LISA department which impacts the mandatory course Scientific Information bootcamp. At the time of the writing of this report, the course was unavailable. Options such as raising the number of participants per course and scheduling additional courses have been discussed. A possible solution which will be discussed with LISA will be to temporarily make use of an external online course to decrease the backlog.

4.6 Evaluation questionnaire

HR-CTD coordinated a revision of the course evaluation questionnaire because some questions needed a clearer formulation and a couple of additional ones were deemed to be necessary. We don't expect that it will negatively affect the comparison across different years. The revised questionnaire will launch in March 2024. A launch in January would have been a better launch time because creating the individual course overviews will be more time consuming due to the change in the order of the questions.

5. PRIORITIES FOR 2024

This section presents the priority topics for 2024. Refer to Table 2 for the associate timeline.

5.1 Intended Learning Outcomes (ILOs).

The TGS Education Manager will coordinate a thorough revision of the ILOs of the PhD programme. This involves not only a possible reformulation and expansion of ILOs but also detailing them into 3 competence levels (insufficient, adequate and good). This would follow the same logic applied to the new EngD ILOs.

Once the new PhD ILOs have been developed and are adopted, the PhD/EngD course offer will be carefully analysed. Courses that don't support any of the ILOs will be removed from the course list. If a course marginally supports the ILOs, the possibility of a course redesign will be evaluated. If extra courses are needed to address some ILOs, additional courses will be developed.

5.2 Course cost per participant

The 2023 financial figures will be used to calculate the course cost per participant. This information will be used together with the ILOs and the course evaluations to decide whether some courses should be continued.

5.3 Course cancellation fees

TGS will develop a plan to invoice participants who cancel their course participation too late without justification or who fail to show up to a course.

5.4 Evaluation of possible course format changes

To reduce venue costs, TGS will identify other courses which could benefit from a blended learning format involving a Nature Masterclass. Similarly, TGS will inventorize which courses are run both f2f and online to identify if the f2f iterations could be lowered in favour of more online iterations.

5.5 Venue use and lunches for whole day PhD/Eng courses

During 2024, TGS will monitor the extent to which affordable venues are available and are being used.

5.6 Duration increase prevention

In 2024, the TGS will develop strategy to improve the monitoring of T&SP execution, ensuring that PhD candidates have completed all necessary coursework within 3.5 years.

Table 2: Timeline of 2024 education priorities and related tasks

			Month											
	Tasks	Sub-tasks	1	2	3	4	5	6	7	8	9	10	11	12
1	PhD Intended Learning Outcomes (ILOS)	Draft proposal for new ILOs				X	X	X						
		Consultation with faculties and CELT and submission of final proposal							X	X				
		Evaluation of courses against new ILOs										X	X	X
2	Calculation of cost of courses per participant			X	X									
3	Course cancellation fees	Plan development					X							
		Deployment plan						X						
		Implementation									X	X	X	X
4	Evaluation of possible course format changes (i.e. f2f to blended or online)	Identification of candidate courses			X	X	X	X						
		Discussions with lecturers			X	X	X	X						
		Pilots started					X	X	X	X	X	X	X	X
		Final decision									X	X	X	X
5	Venue use and lunch bookings	50% of whole day courses with no lunch	X	X	X	X	X	X						
		90% of whole day courses with no lunch							X	X	X			
6	Duration increase awareness plan					X								

APPENDIX A: SUMMARY OF PARTICIPANT FEEDBACK AND COURSE IMPROVEMENT PLANS

[Table 1](#) on page 10 presents an overview of all the courses ran in 2023. It provides scores, a summary of issues mentioned in course evaluations and of the status of discussions with lecturers.

This appendix provides further details by presenting:

1. For the mandatory courses, a detailed summary of the qualitative feedback received from participants. The qualitative feedback received covered 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. For all courses, the section of the individual course improvement plan that the lecturer(s) wishes to have published.

A.1 ACADEMIC INTEGRITY WORKSHOP

A.1.1 Participant feedback

Course content and applicability to own situation

Many participants felt the course content to be too basic or repetitive, especially if they had already covered similar topics during their BSc and MSc programs. They suggested more tailored content to address specific knowledge gaps rather than covering familiar material in detail.

Course duration and workload

Participants mentioned that the course workload was too high, with too many exercises and assignments, leading to feelings of overwhelm and monotony. They suggested reducing the number of assignments and exercises to improve efficiency and engagement.

Learning mode(s)

Some participants would like the course to be more interactive and engaging. They recommended less plenary explanation and more interactive sessions, as well as a different setup on the online platform to enhance the learning experience.

Training Materials

Some participants found them to be verbose, with long sentences, unnecessary jargon, and grammatical errors. They suggested making the materials more concise and easier to read.

Credit Management

Some participants felt that 1.5 EC was insufficient to account for the workload.

A.1.2 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	335
Number of candidates who finished the course	97; the rest is still working on it.
Drop-out rate (drop outs*100/registered)	0%; they have 1 year to complete the course
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	6.8
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	32%

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):

- On the novelty issue we propose to survey students at intake to test how familiar they have received previous instruction on topics raised in the course e.g. research misconduct, cognitive biases.... We'll use that information to make a more objective assessment on whether significant numbers of students do have prior education on these topics.
- We plan to go through the text in the near future and identify duplications.

A.2 ACADEMIC PUBLISHING BOOTCAMP

A.2.1 Participant feedback

Course Content and Applicability to Own Situation

Some participants felt that language editing and reviewing could be better integrated into other courses, while the main focus should be on academic publishing.

Some participants want to focus on writing skills, especially scientific writing and strategies for starting from a blank page to a full paper. Some mentioned that the writing part of the course felt too long or emphasized.

Some participants want more personalized feedback from trainers, especially on assignments and writing exercises.

Suggestions for additional topics included collaborative writing, more in-depth discussions on journal selection, and dealing with AI tools in research and writing.

Course Duration and Workload:

Three full days is considered too much by some participants. Suggestions were made to shorten it or spread it over a longer period. This points to both the total workload and full day format.

Course Management:

Some participants suggested grouping participants based on their research fields to facilitate better feedback and understanding during peer reviews.

Many participants mentioned the timing of the course, suggesting that it might be more beneficial later in the PhD trajectory, closer to the qualifier period.

Course Mode(s):

Participants appreciated the interactive and practical approach of the course, where they could work on real assignments and receive feedback.

A.2.2. Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes Trainers find the program valuable for the participants. They add their own experience to the program. The discussions are lively and they apply new teaching approaches. We use trainers from different scientific backgrounds and try to match them with course participants from the different faculties.
Number of candidates registered for the course	236
Number of candidates who finished the course	205 (15% of cancellations and no-shows)
Drop-out rate (drop outs*100/registered)	13.1%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	9.1
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate (note from TGS: it seems that some candidates who did not finish the course filled in the course evaluation)	Approx. 91.1%

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):

- Make the course scheduling more flexible by integrating the online Nature Masterclasses.
- Combine the online Nature self-study modules with two on-campus training sessions
- Keep the course updated in accordance with the current Dutch academic and UT publishing guidelines, including Open Access policies

A.3 ACADEMIC PRESENTATIONS BOOTCAMP

A.3.1 Participant feedback

Course Duration and Workload

Many participants mentioned that the three-day format felt too long and intensive. They suggested shortening the course or spreading it over a longer period to allow for better implementation of feedback and less pressure.

Many participants found the workload overwhelming, especially when combined with other responsibilities. They suggested reevaluating the timing and distribution of assignments.

Participants consider that the time for processing feedback and making revisions was sometimes insufficient.

Learning Mode(s):

Participants highlighted challenges with the online format e.g. technical difficulties, fatigue and focus problems due to prolonged computer use. Some therefore suggested considering in-person courses or finding ways to improve the online experience.

Participants suggested reducing the reliance on pre-recorded videos and providing more instructor-led interactive sessions. Some participants felt that certain topics could have been covered more efficiently or that the material could have been more tailored to their needs and backgrounds.

Participants appreciated the feedback received from both peers and trainers. Some participants want more feedback from the trainers, in addition to peer feedback. They felt that professional guidance would complement the peer feedback. In addition, they suggested providing clearer instructions and more structured feedback sessions.

Course Management:

A better communication of expectations was mentioned as an improvement area.

A.3.2. Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes

	Trainers find the program valuable for the participants. They add their own experience to the program. The discussions are lively and they apply new teaching approaches. We use trainers from different scientific backgrounds and try to match them with course participants from the different faculties.
Number of candidates registered for the course	269
Number of candidates who finished the course	234 (15% of cancellations and no-shows)
Drop-out rate (drop-outs*100/registered)	13.0%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.9
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	93%

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):

- Make the course scheduling more flexible by integrating the online Nature Masterclasses.
- Combine the online Nature self-study modules with two on-campus training sessions
- Evaluate each run of the course and improve accordingly.

A.4 ADVANCED WORKSHOP SYSTEMATIC (LITERATURE) REVIEW

A.4.2. Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	55 * Number of participants was capped at 15 in 2023, but in the last rounds exceptions were made to include more
Number of candidates who finished the course	43
Drop-out rate (drop-outs*100/registered)	22%
Percentage of candidates who passed the course	78% * In total, 7 participants who finished the course in 2023 are still being given a chance to pass (i.e.,

	receive the certificate). To pass the course participants must attend both sessions and complete two assignments. In 2023 participants could receive additional feedback until requirements were met to receive a pass. Some extensions have been granted for the final assignment, usually due to participants citing too much workload to handle the deadline.
Overall course score (score given by candidates)	7.1
Average grade of candidates who passed the course (if pass/fail, this is n/a)	N/A
Evaluation questionnaire response rate	34.5%

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

<p>Actions and improvements planned for next year (3-4 bullet points recommended):</p> <ul style="list-style-type: none"> • Improve the coordination/registration process to better match the availability of this course for those still in need to complete the Scientific Information Bootcamp (a prerequisite for the advanced course) • Reduce the (perceived) overlap in content between the Scientific Information Bootcamp and the advanced course. That is, less focus on (providing feedback to) basics skills, and more on specialized skills and unique, advanced stages or tools • Improve the formal evaluation of the course via a questionnaire.

A.5 ANALYTIC STORYTELLING

A.5.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes Nothing about the overall course. We have an ongoing conversation throughout the year; if ideas come up, we discuss these immediately.
Number of candidates registered for the course	95
Number of candidates who finished the course	95
Drop-out rate (drop-outs*100/registered)	11%
Percentage of candidates who passed the course	100% Everyone who participated passed the course.
Overall course score (score given by candidates)	8.6
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	52%

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):

Both the quantitative and qualitative feedback we received was positive overall. So, all we mention here is:

- 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.
- As for the suggestions to expand the program to a multi-session course: we are open to discuss this, the initiative lays with the UT.

A.6 BRAIN TRAINING: SPEED READING AND MEMORY TECHNIQUES

A.6.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	46
Number of candidates who finished the course	39
Drop-out rate (drop-outs*100/registered)	15.2%
Percentage of candidates who passed the course	n/a
Overall course score (score given by candidates)	7.8
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	23%

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

A.7 BUILD YOUR INTERCULTURAL MUSCLE

A.7.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	34
Number of candidates who finished the course	27

Drop-out rate (drop-outs*100/registered)	20.6%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	9.6
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	40.7%

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

A.8 CAREER PROSPECTS FOR YOUNG PROFESSIONALS

A.8.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	24
Number of candidates who finished the course	24
Drop-out rate (drop-outs*100/registered)	0%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.6
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	33.3%

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 have no actions planned for the moment.

A.9 CAREER ORIENTATION AND APPLICATION

A.9.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	38
Number of candidates who finished the course	36
Drop-out rate (drop-outs*100/registered)	5.3%
Percentage of candidates who passed the course	Note by TGS: this is possibly 100%
Overall course score (score given by candidates)	9.4
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	41.7%

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):

- Continue as is done over the last 15 years.

A.10 DATA MANAGEMENT BOOTCAMP

A.10.1 Participant feedback

Course Content and Applicability to Own Situation:

Many participants suggest a more concise and focused course content.

Some participants desire the course content to be better aligned with practical needs, such as data management in real research projects. They suggested more practical demonstrations or examples about data storage, backup procedures, and dealing with large datasets.

There were comments questioning the relevance of certain course topics, particularly for participants in pure mathematics or those who felt that the course focused too much on administrative tasks rather than practical data management skills.

Course Duration and Workload:

There were comments regarding the duration of the course and the time spent on assignments. Participants suggested reducing the course duration or adjusting the workload to better match the allocated credits.

Course mode(s)

Feedback on teaching methods varied; some participants found certain sessions repetitive or unnecessary.

They mentioned that some parts, e.g. watching videos or going through extensive materials, was unnecessary or better handled via interactive activities.

Some participants indicated that they appreciated the personalized feedback received and the instructor's guidance.

Suggestions were made to improve teaching methods by making sessions more interactive or focusing on organizing files, which participants found most helpful.

Several participants mentioned individual meetings with the instructor, expressing mixed feelings about their usefulness and clarity of content.

Course Management and Grading:

Some participants consider that the assignment evaluation criteria should be more flexible and consider the individual circumstances of participants' research projects.

A.10.2 Course Improvement Plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes, formal via Qualtrics survey after each bootcamp
Number of candidates registered for the course	480
Number of candidates who finished the course	223
Cancellation rate (<i>cancelations*100/registered</i>)	27%
Drop-outs rate (<i>drop-outs*100/registered</i>)	53%
Percentage of candidates who passed the course	62% (the rest are in progress)
Overall course score (score given by candidates)	7.3
Average grade of candidates who passed the course (if pass/fail, this is n/a)	N/A
Evaluation questionnaire response rate	49.3%

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

<p>Actions and improvements planned for next year (3-4 bullet points recommended):</p> <ul style="list-style-type: none"> • Reviewing, updating and improving the self-study part of the course in Canvas • Continuously reviewing and updating the DMP-tool
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A.11 CREATIVE AND DESIGN THINKING

A.11.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	(12 th May / 8 th November)
Feedback received from teachers	Yes
Number of candidates registered for the course	14 started (18 originally registered)
Number of candidates who finished the course	13

Drop-out rate (<i>drop-outs*100/registered</i>)	7.1%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	7.5
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	84.6%

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 connection between pre-workshop readings and the workshop discussions.
- Include enough breaks between activities to enhance engagement and stimulate creativity.
- Paying extra attention to the diversity of PhD candidates by focusing on creative problem-solving on topics relevant to their needs.

A.12 DATA VISUALIZATION USING R

A.12.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	20
Number of candidates who finished the course	15 (75%)
Drop-out rate (<i>drop-outs*100/registered</i>)	25%
Percentage of candidates who passed the course	100% of people who finished (attendance was the requirement)
Overall course score (score given by candidates)	7.9
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	100%

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):

- Add examples from the natural sciences

A.13 ENGLISH FOR LECTURERS

A.13.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	21
Number of candidates who finished the course	18
Drop-out rate (drop-outs*100/registered)	14.2%
Percentage of candidates who passed the course	n/a
Overall course score (score given by candidates)	9.1
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	72%

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

<p>Actions and improvements planned for next year (3-4 bullet points recommended):</p> <ul style="list-style-type: none"> • We will adjust the lesson times. • The teacher will research materials that individual participants can use that target their specific pronunciation challenges. • The teacher will send out a personal email to each participant before the start of the course to introduce herself and the course expectations. This may provide more incentive for participants to attend.

A.14 ENTREPRENEURIAL RESEARCHER PROGRAM

A.14.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	75 PhD researchers
Number of candidates who finished the course	+/-68. 7 people didn't want to do the final pitch, but it is a mandatory part of the program.
Drop-out rate (drop-outs*100/registered)	9.3%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.6
Average grade of candidates who passed the course (if pass/fail, this is n/a)	8.5
Evaluation questionnaire response rate	23.5%

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 pitches and given timeslots. 3-minute pitches instead of 7. Inform better on take-off grants
- Maybe connect a successful entrepreneur to the course for a small, relevant talk.
- Clearly describe the route to take in order to start the business after/during PhD trajectory. Sketch the roadmap.

A.15 FOCUS MANAGEMENT

A.15.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	41
Number of candidates who finished the course	34
Drop-out rate (drop-outs*100/registered)	17%
Percentage of candidates who passed the course	n/a
Overall course score (score given by candidates)	8.3
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	61.7%

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

A.16 GETTING READY FOR YOUR FIRST INDIVIDUAL GRANT

A.16.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	No, from coordinator
Number of candidates registered for the course	27
Number of candidates who finished the course	26
Drop-out rate (drop-outs*100/registered)	3.7%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.5

Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	69%

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):

- No immediate actions are needed, but SBD-Grants Offices stay vigilant with the TGS team to see if extension of topics, or number of places for grant writing are favorable for the young TGS group.

A.17 INFERENCE STATISTICS

A.17.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	
Number of candidates who finished the course	
Drop-out rate (drop-outs*100/registered)	
Percentage of candidates who passed the course	
Overall course score (score given by candidates)	8.5
Average grade of candidates who passed the course (if pass/fail, this is n/a)	
Evaluation questionnaire response rate	25%

In Q4 2022-2023 the most important points mentioned for improving the Inferential Statistics course were:

1. Do as much as possible to eliminate 'statistical anxiety'.
2. Communicate more clearly that students must do homework / prepare lectures 'prior' to the lectures
3. Try to match old and new recordings as closely as possible.
4. Improve quality of voice and image in recordings
5. Use the same terminology and 'signs' as much as possible.

These points will be the main focus of improvement activities in Q2 of 2023-2024. More specifically:

Ad. 1. I have asked a student who is currently studying Statistics Anxiety in the context of her SUTQ to come up with some ideas to accomplish this aim. On the basis of her suggestions I am trying to do the following. I will

- (1) Reduce the mention/usage of formula even more (I repeated the same formula several times in an assignment).

- (2) Put emphasis on the fact they are expected to 'learn' something, not to show they already know.
- (3) Try to make statistics more fun by writing one song each week about the concepts they are expected to learn.

Ad. 2. I will (in the first half of the first lecture) go through the Canvas pages and show what to read (and what to skip) and where they can find stuff. In this context I will again put emphasis on preparing the relevant units for each tutorial.

Ad. 3. And ad 4. Although I think most micro lectures are of good quality I will replace some (I think about 8) older recordings with newer ones.

Ad. 5. When changing the assignments I will focus on the aspect of consistency (although (I have to admit) I am not sure where things go wrong).

A.18 INTERVIEW SKILLS

A.18.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	26
Number of candidates who finished the course	13
Drop-out rate (drop-outs*100/registered)	50%
Percentage of candidates who passed the course	n/a
Overall course score (score given by candidates)	8.8
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	77%

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):

- Continue to Identify and implement practices and information most beneficial to the participants
- Continue to improve and update the course structure, information and materials as needed, based on observations during the course and on the feedback and needs of the participants

A.19 INTRODUCTION TO R WORKSHOP

A.19.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	19
Number of candidates who finished the course	15
Drop-out rate (drop-outs*100/registered)	21.0%
Percentage of candidates who passed the course	100% of people who finished (attendance was the requirement)
Overall course score (score given by candidates)	8.5
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	53.3%

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):
- More focus on data handling, e.g. through small assignments for practice
 - Now it is a half day workshop, potentially a come-back session, or an actual 2nd session, can be useful for participants with no preexisting knowledge. This lowers the pace and makes it better to follow

A.20 LEAN GREEN BELT

A.20.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	7
Number of candidates who finished the course	7
Drop-out rate (drop-outs*100/registered)	0%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.6
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	86%

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:

- Drop out rate: (rootcause: participants are not aware that attendance is mandatory) Before the course sent 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.
- Assignment. (rootcause: participants start too late with thinking about an assignment and have to do it in a rush, which lowers quality). Already in the reminder e-mail ask the participants tot think about a topic for their assignment.
- Adjust the slide deck and remove all the hidden slides that are background information in case of any questions.

A.21 PROFESSIONAL EFFECTIVENESS

A.21.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	54
Number of candidates who finished the course	54
Drop-out rate (drop-outs*100/registered)	0%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.5
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	18.5%

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):

A.22 PROJECT MANAGEMENT

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

A.22.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	63
Number of candidates who finished the course	63
Drop-out rate (drop-outs*100/registered)	0%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.0
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	49.2%

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):

- Reserve some time for letting participants make actual half-year planning.

A.23 PROJECT MANAGEMENT

(new course format, workshop part of TGS Introductory Workshop)

A.23.1 Participant feedback

Course Content and Applicability to Own Situation:

Some participants mentioned that they already had experience in project management or had covered similar topics during their previous education. They suggested that the course could be more beneficial if it addressed more complex aspects of project planning or if it was not mandatory.

Some participants mentioned that the course could focus on more advanced topics.

Others mentioned that the pace could be improved or the content compressed for better efficiency.

Training Mode(s):

Many participants appreciated the interactive nature of the course and enjoyed discussing topics with their peers. They suggested smaller group sizes for discussions to allow for greater participation, especially for introverted individuals.

Some participants mentioned a desire for more emphasis on collaboration and teamwork within the course. They suggested fostering a more inclusive and cooperative environment to enrich the learning experience.

Participants appreciated the teacher's accommodation regarding breakout rooms and found the course concise and precise.

A.23.2 Course Improvement Plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	179 (started in September 2023)
Number of candidates who finished the course	179
Drop-out rate (drop-outs*100/registered)	0%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	7.5
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	42%

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.24 PYTHON AND C++

A.24.1 Course Improvement Plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes 1) Common course script is necessary 2) C++ and Python materials should be closer in terms of presentation style and coverage of the material
Number of candidates registered for the course	54
Number of candidates who finished the course	16
Drop-out rate (drop-outs*100/registered)	70%
Percentage of candidates who passed the course	30%
Overall course score (score given by candidates)	5.9
Average grade of candidates who passed the course (if pass/fail, this is n/a)	8.5

Evaluation questionnaire response rate	75%
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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): <ul style="list-style-type: none"> •
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A.25 QUALIFIER WORKSHOP FOR PHD SUPERVISORS

A.25.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	17
Number of candidates who finished the course	17
Drop-out rate (drop-outs*100/registered)	0%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	n/a
Average grade of candidates who passed the course (if pass/fail, this is n/a)	7.3
Evaluation questionnaire response rate	70.6%

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): <ul style="list-style-type: none"> • Little adjustments if needed, based on experience in following workshops.
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A.26 QUALITATIVE DATA AND ANALYSIS USING ATLAS TI

A.26.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes formal, together with the participants, at the end of the course
Number of candidates registered for the course	10 PhD students
Number of candidates who finished the course	9 PhD students

Drop-out rate (drop-outs*100/registered)	10%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.3
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	30%

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):

- include more step by step moments would be needed, to guide the students in the software
- inform participants that they would benefit more from the course if they already have some of their own material to work on (literature review, data for analysis, etc).
- request students to prepare in advance a 5 minutes presentation on their own research

A.27 RESEARCH METHODOLOGY AND DESCRIPTIVE STATISTICS

A.27.1 Course improvement plan

NOTE: This course improvement plan is for the course as a whole. This course is a pre-master course. Therefore most of the participants are pre- and master students. The teacher submitted the course improvement plan on a different template.

Indicators partly from student evaluative questionnaire (SEQ):

Indicator from SEQ	Score
Feedback received from teachers	Yes
Overall score (grade given by students) <small>(score on Q2.1)</small>	7.5
Count of response/ response rate <small>(in title box)</small>	n=36, response 20.7%
Study duration <small>(Mode of Q2.8)</small>	61-80% >> 81% of the PM Com students spend more than 60% of the time on the course
Number of students overall	168 (of the 182 registered students took at least one exam)
Percentage of students that passed course	89%
Average grade of students	7.3
Standard deviation average grade of students	1.6

What is the **text about course improvements you want to publish** on the quality assurance website (bullet list of successes + bullet list of planned actions/improvements). If left blank, the text of the two boxes above will be used.

Successes in 2023-2024

- The high percentage students that passed the theoretical tests and R test, although they had to work hard as the balance items of the survey indicate.
- The teaching is well structured, the learning goals are clear and the online teaching material is diverse and clearly related to the learning goals.
- The student's high scores on the evaluation questions, like attaining sufficient knowledge of the subject and considering the course topics as relevant.
- The R-tutorials are very helpful to attained the required R skills and provide another opportunity to receive personal feedback.

Planned actions and improvements planned for 2024-2025:

- Online support by 'walk-in' BBB meetings instead of participating in the discussion board as a teacher.
- Small revision of the assignments to link them more clearly to the Babbie textbook.
- Check the alignment with other RM courses. This could imply substantive changes and differences in which units are part of the course.

A.28 SCIENCE WRITING

A.28.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Trainers find the program valuable for the participants. They add their own experience to the program. The discussions are lively and they apply new teaching approaches. We use trainers from different scientific backgrounds and try to match them with course participants from the different faculties.
Number of candidates registered for the course	180
Number of candidates who finished the course	157 (15% of cancellations and no-shows)
Drop-out rate (<i>drop-outs*100/registered</i>)	12.8%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.8
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	56,1%

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):

- Make the course scheduling more flexible by integrating the online Nature Masterclasses.
- Combine the online Nature self-study modules with on-campus training sessions
- Keep the course updated in accordance with current academic and UT publishing trends

A.29 SCIENTIFIC INFORMATION BOOTCAMP

A.29.1 Participants feedback

Course Content and Applicability to Own Situation:

Some participants suggested clarifying the objectives of the course to provide better guidance to participants.

Course Duration and Workload:

Some participants suggested that the course could have been condensed into a shorter timeframe or that there were too many assignments for the credits awarded.

Course Materials:

Many participants mentioned that they had already covered similar content during their BSc and MSc programs. Some felt that the material was too basic or redundant for their level of education.

Feedback on the self-study material varied, with some participants finding it too long or repetitive. Suggestions were made to condense the material to make it more concise and focused.

Course Management:

Participants suggested sorting groups based on background or study field to ensure that the course content is relevant to all participants. Some participants also suggested offering specialized courses focused on different disciplines, such as computer science.

Qualities of the trainer(s):

Several participants mentioned their appreciation for the instructor, indicating that they found the trainer to be helpful or effective in guiding their learning process.

A.29.2 Course Improvement Plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	7 times; every time after the course was given we evaluated it as a team
Number of candidates registered for the course	342
Number of candidates who finished the course	302
Drop-out rate ($drop-outs * 100 / registered$)	11.7%

Percentage of candidates who passed the course	93%
Overall course score (score given by candidates)	7.2
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	22.5%

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):
- Improvement of course registrations whereby cancellation for this course has consequences. This needs to be approved/worked out by TGS.
 - Further adjustment of the bootcamp towards the follow-up (advanced workshop (systematic) literature reviews
 - Discussion with TGS on competitive aims (large numbers of PhD students that have to follow this course and level of information skills taught by this course)
 - Elaboration in this course on setting up a research question as a starting point for searching literature; preferably with an additional exercise or assignment

A.30 TASTE OF TEACHING BOOTCAMP

A.30.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes, formal in May, informal through the runs
Number of candidates registered for the course	256
Number of candidates who finished the course	100% joining all the sessions is passing
Drop-out rate (drop-outs*100/registered)	10-15%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.0
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	23%

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.31 VISUAL STORYTELLING

A.31.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes We discuss what went well and what can be improved after each course and before we do another run
Number of candidates registered for the course	14
Number of candidates who finished the course	11
Drop-out rate (drop-outs*100/registered)	21%
Percentage of candidates who passed the course	100%
Overall course score (score given by candidates)	8.9
Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	100%

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):

- Every run the course will be updated according to the latest insights.

A.32 WORK SMARTER STRESS LESS

A.32.1 Course improvement plan

Indicators partly from candidate evaluative questionnaire (SEQ):

Indicators	
Feedback received from teachers	Yes
Number of candidates registered for the course	35
Number of candidates who finished the course	31
Drop-out rate (drop outs*100/registered)	11%
Percentage of candidates who passed the course	88.6%
Overall course score (score given by candidates)	8.1

Average grade of candidates who passed the course (if pass/fail, this is n/a)	n/a
Evaluation questionnaire response rate	38%

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):

- investigate if it is possible to offer this course more flexibly on demand
- to discuss this, a meeting between TGS, CDC and course coordinator has already been scheduled