

DURABLE INSPIRATION



VISION ON EDUCATION BK 2023-2027
29 DECEMBER 2023

 **TU Delft**
BK Bouwkunde

CONTENTS

| | |
|----------------------------------|-----------|
| FOREWORD | 2 |
| MISSION | 3 |
| PILLARS | |
| 1. TEACHING AND FEEDBACK | 5 |
| 2. LEARNING AND ASSESSING | 8 |
| 3. CURRICULUM | 11 |
| 4. STUDY CULTURE | 14 |
| NEXT | 17 |
| LITERATURE | 20 |

FOREWORD

TU Delft's most recent Vision on Education is from 2017, intended for the years 2018-2024.¹ It consists of four chapters, with objectives for alumni and their competencies, for the curriculum, for the approach to teaching and learning, and for the academic community. At the Faculty of Architecture and the Built Environment (*Bouwkunde* in Dutch, abbreviated as BK), we can relate very closely to these objectives, in particular with regard to alumni and the approach to teaching.

Nevertheless, there are three reasons for producing an Vision on Education for BK now, which as a product is also part of the Administrative Working Arrangements with the Executive Board for 2022-2024. Firstly, a lot has changed in the world (educational and otherwise) in six years; secondly, having our own Vision on Education allows us to address our specific programmes, teaching methods and study culture; and thirdly, it can serve as a basis for the further development of education at the faculty. There is even a direct connection with the latter, as it is no coincidence that the creation of this Vision on Education has largely run parallel to the preparations for renewal of our Bachelor's Programme and the harmonisation of our Master's Programmes, the introductions of which are scheduled for September 2024 (the second year of the Master's Programmes one year later); the vision has also been derived from these developments.

Moreover, we have been talking with many people in the faculty since the summer of 2022: professors, teachers, educational experts, academic counsellors, alumni in the professional field, and of course with students, during Education Afternoons, consultations with the Management Team, the Board of Studies, the Faculty Student Council and the study association Stylos, and, since spring 2023, with a special Focus Group, consisting of professors, teachers, educational experts, academic counsellors, and students. We would like to thank everyone for their contributions to discussions and previous versions of this document. After a final round of consultation with the Management Team, this Vision on Education BK is adopted by the Dean for the period up to 2027, explicitly meant as a dot on the horizon as well as a starting point from which to get there.

After an introductory mission statement, the vision is composed of four pillars, on teaching and feedback, on learning and assessing, on curriculum design, and on study culture. Equally important is the final chapter, in which the pillars are set out in more detail in a follow-up to Action Plans and Working Groups. Based on their results, the principles will be reviewed annually. That is because this Vision on Education BK is intended not as a static final product, but rather as a dynamic starting point. It is not supposed to end up in a desk drawer, but to come to life in the heads, hearts, and hands of our teachers and students, as a durable fire for inspiring interaction.

Delft, 29 December 2023

MaartenJan Hoekstra, Director of Education
Mieke Topsom, Head of Education and Student Affairs

¹ TU Delft, 2017.

A photograph of a ceiling under construction. The ceiling consists of wooden joists and a layer of perforated metal mesh. A red fire pipe runs vertically down the center. Several fluorescent light tubes are suspended from the ceiling. White wires are visible, some connected to a central white circular device. The word "MISSION" is overlaid in white text at the bottom left.

MISSION

MISSION

What do we stand for?

‘To inspire and educate academic, technically and theoretically literate and socially aware designers of the built environment in a culture of respect, focused on a sustainable impact on the built environment and open to challenges from a changing society.’

Architecture and the Built Environment

As TU Delft’s Faculty of Architecture and the Built Environment (BK), we are national and international leaders in our broad field of architecture, urbanism, landscape architecture, building technology, and management in the built environment. Our four departments, Architecture, Urbanism, Architectural Engineering and Technology, and Management in the Built Environment, focus their research and teaching around social issues such as climate, energy, health, and housing. These challenges call for qualified designers with a broad range of interests and an academic, technically and theoretically savvy and socially aware attitude, focused on the future. To this end, BK provides them with knowledge – from the basics of design, science, and engineering – and domain-specific, academic, digital, and personal skills.

Teaching

However, teaching is aimed not only at acquiring attitudes, knowledge and skills – or in the terminology of educational pedagogue Gert Biesta, “qualification” – but also at “socialisation”, thus becoming familiar with the traditions and cultures of practice and society, and at “subjectification”, or being able to personally develop in a safe and autonomous way.² At BK, this happens in an academic context, in which research on and innovation in education are obvious. We therefore know how workload, our long curriculum, and fragmentation and compartmentalisation affect our education.³ That is why, in addition to the emphasis on course content, this Vision on Education highlights an integral and inter- and transdisciplinary approach (collaboration inside and outside BK), a focus on an inspiring and inclusive encounter between teacher and student, and scope for rest and personal development in the curriculum. Central therefore, is this quote, freely to the Greek philosopher Plutarch (46-120): “Education is the filling of a pail, but more importantly, it is the lighting of a fire.”⁴

Alumni

Each year, about 300 students receive a Bachelor’s degree in *Bouwkunde* and over 600 students graduate from BK with a Master’s degree. Of these alumni, 75% find a job within three months.⁵ They are praised by employers for their design and research mindset. Because the challenges of the future are becoming increasingly complex and unpredictable, we want our alumni to be even better and more broadly prepared for this, for working on problems we cannot always oversee today. The days when BK alumni were specialists in only one field are behind us.

Lifelong learning

Obviously, our alumni continue to develop after graduating from BK. If they decide to work in the design practice as architects, urbanists, or landscape architects, they must first complete a professional traineeship. BK offers modules for this, but they are beyond the scope of this Vision on Education, as are Massive Open Online Courses (MOOCs). This vision focuses on educating students in the faculty: the Bachelor’s Programme *Bouwkunde*, the Master’s Programmes in Architecture, Urbanism and Building Sciences, and in Geomatics, and the Post-Master’s Programme The Berlage. Lifelong learning does recur in teacher professionalisation and in a [Working Group](#).

2 Biesta, 2015.

3 BK Personnel Committee, 2022; Mooij & Rooij, 2022; De Jonge Akademie, 2021.

4 Plutarch’s original assertion was: “Education is not the filling of a pail, but the lighting of a fire.”

5 BK Education Advice Team, 2023.



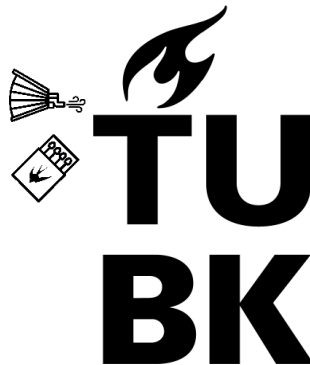
PILLAR 1

TEACHING AND FEEDBACK

1. TEACHING AND FEEDBACK

How and where do we teach?

'At BK, we inspire our students and each other, and we keep the fire burning with good feedback.'



Education as inspiring interaction between teachers and students

Education is 'leading someone out or forth' and at a *university*, this happens in a 'community of teachers and students'.⁶ Of course, these literal meanings sound old-fashioned and hierarchical, but at BK we do see education as an 'encounter between people', which Gert Biesta describes as the "weak strength" or the "beautiful risk" of education: it is about people and therefore offers no guarantee of success, fortunately.⁷ What we can provide is an inclusive environment for an interactive process of knowledge transfer and construction (teaching and learning), where it is all about inspiration for the future and where it is safe to make mistakes (see Pillar 4).

The latter is particularly important because in our education, especially in the Bachelor's Programme, learning to design is key, supported and enhanced by science and technology. Interaction in our design education is currently found mainly in the traditional 'master-apprentice' relationship, with teacher and student in one-to-one contact. Because students can also inspire each other and design is increasingly teamwork, we want to renew this approach in the 'atelier of the future' (see below). At the same time, we will also reconsider supervising on two half-days a week, as this could possibly be reduced in favour of other learning activities such as inspiration lectures or digital resources.

To ensure that teachers can focus on inspiring, on lighting the fire, during their contact time with students, we will estimate preparation and assessment time realistically. We will make teacher instructions and consultations standard, and look at how to separate grading from the giving of feedback: after all, at the point students receive a grade, they are hardly open to receive feedback (what went well and what did not) or to give it (what can the teacher improve).

Focus on feedback, teacher professionalisation, and education evaluations

To keep the fire of inspiration burning in the 'encounter between people', realistic and equitable feedback is essential, in both directions, where it is important to put yourself in the position of the other party. This is especially true with a design product, which students often see as something of themselves, as a result of which they take feedback personally. We are exploring how to incorporate peer feedback (between students and between teachers) into education, and aiming to create a better feedback culture in which, for example, mutual agreements, expectations, and tips are expressed at the start of a course.⁸

To further improve the feedback culture and the quality of our teaching staff, we will be prioritising teacher professionalisation at BK in a Teaching Quality Action Plan. We strive for diversity among our teaching staff – in terms of practical-academic, national-international and gender – and will be drawing up teacher profiles for this purpose with the competencies they must possess – in addition to their professional knowledge. They correspond in part to those of the University Teaching Qualifi-

⁶ <http://www.etymonline.com>.

⁷ Biesta, 2015, p. 17.

⁸ See for example: <https://stylos.nl/nl/onderwijs/tips-tricks>.

cation (UTQ), which every teacher with an employment of more than 0.2 FTE must obtain, through courses or an equivalency route. From 2024 there will be more customisation options in the TU-wide UTQ, and we will push for design didactics, feedback and assessment, just as for ethics, diversity, and inclusive behaviour. Temporary teachers will take a compulsory 'Mini UTQ', based on the same topics. Subsequently, annual refresher training should become the standard and a regular discussion point in the R&D cycle. To this end, the Education Advice Team within Education and Student Affairs is developing a broad but streamlined lifelong learning range of educational and professional workshops, such as on circularity and digital skills, given by specialists (teach the teacher). In addition, the teaching quality can be improved by expanding the Education Advice Team's student evaluations to include panels and teacher evaluations, and by focusing more on consistency and, especially, follow-up. Coordinators of every evaluated course will be asked for improvement suggestions. For lower-scoring courses, an Improvement Plan and an explanation to the Board of Studies will again become mandatory. The Education Advice Team will then help with the implementation.

Deliberate choice for physical and blended learning, and the 'atelier of the future'

Before, during, and after the pandemic, TU Delft always maintained that it is a campus university: again, a genuine 'encounter between people', between teachers and students, and between students themselves, contributes towards the learning process. Not least because of the need to learn the complex skill of designing from scratch, we regard face-to-face teaching as essential, as students can then learn from their teachers and from each other in an iterative process of doing it themselves, watching, and receiving feedback. Excursions have also played an important role in this regard. At the same time, we see opportunities for innovation, including with digital tools such as Virtual Reality and Augmented Reality (VR and AR, summarised as Extended Reality or XR), and Artificial Intelligence (AI). We therefore seek to renew our design education, and explore what it should look like in the future. We will be prioritising this with the existing Atelier of the Future Working Group, which is first considering the redesign of our building. The currently uniform studio spaces should become more diverse and multifunctional in the next few years, by tailoring them to different types of use: from quiet rooms and private work spaces to group teaching, or from presentation rooms to the new XR Lab and other BK Labs. The 'atelier of the future' also entails the renewal of the master-apprentice relationship with peer feedback, and other learning activities and digital resources. After all, the emergence of blended learning – in which face-to-face and online learning activities within the same course are deliberately mixed – preceded the pandemic. We will continue to encourage this type of teaching if it positively affects the quality of education, for didactic or content-related reasons, in line with students' wishes. Examples that come to mind are knowledge lectures or tutorials, from which physical education profits by making studio interaction more valuable. We will therefore not be offering any courses that are given entirely online. To advance our blended learning, we will be using the European Maturity Model for Blended Education (EMBED), which provides indicators and guidelines for implementation and improvement at course, programme, and faculty level.⁹

More open and more accessible education, and an online portfolio option

Also important is the trend towards more open education: how can our didactics and learning activities become more open and our learning resources freely accessible online and to whom, taking into account copyrights, with the aim of improving accessibility and equality of opportunity in education? We will link this research to advice on online and blended learning, and on lifelong learning, in a prioritised Open, Online and Lifelong Learning Working Group (O₂L₂). We would also like to make our online learning environment, Brightspace, more accessible and systematic, with clearer links to other online information and platforms. At the same time, we will be looking at options for an online portfolio where students can save all the work they have done to enable them to properly document and reflect on their personal and professional development. Benchmarks can then be shared with teachers, so they are aware of how well their students are progressing, the curriculum becomes more coherent, and the contact time between teachers and students can be better utilised.

⁹ Dijkstra & Goeman, 2021.



PILLAR 2
LEARNING AND
ASSESSING

2. LEARNING AND ASSESSING

How and what do our students learn and how do we assess?

'At BK, we update the contents of the pail with a view to sustainability, and assess transparently.'



Personal development key, with different learning activities, reflection, and freedom of choice

From the first day in room A – when most indicate they want to become architects – the differences and various ambitions of our students start to emerge, as they become acquainted with different fields, teachers, and their own talents, and because they increasingly become themselves. It is up to us at BK to foster that personal development, in addition to the cognitive and professional development we promote through the content of our courses.

Therefore, we determine our learning activities based on the learning objectives, as well as the ways our students learn: studio teaching, working groups, practicums, lectures, and supervision, both in groups and individually. However, 'learning' and personal development happen not only in courses, but also in between and by taking a step back from time to time, for which, according to research, too little allowance is made in higher education.¹⁰ That is why we will deliberately incorporate more time in our curricula for rest and reflection, and for self-direction and freedom of choice (see Pillar 3).

A firm foundation, updated with a view to sustainability and sustainable skills

We regard our discipline (*bouwkunde* in Dutch) as broad, with architecture, urbanism, landscape architecture, building technology, and management in the built environment as its domains. The basis of these domains are design, science, and engineering, and their related domain-specific, academic, digital, and personal skills. This core of the discipline is largely fixed, but because of three developments, we want to update the content (knowledge, skills, attitude) – what we 'pour into the pail'.

First, there is an increase in demand for the 'T-shaped engineer', who acquires in-depth disciplinary knowledge (the vertical bar) as well as being introduced to other fields and to the application of the discipline in the 'real world' (the horizontal bar). We therefore encourage collaborations within the faculty (we refer to this as intradisciplinary) and with other disciplines or faculties (interdisciplinary), or partners from society (transdisciplinary), in our curricula (see Pillar 3).

Second, our discipline is witnessing a growing urgency in societal challenges relating to sustainability and justice, which are also reflected in our current faculty themes: the challenges of urban inequality, climate crisis and scarcity of resources, the perspectives on sustainable cities, urban health and heritage futures, and the strategies for the digitalisation of society, climate adaptation and energy transition, and circularity.¹¹ As these themes are not fixed, we are prioritising a Future-Proof Education Working Group to advise on course content. Like TU Delft, we are aiming for the highest level of ambition when it comes to sustainability education: not "education *about* sustainability", but "education *as* sustainability", with the sustainable solution as standard.¹² We are joining the TU-wide initiative to relate all courses to the 17 Sustainable Development Goals of the United Nations.¹³ Given that

¹⁰ Trimbos Institute, ECIO & RIVM, 2023.

¹¹ Faculteit Bouwkunde, 2021.

¹² Weiss, Barth, Wiek & Von Wehrden, 2021.

¹³ UNESCO, 2017.

we do not yet know what the future's challenges will be, one of the most important things we need to teach students is how to deal with uncertainty. We will also introduce social issues didactically, using challenge-based learning as a promising concept.¹⁴

Third, we see that 'sustainable' skills are becoming increasingly important. In a narrow sense, these have to do with sustainability values and actions aimed at sustainability, but in a broad sense, also with intrapersonal and interpersonal skills: critical and creative thinking, reading and writing, argumentation, reflection, self-regulation, social and cultural skills, collaboration, presentation, and digital literacy.¹⁵ We will cover these skills more explicitly (see Pillar 4).

Learning objectives and final attainment levels in relation to practice

In 2019, the final attainment levels of our programmes were revised according to the guidelines of the 4TU collaboration and categorised according to the logic of proficiency in one or more disciplines, proficiency in design, proficiency in research, using temporal and social contexts, academic work attitude, and collaboration and communication, plus for the Bachelor's, the application of technology, and for the Master's, a scientific approach. The Bachelor's, Master's, and Post-Master's Programmes lead to advanced beginner, competent, and expert levels respectively with their final attainment levels.¹⁶ They were also drawn up in consultation with professional practice: after all, there is a relationship with the entry requirements of the register after the professional traineeship. However, the learning objectives of Bachelor's courses have not been updated since 2013, meaning that the final attainment levels are not well covered, especially in terms of sustainability and personal skills. The Bachelor renewal in 2024 therefore constitutes a catch-up operation in which learning objectives are revised and deduplicated, in line with the more generic final attainment levels, but also allowing flexibility in assignments. Between the various renewals, we will continue to adapt learning objectives as and when the changing world (in terms of education or otherwise) demands it.

Two questions remain to be answered by the Future-Proof Education Working Group. First, whether a new balance should be sought between learning to think critically or systemically versus retrievable knowledge, and second, when to reassess the final attainment levels themselves (in a 4TU context).

Assessment as a form of feedback

BK's Assessment Policy dates from 2018, so we are prioritising an Assessment Policy Action Plan, which builds on the recently published TU-wide Assessment Framework.¹⁷

Looking ahead, we can say that assessment is obviously meant to check whether students have achieved the learning objectives ('assessment of learning'), but we also see it as a form and moment of feedback, so students can continue learning after the course ('assessment for learning'), and they can adjust their learning process ('assessment as learning'). Therefore, in addition to suitable learning activities, appropriate assessment tasks should be used to go with the learning objectives: this is the triangle of 'constructive alignment' that should be set out for all our courses and which we want to explain in the Study Guide. Moreover, in addition to summative assessments (at the end, for a grade), we will include formative assessments (during the course, not for a grade) in all courses. We would also like to discuss results more thoroughly, including having clear rules regarding the inspection of assessed work and a clear protocol on appeals to the Board of Examiners.

In terms of organisation, for each course the teacher who is responsible for the assignments must have a UTQ. An assessment plan, matrix, and criteria (such as a rubric) will always be established beforehand. The Board of Examiners will also regularly assess the assessments. When grading our assessments, we will focus more on calibration between teachers; in design projects, we use the four-eye principle. In group work, an individual component should always be visible, which is why grades may vary. We will carry out the plagiarism and fraud check; we do not deny the advent of AI (ChatGPT, DALL-E, and so on), but rather teach students to use it critically. The Education Advice Team will assist coordinators when analysing results in order to improve the quality of teaching, and conduct innovative research, for example into comparative and programmatic assessment.

¹⁴ For example, we can look at TU Eindhoven, see: <https://tueinnovationspacetoolkit.com/index.php/getting-started>.

¹⁵ See for example: <https://data.europa.eu/doi/10.2760/7670>; <https://www.slo.nl/thema/meer/21e-eeuwsevaardigheden>.

¹⁶ Lawson & Dorst, 2009.

¹⁷ TU Delft, 2023.

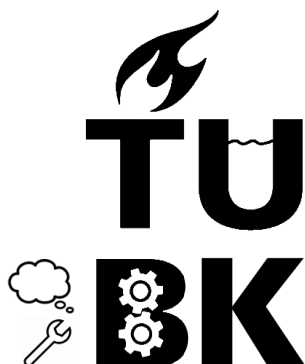


PILLAR 3
CURRICULUM

3. CURRICULUM

How do we design our curricula?

'At BK, our curricula are like well-running, adaptable machines that can also pause for reflection.'



A studiable career

The literal meaning of the word *curriculum* is 'running track', and this is how many people perceive their CV and study *career*, originally a 'race track'.¹⁸ At BK, however, we wish to prioritise studiability and teachability. Too often, our curricula are seen only as a sum of separate courses, without students and teachers seeing interrelationships or spaces in between.

We would therefore like our curricula to operate like well-running machines, whose gears do not turn separately but interlock. This requires clear communication with students and teachers about clear curricula, in which courses in learning trajectories and tracks are coordinated and, if possible, integrated. In this way, we attempt to bring the "intended" curriculum closer to the "implemented" and "attained" curriculum.¹⁹

In curriculum design, we wish to take into account normal working hours, as well as holidays and days off. Instead of an arithmetic principle, where each credit would represent exactly 28 hours of study, with 40 weeks of 42 hours, we assume the realistically available and desirable hours, with sufficient rest in and between courses. This will allow more opportunity for knowledge and skills to sink in, for reflection, and for personal development (see below and Pillar 4).

The gears of our curricula should not only be connected, quietly turning and occasionally able to stand still, they must also be adaptable, for both teachers and students. Courses should be able to respond to changing circumstances, and to the needs of society and research – after all, even faculty themes are not set in stone – and students should be given greater autonomy in their study careers.

Clear learning trajectories and tracks, aimed at broadening, deepening, and connecting

Students can only progress through our curricula properly if the structure is clear. For this, it is helpful that our Bachelor's and Master's courses are all worth 5, 10, or 15 credits (EC). In the coming years, we aim to further strengthen curriculum structures, through improved alignment and integration.

From September 2024, the renewed broad Bachelor's Programme will have five recognisable learning trajectories, with Design ('ON', 60 EC) being the most important, followed by the new Science and Skills ('WV', 30 EC) trajectory, which, in line with the latest Visitation Report, will strengthen the academic attitude, Technology ('TE', 25 EC), Foundations ('GR', 20 EC), and Society ('MA', 15 EC).²⁰ The first year will form the basis of the programme, with each semester consisting of a theoretical quarter, followed by a design quarter focusing on the synergy with a different trajectory each time. In the second year, the connection to society will be established, with each semester starting with a design quarter. The third year begins with the minor (30 EC), in which we will encourage broadening and diversity, and will conclude with the Bachelor's End Project (BEP, see below). The coherence between trajectories is essential, as it is within quarters, with, for example, shared products or final

¹⁸ <http://www.etymonline.com>.

¹⁹ See: Van den Akker, 2013.

²⁰ QANU, 2018, p. 10.

products used as starting points in new courses. Fixed vertical Test Weeks will facilitate retakes and reduce cases of students falling behind schedule, including those with functional impairments. The Master's Programmes in Architecture, Urbanism and Building Sciences (with the tracks of Architecture, Building Technology, Urbanism, Landscape Architecture, and Management in the Built Environment) and Geomatics will, each with their own final attainment levels, be working towards a harmonised curriculum structure. From September 2024, the first year will form the domain-specific basis, featuring design, research, and theory courses, followed from September 2025 by the second year with its outward-facing fifth quarter (see below) and the domain-specific graduation. The connections between departments and with other faculties, social partners and practice are essential. Finally, The Berlage Post-Master's Programme has a one-and-a-half-year curriculum with research and theory courses of 3 and 6 EC, design courses of 12 EC and a graduation semester. We will seek to strengthen collaboration within the faculty by exchanging teachers and public programmes.

Reduced workload for students and teachers, more reflection and personal development

With 40 weeks without real timetable-free exam weeks, our curricula are the longest in the Netherlands.²¹ Moreover, with the best of intentions, many courses have also become more 'packed' over the past decade. This makes it necessary to reduce the workload of students and teachers alike, and to introduce more 'breathing space', both in the courses themselves and in between.²²

Our aim therefore is to reduce our content to its essence – in line with the deduplicated learning objectives – what do we really want to teach students in each course? To this we will realistically adapt the contact hours for each learning activity, assignment, exam, or presentation. Improving the balance between contact hours and self-study will actually allow for more learning (see Pillar 4).

The workload is at its peak halfway through both semesters, when courses are scheduled in immediate succession, with just a weekend between them. At these moments, we would like to give students the opportunity to reflect, and teachers the opportunity for reviewing and preparing. To this end, the Bachelor renewal involves the introduction of Personal Development Weeks (POWs), where students use the last week of each first and third quarter for self-study, during which they look back on and forward to their learning and their personal and professional development, reinforced through voluntary activities.²³ A Personal and Professional Development Working Group will evaluate this innovative format after a year, and examine whether it can be extended to the Master's Programmes.

Self-direction, freedom of choice, and adaptable education

Developing an academic attitude also involves increasing autonomy or self-direction and freedom of choice, as this benefits personal development and counteracts stress.²⁴

In the renewed Bachelor's Programme, we encourage greater choices in design and analysis projects, the minor and the Bachelor's End Project. In this BEP, students can elaborate their architectural and technical design project in more depth on the building level, or on the incorporation into the urban-landscape space, or on the study of feasibility and usage aspects.

In the Master's Programme, the fourth quarter will have elective courses within BK (intradisciplinary): deepening within one's track or programme, or broadening from multiple tracks or programmes. As desired by the Executive Board, from 2025 the fifth quarter will contain elective courses based on partnerships with different faculties or with social partners (interdisciplinary or transdisciplinary).

With this range, we think we can better address the major transitions in the 'real world'.²⁵ The Personal and Professional Development Working Group will explore the adaptability of our courses, without losing sight of the workload, and, in consultation with the BNA and BNSP professional associations, the incorporation of internships. Because our Honours Programmes are being reshaped, based on the TU-wide range in the Bachelor's Programme and on research internships in the Master's Programmes, we are looking at which activities can become widely accessible (possibly in the Personal Development Weeks).

21 In comparison, Leiden University has 26 weeks of contact teaching, see: De Jonge Akademie, 2021.

22 BK Personnel Committee, 2022.

23 Bohm, Hoekstra, Van den Burg & Reincke, 2023. The documented reflections form the input for the last 'WV' course.

24 Trimbos Institute, ECIO & RIVM, 2023.

25 Biesta, 2023; De Wit, 2022.

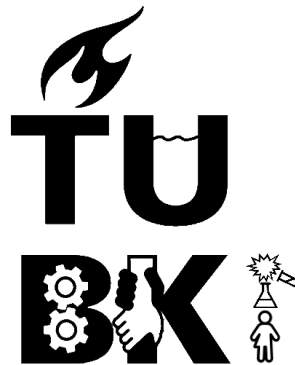


PILLAR 4
STUDY CULTURE

4. STUDY CULTURE

How do we create a respectful and inclusive study culture?

'At BK, we work together and limit stress, making mistakes is allowed and everyone feels welcome.'



Personal skills, collaboration, communication, experimentation, and resilience

The well-being of students and teachers is a prerequisite for good education. This means that education as an 'encounter between people' starts with getting on well with each other, being able to empathise respectfully with others and their roles, and helping the learning and development process run as smoothly as possible. Important interpersonal skills for students and teachers are therefore collaboration and communication. It was not without good reason that precisely these two skills were added as an explicit category in the 2019 4TU final attainment levels. Obviously, our task is to use them more effectively as assessable learning objectives for working in groups and for speaking and writing about the profession with each other and the outside world (see Pillar 2).

Moreover, being a design-based faculty, we certainly want a study culture in which students feel safe making mistakes and learning from them, rather than being afraid to make them in the first place. In our studio-based teaching, therefore, we seek to stimulate experimentation, rather than just simulating practice. Making explicit reference to resilience as a (design) skill helps students become (stress) resistant and stay mentally healthy.²⁶

Limiting stress and the pressure to achieve

Many evaluations of our education highlight the heavy study workload and stress experienced by students.²⁷ This is also evident from the research carried out at the faculties of BK and IDE into 'healthily challenging design education', the accompanying publication (highly recommended for students and teachers) of which uses experiences and theoretical underpinnings to clearly show what stress is, where it comes from, and how it can be dealt with.²⁸ Our challenging design courses rightly demand a lot from our students, but students are also encouraged by themselves, fellow students, or teachers to do more, to work harder, to work through the night. After all, is a design ever finished? Or, this is how things work in practice, right? We do not believe this is a healthy situation.

That is why, at BK, we wish to embrace the lessons from the research and reassess the balance between challenging and healthy design education. We respect the boundaries between study or work and leisure time, for example by setting clear deadlines during working hours and by making expectations clearer. In line with other research, we also regard learning to study (planning, structuring, summarising) as a skill to teach, in the Personal Development Weeks, for example.²⁹

Obviously, teachers also have a responsibility here, because changing a culture does not happen by itself. Communicating and giving feedback should be based on respect and focused on product as well as on process, and on the joint (intersubjective) naming of qualities and ways for further development, not on the person or the pursuit of quantity. This is why we put design didactics and

²⁶ Trimbos Institute, ECIO & RIVM, 2023.

²⁷ <https://brightspace.tudelft.nl/d21/le/content/39807/Home>.

²⁸ Mooij & Rooij, 2022.

²⁹ Trimbos Institute, ECIO & RIVM, 2023.

feedback, with a focus on time management, at the heart of teacher professionalisation under the Teaching Quality Action Plan (see Pillar 1), why we also prioritise design assessment in our Assessment Policy Action Plan (see Pillar 2), and why we incorporate sufficient space for rest and reflection into the curriculum (see Pillar 3). We will continue to organise meetings such as the Education Afternoons for students and teachers to discuss the issue of stress and the pressure to achieve.

Diversity, inclusiveness, and security

Our more than three thousand students and hundreds of staff come from more than 40 countries. Among all these people, there are of course many more differences than where they come from, such as in terms of gender, sexual orientation, age, religion, functional impairment. We want to positively acknowledge this diversity because our education benefits from observing it from different perspectives, and the same applies to solutions for the built environment. Moreover, we want everyone, regardless of their differences, to feel welcome, seen and safe. We therefore strive for equality and inclusiveness, also in our education, from an intersectional perspective, because differences and inequality can overlap and reinforce each other.

To this end, we are working with BK's Diversity Officer and Community Officer, prioritising an Inclusive Education Action Plan, in line with their Equality, Diversity and Inclusion Plan. Within that context, we would like to start by 'decolonising' our learning resources and courses, and making them more inclusive. Besides a logical focus on the Dutch context and history, we are allowing greater scope for a diverse range of projects and people, in terms of origin and gender, for example in plan documentation and exhibitions, including the possibility of explaining and discussing the choices that have been made. In addition, we will be putting ethics and diversity at the heart of teacher professionalisation (see Pillar 1) and in a new code of conduct. We will also reconsider the selection procedure for the *numerus clausus*, as the current method involving assignments fosters inequality of opportunity: we are investigating whether the drawing of lots could be more inclusive.

To make everyone feel safe, it is also important to prevent inappropriate behaviour, be it between or among students and teachers. Campaigns involving the Stylos study association, the Faculty Student Council, and the Personnel Committee will have to make the issue a matter for discussion and will clarify the procedure for contacting the complaint coordinator and confidential advisor.

Better collaboration and (study and career) coaching

Ultimately, the study culture is determined by how all students and staff work together as a 'community', to return to the literal meaning of the word *university*. This will only succeed if we are willing to learn from each other at every level.

For new students and teachers alike, we want a 'soft landing'. Students receive help from mentors and buddies (in the Bachelor's and Master's Programmes), for as much peer feedback on study-related and other issues as possible. Mutual feedback is also important for teachers, especially for those just embarking on their careers. In our staff policies, we aim for diversity and require courses in Dutch, so teachers become part of the community inside and outside the university, and can also teach in our Dutch-language Bachelor's Programme. At the same time, we want to encourage international collaboration in support of open education and an open study culture. In our faculty, we will select coordinators and teacher members of participation bodies more transparently, within the rules of our Faculty Regulations, and limit appointments to a maximum of one period of extension, in order to encourage people's development.

Finally, we would like to provide students with even better supervision for their study careers and exploration of the labour market – topics that both feature in the Personal Development Weeks. The academic counsellors focus on study careers, with advice on study planning, falling behind schedule, (mental) health, prevention, exceptional circumstances, and functional impairment, and can refer students to a student psychologist or doctor, if necessary. As far as the labour market is concerned, it is important as a faculty to better regulate intake for the various Master's tracks. In the case of BK, becoming an architect is not the only option, and society is demanding a shift towards the graduate profiles of urban designer and landscape architect. The Management Team is going to target this explicitly.



NEXT

NEXT

How do we proceed?

'The Vision on Education BK materialises in Action Plans and Working Groups with clear principles.'



Principles

In the four pillars of this Vision on Education, we have identified three Action Plans and four Working Groups to start working on the most important priorities for the period up to 2027. In doing so, we are acting as much as possible in tandem with existing teams in Education and Student Affairs, the faculty, and TU Delft. Below, we briefly discuss the tasks associated with the Action Plans and Working Groups, as well as the timeline and evaluation method. The principles of education as an inspiring, respectful encounter between people, of curricula with sufficient rest and space for reflection and personal development, and of innovations on content and didactics, aimed at sustainability, inclusiveness and connection with society, apply throughout.

Teaching Quality Action Plan

The Education Advice Team, together with the Director of Education, the Head of Education and Student Affairs, and the HR manager, will draw up an Action Plan for improving teaching quality, drawing on the expertise of TU's Teaching and Learning Services and specialists within the faculty, and consulting with the Board of Studies. The plan will focus primarily on teacher professionalisation, with an inventory of teacher profiles and competencies, and of training needs. The team will also issue advice on the relationship between the TU-wide 'customised' UTQ, the faculty-based 'Mini UTQ' and the existing Design Didactics course, with a focus on a sound and inclusive feedback culture, on intersubjective assessment, and on design process, experimentation and resilience. A next step is a broad didactic and domain-specific range of workshops, for example in the field of challenge-based learning or circularity, so annual retraining becomes a matter of course and a recurring feature of the R&D cycle. Secondly, the Action Plan contains proposals to improve and broaden the effectiveness and implementation of student and teacher evaluations, for the continued benefit of the quality of teaching.

Assessment Policy Action Plan

Together with the Board of Examiners, the Education Advice Team is developing a new faculty Assessment Policy, in line with TU's Assessment Framework. Principles will be formulated in the first section based on the triad of 'assessment of, for and as learning' and on nine 'core values'. The second part will describe the assessment cycle chronologically, from the preparations before a course (with the constructive harmony of learning objectives, learning activities and assessment tasks, an assessment plan, matrix and criteria, and achievable deadlines), to the obligations during a course (with formative assessment, calibration, and organisation), at the end of a course (grading), and after it (analysis and discussion of results, and retakes). Finally, the plan will include advice on dealing with fraud, plagiarism and AI, and proposals for innovative research into alternative assessment tasks.

Inclusive Education Action Plan

For this Action Plan, we connect to the chapter on education in the Equality, Diversity and Inclusion Plan of the faculty Diversity and Community Officers. The Education Advice Team, HR, and the academic counsellors will provide advice and support where necessary. Key to this are the focus on more inclusive learning materials and assignments, as well as on ethics and inclusive behaviour in workshops and a new code of conduct. An advice for the numerus clausus selection procedure is also being developed. Finally, it will address how to create a safe learning and working environment.

Atelier of the Future Working Group

This existing Working Group, which includes teachers and students and is led by the Bachelor Coordinator, will be expanded to include an education advisor and will first work on the physical redesign of our building, including making use of the XR Lab and other BK Labs. This will be followed by innovative proposals for design didactics, for instance on the master-apprentice relationship, more experimentation and AI. The Working Group will report to the Dean and to the Director of Education.

Open, Online, and Lifelong Learning Working Group (O₂L₂)

This Working Group is a continuation of the current Open and Online Education Working Group (O₂E), with teachers and an education advisor, led by the Bachelor Coordinator. 'Open' is about exploring open didactics and freely accessible learning resources, using the expertise of the TU Delft Library. The purpose of 'Online' is primarily to investigate further possibilities for meaningful blended learning and online student portfolios. For 'Lifelong Learning', a faculty coordinator will be appointed who will propose policies with the Working Group (for example for MOOCs, and for the professional traineeship). The Working Group reports to the Director of Education.

Future-Proof Education Working Group

In line with the TU-wide Sustainability Working Group, this Working Group is made up of professors, teachers, external experts, representatives from professional practice, and students, led by the faculty Sustainability Coordinator, who forms the link with the Sustainability Action Plan. Based on relationships with research and practice, the Working Group advises on existing and new education, responding to future questions, aimed both at embedding and renewing faculty themes, and at implementing and exploring 'sustainable' skills. This involves thinking about the balance of critical and systemic thinking versus retrievable knowledge, and in 4TU and practical contexts, about recalibrating the final attainment levels. The Working Group reports to the Management Team.

Personal and Professional Development Working Group

The core of the current Personal Development Weeks (POW) Team, with an education advisor, academic counsellor, and a student, will be led by the new POW coordinator and will – in addition to organising the weeks in the Bachelor's Programme – evaluate and encourage personal development and reflection in our curricula, including the Master's Programmes, and promote freedom of choice in and the adaptability of courses. The Working Group can work in partnership with the TU-wide Minors Assessment Committee and the Joint Interdisciplinary Projects Team. Finally, the Working Group will explore opportunities for internships and consider what activities from the Honours Programmes can be made widely accessible. The Working Group reports to the Director of Education.

Global timeline

The Teaching Quality and Assessment Policy Action Plans and the ongoing Atelier of the Future Working Group will be prioritised until the spring of 2025. The initial actions can then be evaluated and included in the Self-Evaluation for the Accreditation of 2026. Every part of the Vision on Education will be reviewed in 2027, in anticipation of its successor for the period 2028-2032.



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LITERATURE

LITERATURE

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