



ASIIN Seal

Accreditation Report

**Bachelor's Degree Programme
Civil Engineering**

Provided by

Shanxi Datong University, China

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A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name
土木工程	Civil Engineering
<p>Date of the contract: 29.07.2024</p> <p>Submission of the final version of the SAR: 16.04.2025</p> <p>Date of the onsite visit: 12./13.05.2025</p> <p>at: Shanxi Datong University, Yudong Campus and Xinpingwang Campus</p>	
<p>Expert panel:</p> <p>Prof. Dr.-Ing. Haldor Jochim, Aachen University of Applied Sciences</p> <p>Prof. Dr. Ing. Tim Ricken, Stuttgart University</p> <p>Xinlong Tang, Graduate student at Shanghai University for Science and Technology</p> <p>Dr. Lufang WU, Shanghai Construction Engineering E-commerce Co., Ltd.</p>	
<p>Representatives of the ASIIN headquarter: Stefanie Lochbaum</p>	
<p>Criteria used:</p> <p>European Standards and Guidelines as of May 15, 2015</p> <p>ASIIN General Criteria as of March 28, 2023</p> <p>Subject-Specific Criteria of Technical Committee 03 – Civil Engineering, Geodesy and Architecture as of June 26, 2020</p>	

B Characteristics of the Degree Programme

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF ¹	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Civil Engineering	B.Eng. (Bachelor of Engineering)	–	6	Full time	None	8 Semester	236.5 ECTS	September 1, 1957

Shanxi Datong University is a regional public university located in Datong, Shanxi Province, China. It primarily serves the educational and developmental needs of the local area and is recognized for its focus on teacher education, engineering, and applied sciences. While not among China's top-tier research universities, it plays a significant role in regional talent development and contributes to the broader goals of higher education expansion and economic development in northern Shanxi.

The **Civil Engineering Bachelor's program** at Shanxi Datong University is recognized as a first-class undergraduate major in Shanxi Province, with roots tracing back to 1956. It began independent student recruitment in 2004 and expanded in 2019 to include a master's specialization in underground space technology, forming a complete talent development pathway. The program emphasizes a strong integration of theory and practice and maintains close partnerships with major regional construction companies to support industry-university collaboration. It aims to produce comprehensively educated graduates equipped with solid theoretical and practical skills, ethical awareness, and an international perspective, aligned with national engineering qualification standards and prepared for global credential recognition.

¹ EQF = The European Qualifications Framework for lifelong learning

C Assessment of the Expert Panel

This accreditation report is based on the preliminary evaluation report for the degree programme under review. As the evaluation report strictly adheres to the relevant general and subject-specific accreditation criteria, no changes have been made to the evaluative chapters. The expert panel has considered the statement and additional information of the HEI for its concluding remarks and recommended resolution.

The following sections of the report are based on the audit discussions the expert panel had with relevant stakeholder groups: University leaders, program coordinators, student representatives, representatives of cooperative enterprises, teaching staff. The focus of this stage of the accreditation lies on the Civil Engineering program's compliance with the ASIIN general and subject-specific accreditation criteria. In addition to the audit meetings, the expert panel relies on the documentation about the program and the documentary respectively regulatory framework which Shanxi Datong University has provided before, during and after the audit.

C-1 Objectives and learning outcomes of the degree programme [ASIIN 1.1]

Evidence:

- Self-assessment report, Chapter 1.1
- 05-5-3 Education Plan for Civil engineering of 2023, Appendix 05
- Module descriptions, Appendix 09
- University website (in Chinese only)
- Audit discussions

Description of the current status

In the Self-Assessment Report (SAR), the University has defined overall learning objectives as well as course-related learning requirements for the study program Civil Engineering as shown in the Appendix of this report (see below). Further formulation of learning objectives can be found in Appendix 05 of the supporting material provided by the university. Furthermore, detailed learning outcomes can be found in the module descriptions of every course.

Correction of factual errors and supplementary information after the statement of the Higher Education institution:

5 The university originally positioned the program as being rooted in Shanxi and serving the broader national context. In light of the requirements associated with international accreditation, the program has since been reoriented to place greater emphasis on developing students' international perspectives and fostering internationalization. Consequently, the original phrasing highlighting the regional and national focus has been removed.

10 In addition, the original training objectives were aligned with China's engineering education standards, specifying professional competencies to be achieved approximately five years after graduation. To ensure greater alignment between the learning outcomes and the program objectives, according to the University these have been revised to reflect the competencies expected of students upon graduation after four years of undergraduate study.

Analysis and assessment of the expert panel

The expert group takes note of the stated program and course learning outcomes.

15 The experts consider them realistically targeting the academic qualification level of a civil engineering program with a strong focus on structural engineering. However, with regard to the broader scope of a full-fledged civil engineering program some of the courses relating to other areas of the discipline appear to be of insufficient depth to adequately cover the whole range of civil engineering, particularly in water construction, waste management, construction management and transport. Generally, however, the modules appear to complement each other in a way that is consistent with a degree in structural engineering, thereby creating distinct competency profiles.

25 Apart from that, the University convincingly pointed out that they had established the learning objectives in accordance with the demands of the industry and business. That is in line with the strong application-oriented design of the programs. In that respect, the University obviously uses its various feedback channels with business and industry (practical weeks, internship, meetings with industry association) to update the learning objectives and correspondent curricula as new demands and technological needs arise.

30 The expert panel notes that the learning objectives stated in the SAR differ from those outlined in the document "05-5-3 Education Plan for Civil engineering of 2023". Furthermore, according to the SAR, the study period spans across eight semesters over 4 years. By contrast, the document "05-5-3 Education Plan for Civil engineering of 2023" introduces the learning objectives with a formulation that expects students to achieve the key objectives of this "major [...] in about 5 years after graduation" [...]. This formulation of the learning

objectives does not align with the study period aimed for. It is therefore strongly recommended to align and consistently communicate formulations of objectives and learning outcomes, and to provide a single, consistent set of learning objectives across all key documents.

5 Furthermore, the expert panel was unable to locate a published version of the defined learning outcomes on the official Shanxi Datong University website. To ensure transparency and accessibility for all stakeholders—including prospective students and external parties—it is strongly recommended that the defined learning outcomes be published openly on the university’s official platform.

10 Since “the ability to communicate with international peers and study abroad” is one of the program’s learning objectives, establishing an English-language website could facilitate more international exchange. In a similar vein, it is difficult for international universities to learn about the content and structure of this program (for example through an English website). Similarly, prospective international students have no way to access information
15 about the program’s offerings. During the audit discussions, the expert group was told that learning objectives are published on the Chinese website and on a WeChat page. It is to be noted that, while WeChat may be an effective communication channel for domestic audiences in China, it is not an ideal way to reach international audiences with information about the program. To support potential joint programs or international exchanges, the
20 university should consider providing an English-language overview of the civil engineering program and its learning objectives and publishing an abridged English version of the university website.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.1:

25 The experts welcome the adaptation of the learning objectives to the duration of the study program as well as the university’s announcement to consistently anchor and publicize the learning objectives. However, since this has not yet been implemented, they continue to propose a related requirement.

The experts assess the criterion as partially fulfilled.

30 **C-2 Name of the degree program [ASIIN 1.2]**

Evidence:

- Self-assessment report, Chapter 1.4
- Curriculum (see self-assessment report and appendix of this report)

- Audit discussions

Description of the current status

5 According to the SAR (p. 12) the Chinese name of this major is "Civil Engineering". It is explicitly listed as "Civil Engineering" (code 081001) in the "Catalogue of Undergraduate Majors of Ordinary Colleges and Universities" issued by the Ministry of Education of China. It complies with national standards for engineering education. The school consistently uses this name in enrollment, teaching, employment, and other documentation.

Analysis and assessment of the expert panel

10 The expert group's review of the provided curriculum found several foundational civil engineering modules. However, the experts also found that – apart from its structural engineering focus – the curriculum does not have enough substance and depth to form a comprehensive civil engineering program in terms of international standards.

15 To better align with European standards, the university should consider renaming the program, for example by adding a focus or subtitle such as Structural Engineering to the original name in order to better reflect the program's focus on structural engineering within the broader civil engineering discipline. This would allow the program to maintain its emphasis on structural engineering.

20 Furthermore, the university should ensure that the revised program name is clearly communicated on all platforms, such as the public website, internal platforms like WeChat, and all other relevant channels. This will help prospective students understand the program's curricular focus.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.2:

25 To better reflect the specific focus of the program, the HEI states its intention to rename the study program to Civil Engineering (Structural Engineering), following the experts' recommendation. The experts additionally consider it necessary that the new name be implemented, updated, and consistently published across all relevant documents and platforms.

The experts assess the criterion as partially fulfilled.

C-3 Curriculum [ASIIN 1.3]

Evidence

- Self-assessment report, Chapter 1.3

- Module descriptions, Supporting materials Appendix 09
- Study Plan/Curricular Overview, Appendix 08
- Audit discussions

Description of the current status

5 The modules in the Civil Engineering curriculum are categorized into the following five groups:

Cross-disciplinary courses (CC), including compulsory and general education modules mandated by the Chinese Ministry of Education, designed to enhance students' knowledge of Chinese history, Chinese law, and international communication skills.

10 **Foundational modules** in mathematics and natural sciences (FM), encompassing mathematics, physics, and chemistry, aimed at fostering a broad education in natural sciences and mathematics.

15 **Core foundational knowledge modules (CFKM)**, including computer science, mechanics, and basic civil engineering knowledge, intended to strengthen the essential content of the major.

Specialized professional knowledge modules (SPKM), such as construction engineering, mining construction, geotechnical and underground engineering, course design education, and professional electives, aimed at deepening professional expertise.

20 **Practical training category (PTC)**, including civil engineering introductory internships, production internships, engineering geology internships, engineering surveying internships, graduation internships, and graduation theses (designs), designed to develop student's abilities to independently perform architectural design, structural design, or construction organization design.

25 According to the SAR, this program offers **students various mobility** opportunities, including:

- International exchanges, such as two groups of teachers and students sent to Germany in 2018-2019
- Inter-university exchanges, such as the so-called "2+2" program at Beijing University of Technology
- 30 • Industry internships, where students can gain practical engineering experience. Nearly 20 students each year complete their graduation projects at partner companies.

- Regular corporate training programs for teachers and students, such as sessions on electromechanical modeling and video post-production.

According to the SAR, the professional talent training plan serves as the core framework for organizing teaching activities and evaluating teaching quality at the school. The plan should be updated continuously through a "four-year major revision and two-year minor revision" mechanism to align with societal needs and disciplinary advancements.

The four-year major revision comprehensively aims at restructuring the training objectives, curriculum system, teaching model, and evaluation standards to match national strategies, regional industrial demands, and international education certification benchmarks. The two-year minor revision involves partial adjustments based on student feedback, industry research, and optimization of practical components.

This revision process should follow a "research-demonstration-pilot-optimization-implementation" approach led by the college with input from the academic community, industry experts, external teachers, and students. By integrating graduate employment data, employer feedback, and disciplinary trends, the training plan is systematically refined to ensure the teaching and learning process dynamically adapts to societal demands while fostering students' innovative spirit and practical abilities.

The University presents the academic success rates. According to these, the civil engineering program has demonstrated strong academic performance, with most students graduating on time and only a small number graduating late. Additionally, by its own account, the university has successfully reduced dropout rates in the program. Reportedly, this is facilitated by allowing students to repeatedly attempt exams until they pass, with new exams generated from a question pool to ensure uniqueness for each attempt (see also below C-7).

Statistics on Academic Success (Cohort Statistics)

Study Programme 1¹

Cohort Year ²	Total Enrolled ³	Graduated on Time ⁴	Graduated Late ⁵	Still Enrolled ⁶	Dropped Out ⁷
2015	150	142	5	0	18
2016	150	141	17	1	10
2017	93	84	5	1	5
2018	76	77	2	0	2
2019	144	130	10	2	4
2020	90	78	12	7	1
2021	77	0	0	77	0
2022	96	0	0	96	0
2023	93	0	0	93	0
2024	93	0	0	93	0

Average Graduation time (in semesters)⁸: _____ 4years _____

Analysis and assessment of the expert panel

Content

5 The panel finds it difficult to gain a clear overview of the curriculum, particularly in understanding the structure, the progression of course content and the way courses build on each other. It was not readily apparent which courses are mandatory and which are electives. Therefore, it is strongly recommended to provide a comprehensive curriculum map that clearly illustrates the sequence and interrelation of courses, highlights prerequisites and learning progression, and distinguishes between compulsory and elective modules. This would significantly enhance transparency.

10 With its focus on structural engineering (as outlined in section C-1 and C-2), the curriculum was generally deemed satisfactory by the expert panel. However, the experts note that, for a civil engineering program aiming to meet international standards, the curriculum lacks sufficient breadth and depth. In particular, they identified insufficient coverage and depth in key areas such as water engineering, waste management, construction management and transportation infrastructure.

15 The program offers an impressive range of practical, hands-on learning experiences. Students have the opportunity to participate in manifold innovative competitions on provincial and national level, work in the AI and robotics lab, and are even allowed to pursue their own projects in the labs, which are always accessible outside of classes. This gives them valuable opportunities to apply their knowledge and develop essential skills.

20 While the program offers a solid foundation, the panel still finds that the current fundamental course offerings are comparatively small. The experts strongly recommend increasing the scale and content in key areas like mathematics and engineering mechanics. This would help ensure students gain the necessary depth of knowledge in these critical civil engineering subjects.

25 The experts note that a broad range of general education courses divert a significant amount of time from the main study direction. They recognize that these general courses are required by the Chinese Ministry of Education, but suggest exploring ways to potentially reduce or restructure these general course requirements or integrate some of the competences into the engineering modules. This would allow for a more stringent focus on the core civil engineering curriculum.

30 During the audit, industry representatives expressed a desire by students to have better knowledge of construction rules and regulations. The lecturers noted that this content is already included in the curriculum, but may not be understood well enough by the students. The experts recommend further strengthening the coverage of official construction

35

standards, either through a dedicated course or by systematically integrating it throughout the program. This would give students valuable exposure to the guidelines and regulations they will encounter in their professional careers.

5 In the audit discussions, students emphasized their wish to have more opportunities to develop critical thinking skills and gain a broader, more international perspective on civil engineering standards and best practices. The expert team recommends considering how to include more content focused on critical thinking, as well as examining how European and international civil engineering standards and case studies could be integrated into the program (e.g., through external guest lecturers or other methods to provide more insights
10 into global perspectives). Interdisciplinary approaches, such as preservation technologies of historic buildings, would also be welcomed by some students. This would benefit the students by providing a more comprehensive, global understanding of the field.

The expert panel is particularly impressed by the program's strong, structured partnerships with industry. These valuable connections allow students to gain relevant, real-world ex-
15 perience and insights early on in their studies and help ensure students are well-prepared for the expectations and challenges they will face in their future careers. The panel believes these industry collaborations are a significant strength of the civil engineering program, providing students with unparalleled opportunities to apply their knowledge and develop essential professional skills. This hands-on, practical focus complements the program's ac-
20 ademic rigor, creating a comprehensive educational experience.

Structure of the programme

The experts very positively note that the study materials, including the module descriptions, are well-developed and provide detailed information to both teachers and students for each module.

25 Furthermore, the experts are impressed by the large number of elective courses already offered in the undergraduate degree program. This flexibility allows students to tailor their studies to their interests and career goals.

On request, the University clarified that there is currently no Master's program in Civil En-
30 gineering. Establishing a dedicated Master's program in Civil Engineering could be a strategic way to enhance the department's educational offerings and provide students with opportunities for advanced study and specialization in this field. A Master's degree in Civil Engineering would allow students to build on the foundational knowledge gained at the undergraduate level and develop specialized expertise in areas such as structural design, transportation systems, environmental engineering, or construction management. Offer-
35 ing this advanced degree program could help attract high-calibre students, strengthen the

department's research capabilities, and solidify its reputation as a leading centre for civil engineering education and innovation.

Student mobility

5 The university has established a valuable practice of cooperating with Beijing Industrial University. This partnership allows 2-3 students per year to study or participate in an exchange program there, providing students with important opportunities for national mobility and experience.

10 In the audit discussion, the students criticized a lack of awareness and guidance on the steps required to pursue study or employment opportunities abroad. They reported feeling uncertain about the process and expressed a need for more comprehensive support and counseling in this area. Providing students with clear information, resources, and advice on international academic and career options is therefore recommended to help them take advantage of these valuable experiences and expand their horizons. To further strengthen this, the university could consider establishing clear guidelines and policies for student exchange, including both incoming and outgoing students.

15 English classes have already found a significant place in the curriculum. Still, translation was used during most of the audit rounds to communicate between the expert team and the representatives. It was positively noted in this context that some students tried to answer in English first, before switching to Chinese, as it was obviously easier for them to express themselves in their native language. As English plays an ever-increasing role for civil engineers to communicate and participate in international companies in China, it is recommended to further develop the English proficiency of both lecturers and students in order to support their academic and professional mobility. This could be achieved, for example, through core courses given in English, the engagement of visiting professors from abroad, the support of postgraduate degrees of lecturers abroad or student exchange.

Periodic Review of the Curriculum

20 While it is unclear whether a formal, periodic review process is in place, evidence gathered during the on-site visit indicates that faculty members are actively involved in curriculum development. Teachers collaborate with program coordinators to shape and update course content, suggesting an ongoing, practice-driven approach to curriculum refinement. However, a documentation outlining the frequency, structure, and outcomes of these review activities, especially regarding feedback loops, would strengthen the program's ability to demonstrate systematic curricular evaluation and continuous improvement.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.3:

5 With regard to the comprehensive curriculum map, the experts commend the prepared macro structure of the curriculum, which provides a clear overview of the courses. It effectively illustrates the sequence and interrelation of modules, highlights the learning progression, and differentiates between compulsory and elective components. The respective recommendation is considered fulfilled; however, the experts further recommend making this curriculum map publicly available to all stakeholders.

10 SDU states that basic capabilities in civil engineering have been integrated into courses such as mathematics and engineering mechanics. Corresponding class hours have been adjusted, and the relevant syllabuses have been revised accordingly. The experts commend these measures and therefore do not consider a corresponding requirement necessary anymore.

15 Concerning the provision of clear information, resources, and advice on international academic and career opportunities to the students, SDU states that it will actively integrate resources such as academic program information from domestic and international partner institutions and insights into global career development trends. Planned measures shall include organizing special lectures, developing online information platforms, assigning dedicated guidance counselors, arranging study tours, and other initiatives to offer systematic and personalized support for students' international development. While the experts welcome the HEI's announcement, they note that implementation is still pending and therefore continue to recommend corresponding action.

20 SDU states that, in order to further develop the English proficiency of both teachers and students, it plans to implement this suggestion through various measures: gradually increasing the proportion of core courses taught in English, inviting foreign visiting professors to give lectures or academic talks, offering English training and international research opportunities for faculty, and expanding student exchange programs to encourage greater participation in international activities. The experts welcome these planned initiatives but maintain their recommendation, as implementation has not yet taken place.

25 In response to the strong recommendation to systematically include official construction standards in the curriculum, SDU states that it has consistently aligned teaching with the latest industry standards. They state that this includes guiding students in design practices based on up-to-date specifications and standard drawings, prioritizing recently published textbooks compiled according to current regulations, and providing access to updated specifications through the college library. In addition, case studies based on the latest offi-

5 cial standards had been integrated into classroom discussions and practical sessions to ensure students gain both theoretical knowledge and hands-on experience. This comprehensive approach — spanning teaching, design guidance, syllabus development, textbook selection, and case analysis — shall demonstrate that current construction standards are now systematically embedded throughout the curriculum. The experts acknowledge this and therefore no longer consider a corresponding requirement necessary.

10 In response to the recommendation to enhance guidance and support for students on international study and career opportunities, including clear guidelines and policies for student exchange, SDU plans to develop a Student Exchange Handbook outlining application procedures, scholarship policies, and credit transfer rules. A consultation desk will be established to provide individual guidance, and international exchange initiatives will be expanded through new partnerships and joint-degree programs. The experts welcome these planned measures but maintain their recommendation until implementation is realized.

15 SDU plans to enhance curriculum review by clarifying roles, processes, and timelines within a standardized, closed-loop feedback system. They want to establish a linkage between learning outcomes and curriculum design, teaching, and assessment, ensuring alignment with defined competency goals. To support this, SDU wants to communicate review procedures clearly through training and online guidelines. According to SDU, a dedicated Curriculum Review Committee has been established to conduct preliminary reviews each semester and comprehensive annual evaluations of course quality and effectiveness. The experts welcome these planned measures and maintain their proposed requirement until implementation is realized.

20 The experts assess the criterion as partially fulfilled.

C-4 Admission requirements [ASIIN 1.4]

25 Evidence:

- Self-assessment report, Chapter 1.4
- Admission regulation, Appendix 11
- 11-3-1 Implementation Rules for Students, Appendix 11
- Admission rate of Civil Engineering Major, Appendix 12
- 30 • Audit discussions

Description of the current status

The SAR outlines the admission requirements for domestic students seeking to pursue an undergraduate or bachelor’s degree at Shanxi Datong University. The key points are:

- Domestic students must participate in the National College Entrance Examination or standardized entrance exams of certain provinces/cities to be eligible.
- Applicants must meet the following conditions:
 1. Comply with the Constitution and laws of China
 2. Possess a high school diploma or equivalent
 3. Meet the physical requirements for the National College Entrance Exam
- New students are admitted through a comprehensive evaluation of their moral, intellectual, physical, aesthetic, and labor development.
- The enrollment plan is scientifically developed based on factors like training goals, institutional capacity, employment trends, applicant quality, and regional policies.
- The university has an established, documented enrollment system with standardized procedures and expanded publicity channels.
- The provincial enrollment office oversees the process, monitors policy implementation, and corrects violations to ensure smooth enrollment.

The admission rules and requirements are described in detail in Appendix 11, document 11-3-1 "Implementation Rules for Students". This document outlines the policies and procedures for enrollment, assessment, transfers, suspensions, withdrawals, graduation, and academic certificates.

The enrollment numbers of the past 5 years are shown in Appendix 12 as follows:

Name of specialty	Year	Number of enrollment plan	Number of students enrolled	Enrollment rate
civil engineering	2019	150	144	96,0%
civil engineering	2020	90	87	96,7%
civil engineering	2021	80	77	96,3%
civil engineering	2022	100	96	96,0%
civil engineering	2023	96	93	96,9%
civil engineering	2024	96	93	96,9%

Analysis and assessment of the expert panel

The document outlines the rigorous enrollment process for students seeking to enroll at Shanxi Datong University, as well as the admission requirements for transferring from other universities.

5 During the audit discussions, it was confirmed that there is a form available for external credit transfer. Additionally, it was mentioned that there is a joint program with Beijing Industrial University, where 2-3 students per year have the opportunity to participate. This suggests that processes are in place to accommodate these types of transfer scenarios.

10 ***Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.4:***

The experts confirm their previous assessment and consider the criterion to be fully fulfilled.

C-5 Workload and credits [ASIIN 1.5]

Evidence

- 15
- Self-assessment report, Chapter 1.5
 - 14-1-1 Analysis of Achievement Degree, Appendix 14-1
 - Audit discussions

Description of the current status

20 The self-assessment report explains how Chinese credits are transferred into ECTS. Chinese credit calculations consider only contact time, whereas under the European Credit Transfer and Accumulation System (ECTS) both contact time and self-study time are factored into the credit calculation.

Following overview of the programs total study hours is found in the SAR:

Course Categories	Teaching Hours	Self-study Hours	Total Study Hours
Required Courses	2472	4053	6525
Elective Courses	256	314	570
Total	2728	4367	7095
Professional courses	1384	2876	4260

C Assessment of the Expert Panel

Non-professional courses	1128	1257	2385
Language courses	216	234	450
Total	2728	4367	7095

Analysis and assessment of the expert panel

5 The experts found that generally the program's courses have both Chinese credits and ECTS. Some mandatory courses, i.e. military skills, social practice, innovation and entrepreneurship practice/public based practice, do not show how much the workload is/have no credits. *It is strongly recommended to clearly indicate how many credits are given in all mandatory courses.*

10 During the audit discussions, the program coordinators were asked whether the student workload is evaluated. They reported that students complete all homework assignments online using a program which allows the self-study time of students to be tracked for every assignment. The experts see this as a good practice to monitor student effort and time spent on coursework.

15 In Appendix 14, document "14-1-1 Analysis of Achievement Degree" one passage² suggests that some students may have engaged in plagiarism. This raises minor concerns about the reliability of the reported data, as it implies the possibility of inaccuracies or inconsistencies in student performance metrics. It is suggested that the data are examined to ensure the workload assessment accurately reflects genuine student effort.

20 As already indicated, some activities related to workload evaluation seem to take place. However, based on the provided documents it is not clear whether regular and consistent workload evaluations are conducted for every course. To strengthen the evaluation process, it is recommended to implement a structured, regular review of the workload across all courses of the program. This should include an analysis of the online activity data as well as direct feedback from students on the time and effort required for various assignments and activities. Implementing this comprehensive, data-driven approach to workload assessment will help ensure the program maintains appropriate expectations by and support
25 for students.

² "Students can basically finish their homework on time except for some ethnic groups, and their attitude is relatively correct. In correcting homework, it is found that students can basically use what they have learned independently, and the completion basically meets the requirements, but some students plagiarize."

During the audit, students reported that they do have some weeks of holidays, but there is often still work to be done during those periods. While these are personal decisions, providing students with at least one week of true downtime without any duties during lecture-free periods could be beneficial for their learning and wellbeing.³ The institution may wish to encourage students to take such breaks to recharge.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.5:

The experts note that all courses listed in the course schedule and module descriptions have been assigned credits. They therefore consider a key issue of their previous assessment to be adequately addressed.

In response to the recommendation to establish a transparent mechanism for evaluating and validating the actual student workload, the HEI states that it uses a software tool called Learning Pass, which provides visual reports on indicators such as task completion rates and self-study time, allowing for comprehensive data traceability. While the experts acknowledge the usefulness of the tool, they recommend that the data be systematically evaluated to verify alignment with actual student effort. Accordingly, they uphold the recommendation.

The experts assess the criterion as substantially fulfilled.

C-6 Didactics and teaching methodology [ASIIN 1.6]

Evidence

- Self-assessment report, Chapter 1.6
- Module descriptions
- Audit discussions

Description of the current status

Diversity of teaching methods

According to the SAR, the program establishes a hybrid teaching platform by integrating online tools such as Superstar Learning, Yu Classroom, and University Student MOOCs, enabling a blend of online and in-person instruction. A smart classroom system is developed,

³ Book recommendation: “Rest: Why You Get More Done When You Work Less” by Alex Pang

with features like online testing and real-time Q&A. An academic tutor system is also implemented, assigning one tutor for every 15 students to provide personalized learning guidance.

The teaching approach follows a three-tiered structure:

- 5 1. Large-class lectures (120-150 students) using interactive methods like case studies, problem-oriented learning, and flipped classrooms.
2. Small-class discussions (30 students) focused on project-based learning and case analysis.
- 10 3. Dynamic group experiments (5-8 students) complemented by a virtual simulation platform for hands-on practice.

This diverse range of teaching methods aims to provide an engaging and personalized learning experience for students.

Scientific research capabilities

The program leverages five major innovation platforms:

- 15 • Shanxi Datong University Maker Center
- BIM Association
- Energy Conservation Association
- Remote Sensing Information Association
- Geographic Information Association

20 In addition, there are 11 specialized laboratories, including those for structural health monitoring and soil mechanics. Students are encouraged to participate in academic competitions (Appendix 01-1), and are required to earn at least two credits in scientific and technological innovation before graduation.

The training path has four progressive stages:

- 25 1. In the first year, students engage in “cognitive” internships and attend introductory lectures on scientific research.
2. In the second year, they participate in faculty-led research projects.
3. In the third year, they follow a factory internship model, contributing to enterprise research projects under the guidance of dual mentors from the school and industry,
- 30 while applying for university student innovation projects (Appendix 01-2).

4. In the fourth year, students complete their graduation theses, with some receiving guidance from dual school-enterprise mentors.

Teaching method effectiveness review mechanism

A comprehensive quality evaluation system is employed, including:

- 5 • Student evaluations conducted at the end of each semester, covering 95% of courses
- A component of teachers' payment subject to the results of their teaching evaluations
- 10 • Supervisory peer reviews held twice per academic year, with special assessments for key courses
- Graduate follow-up surveys measuring employment rates and career development satisfaction

To promote the development of high-quality courses, the School of Architecture and Surveying Engineering issues an annual Teaching Quality Analysis Report.

15 **Analysis and assessment of the expert panel**

The on-site audit made it clear that the program delivers high-quality, innovative teaching. The instructors demonstrate strong subject matter knowledge and expertise, and it was obvious that they care deeply about the success of their students. The students appear to be very well-guided. Program coordinators, teachers as well as students were very engaged throughout the discussion sessions.

20 For each module description, the respective teaching methods are shown. This indicates that a variety of teaching methods are utilized across the program, i.e. lectures, discussions, interactive teaching methods, group work, research projects, dual school-enterprise mentoring and more. Students confirmed in discussions that this diverse range of pedagogical approaches is indeed implemented in the classroom.

25 Furthermore, the experts noted that the labs are open and available for students to continue their studies or complete homework assignments outside of scheduled class time. Additionally, the program leadership indicated that the university has established research centers in collaboration with industry partners, as well as an innovation hub that currently hosts 10 active programs. This demonstrates the University's commitment to fostering applied research and innovation.

30

5 All representative groups confirmed that an end-of-semester evaluation is conducted as an important quality assurance measure for each course. This should help ensure continuous improvement of the program. The results of these evaluations were not found in the self-assessment report or the appendices. However, students confirmed that evaluation results are uploaded to an internal website regularly for each semester and that results will be discussed in some classes. The experts considered this to be a good practice. It is strongly recommended to formalize this evaluation process so that conclusions and feedback loops are conducted systematically. Implementing these recommendations will help the program obtain valuable insights to enhance the overall quality and effectiveness of the curriculum.

10 Through several answers during the audit process the experts got the impression that students are provided with comprehensive support services. Thus, the University provides advisors in academic and non-academic matters. Overall, the expert group are convinced that the University has implemented a well-functioning support structure for students, helping them to achieve the intended qualification objectives.

15 ***Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 1.6:***

20 The HEI states that, based on the actual teaching management situation, it plans to establish multi-channel platforms for process communication to ensure effective implementation of the suggestion and to enhance the scientific basis and effectiveness of curriculum development. The experts welcome these planned measures and maintain the proposed requirement until implementation has taken place.

The experts assess the criterion as partially fulfilled.

C-7 Exams: System, concept and organisation [ASIIN 2]

25 **Evidence**

- Self-assessment report, Chapter 2
- Module descriptions
- Translated exam papers, on-site
- Audit discussions
- 30 • Staff handbook

Description of the current status

In the module descriptions, the exam methods are defined for each course. The SAR outlines the examination and assessment methods used at Shanxi Datong University. Key points include:

- 5 • Examinations and evaluations are the primary methods for assessing student learning outcomes and teaching quality. The examination content must comprehensively cover the expected learning outcomes specified in the course syllabus.
- 10 • Course assessments employ diverse formats, including written tests, online exams, course designs, experimental tasks, internship reports, and major assignments. Grading uses both percentage and tiered scales. The percentage scale ranges from 0 to 100, with a passing score of 60, while the tiered scale consists of five levels: Excellent, Good, Average, Pass, and Fail.
- 15 • The total course score comprises performance in class (20-40%) and the final exam score. Regular performance assessments consider homework, experiments, attendance, and participation.
- 20 • Quality assurance measures include teacher training, periodic course evaluations, data analysis, and teaching quality audits to ensure fairness and effectiveness of assessments.
- For the bachelor's thesis in the final semester, students work under tutor guidance and are evaluated through a combination of the tutor, a reviewing instructor, and a defense panel.
- Specific regulations and conversion methods are provided for managing course examinations, grades, and credit systems.

The University demonstrates in the following table that most students complete their studies on time, with around 95% finishing within the standard program duration.

Statistics on Academic Success (Cohort Statistics)

Study Programme 1¹

Cohort Year ²	Total Enrolled ³	Graduated on Time ⁴	Graduated Late ⁵	Still Enrolled ⁶	Dropped Out ⁷
2015	150	142	5	0	18
2016	150	141	17	1	10
2017	93	84	5	1	5
2018	76	77	2	0	2
2019	144	130	10	2	4
2020	90	78	12	7	1
2021	77	0	0	77	0
2022	96	0	0	96	0
2023	93	0	0	93	0
2024	93	0	0	93	0

Average Graduation time (in semesters)⁸: _____ 4years _____

Analysis and assessment of the expert panel

The expert group notes that lecturers on the Civil Engineering program use a variety of assessment methods that are aligned with the stated learning outcomes of the modules/courses. This continuous assessment approach informs students of their progress and helps them to identify possible gaps and deficiencies in a timely manner. The experts also attribute the outstanding overall graduation rates to this assessment methodology.

Although the experts are overall satisfied with the examination concept, they recommend to introduce more oral exams as an additional assessment method. This would expand students' oral capabilities and support their career advancement, thereby optimally meeting the learning outcomes. Classroom attendance and interaction are not a sufficient replacement for oral exams, according to the experts.

The experts also had a close look at the provided translated exam papers and graduation works and considered both of them as appropriate for an undergraduate structural engineering program.

Concerning the administration of the exams, the expert team concluded that the assessments are well organized and conducted in a fair and transparent manner. Approximately 1-2 months before the examination period, students typically begin preparing, which is also judged by the experts as common practice at European universities.

When asked during the audit discussions whether the students are given opportunity to review their past exams, it was confirmed that this option is available, and students are

informed about how they can improve. Moreover, students have the possibility to repeat exams as often as needed if they did not pass.

During the audit discussions, the experts are informed that certain admission rules for students with special needs are included in the student handbook. However, it remains unclear whether specific regulations regarding examinations for these students exist. It is suggested that the institution provide clear rules and appropriate accommodations for students with special needs in relation to examinations.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 2:

The experts acknowledge that the university recognizes the value of oral examinations. As no new evidence of implementation could be identified, they maintain the a related recommendation.

The experts assess the criterion as substantially fulfilled.

C-8 Resources [ASIIN 3]

Evidence

- Self-assessment report, Chapter 3
- Staff handbook, Appendix 19
- Audit discussions

Description of the current status

Staff and staff development [ASIIN 3.1]

According to the SAR, the program has an academically robust and diverse faculty, with a good balance of ages, strong ethics, and excellent teaching capabilities. The 53 full-time faculty members include 4 professors, 12 associate professors, 13 doctoral degree holders, and 8 master's supervisors. The members of the faculty have diverse educational backgrounds from top universities, covering key civil engineering disciplines.

The university actively works to strengthen the "dual-qualified" nature of the faculty by encouraging certifications, industry training, and enterprise internships. They have recruited 3 visiting professors and 18 industry mentors as adjunct faculty, and 30 faculty members have engineering or industry backgrounds.

5 According to the SAR, Shanxi Datong University has implemented comprehensive measures to enhance the educational and professional competence of its faculty. All new full-time teaching faculties must undergo rigorous pre-service training covering areas such as ideological and political education, university history and culture, integrity education, career planning, teaching skill development, and professional capacity building. Faculties who successfully complete this training and assessment process are awarded the "Higher Education Teacher Qualification" certification, allowing them to independently teach courses.

10 To further develop the expertise and teaching capabilities of young faculty, the university has established systematic faculty development plans. These include assigning mentors to guide junior teachers, encouraging pursuit of doctoral degrees, incentivizing excellence in teaching and optimizing the faculty structure. In 2023, the university recruited 8 doctoral graduates to strengthen its high-caliber academic workforce.

15 The university also leverages in-service training and professional development programs to send members of outstanding faculties on domestic and international academic visits, skill-building programs, and peer exchanges. Departments organize various activities such as discipline development workshops, teaching innovation seminars, and academic forums to promote pedagogical advancement.

20 To attract and retain high-caliber talent, the University offers an array of financial support initiatives, including research initiation grants, academic exchange funding, research project funding, teaching innovation grants, industry-academia collaboration incentives, and publication support for faculty.

Student support and student services [ASIIN 3.2]

25 According to the SAR, the university adheres to a student-centered approach, prioritizing students' holistic growth through a so-called "all-member, all-round, whole-process" education system. In line with this, the Faculty is actively engaged in student development, cultivating their professional interests, implementing an undergraduate mentorship system, and establishing an academic evaluation and early warning mechanism.

30 Comprehensive student support services are provided, including academic planning, career development, employment assistance, financial aid for economically disadvantaged students, and mental health counseling. The university also emphasizes students' learning experiences, self-development, and career readiness through diverse learning resources, self-directed learning promotion, individualized mentorship, and structured career planning.

Funds and equipment [ASIIN 3.3]

5 According to the SAR, the university's undergraduate teaching budget is allocated through university grants, adhering to principles of "earmarked funds, budget management, and cost-effectiveness." Over the past five years, significant investments have been made in areas such as internships and practical training, graduation design projects, teaching operations, industry-academia collaboration, and high-quality development initiatives. Detailed expenditure records are provided in the SAR and in Appendix 23-10.

10 Furthermore, the university has established comprehensive policies and systems to manage its laboratories and promote their role in discipline development and talent cultivation. Laboratories are categorized into teaching and research facilities, with interdisciplinary experimental platforms created to serve multiple programs. The university actively seeks funding to upgrade laboratories and encourages collaborative construction across disciplines and with enterprises.

15 The university library is said to provide extensive print and electronic resources, including journals, e-books, and databases, to meet the needs of teaching and research. In addition, it has established digital services like the "Superstar Mobile Library" and WeChat account to enable remote access. Reportedly, the university has also developed a high-speed campus network, including a 5G dual-domain private network, to support teaching, research, and administrative activities.

20 Teaching and office facilities are well-equipped with multimedia classrooms, computer labs, and specialized spaces for practical sessions. The university has also developed industry-oriented digital course resources, textbooks, and smart teaching facilities to enhance interactive and applied learning.

Analysis and assessment of the expert panel

Staff and staff development

25 The faculty seems to have a good staff base for filling the needs for the Civil Engineering program. Although detailed data on teaching workload is missing, the discussion rounds leave the experts with the impression that the available staff resources are sufficient to run the program sustainably.

30 During the audit, program coordinators reported that teachers are required to conduct 160 hours of lecture time per year (2 semesters). This does not include the additional time needed for preparation, homework correction, and student consultations. After fulfilling these teaching duties, the teachers have time available for research. The teaching staff, on the other hand, explained that the total workload is 200 hours per year, including 180 hours of lecture time and 20 hours of research time. The discrepancy in the reported numbers

suggests they may be rough estimates. Nevertheless, the experts consider the reported workload to be acceptable, and there appears to be sufficient time for the lecturers to conduct research as well.

5 In the staff handbook evidence of diverse research activities of the teaching staff is presented. The teaching faculty currently has a limited number of professors with doctoral degrees (PhDs), though. It was mentioned that many of the other faculty members aspire to obtain a PhD, but various circumstances such as family commitments can be a barrier. The experts were informed that pursuing a PhD is not permitted during the first 3 years of lecturing. Otherwise, they were convincingly informed, that the university already provides
10 strong support for faculty to pursue doctoral degrees. If a faculty member completes a PhD, their salary is maintained, and they may receive additional awards and funding to start a research project. The experts positively note that the university actively encourages its own staff to obtain doctoral degrees.

15 The expert team considers a more significant rate of teaching staff with a PhD degree indispensable to instill in the students a scientifically informed and methodically structured understanding of the theoretical foundations of the discipline. Advanced research competences and experience are needed even before the stage of teaching and learning to meaningfully design and develop the curriculum of specialized degree programs. To further enhance the quality of teaching and increase the visibility within international academic communities, it is recommended to increase the number of faculty members who hold doctoral
20 degrees. This would be especially beneficial if the university wishes to develop a Master's degree program to further advance from the existing undergraduate civil engineering program.

Student support and student services

25 The experts found that there is high engagement from all stakeholders throughout the entire audit process. They had the impression that students are very well supported administratively, academically, and in preparing for their future careers.

30 An area identified for potential enhancement is the internationalization of the program, particularly regarding student exchange opportunities. Feedback from university leadership and program coordinators highlighted the importance of international experiences not merely as travel opportunities, but as a means of fostering significant personal and professional growth. The university aims to equip its graduates with strong adaptability skills, which are increasingly valued in a global job market.

35 During the audit, students expressed interest in studying abroad but reported challenges in navigating the process. The procedures were perceived as complex and lacking in clarity,

with some students describing difficulties faced by fellow students who had participated in exchange programs. To improve access and participation, the University may consider enhancing the support systems available to students, including clearer guidance, detailed procedural information, and more robust advisory services.

5 Additionally, English language proficiency emerged as an important factor in supporting internationalization. Although students made commendable efforts to communicate in English during the audit, further improvement is needed to fully engage in international academic and professional environments. It is therefore recommended to strengthen the English proficiency of both students and faculty members. As mentioned earlier, this could
10 be achieved through a range of measures (see above C-3).

Funds and equipment

During the initial audit session with the university leadership, it was stated that the majority of program funding is sourced from special funds provided by the central government and provincial authorities. The experts learned that investment in areas such as research and
15 practical activities—particularly in the Electrical Engineering and Civil Engineering programs—are significantly higher than in other academic disciplines, reflecting the specific demands and practical orientation of the fields.

In terms of infrastructure and equipment, the expert team expressed overall satisfaction with the facilities. The laboratories are well-equipped and meet the needs of the program.
20 In particular, the surveying instruments received positive remarks from the experts for their quality and availability.

Nevertheless, certain limitations were noted. The experts point out the absence of a triaxial compression testing apparatus for soil analysis, which is a standard instrument in geotechnical engineering laboratories. The current equipment allows for a maximum load of 200
25 kg, which is acceptable for steel testing but insufficient for concrete-related experiments. For comparison, German universities typically have equipment capable of withstanding loads up to 10 or even 100 tons, which are realistic loads in engineering practice. Although it is possible to study these high-load tests theoretically, it is recommended that students have at least occasional exposure to such advanced testing procedures in practice.

30 Additionally, the laboratory offers a shear test setup, which—alongside the triaxial test—is considered standard in the field of soil mechanics.

From a technological standpoint, industry representatives indicated a demand to update the software tools used in the curriculum. The experts therefore recommended that the University invest in the latest versions of relevant field-specific software, including artificial
35 intelligence applications, computer-aided design (CAD), such as SIEMENS NX or AutoCAD,

and finite element method (FEM) as well as finite volume method (FVM) calculation tools, such as Ansys, ABAQUS or FLUENT. During the tour of the laboratory, it was mentioned that field-specific software is installed in the computer room for student use. In conversations with students, some uncertainty regarding the specific software names (e.g., AutoCAD for engineering drawing) was noted, suggesting that greater visibility and communication around available tools could further support student learning. In addition to ensuring that the tools are kept up to date, it is also recommended that the University enhance communication and transparency regarding the availability and use of such software to ensure students can make full use of the resources provided.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 3:

The experts welcome the university's intent to increase the number of teachers holding a PhD.

They also acknowledge the promotion of core English-taught courses, the implementation of "English Corners", and dual-language teaching formats. However, the experts encourage the university to go a step further by offering selected courses entirely in English instead of relying solely on dual-language instruction. One way to quickly implement this, could be through involving visiting professors, which also remains an important aspect for internationalisation. The experts maintain their proposed recommendation to this end.

The university states that the following software is already being used in conventional teaching: AutoCAD, PKPM, Glodon, Revit, Sanhao Software, and Yundao Zhizao software. As mentioned above, during conversations with students, some uncertainty regarding the specific software tools – such as AutoCAD for engineering drawing – was observed. The experts therefore maintain their recommendation that greater visibility and clearer communication regarding the available software tools could benefit student learning. They also encourage the university to investigate the reasons for this uncertainty among students. In addition, the university could consider assessing the relevance and application of the other mentioned software programs.

The experts assess the criterion as substantially fulfilled.

C-9 Quality management: Quality assurance and development [ASIIN 5]

Evidence

- Self-assessment report, Chapter 3

- Learning outcomes, Appendix 05
- Quality Management Handbook, Appendix 02
- Audit discussions

Description of the current status

5 The following can be summarized from the self-assessment report:

Quality Assessment

Shanxi Datong University has established a teaching quality monitoring system aimed at ensuring effective educational delivery and sustained improvement. This system encompasses five core areas:

- 10 1. **Faculty Resources and Support:** Focused on recruitment, training, motivation, and structural optimization, the university aims to ensure adequate staffing and to provide financial and infrastructural support in order to maintain high teaching standards.
- 15 2. **Teaching Process Management:** Quality control is supposed to span all instructional stages, including lectures, labs, projects, and internships, with emphasis on scientific rigor, practical relevance, and innovation.
3. **Teaching Management System:** Multiple feedback channels—peer reviews, student evaluations, administrative oversight, and surveys—are utilized to compile teaching quality reports, guiding targeted improvements.
- 20 4. **Employment Quality Monitoring:** Graduate employability is sought through feedback from employers and regulatory bodies, contributing to curriculum refinement and enhanced teaching practices.
- 25 5. **Feedback and Continuous Improvement:** By aligning with the evolving needs of society and industry, the University aims to ensure continuous curriculum adaptation and quality enhancement.

30 A four-tier internal quality assurance structure spans the university, colleges, departments, and teaching/research offices. Routine inspections and a semesterly “Teaching Quality Month” further institutionalize quality control. Responsibilities are delineated across levels in order to facilitate regular evaluation of teaching effectiveness, coursework, and examinations.

Externally, the university participates in national and provincial teaching quality assessments, introducing third-party validation into the quality assurance framework.

Data

The program adheres to a 4-year standard with a 6-year maximum for degree completion. According to the available data from 2019 to 2023, graduation rates consistently exceeded 86%, and employment rates remained strong despite structural shifts in the industry. Graduates are primarily employed in civil engineering-related sectors, public institutions, or pursue further education.

Each exam cycle concludes with performance analyses and teaching adjustments. Academic advisors are assigned to underperforming students. In 2023, core course pass rates ranged from 75.2% to 100%.

Analysis and Assessment

Based on the evidence presented in the self-assessment report, as well as insights gained during the on-site audit discussions, it is evident that the university is striving towards a comprehensive and systematic quality assurance framework across its academic programs.

One of the key strengths of this framework is the active involvement of students in the quality assurance process. Students regularly participate in structured, iterative teaching evaluations, which serve as a critical feedback mechanism for monitoring and enhancing the effectiveness of instruction. In addition to formal evaluations, students also engage in direct, ongoing dialogue with faculty members, facilitating responsive and adaptive teaching practices.

Furthermore, the audit discussions confirmed that industry stakeholders play a meaningful role in curriculum development and review. Representatives from relevant sectors are consulted and are able to provide constructive feedback on course content and delivery. Their input is integrated into the program design and revision process, ensuring that the curricula remain aligned with current industry standards and evolving professional requirements.

This multi-stakeholder approach to quality assurance—encompassing students, faculty, and industry partners—contributes significantly to the continuous improvement and relevance of the academic offerings.

To enhance the effectiveness and transparency of the quality assurance system, it is strongly recommended that the university comprehensively formalize its curriculum review processes. This should include clearly defined feedback loops that demonstrate how input from students, faculty, and external stakeholders is utilized. Additionally, the systematic inclusion and communication of the defined learning outcomes—both within course documentation and in interactions with students—should be prioritized to ensure alignment between teaching, assessment, and intended educational objectives.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 5:

5 The experts note that the university has initiated steps to formalize the curriculum review processes (including feedback loops) in order to systematically incorporate the defined learning outcomes and to communicate these processes transparently. As the implementation of such review processes takes time, the experts consider the issue still to be critical and propose a related requirement.

The experts assess the criterion as partially fulfilled.

C-10 Transparency and documentation [ASIIN 4]

Evidence

- Self-assessment report, Chapter 3
- Module descriptions, Appendix 09
- Bachelor's degree certificate, Appendix 21-1-1
- Staff handbook
- Student handbook

Description of the current status

Module descriptions [ASIIN 4.1]

According to the SAR, the description of all modules in the program is published on the intranet website which can be accessed by the registered student.

Diploma and Diploma Supplement [ASIIN 4.2]

Samples of the diploma and a version of a diploma supplement is presented in Appendix 21-1 and 21-2, respectively.

Relevant rules [ASIIN 4.3]

25 According to the SAR, rights and duties of the domestic and foreign students are published on the website. The Student Affairs Department is responsible for deciding all documents related to student management.

Analysis and assessment of the expert panel

Module descriptions

5 The experts consider the module descriptions well written and that they contain detailed information for the students. They note that they contain most relevant sections: Module title, person responsible for each module, teaching methods, credits and work load, intended learning outcomes, module content, prerequisites and examination requirements, forms of exams and details explaining how the module mark is calculated, recommended literature. The experts recommend to add the date of last revision of the module descriptions and to review and update them regularly.

Diploma and Diploma Supplement

10 Although a version of a diploma supplement template can be found in Appendix 21-2, it is strongly recommended to revise and adapt the Diploma Supplement in accordance with the template provided by the European Commission, Council of Europe and Unesco/CEPES. Characteristics of the study program, especially the program learning outcomes and the description of the Chinese system of Higher Education need to be part of it. In addition, the Transcript of Records should not be included in the DS, but could rather be presented as a separate document.

The experts suggest to issue a Diploma Supplement for the Civil engineering graduates on a regular basis.

Relevant rules

20 The experts take note that rights and duties are comprehensively defined in the staff handbook, students' handbook and other guidelines released on the university's website.

Final assessment of the experts after the statement of the Higher Education Institution regarding criterion 4:

25 The experts acknowledge that the dates of the most recent revisions have been added to the module descriptions and that regular updates are planned. With these measures in place, the recommendation is considered fulfilled.

30 The experts note that the Diploma Supplement has now been prepared in accordance with the European standard, which is a very positive development. However, it remains essential to ensure that each graduate actually receives the Diploma Supplement after graduation. The panel modified the correspondent requirement accordingly.

The experts assess the criterion as partially fulfilled.

D Additional Documents

No additional documents needed.

E Statement of the Higher Education Institution (11.07.2025)

The university provided the following detailed statement:

Response on recommendations in evaluation report

C-1 Objectives and learning outcomes of the degree programme [ASIIN 1.1]

Recommendations

[ASIIN 1.1] It is strongly recommended that the program learning outcomes are consistently anchored and published and thus are available for the relevant stakeholders – in particular students and lecturers – but also for third parties, national as well as international.

Thank you for your valuable suggestions. We will consistently publicize the course learning outcomes through websites, display board promotions, professional introductions and other means. This will enable students to clearly understand their learning directions and goals, facilitate better teaching, provide a clear basis for domestic and international third-party evaluations, and better promote the education and teaching work of this program.

Modify the training objectives in the civil engineering education program to ensure that the learning objectives are consistent with the study duration.

Training Objectives

This program focuses on the field of Civil Engineering, covering sub-disciplines such as Building Construction Engineering, Underground Engineering, and Mine Construction. It integrates value shaping, knowledge transfer, and capability cultivation, advocates respect for labor, and emphasizes the development of innovative spirit, international perspective, noble professional ethics, lifelong learning ability, teamwork, and cross-cultural communication skills.

The program aims to lay a solid foundation for students in engineering science, civil engineering technical knowledge, and engineering management, and cultivate their ability to solve practical problems related to civil engineering planning, design, construction, operation and maintenance, and sustainable development. It is designed to train application-oriented talents capable of engaging in technical and management work in the civil engineering and construction field, including survey, design, construction, management, planning, monitoring, operation and maintenance of various projects such as building construction, underground space, mine construction, and bridge and tunnel engineering, as well as in sectors like consulting, education, investment, and development.

Through four years of training, the expected goals of this program for students upon graduation are:

(1) Meet the needs of socialist modernization, achieve all-round development morally, intellectually, physically, and aesthetically, have a sense of social responsibility, a scientific world outlook and a correct outlook on life, be down-to-earth in work style, strictly abide by professional ethics, uphold the concept of sustainable development, have awareness of engineering quality and safety, be able to take into account

social, ecological, economic and legal factors, and possess a certain international perspective.

(2) Master solid basic theories and extensive professional knowledge, be able to participate in survey, design, construction, management and other work of various projects in the field of civil engineering such as housing construction, underground space, mine construction, bridge and tunnel engineering, and be able to comprehensively use information and learned knowledge to analyze and study basic engineering problems in this field and draw effective conclusions.

(3) Have strong practical ability and innovative ability, be able to update professional knowledge through further study or other channels, initially master the methods of applying new theories, new technologies and new equipment in civil engineering, and form the potential for continuous improvement of professional level.

(4) Have the ability to solve practical engineering problems, laying a foundation for growing into professional and technical backbones or grass-roots department managers in the field.

(5) Establish the knowledge system and practical foundation required for the qualification examination of registered engineers in civil engineering, and meet the knowledge and ability requirements of relevant qualification examinations.

Modification Notes: As a local university, the original program orientation stated that the program is rooted in Shanxi and serves the whole country. However, due to international accreditation, it is necessary to cultivate students' international vision and develop the program internationally. Therefore, the part "the program is rooted in Shanxi and serves the whole country" has been deleted.

The original training objectives, in accordance with China's engineering education requirements, were professional goals to be achieved by students around 5 years after graduation. To ensure consistency between the expression of students' achievements and the objectives, now, revised to professional goals to be achieved by students upon graduation after four years of undergraduate education.

C-2 Name of the degree program [ASIIN 1.2]

Recommendations

[ASIIN 1.2] It is strongly recommended to rename the program, for example by adding a focus area such as "structural engineering" to better reflect the curriculum's emphasis within the broader civil engineering discipline.

Your suggestion is targeted. Adding a key field such as "Structural Engineering" to the program name can more accurately reflect the focus of the curriculum in the broader discipline of civil engineering, enabling students, employers, and other parties to better understand the professional characteristics, which is conducive to enhancing the professional recognition and attractiveness. The Chinese name of this program is Civil Engineering, which is clearly listed as the "Civil Engineering" major (code 081001) in the Catalogue of Undergraduate Majors in Regular Institutions of Higher Education issued by the Ministry of Education of the People's Republic of China, and directly corresponds to the internationally accepted "Civil Engineering". This program has three directions: Architectural Engineering, Geotechnical and Underground Engineering, and Mine Construction. In recent years, according to the situation of students' choice of directions, the courses are mainly offered in Architectural Engineering. Therefore, in order to better reflect the characteristics of this program, it is named **Civil Engineering (Structural Engineering)**.

C-3 Curriculum [ASIIN 1.3]

Recommendations

[ASIIN 1.3] It is strongly recommended to provide a comprehensive curriculum map that clearly illustrates the sequence and interrelation of courses, highlights prerequisites and learning progression, and distinguishes between compulsory and elective modules.

5 A comprehensive curriculum map has been added, which can clearly illustrate the sequence and interrelation of courses, and highlight prerequisites and course content. For specific measures, please refer to [Appendix C3-A-- C3-B](#).

10 **[ASIIN 1.3] It is recommended to increase the fundamental civil engineering competences in the courses such as mathematics and engineering mechanics.**

 Basic capabilities in civil engineering have been added to courses such as mathematics and engineering mechanics. The corresponding class hours have been adjusted, and the relevant syllabuses have been revised. For details, please refer to the [Appendix C3-F](#).

15

[ASIIN 1.3] It is recommended to provide students with clear information, resources, and advice on international academic and career options to help them take advantage of valuable experiences and expand their horizons.

20 Your suggestion is of great value, and we fully agree with it. Providing students with clear information, resources, and advice on international academic and career options can indeed help them make better use of their accumulated valuable knowledge, skills, and experience, as well as broaden their international horizons.

 Going forward, we will actively integrate resources such as academic program information from domestic and foreign partner institutions and career development trends in international industries. Through organizing special lectures, building online information platforms, assigning dedicated guidance teachers, arranging student study tours, and other methods, we will provide students with systematic and personalized guidance, effectively put this suggestion into practice, and offer strong support for students' international development.

30

[ASIIN 1.3, 3.2] It is recommended to further develop the English proficiency of both teachers and students in order to support their academic and professional mobility (e.g. through core courses given in English, the engagement of visiting professors from abroad, the support of postgraduate degrees of lecturers abroad or student exchange).

35

 We highly recognize your suggestion of further improving the English proficiency of teachers and students to support their academic and professional mobility. Enhancing English proficiency is crucial for teachers and students to participate in international academic exchanges and carry out professional cooperation.

40

 We plan to implement this suggestion through various means: gradually increasing the proportion of core courses taught in English, inviting foreign visiting professors to give lectures or deliver academic talks at the university, providing teachers with English training and overseas research opportunities, while expanding the scale of student exchange programs and encouraging students to participate in international exchanges. These measures will help teachers and students better adapt to the international academic and professional environment and improve their cross-cultural communication skills. For details, please refer to the reply to [C3](#).

45

[ASIIN 1.3] It is recommended to include official construction standards into the curriculum

in a systematic way.

We have always been teaching in accordance with the latest industry standards, guiding students in design practices, and consistently referring to the most up-to-date specifications and standard drawings when formulating course syllabi. In terms of textbook selection, we give priority to newly published textbooks compiled in line with the latest specifications within the past five years. The college library has purchased updated versions of these specifications for students and teachers to use as references for learning.

Furthermore, we have integrated case studies based on the latest official standards into classroom discussions and practical teaching sessions. This ensures that students not only acquire theoretical knowledge but also gain hands-on experience in applying the latest specifications to real-world scenarios. Such a multi-dimensional approach, covering teaching, design guidance, syllabus formulation, textbook selection, and case analysis, has systematically incorporated the latest construction standards into the entire curriculum system, effectively bridging the gap between academic learning and industrial practice. Part of the specification list is shown in [Appendix C3-D](#).

[ASIIIN 1.3] It is recommended to enhance guidance and support for students on internal tional study and career opportunities, including clear guidelines and policies for student ex1 change.

To guide and support students in interdisciplinary learning and seize relevant career opportunities, we have launched micro-majors in Intelligent Construction and Ultra-Low Energy Consumption Buildings. Students who complete the featured courses of these micro-majors during vacations and after-school hours will be awarded a Certificate of Completion for the micro-major by the School of Architecture and Surveying Engineering of Datong University. For the talent training program of the Intelligent Construction micro-major, please refer to [Appendix C3-C](#).

The student withdrawal policy is detailed in the "Withdrawal from School" section under "Regulations on Student Academic Record Management" on page 55 of Appendix 01-3 Student Handbook.

Article 17 A student shall be required to withdraw from school under any of the following circumstances:

Failing to complete their studies within the school-prescribed study period;

Exceeding the academic system by more than two years due to suspension of studies, repetition of a grade, or other reasons;

Being unable to continue normal studies at school due to illness (certified by a hospital) or other special reasons;

Applying for withdrawal voluntarily;

Failing to complete annual registration within the time limit prescribed by the school, failing to go through the formalities for deferred registration, and having no justifiable reasons for doing so.

Modification Notes: To enhance information transparency, the college will formulate a Student Exchange Handbook detailing application procedures, scholarship policies, and credit transfer rules. The academic office will establish a consultation desk to provide one-on-one process guidance for students in need. Additionally, the college will strengthen international exchange initiatives by expanding partnerships with high-quality overseas institutions and promoting joint-degree programs.

[ASIIIN 1.3, 1.6, 5] It is strongly recommended to formalize the curriculum review processes (including feedback loops), to systematically include the defined learning outcomes, and to communicate these processes systematically.

Thank you for your professional suggestions. We highly agree with them and will earnestly promote their implementation.

The standardization of curriculum review processes, the systematic integration of learning outcomes, and the efficient communication of these processes are core links to ensure the accurate alignment between teaching quality and talent cultivation goals. Guided by ASIIN standards, we will make efforts in three aspects: first, sort out the existing curriculum review mechanism, clarify the operational specifications, responsible subjects and time nodes of each link, incorporate the closed-loop management of feedback collection, analysis and application into the institutional framework, so as to ensure the standardization and sustainability of review work; second, establish a linkage mechanism between learning outcomes and curriculum setup, teaching implementation as well as assessment and evaluation, and refine the evaluation dimensions of learning outcome achievement in the review indicators, so that each course and each teaching link can be anchored to the preset ability cultivation goals; third, systematically convey the core points and implementation requirements of the review processes through organizing special training sessions, releasing online process guidelines, etc., to ensure that the teaching team, management departments and students can clearly understand the process logic and their own roles, thus forming a joint force to promote the work in a coordinated manner,

A special Curriculum Review Committee was established. At the end of each semester, a preliminary review will be conducted on the courses offered in that semester, with a focus on the problems arising during course implementation and student feedback. At the end of each academic year, an annual comprehensive review will be carried out to conduct a full assessment of the overall quality and effectiveness of the courses. For specific measures, please refer to [Appendix C9](#).

Additional material/information (to be handed in with the comment from the HEI)

The ECTS in the "19 Edition Curriculum (Increasing the Credits of Mathematics, Physics and Mechanics Courses)" was adjusted based on the made by experts on increasing the credits of mathematics, mechanics and other courses when they visited the school.

(1) The ECTS of 9 courses including Advanced Mathematics 3-1, Advanced Mathematics 3-2, Linear Algebra 1,ability Theory and Mathematical Statistics 1, University Physics 1-1, University Physics 1-2, Theoretical Mechanics, Material Mechanics and Structural Mechanics have been adjusted to be larger, and these 9 courses are marked as "green" in the table "19 Edition Courses (ECTS of Mathematics, Physics and Mechanics Courses are Adjusted to be Larger)";

(2) At the same time, the ECTS of some courses were properly lowered, such as "Introduction to Civil Engineering", "Engineering Ge Practice", "Descriptive Geometry and Engineering Drawing", etc., totaling 9 courses, and the "blue" logo was made for these 9 courses the table of "19 Edition Courses". For specific measures, please refer to [Appendix C3-E—C3-F](#).

C-5 Workload and credits [ASIIN 1.5]

[ASIIN 1.5] It is strongly recommended to clearly indicate how many credits are given in all mandatory courses (also courses like military skills, innovation and entrepreneurship practice, etc.).

Thank you very much for your attention to the credit allocation for military skills. Aligning with the core requirements of national defense education and the goal orientation of cultivating students' comprehensive literacy, we have clearly designated both military skills and military theory as compulsory courses.

Among them, the military theory course focuses on systematic knowledge . It is assessed through a combination of closed-book exams and thematic seminars, accounting for 1 credit.

Military skills training covers practical content including formation command, basic tactics, emergency protection, and field survival. It undergoes on-site quantitative evaluation by a team of professional instructors, based on dimensions such as movement standardization, discipline execution, and teamwork performance, also accounting for 1 credit. Together, they total 2 credits and form the "National Defense Education and Military Training" module.

Currently, the credits of this module have been fully incorporated into students' transcripts, uniformly categorized under the section "National Defense Education and Military Training." This intuitively reflects the educational philosophy of attaching equal importance to theoretical cognition and practical ability.

[ASIIN 1.5] It is recommended to develop and implement a transparent mechanism for the evaluation and validation of the actual student workload. This should help to identify and remove potential discrepancies between workload calculations and the actual workload of students. We check, improve the workload of all courses in the entire curriculum, including online activities and student offline homework and other activities.

Using the "Grade Weight Setting" function of Learning Pass, the weight ratio of chapter task points (60%), chapter quizzes (20%), learning frequency (10%), and attendance (10%) is preset and publicized (consistent with the score composition in Appendix C5-D). Students can check their scores and class rankings in real time through the "Grades" section, and the platform generates visual reports (bar charts/line charts) for indicators such as task completion rate and self-study time, enabling traceability of all process data (see Appendix C5-B for operation guidelines).

C-6 Didactics and teaching methodology [ASIIN 1.6]

[ASIIN 1.3, 1.6, 5] It is strongly recommended to formalize the curriculum review processes (including feedback loops), to systematically include the defined learning outcomes, and to communicate these processes systematically.

Curriculum review is a key link in ensuring teaching quality and achieving talent cultivation goals. Formalizing the processes will provide clear operational norms and standards for review work, avoid subjectivity and arbitrariness, and ensure the fairness and consistency of reviews. Systematically incorporating the defined learning outcomes will keep the review focused on the core goals of teaching, effectively verify whether courses truly achieve the preset educational effects, and form a complete closed loop of "goal setting — teaching implementation — outcome assessment — continuous improvement", making the curriculum system more in line with the needs of talent cultivation.

We will, in light of the actual teaching management situation, build multi-channel platforms for process communication to ensure that this suggestion is effectively implemented and to practically enhance the scientificity and effectiveness of curriculum development. For specific measures, please refer to Appendix C3-E—C3-F.

C-7 Exams: System, concept and organisation [ASIIN 2]

Recommendations

[ASIIN 2] It is recommended to establish oral exams as a further examination method.

We approve the unique advantages of oral examinations in evaluating students' logical expression ability, on-site response ability, and the depth of professional knowledge, especially for professional

courses in humanities and social sciences, languages, and those with strong practicality. Oral examinations can complement written examinations, build a more three-dimensional evaluation system, and reduce the limitations of single assessment form. For specific measures, please refer to [reply C-7](#).

We have clear rules and appropriate arrangements for special needs students in exams. For specific measures, please refer to [Appendix C7-A](#).

C-8 Resources [ASIIN 3]

Recommendations

[ASIIN 3.1] It is recommended to increase the number of teachers that hold a PhD in order to further increase the quality of teaching and increase the visibility in international communities.

Thanks for your suggestions on the C-8 Resources section. Regarding these three aspects, School of Architecture and Surveying Engineering fully agrees with its importance. Here are the detailed replies for your suggestions:

The proportion of full-time teachers with doctoral degrees in the School of Architecture and Surveying Engineering is 25%. In order to promote the college to a higher level of development, especially in deepening its theoretical foundation, enhancing its ability to lead teaching in scientific research, and improving its ability to international academic dialogue, it is expected to introduce 4 doctoral students this year (Appendix C8-A-- C8-C). The school also regards doctoral degrees as one of the important considerations for teacher promotion (especially senior professional titles), and encourages teachers to pursue higher academic achievements (Appendix C8-D). It is expected that this year, the proportion of full-time teachers with doctoral degrees in the School of Architecture and Surveying Engineering will reach more than 30%, and the academic structure and overall strength of the faculty will be substantially optimized.

[ASIIN 1.3, 3.2] It is recommended to further develop the English proficiency of both teachers and students, e.g. through core courses given in English, visiting professors, student and teacher exchange, etc.

In the course teaching setting of civil engineering program, the School of Architecture and Surveying Engineering arranges teachers with high English level to teach in full or bilingual, so that students can improve their English application ability in professional learning (Appendix C8-E). In the annual National College English CET-4 and CET-6 (Appendix C8-F), students actively apply for the exam and have a high pass rate. In order to improve students' language communication skills, the school holds a "Foreign Language Corner" event every week, with foreign teachers and classmates conducting oral communication (Appendix C8-G). The school will organize students to participate in language competitions from time to time (Appendix C8-H).

In order to adapt to the international situation and better development of civil engineering program, the college will further promote core English teaching courses and strive to achieve comprehensive dual-English teaching.

[ASIIN 3.3] It is recommended to invest into up-to-date software versions (such as the ones mentioned above) as well as enhance communication and transparency regarding the availability and use of such software.

The School of Architecture and Surveying Engineering currently has AutoCAD, PKPM, Glodon, Revit, Sanhao Software and Yundao Zhizao software for conventional teaching (Appendix C8-J), which can meet teaching needs (Table C-8.1). In order to cater to the development trend of the civil engineering environment, the School of Architecture and Surveying Engineering is also actively introducing other

software to meet teaching requirements.

Table C-8.1 Software usage

Software	Support courses	Student usage ratio	Software source
AutoCAD	Computer-Aided Drawing for Civil Engineering	100%	Education edition
PKPM	Structural Programming and PKPM	100%	Purchase
Glodon	Construction Costing, Construction Budgeting	100%	Short-term authorization
Revit	BIM Technology Basics, BIM Technology Application	80%	Education edition
Sanhao Software	Engineering Geology, Fluid mechanics, Geotechnics, Fundamentals of Concrete	100%	Purchase
Yundao Zhizao	Elastic Mechanics and Finite Unit	80%	Short-term authorization

C-9 Quality management: Quality assurance and development [ASIIN 5]

Recommendations

[ASIIN 1.3, 1.6, 5] It is strongly recommended to formalize the curriculum review processes (including feedback loops) to systematically include the defined learning outcomes and to communicate these processes systematically.

Thank you very much for your on-site evaluation of our university and the valuable suggestions provided. We have conducted in-depth research and made active improvements regarding the contents mentioned in your C-9 suggestions, including enhancing the effectiveness and transparency of the quality assurance system, standardizing the curriculum review process, clarifying feedback loops, and systematically incorporating and communicating learning outcomes. For specific measures, please refer to [Appendix C9-A-- C9-F](#).

C-10 Transparency and documentation [ASIIN 4]

[ASIIN 4.1] It is recommended to add the date of last amendment to each module description and update regularly.

The course descriptions for the five modules provided in Supplementary Materials [C3-E](#) were written in 2019 and amended in 2021, with the revision dates added to the Course Description file. And the adjustment of the course description is synchronized with the revision date of the training plan, that is, "one minor revision in two years, and one major revision in four years".

[ASIIN 4.2] It is strongly recommended to revise and adapt the Diploma Supplement in ac

cordance with the template provided by the European Commission, Council of Europe and Unesco/CEPES. Characteristics of the study program, especially the program learning outcomes and the description of the Chinese system of Higher Education need to be part of it. In addition, the Transcript of Records should not be included in the DS, but could rather be presented as a separate document.

5

Based on the previous feedback, we have made the necessary revisions accordingly. For specific measures, please refer to [Appendix C10-A--C10-B](#).

F Summary: Expert recommendations (29.07.2025)

Taking into account the comments given by the SDU, the experts summarize their analysis and final assessment for the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Civil Engineering	With requirements for one year	30.09.2031	–	–

Requirements

- 5 A 1. [ASIIN 1.1] Make sure that the program learning outcomes are consistently anchored and published and thus are available for the relevant stakeholders – in particular students and lecturers – but also for third parties, national as well as international.
- A 2. [ASIIN 1.2] Rename the program, for example by adding a focus area such as “structural engineering” to better reflect the curriculum’s emphasis within the broader civil engineering discipline and publish the new study program name across all relevant documents and platforms.
- 10 A 3. [ASIIN 1.3, 1.6, 5] Formalize the curriculum review processes (including feedback loops) to systematically include the defined learning outcomes and to communicate these processes systematically.
- 15 A 4. [ASIIN 4.2] Provide each graduate with a Diploma Supplement upon graduation.

Recommendations

- E 1. [ASIIN 1.3] It is recommended to provide students with clear information, resources, and advice on international academic and career options to help them take advantage of valuable experiences and expand their horizons.
- 20 E 2. [ASIIN 1.3] It is recommended making the comprehensive curriculum map provided by the HEI publicly available to all stakeholders.
- E 3. [ASIIN 1.3, 3.2] It is recommended to further develop the English proficiency of both teachers and students in order to support their academic and professional mobility.

- E 4. [ASIIN 1.3] It is recommended to enhance guidance and support for students on international study and career opportunities, including clear guidelines and policies for student exchange.
- 5 E 5. [ASIIN 1.5] It is recommended to develop and implement a transparent mechanism for the evaluation and validation of the actual student workload. This should help to identify and remove potential discrepancies between workload calculations and the actual workload of students.
- E 6. [ASIIN 2] It is recommended to establish oral exams as a further examination method.
- 10 E 7. [ASIIN 3.1] It is recommended to increase the number of teachers that hold a PhD in order to further enhance the quality of teaching and promote the visibility in international communities.
- E 8. [ASIIN 3.3] It is recommended to invest into up-to-date software versions as well as enhance communication and transparency regarding the availability and use of such software.

G Comment of the Technical Committee 03 – Civil Engineering, Geodesy and Architecture (27.11.2025)

Assessment and analysis for the award of the ASIIN seal:

- 5 The TC discusses the procedure and follows the assessment of the experts without any changes.

The Technical Committee 03 – Civil Engineering, Geodesy and Architecture recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Civil Engineering	With requirements for one year	30.09.2031	–	–

H Decision of the Accreditation Commission (12.12.2025)

The Accreditation Commission discusses the procedure. The Commission finds that the former recommendation 1 concerning information, resources and advice on international academic and career options for students is fully covered by the analogous recommendation 3. The Commission therefore decides to cancel the former recommendation 1. Other than that, the Commission agrees with the assessment and judgment of the experts and the Technical Committee.

The Accreditation Commission decides to award the following seal:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Civil Engineering	With requirements for one year	30.09.2031	–	–

Requirements

- A 1. [ASIIN 1.1] Make sure that the program learning outcomes are consistently anchored and published and thus are available for the relevant stakeholders – in particular students and lecturers – but also for third parties, national as well as international.
- A 2. [ASIIN 1.2] Rename the program, for example by adding a focus area such as “structural engineering” to better reflect the curriculum’s emphasis within the broader civil engineering discipline and publish the new study program name across all relevant documents and platforms.
- A 3. [ASIIN 1.3, 1.6, 5] Formalize the curriculum review processes (including feedback loops) to systematically include the defined learning outcomes and to communicate these processes systematically.
- A 4. [ASIIN 4.2] Provide each graduate with a Diploma Supplement upon graduation.

Recommendations

- 5
- E 1. [ASIIN 1.3] It is recommended making the comprehensive curriculum map provided by the HEI publicly available to all stakeholders.
- E 2. [ASIIN 1.3, 3.2] It is recommended to further develop the English proficiency of both teachers and students in order to support their academic and professional mobility.
- E 3. [ASIIN 1.3] It is recommended to enhance guidance and support for students on international study and career opportunities, including clear guidelines and policies for student exchange.
- 10
- E 4. [ASIIN 1.5] It is recommended to develop and implement a transparent mechanism for the evaluation and validation of the actual student workload. This should help to identify and remove potential discrepancies between workload calculations and the actual workload of students.
- E 5. [ASIIN 2] It is recommended to establish oral exams as a further examination method.
- 15
- E 6. [ASIIN 3.1] It is recommended to increase the number of teachers that hold a PhD in order to further enhance the quality of teaching and promote the visibility in international communities.
- E 7. [ASIIN 3.3] It is recommended to invest into up-to-date software versions as well as enhance communication and transparency regarding the availability and use of such software.

20

Appendix: Learning outcomes and curricula

According to the self-assessment report page 9-11 the following **objectives and learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Civil Engineering:

- Training Objectives

This major is rooted in Shanxi, extends its influence across North China, and serves the entire Country. It aims to cultivate students with humanistic sensibilities, engineering competencies, a solid foundation in civil engineering theory and professional skills, exceptional practical and innovative abilities, and the capacity for self-learning and continuous development. These qualities enable graduates to adapt to the demands of the new era and engage in surveying, design, construction, management, planning, monitoring, operation, maintenance, consulting, education, investment and development across various civil construction projects. The program produces application-oriented talents equipped for technical and managerial roles. The expected outcomes for students approximately five years after graduation are as follows:

(1) Adapt to the needs of socialist modernization, demonstrating comprehensive development in moral, intellectual, physical, and aesthetic domains. Graduates will possess a strong sense of social responsibility, a scientific worldview, a sound outlook on life, a pragmatic work ethic, strict adherence to professional ethics, a commitment to sustainable development, an awareness of engineering quality and safety, and the ability to consider social, ecological, economic, and legal factors, complemented by a certain degree of international perspective.

(2) Be competent in surveying, designing, constructing, managing, planning, monitoring, operating, maintaining, consulting, educating, investing in, and developing various civil engineering projects—such as residential buildings, underground spaces, mining construction, bridges, and tunnels. Graduates will be able to comprehensively apply their knowledge and Skills to analyze and address engineering challenges in this field, arriving at effective solutions.

(3) possess a solid theoretical foundation, extensive professional knowledge, and strong practical and innovative capabilities. Graduates will be able to continuously learn and update their expertise through further education or other means, enhance their professional and technical proficiency through accumulated work experience, and apply new theories, processes, and equipment in civil engineering.

(4) After foundational engineering training, can resolve complex engineering problems, enabling them to serve as professional and technical leaders or grassroots department managers in the field.

(5) Possess the knowledge system and practical skills required to pursue professional qualification examinations for registered engineers in civil engineering.

2. Course-Related Learning Requirements (Knowledge, Skills, and Abilities)

(1) Basic Scientific Literacy and Engineering Ability: This includes the ability to apply knowledge of mathematics and natural sciences to solve practical engineering problems; familiarity with general industry processes and the capacity to meet potential job and technical requirements; and an understanding of the development trends and application prospects of modern science and technology.

(2) Civil Engineering Professional Knowledge and Ability: This encompasses the ability to acquire and apply professional knowledge in civil engineering; strong practical skills in the field; and the capacity for in-depth learning, pursuing advanced degrees, and conducting scientific research.

(3) International Communication Ability: This includes sufficient proficiency in English for professional purposes; the ability to communicate with international peers and study abroad; and adequate foreign language skills and cross-cultural awareness to work and collaborate in foreign countries or multinational companies.

(4) Computer and information application ability: This involves proficiency in using computer software and the Internet; mastery of general methods for retrieving documents, information, and data; and the ability to integrate computer-aided design, simulation, and other professional knowledge with computing tools.

(5) Engineering and professional practice ability: This includes the ability to design solutions for complex civil engineering problems; the capacity to design and conduct civil engineering experiments and analyse their results; the ability to study, analyse, explain, and demonstrate complex civil engineering issues using scientific principles and methods, accurately assess real-world engineering problems, and provide practical solutions; and the capability to consider social, ecological, economic and legal factors while innovatively designing and developing civil engineering solutions.

(6) Teamwork and Management Ability: This encompasses maintaining mental health, upholding personal integrity, and possessing a strong sense of legal and social responsibility; demonstrating team spirit and management skills; and being capable of handling challenging tasks in highly competitive environments.

According to the self-assessment report page 14-18 the following **program** is presented:

Table 1-2 Bachelor's Program: Civil Engineering CE

Cross- disciplinary courses(CC)				
Language Teaching	College English 1	sixty-four	four	6.25%
	College English 2	sixty-four	four	
	College English 3	thirty-two	two	
	College English 4	thirty-two	two	
	Foreign Language in Civil Engineering	twenty-four	three	
General courses	Ideological and Moral Cultivation and Legal Basis	thirty-two	two	11.67%
	Outline of Modern Chinese History	forty-eight	three	
	Basic Principle of Marxism	forty-eight	three	
	Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	sixty-four	four	
	Situation and Policy	thirty-two	two	
	College Physical Education 1	thirty-two	two	
	College Physical Education 2	thirty-two	two	
	College Physical Education 3	thirty-two	two	
	College Physical Education 4	thirty-two	two	
	safety education	thirty-two	two	
	Psychological Health Education	thirty-two	two	
Military theory	thirty-two	two		
General Education	Art and Aesthetics Courses	thirty-two	eight	
n Elective Subjects	Entrepreneurship and Innovation Courses	thirty-two		
Public Basic Practice	Comprehensive Practice of Ideological and Political Education		three	2.5%
	Military skills			
	Labor education		one	
	Innovation and Entrepreneurship Practice (Choose One)		two	
Foundational modules in mathematics and natural sciences (FM)				
Module Name	curriculum	Class hours	ECTS	percentage
Basic Mathematics A	Advanced Mathematics 1	eighty	five	3.75%
	Advanced Mathematics 2	sixty-four	four	
Basic Mathematics B	linear algebra	forty-eight	three	2.50%

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	Probability and mathematical statistics	forty-eight	three	
physics	College Physics 1	sixty-four	four	2.71%
	College Physics 2	forty	two point five	
Chemical category	General Chemistry	thirty-two	two	0.83%
Core foundational knowledge modules(CFKM)				
computer science	Fundamentals of Computer Applications	forty-eight	three	2.08%
	C language programming	forty-eight	two	
cartographic	Descriptive Geometry and Engineering Drawing 1	thirty-two	three	3.75%
	Descriptive Geometry and Engineering Drawing 2	thirty-two	three	
	Computer aided drafting in civil engineering	thirty-two	three	
Mechanics category	Theoretical Mechanics	fifty-six	four	7.08%
	Materials Mechanics	fifty-six	four	
	fluid mechanics	twenty-four	three	
	structural mechanics	seventy-two	six	
Fundamentals of Civil Engineering	civil engineering materials	forty	three	11.25%
	engineering geology	thirty-two	three	
	Soil mechanics	forty-eight	four	
	Load and structural design methods	thirty-two	three	
	Civil Engineering Surveying	forty	three	
	Introduction to Civil Engineering	sixteen	two	
	Basic principles of concrete structures	fifty-six	five	
	Basic principles of steel structure	forty-eight	four	
Specialized professional knowledge modules(CPKD)				
Architectural engineering	Building Architecture	forty	three	18.33%
	Construction Technology and Organization of Civil Engineering	fifty-six	four	
	Basic Engineering	forty	three	
	Seismic Design of Civil Engineering Structures	thirty-two	three point five	
	Design of concrete and masonry structures	fifty-six	four	
	Steel structure design	forty	four	

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	Construction project cost	thirty-two	three	
	Economics of Construction Engineering	sixteen	two	
	Soil wood engineering test	twenty-four	three	
	Structural Programming and PKPM	twenty-four	two	
	Structural design of high-rise buildings	twenty-four	two	
	Course Design of Building Architecture	ten	one point five	
	Design of Reinforced Concrete Structures	twenty	one point five	
	Single story industrial plant design	twenty	one point five	
	Course Design of Steel Structure	ten	one point five	
	Basic Engineering Course Design	two	one point five	
	Civil Engineering Construction Organization Design	ten	one point five	
	Course Design of Construction Engineering Budget	ten	one point five	
Mining construction	Blasting Engineering	forty-eight	five	18.33%
	Electrical technology	twenty-four	three	
	Mine ventilation and safety	forty-eight	five	
	Mine power supply	fifty-six	four	
	Mining Machinery and Equipment	forty-eight	four	
	Design and Construction of Well Lane 1	fifty-six	four point five	
	Design and Construction of Well Lane 2	thirty-two	three	
	Mine transportation lifting	forty	three	
	Mining Resource Economics	sixteen	two	
	Design of Reinforced Concrete Structures	ten	one point five	
	Course Design of Mining Machinery	twenty	three	
	Course Design for Mine Ventilation	ten	one point five	
	Course Design for Mining Power Suppl	twenty	one point	

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	y		five	
	Course Design for Tunnel Support	ten	one point five	
	Construction organization design for underground tunnels	twenty	one point five	
Geotechnical and Underground Engineering	Introduction to Urban Underground Space Engineering	sixteen	one point five	18.33%
	Underground building structure	sixty-four	five	
	Electrical technology	twenty-four	two	
	Construction technology for underground engineering	forty	three	
	Basic Engineering	forty-eight	four	
	Engineering blasting	thirty-two	three	
	Underground Space Planning and Design	thirty-two	three	
	Ventilation and Safety in Underground Engineering	forty	three	
	Civil Engineering Testing	twenty-four	two	
	Tunnel engineering	forty-eight	four	
	Engineering Economics	sixteen	one point five	
	Coal Mining Science	sixteen	one point five	
	Course Design for Underground Building Planning	ten	one point five	
	Underground building structure design	twenty	three	
	Construction organization design for underground engineering	ten	one point five	
	Excavation support design	twenty	three	
Pile foundation design	ten	one point five		
	Fundamentals of BIM Technology	thirty-two	three	3.75%
	computing method	thirty-two	three	
	Building regulations	thirty-two	three	
	Construction equipment engineering	thirty-two	three	
	Elasticity and Finite Element Method	thirty-two	three	
	Rock mechanics	thirty-two	three	

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Professional Elective	Geotechnical investigation	thirty-two	three	
	Preliminary budget for underground engineering	thirty-two	three	
	Special construction techniques for underground engineering	thirty-two	three	
	Numerical calculation method for geotechnical engineering	thirty-two	three	
	Well construction structure technology	thirty-two	three	
	Construction project management	thirty-two	three	
	Structural identification and reinforcement technology	thirty-two	three	
	Prefabricated building	thirty-two	three	
	Application of BIM technology	thirty-two	three	
	Principles of Composite Structure Design	thirty-two	three	
	Civil Engineering Inspection and Testing Technology	thirty-two	three	
	Underground engineering support and reinforcement technology	thirty-two	three	
	Underground Engineering Environment and Disaster Prevention	thirty-two	three	
	Green Building	thirty-two	three	
Mining pressure measurement and control technology	thirty-two	three		
Practical training category (PTC)				
Corporate Internship	Internship in Civil Engineering Understanding		two	6.25%
	Civil Engineering Production Internship		four	
	Engineering Geology Internship		two	
	Engineering Surveying Internship		three	
	Graduation Internship		four	
Dissertation	Graduation Thesis (Design)		thirty	12.5%
The sum			two hundred and thirty-six point five	one