ASIIN Seal

Accreditation Report

Civil Engineering

Provided by

Hunan Institute of Engineering

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Table of Content

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
Date of the contract: 09.10.2024 **Submission of the final version of the SAR:** 12.05.2025 **Date of the onsite visit:** 05.-06.06.2025 **at:** Hunan Institute of Engineering	
Expert panel: Prof. Dr.-Ing. Hans-Joachim Bargstädt, Bauhaus-Universität Weimar/Built Environment-Management-Institute Prof. Dr.-Ing. Joaquín Diaz, Technische Hochschule Mittelhessen Dr. Fangzhi Shi, Wirtgen China Machinery Co., Ltd Dr. Xi Du, University of Shanghai for Science and Technology	
Representative of the ASIIN headquarter: Laura Luc	
Criteria used: European Standards and Guidelines as of May 15, 2015 ASIIN General Criteria as of March 28, 2023 Subject-Specific Criteria of Technical Committee 03 – Civil Engineering, Geodesy and Architecture as of June 26th, 2020	

B Context of the Degree Programme

B-1 Numbers and facts

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	Bachelor of Engineering	• Building Engineering • Road and Bridge Engineering • Geotechnical/Urban Underground Engineering	6	Full time	/	8 semesters	213 ECTS	2004

B-2 Characteristics and features

Hunan Institute of Engineering (HNIE) is a public university located in Xiangtan, Hunan Province, China. Originally established in 1951, the university has evolved into a comprehensive institution focused on high-level, application-oriented education. As part of its provincial recognition, HNIE has been designated a "Double First-Class" applied specialty institution by Hunan Province and plays a strategic role in advancing engineering education to support regional industrial development.

In alignment with its "14th Five-Year Development Plan," HNIE emphasizes curriculum reform, quality enhancement, and international cooperation. The university continues to deepen industry collaboration, refine internal quality assurance mechanisms, and expand practice-oriented teaching to enhance graduate competitiveness.

The bachelor's programme in Civil Engineering is one of HNIE's flagship programmes. It is officially recognized as a Provincial First-Class Undergraduate Programme and serves the increasing demand for skilled professionals in civil infrastructure, building design, and intelligent construction. The programme offers three distinct specialization tracks – Building

[1] EQF = The European Qualifications Framework for lifelong learning

Engineering, Road and Bridge Engineering, and Geotechnical and Urban Under-ground Engineering – reflecting key sectors of regional economic development.

Structured as a traditional four-year full-time programme (8 semesters), the curriculum integrates foundational science, core engineering knowledge, and extensive hands-on training. A recent reform incorporated elements of modern digital construction technologies, including Building Information Modeling (BIM), prefabricated construction, and smart construction techniques. The final year emphasizes practical application through professional internships and a bachelor thesis, reinforcing the programme's commitment to industry-readiness.

The programme maintains close partnerships with prominent construction and engineering firms in the region. Industry experts regularly participate in curriculum development and student training activities. These collaborations provide students with internship opportunities, mentoring, and real-world project exposure, enhancing both their employability and technical proficiency.

Hosted by the School of Architectural Engineering, the programme is supported by advanced teaching facilities, provincial-level research platforms, and modern laboratories. These resources, coupled with strategic support from the university, ensure effective implementation and continuous improvement of the educational offer.

Quality assurance is an integral part of the programme and involves cyclical reviews, student and employer surveys, and stakeholder consultations. Student admission is regulated through the national college entrance examination system, ensuring a consistent intake of qualified candidates.

Financially, the programme is primarily funded by university allocations, with supplementary resources provided through enterprise cooperation for practice-related initiatives and infrastructure upgrades.

The current ASIIN accreditation procedure includes a comprehensive review of the programme's documentation, on-site evaluations, and stakeholder interviews to assess its alignment with international academic and professional standards. The detailed evaluation based on the ASIIN criteria is presented in the following sections of this report.

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 Leadership, Program Directors, Students, Industry Representatives, Study Programme Faculty. In addition to the audit meetings, the expert panel relies on the documentation about the programme, and the documentary respectively regulatory framework HNIE has provided before, during and after the audit.

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

Description of the current status

The Civil Engineering Bachelor's programme at HNIE is structured to address national strategic priorities and regional industry demands. The programme articulates five educational objectives, focusing on graduates' technical competence, ethical awareness, teamwork, managerial capabilities, and lifelong learning. The learning outcomes (12 total) are aligned with the ASIIN Subject-Specific Criteria (SSC) for Civil Engineering (TC 03) and are mapped to curricular content through the Objective-Module Matrix (Appendix 07.1).

A comprehensive quality management framework is in place for evaluating and updating programme objectives. This includes multi-source feedback mechanisms via alumni, employer, and student surveys (Appendices 05.3 to 05.5), coordinated by an Evaluation and Revision Committee (Appendix 05.2). The last major revision occurred in 2023, based on national educational reforms and feedback data, and included wide stakeholder engagement.

Evidence

- Appendix 05.1: Objectives and Learning Outcomes – Defines five educational objectives and 12 learning outcomes.

- Appendix 05.2: Evaluation Report – Describes methodology and results of stakeholder evaluations.
- Appendix 05.3-05.5: Alumni, Employer, and Student Questionnaires – Quantitative and qualitative feedback on objective relevance.
- Appendix 07.1: Objective-Module Matrix – Maps each learning outcome to corresponding modules.

Analysis and assessment of the expert panel

The expert panel commended the university for articulating a clear set of programme objectives and graduate competencies. The panel also recognised that the university has established tools for collecting stakeholder input through structured questionnaires and summarised these in an evaluation report

The experts noted that the programme objectives, while compliant with national guidelines, are formulated in a very generic manner. They do not reflect the specific institutional profile of HNIE or its applied focus in civil engineering. In addition, the panel found that there is limited differentiation between the three specialisations offered (Building Engineering, Road & Bridge Engineering, and Geotechnical/Urban Underground). Despite the diversity of tracks, no specific objectives or learning outcomes appear to be tailored to the unique content or skill requirements of each specialisation.

Moreover, although mechanisms for collecting feedback are in place, the experts could not identify clear examples where these results had been systematically used to inform curriculum modifications. For instance, stakeholder surveys regularly highlighted the need to strengthen applied training and communication skills, yet this concern is not adequately reflected in the current competence profile.

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

After considering the feedback from HNIE, the panel found that the institution *partially complies* with the criterion.

Programme learning outcomes

The panel acknowledged that HNIE is willing to adapt the intended learning outcomes of the CE programme more thoroughly to the SSC 03, thereby explicitly differentiating the three programme tracks offered. As HNIE announced changes for the next revision cycle of

the programme, evidence for the implementation of the intended adaptation must be provided at a later stage. The panel therefore opted to maintain a related requirement (see below, chapter F, A 1).

Feedback mechanism and stakeholder involvement

The experts appreciated the constructive approach of HNIE to more systematically develop its quality assurance management, improve stakeholder involvement in the QA processes, and establish efficient feedback and follow-up cycles. Concrete measures towards the establishment of this forward-leading approach and evidence of its successful implementation need to be seen. The panel proposed to hold on the initial recommendation concerning this issue (see below, chapter F, E 10).

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

Description of the current status

The title of the programme "Bachelor of Engineering in Civil Engineering" is found to be consistent with national Chinese naming conventions and broadly recognizable internationally. The national "Civil Engineering Programme Guide" (Appendix 06.1) and related SAR documentation confirm that the programme comprehensively covers the core disciplinary areas expected in undergraduate civil engineering education, such as structural, transportation, geotechnical, water, and construction engineering.

The internal organization of the programme into three specialisations—Building Engineering, Road and Bridge Engineering, and Geotechnical/Underground Engineering—is viewed as a meaningful structure that reflects the breadth of the discipline. These tracks are systematically embedded in the module descriptions (Appendix 09.1) and are accompanied by dedicated practical components, e.g., modules such as Bridge Engineering, Subway and Tunnel Engineering, and Underground Structures are clearly tied to the respective specialisation pathways.

While the degree title remains general, the expert panel found the internal consistency of specialisation tracks to be sufficiently robust. During the site visit, students demonstrated awareness of their track focus, and faculty confirmed that specialisation-specific modules are offered starting in the later study years.

Evidence

- Appendix 06.1: National Civil Engineering Programme Guide – Defines official degree title and content structure.

- Appendix 06.2: Student Transcript Sample – Shows official documentation without specialisation indication.
- Appendix 09.1: Module Handbook – Lists all modules, including track-specific electives.
- Appendix 21.1: Sample Diploma – Official degree certificate with general title only.
- Appendix 21.2: Diploma Supplement – Describes programme structure and graduate competencies; lists all tracks generally but not individually.

Analysis and assessment of the expert panel

The experts found the general title of the degree programme appropriate in light of national regulations and international practice. The designation “Bachelor of Engineering in Civil Engineering” is recognised in both academic and professional contexts and accurately reflects the nature and level of the qualification.

At the same time, the panel observed that the diploma supplement and transcript do not document which specialisation track a student has completed, despite significant curricular differences.

At the same time, the experts noted that the internal differentiation into specialisation tracks is not visible in the final qualification documents (see C-9). During discussions with faculty and students, it was confirmed that students follow different curricular paths based on their selected specialisation, especially in the final study years. Several interviewees expressed the view that “even though students in the geotechnical track take different modules, this does not appear anywhere on our graduation documents”. These concerns are reinforced by interview feedback indicating that students receive final grades without detailed explanation of how their performance relates to specific learning outcomes or competencies. This further underscores the need for clearer differentiation and documentation of specialisation-related achievements, especially for international transparency.

Given the meaningful divergence in curriculum and graduate profiles across the three specialisations, the panel considers this lack of visibility a potential limitation, particularly in international contexts. To increase transparency in this regard would enhance clarity for international employers and institutions and better reflect the differentiated learning paths embedded within the curriculum. Efforts in this direction would also support the university’s aspiration to meet international recognition standards.

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

The panel considered HNIE *fully compliant* with the standard.

This applies even though the experts identified that the different study tracks were not clearly visible in the final documents issued to graduates. This is referred to in chapter C-9.

C-3 Curriculum [ASIIN 1.3]

Description of the current status

The curriculum of the Civil Engineering Bachelor's programme is designed to provide a comprehensive foundation across core civil engineering domains while also offering specialisation through three tracks: *Building Engineering*, *Road and Bridge Engineering*, and *Geotechnical/Urban Underground Engineering*. The structure is laid out in the Study Plan (Appendix 08.1), which documents a balanced workload distributed across 8 semesters, including general education, core engineering subjects, and technical electives.

A review of the 67 modules and their Module Descriptions, offered by the faculty, shows alignment with the defined learning outcomes and is substantiated through the Objective-Module Matrix, which maps the 12 programme outcomes (R1–R12) against specific modules. These include general courses like Advanced Mathematics, theoretical and applied engineering subjects like Structural Mechanics, and practice-oriented modules such as Engineering Survey, Corporate Professional Practice, and multiple specialised practicums. A matrix mapping these modules to learning outcomes R1–R12 clearly shows, for example, that "Structural Mechanics" contributes to outcome R3 (engineering analysis) while "Corporate Professional Practice" maps toward R11 (ethical and societal responsibility).

Besides the 67 major-specific courses listed in the programme, the curriculum includes also 42 courses, which are offered by other schools or departments, managed under the coordination of the Academic Affairs Office. For these courses, the university did not provide the module descriptions nor their contribution to the knowledge profile of the graduates.

The curriculum includes practical and laboratory components, as well as internships integrated into the 6th and 7th semesters. Final-year students complete a bachelor's thesis, with some emphasis on application and real-world case work. While the curriculum broadly reflects international standards, the extent to which project-based learning and interdisciplinary integration are practiced varies across specialisations. While the university outlines elements of internationalisation, including bilingual modules and some faculty with international experience, student mobility opportunities are not systematically addressed. The

self-assessment and curriculum documents do not specify whether outbound mobility is formally integrated into the programme structure or supported by institutional agreements.

Evidence

- Appendix 07.01 Objectives Matrix – Page 40 below – Correlation to ASIIN Subject Specific Criterion (SCC)
- Appendix 08.1: Study Plan – Details semester-wise structure, credit allocation, and contact/self-study hours.
- Appendix 09.1: Module Descriptions – Defines course content, learning formats, and assessment types.
- Appendix 07.1: Objective-Module Matrix – Maps curriculum content to program learning outcomes (R1–R12).
- Appendix 05.1: Objectives and Learning Outcomes – Lists expected competences for graduates and the graduate profile.
- Appendix 10.1 Statistics on Student Mobility

Analysis and assessment of the expert panel

The expert panel found that the curriculum of the Civil Engineering programme at Hunan Institute of Engineering is generally well-structured and aligned with national and ASIIN Subject-Specific Criteria. It offers a comprehensive foundation in core civil engineering domains and a meaningful differentiation into three specialisation tracks: Building Engineering, Road and Bridge Engineering, and Geotechnical/Urban Underground Engineering. This track-based structure ensures that students can tailor their studies according to personal interests and career goals.

The module descriptions define learning outcomes and assessment types for each course, which are consistently presented. According to the Objective-Module Matrix, programme learning outcomes (R1–R12 Appendix 1.1.2 page 37) are systematically linked to specific modules. However, the degree to which the modules build logically upon one another varies: While foundational modules such as Mathematics and Mechanics are well placed, students and staff indicated in interviews that the progression into more complex design or structural analysis modules sometimes lacks an adequate knowledge base, especially for students with weaker entry profiles. Apart from that, a number of module descriptions in basic and general courses is missing (see above). These should also be made available for the evaluation.

Practical experience is incorporated through lab sessions and a structured internship in the sixth semester. According to faculty interviews, students are supervised during these internships, and some placements are coordinated with industry partners. Nevertheless, the panel noted that the university could improve the consistency of internship quality assurance and better document outcomes from this phase.

Regarding internationalisation and student mobility, a critical weakness remains. Although students are encouraged to use English technical vocabulary and some instructors bring international experience, actual outbound mobility is negligible: statistics show only one student participated in international exchange over a five-year period. Interviews further confirmed that no clear mobility window is embedded in the curriculum, and students find it difficult to coordinate study plans with potential exchange opportunities. The university has published scholarship policies for overseas study, but these have not been widely implemented or translated into systematic outbound participation.

On the topic of periodic curriculum review, stakeholders stated that annual reviews occur and involve employer and alumni feedback. This is supported by documentation of surveys and feedback evaluations. However, curriculum adjustments remain limited in scope. For example, the growing importance of digital construction technologies and programming skills (e.g., Python, BIM) is not yet fully reflected across all tracks. Some instructors incorporate these tools, but students reported uneven access, depending on the teacher and track. Furthermore, student and alumni feedback regularly highlighted the need for more project-based and interdisciplinary learning – feedback that has not yet led to visible curricular reform.

Finally, the curriculum permits some elective choice, particularly in the specialisation phase, yet students voiced concern about the rigidity of course scheduling and a lack of coordination between core and elective modules. These factors occasionally hinder timely graduation and complicate personal study paths. While the curriculum generally reflects a broad and coherent set of subject areas, the panel observed that mechanisms for systematically using assessment results to adjust and update curricular content are underdeveloped. In particular, feedback from written and practical assignments is not always detailed enough to inform student learning and curricular refinement (see below Chapter C-6).

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

Considering the statement of HNIE, the panel assessed the institution to be *partially compliant* with the standard.

Curriculum design

The expert panel appreciated HNIE's constructive reception of its suggestions to expand a) the interdisciplinary and project-based learning and b) the systematic use of digital engineering tools and internationally relevant technologies. As the planned measures will not have an impact before the next revision cycle and thus could not have been evidenced so far, the panel confirmed its requirements in this regard (see below, chapter F, A 2 and A 3).

Missing module descriptions (general education and cross-departmental courses)

Furthermore, the panel acknowledged that module descriptions for general education and cross-departmental courses have been provided. As with the module handbook, the experts assumed that these descriptions are or have been made accessible to the students and lecturers.

Student mobility

The experts were convinced that the measures outlined in HNIE's statement to increase student mobility are deliberate, reasonable and most likely will effectively encourage more students to apply for study periods abroad. As this useful initiative is not yet implemented currently, its impact will have to be seen at a later stage. The panel continued to propose a related recommendation (see below, chapter F, E 1).

Curriculum review

The panel appreciated the strategy for addressing future curriculum development. It made a recommendation to remind programme coordinators of this planned strategy and subsequent reviewers to oversee the measures taken to implement the envisaged instruments (see below, chapter F, E 2).

Effective processing of stakeholder feedback

The panel appreciated the planned overhaul of the quality assurance system, which is aimed at improving the mechanisms for including stakeholder feedback in the process of further developing and improving the CE programme more effectively and transparently. Until the positive impact of this new setup could be seen, the panel put forward a recommendation to flag the issue for subsequent reviewers (see below, chapter F, E 10).

C-4 Admission requirements [ASIIN 1.4]

Description of the current status

HNIE is governed by national Chinese higher education admission policies and institutional regulations. According to the "Admission Regulation and Statistics" document (Appendix

11.1), students are admitted primarily through the National College Entrance Examination (Gaokao). The program does not impose additional subject-specific entry criteria beyond the national requirements.

Appendix 12.1 provides a five-year overview of admission rates. For instance, in 2024, the program received 232 applications for 220 seats, resulting in 208 admitted students—a 94.55% admission rate. Similar rates are observed in previous years, with the program maintaining near-full enrolment across cohorts.

The academic performance data (Appendix 16.1) indicate low dropout rates and strong retention, with most students graduating on time. The program does not currently require or offer bridging or preparatory courses, nor are specific policies mentioned regarding recognition of prior learning or international qualifications. The university follows national regulations for the recognition of Chinese high school diplomas via the Gaokao system. However, documentation detailing the recognition of external qualifications, including international diplomas or previously earned credits from other institutions, is limited. Although HNIE refers to national frameworks in principle, the programme-level documents provided (e.g., Appendix 11.1) do not include specific procedural guidelines on how these cases are evaluated, processed, or formally approved. There is no mention of ECTS compatibility frameworks or institutional credit recognition boards. No dedicated pathway for credit transfer, including from vocational colleges or international institutions, is described in the SAR or supporting appendices.

Evidence

- Appendix 11.1: Admission Regulation and Statistics – outlines the formal entry pathway via Gaokao and notes there are no additional program-specific requirements.
- Appendix 12.1: Admission Rate Statistics – lists quantitative data on annual admission figures and ratios.
- Appendix 16.1: Academic Performance Statistics – supports program retention and graduation trends.

Analysis and assessment of the expert panel

The expert panel concludes that the admission process is clearly regulated and consistent with national standards. The programme regularly fills its intake quota and shows strong progression and graduation rates, indicating that the general admission profile is appropriate for the student population.

Nonetheless, the absence of programme-specific requirements – such as demonstrated competence in mathematics or physics – may lead to disparities in student readiness. Faculty interviews confirmed that lecturers often need to revisit foundational content due to uneven entry knowledge.

A critical shortcoming is the lack of formalised procedures for recognising prior learning or external qualifications. This issue limits the programme's capacity to support academic mobility and international applicants. Although national guidelines exist, no programme-level mechanisms for credit recognition were documented. During interviews, stakeholders were unable to explain how such cases would be handled, suggesting these procedures are either absent or poorly communicated.

The panel also noted that this gap may partly reflect broader systemic constraints within the Chinese higher education context. However, institutions are still expected to articulate formal pathways to handle such scenarios—especially when pursuing international accreditation.

Additionally, the programme does not appear to provide targeted academic support or bridging mechanisms for students from underrepresented backgrounds or with weaker academic preparation, which could enhance equity and academic success.

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

After the statement of HNIE, the panel considered the institution to be *partially compliant* with the standard.

Recognition of prior learning

The panel highly welcomed that HNIE plans to establish a three-stage mechanism for the identification and recognition of equivalent prior knowledge of applicants. As the outlined measures are still to be implemented, the panel confirmed the initial requirement addressing this major shortcoming (see below, chapter F, A 4).

Programme-specific admission guidelines and knowledge gap analysis

The panel acknowledged HNIE's announcement regarding the publication of admission guidelines specific to the CE programme. The experts also approved of the use of digital self-assessment tools for first-year students to assess their eligibility for a particular programme. Such tools could provide a foundation for an informed guidance process. Implementing these measures was encouraged through a related recommendation (see below, chapter F, E 3).

C-5 Workload and credits [ASIIN 1.5]

Description of the current status

The Bachelor of Engineering in Civil Engineering programme at Hunan Institute of Engineering (HNIE) comprises 175 Chinese credits, which are equated by the university to 240 ECTS (Appendix 15.2). This equivalence follows the institutional conversion rule, whereby 1 Chinese credit corresponds to 1.5 ECTS credits (Appendix 15.1). The breakdown by module clusters is outlined in Appendix 15.3, where, for instance, the "Core Civil Engineering Courses" cluster (88 Chinese credits) translates to 132 ECTS. Other clusters include General Education (41 Chinese credits), Basic Engineering (29), and Practice & Graduation Design (17), ensuring a comprehensive disciplinary coverage.

The official Study Plan specifies weekly contact hours and course distribution across 8 semesters, and the Module Descriptions provide detailed input on the form of delivery (lectures, practicals, projects). However, expectations regarding student self-study time are not uniformly quantified in the module descriptors, limiting full transparency on actual workload per ECTS.

A workload assessment questionnaire template is documented (Appendix 14.1), yet no longitudinal or aggregated cohort-based data on student workload has been submitted. Despite this, performance statistics indicate that the vast majority of students complete the programme on time: out of the 2020 cohort, 206 of 211 students graduated within the standard study duration (Appendix 16.1), representing a 97.6% on-time graduation rate.

Student engagement in additional academic workload is substantial. Appendix 16.2 presents a comprehensive list of national and regional student competitions where HNIE students regularly achieve top prizes. These include awards in national BIM design contests, surveying competitions, and structural innovation challenges, indicating a high level of extracurricular academic activity that is likely to add significantly to student workload, although not formally credited or accounted for in ECTS calculations.

Evidence

- Appendix 14.1: Workload Assessment Guidelines and Questionnaire – provides a template survey but lacks usage data or trend analysis.
- Appendix 15.1: Conversion Rules – defines 1 Chinese credit as equal to 1.5 ECTS but lacks empirical justification.
- Appendix 15.2: Credits Conversion Table – maps each module's credits into ECTS equivalents.

- Appendix 15.3: Course Cluster Credit Overview – totals ECTS per content group (e.g., Basic Engineering: 51 ECTS).
- Appendix 16.1: Academic Performance Statistics – 88% on-time graduation rate, under 5% dropout or delay.
- Appendix 16.2: Student Competitions and Projects – records high extracurricular load (avg. 3–5 competitions per year).
- Appendix 08.1 / 09.1: Study Plan and Module Descriptions – includes contact hours, but not full workload estimates.

Analysis and assessment of the expert panel

The panel acknowledges that the overall study programme corresponds to a standard full-time bachelor's workload (240 ECTS over four years). The academic performance data (Appendix 16.1) indicates a stable student throughput, with 88% of students graduating within the regular timeframe, suggesting that the programme's total workload is generally manageable.

However, the experts found significant weaknesses in workload transparency and verification. The declared conversion rate of 1 Chinese credit to 1.5 ECTS is not supported by any documented measurement or validation process. The panel notes that while a workload evaluation questionnaire is available (Appendix 14.1), the university has not provided any results or demonstrated its routine use. As a result, there is no empirical evidence showing that the allocated credits accurately reflect the students' time investment.

During the audit, students reported marked variations in workload intensity across semesters. Several students highlighted that workload peaks occur during the 6th and 7th semesters, particularly due to overlapping demands from internships, design projects, and competition participation. Further, comments from students suggest that extracurricular activities, which are encouraged and sometimes required, may create untracked workload pressure.

The experts also observed inconsistencies in how workload is documented for non-classroom activities. Thus, the panel was unable to establish whether the HNIE's workload calculations underpinning the allocation of ECTS are systematically reviewed to address apparent miscalculations, if necessary.

This raises questions about the reliable alignment of credits with the actual time invested. This is particularly pertinent in relation to the awarding of credits for internships and the

bachelor thesis phase, for which there is no transparent explanation of the expected weekly effort in the module description.

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

Considering the statement of HNIE, the panel judged the institution to be *partially compliant* with the standard.

Workload monitoring

The panel appreciated HNIE's constructive approach to establishing a reliable workload monitoring system, particularly regarding time-consuming study phases, such as the internship semester or participation in structured competitions. As evidence of the implementation and practical impact of this strategy is currently lacking, the panel decided to maintain corresponding requirements (see below, chapter F, A 5 and A 6).

C-6 Didactics and teaching methodology [ASIIN 1.6]

Description of the current status

The university has implemented a structured teaching policy that promotes both traditional and innovative pedagogical methods. According to the "First-Class Undergraduate Course Construction and Management Measures" (Appendix 02.9), the institution encourages hybrid learning formats, including flipped classrooms, SPOC integration, and virtual simulations. A tiered strategy aims to develop up to 120 university-level and 50 provincial-level first-class courses, including hybrid and simulation-based formats. The "Faculty Course Teaching Assessment Measures" (Appendix 02.6) outlines that teachers are evaluated based on student feedback, peer observation, and course innovation. Teaching methodology is further guided by program-specific planning documents (Appendix 02.12) and supported by laboratory resources governed under formal management regulations (Appendix 02.10).

Evidence

- Appendix 02.6: Faculty Course Teaching Assessment Measures – outlines teaching evaluation procedures
- Appendix 02.7: Undergraduate Programme Evaluation Plan – defines quality monitoring and programme improvement processes
- Appendix 02.9: First-Class Undergraduate Course Construction Measures – promotes digital and hybrid teaching reforms

- Appendix 02.10: Laboratory Management Regulations – governs teaching labs and technical infrastructure
- Appendix 02.11: Laboratory Safety Management Measures – details protocols for lab-based learning safety

Analysis and assessment of the expert panel

The expert panel acknowledges that the institution has established comprehensive policy frameworks to enhance teaching quality and didactic innovation. It was positively noted that HNIE has adopted flipped classroom models and SPOC platforms for selected core modules, with student engagement levels described as "better than in traditional settings". The introduction of simulation-based learning was highlighted in the lab-centered modules of geotechnical and construction courses.

However, implementation remains uneven across the programme. From interviews with faculty and students, it became evident that a large proportion of modules continue to rely on lecture-based delivery with limited use of interactive, project-based, or digital methodologies. Some students indicated that labs are present, but not always connected to course learning outcomes, and others reported limited chances to work in teams or solve open-ended problems.

There is also a lack of systematic evaluation of the effectiveness of pedagogical innovations. While mechanisms for teaching feedback exist, including student surveys and supervisor reviews (Appendix 02.6), the use of this data to drive actual change in teaching methodology was described as inconsistent. Regarding that, teaching staff reported limited time or incentives to engage in continuous pedagogical development or to adopt digital tools. Implementing a more systematic use of teaching feedback could inform a more targeted development of teaching methodologies and their alignment with modern student-centered and outcome-oriented teaching and learning.

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

The panel considered HNIE to *substantially comply* with the standard.

Student-centered teaching and learning techniques

The experts recognized the exemplary illustration of the HNIE's utilisation of digital and agile teaching methods and learning tools. As this remains part the picture, which proved to be uneven across the whole curriculum, the panel appreciated that HNIE intends to systematically increase the proportion of innovative teaching methods. The presented range

of measures: strengthening the project-based teaching, expanding the use of digital tools, and optimizing hybrid teaching models found the panel's approval and was supported by a recommendation (see below, chapter F, E 4).

Staff development

The experts appreciated HNIE's intention to more systematically use stakeholder feedback to inform the teaching staff's professional development. This was supported through a related recommendation, which the panel decided to retain (see below, chapter F, E 5).

It is recommended that feedback from students and peer reviews should be more systematically analysed and used to inform professional development initiatives for teaching staff.

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

Description of the current status

The Civil Engineering programme employs a structured and consistently applied examination framework. Each module typically combines continuous assessment (e.g. assignments, quizzes, lab work) and a final examination, with relative weights ranging from 40–60%. These proportions are documented in the institutional grading policies and are reflected across the student transcripts and exam records. The assessment types are well matched to the nature of the course content: theoretical courses often rely on written exams, while applied modules incorporate lab reports, oral presentations, or project submissions.

Final-year students undertake a graduation thesis and complete a practical training module, both of which are assessed according to established criteria for supervision, submission, and evaluation. Statistical summaries indicate that core modules consistently show final scores in the range of 68–75 points, suggesting a balanced level of academic rigour and consistent pass rates. Academic transcripts clearly list the components of each grade using a 100-point scale. While the institution affirms that examinations are linked to learning outcomes, no structured instruments (e.g. scoring rubrics or outcome matrices) were available to demonstrate how performance is evaluated against defined competences.

Sampled thesis reports and exam scripts presented during the on-site visit varied in depth and quality. Some demonstrated analytical rigour and alignment with the intended Bachelor-level outcomes, while others lacked clear evidence of design thinking or the application of theoretical knowledge to complex engineering problems.

Evidence

- Appendix 17.1: Course Assessment Management – outlines structure and procedures for assessment.
- Appendix 17.5: Regulations on Academic Performance – grading system, criteria, and transparency.
- Appendix 17.9: Exam Paper Analysis – statistical review of outcomes and difficulty level.
- Appendix 17.7: Sample Transcript – confirms grade recording and component breakdown.
- Appendix 16.1: Academic Performance Statistics – shows stable graduation and pass rates.

Analysis and assessment of the expert panel

The expert panel welcomes the clarity and reliability of the assessment system. The differentiated use of assessment types—especially the inclusion of technical reports and design presentations—is appropriate and supports the development of core professional skills. The system is transparently implemented, and students reported a clear understanding of how grades are calculated and where to seek clarification. The availability of teaching staff for exam-related questions via direct channels, such as WeChat, was highlighted as a positive practice supporting accessibility and guidance.

However, students and faculty alike indicated that feedback on written work and thesis submissions is often brief and lacks constructive depth. This limits the opportunities for formative learning and iterative improvement. Additionally, while instructors reported using general criteria for grading, the panel found that formalised rubrics with explicit performance descriptors are not in regular use. This undermines transparency, consistency, and the ability to benchmark student achievements across cohorts or instructors.

The panel further observed that there is insufficient documentation linking assessment tasks to the programme's defined learning outcomes. Although graduate competency attainment is tracked in a general sense, there is no clear alignment between specific exam questions or tasks and the learning outcomes they are intended to assess.

Exemplary final exams and theses varied considerably in complexity. Some demonstrated alignment with the expected level of a bachelor's degree in civil engineering, while others were rather narrow in integrating multiple knowledge domains or failed to adequately reflect the intended learning outcomes. Otherwise, the panel found no clear evidence of

structural weaknesses in the theses that would call the programme's overall quality into question.

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

Based on the statement of HNIE, the panel judged the institution to be *partially compliant* with the standard.

Transparent and comprehensible grading

The panel responded positively to the planned measures to ensure standardised, transparent grading procedures. As this initiative will not take effect before the next curriculum revision cycle, there is currently no evidence of its implementation. Therefore, a requirement in this regard was still considered necessary (see below, chapter F, A 7).

Utilisation of exam statistics

The panel appreciated HNIE's announcement to more systematically use the assessment results for refining the curriculum and enhancing formative learning. A related recommendation was maintained to direct subsequent reviewers' attention (see below, chapter F, E 6).

C-8 Resources [ASIIN 3]

Description of the current status

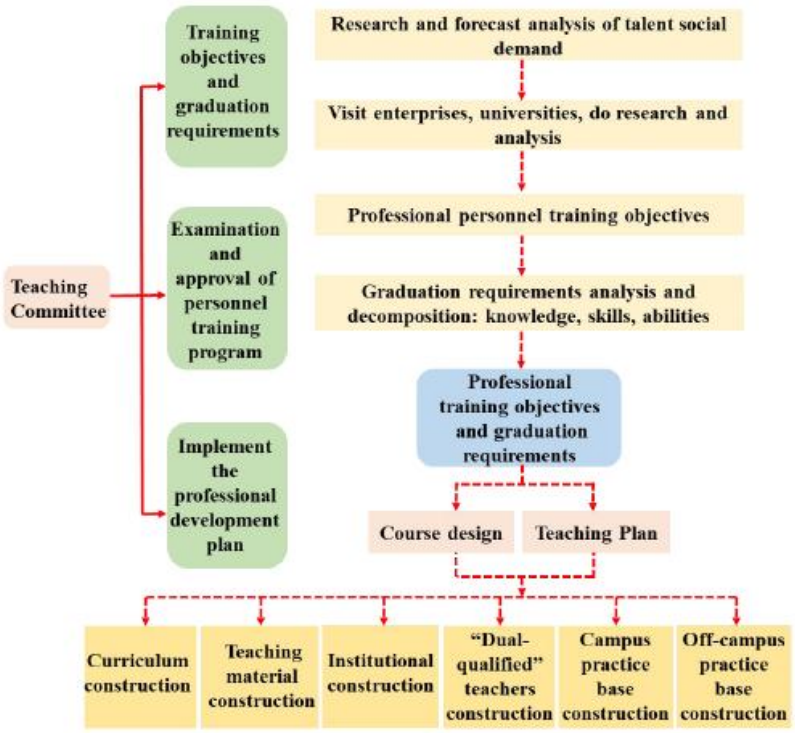
Staff and Staff Development [ASIIN 3.1]

The academic staff composition of the Civil Engineering programme at HNIE is quantitatively and qualitatively sufficient. The faculty includes 66 full-time members, with 7 full professors and 14 associate professors. Over 40% hold doctoral degrees, and several faculty are recognized as dual-qualified, combining academic credentials with practical engineering experience. The student-staff ratio stands at approximately 17.5:1, which is manageable for individual supervision.

The faculty are actively engaged in applied research, provincial and national research initiatives, and publish in peer-reviewed journals, contributing to the academic and practice-oriented relevance of the programme. Institutional development measures—such as the "100 PhDs Serving Enterprises" initiative, policies supporting overseas training and doctoral studies, and structured continuing education schemes—offer ample opportunities for faculty advancement. Certification and promotion follow merit-based processes as laid out in the qualification and appointment regulations.

However, while various support mechanisms exist, the implementation is inconsistent across departments. Mentorship for early-career faculty and formal evaluations of didactic performance are not fully institutionalized. This indicates a need for more structured monitoring to ensure these development opportunities translate into continuous teaching improvement.

Figure 1-1 Formulation process of the cultivation programme



Student Support and Services [ASIIN 3.2]

Students benefit from a layered support system, including academic advisors for each cohort, faculty mentors, enterprise mentors, and a student counselor system. These services are designed to provide academic guidance, mental health support, and professional orientation. Academic counselling and advising are conducted regularly, although interviews revealed inconsistent quality and frequency between departments.

Career services include structured internship support and job placement initiatives coordinated through the Career Development Center. Feedback mechanisms and consultation sessions are in place; however, effectiveness tracking and centralized monitoring of these services are lacking. While core services are in place, additional support for students with special needs or disabilities is not well documented.

On a practical level, students highlighted the accessibility of academic staff, including the use of platforms like WeChat for ad hoc consultations. Nonetheless, issues such as overcrowded dormitories (minimum five students per room) and physically demanding schedules (long walking distances between dormitories and classrooms with insufficient breaks) were noted as challenges affecting wellbeing and academic focus.

Funds and Equipment [ASIIN 3.3]

HNIE has invested consistently in its teaching infrastructure. Laboratories supporting core areas such as BIM, geotechnical testing, and structural engineering were observed to be well-equipped and actively used. Institutional plans (Appendix 04.1 and 04.2) and the Laboratory Inventory (Appendix 20.7) confirm sustained investment in digital tools and physical resources.

However, site visits revealed some gaps in classroom environmental conditions, particularly with climate control (e.g., air conditioning), which may adversely affect concentration during summer months. While financial support appears sufficient, detailed data on long-term financial planning and contingency mechanisms were not available for review.

Evidence

- Appendix 04.1 / 04.2 – University and College Development Plans: document long-term strategy and infrastructure investments.
- Appendix 19.1 / 19.2 – Faculty Profiles and Research Projects: outline qualifications and academic outputs.
- Appendices 20.1–20.6 – Institutional policies and measures on faculty development, qualification certification, appointment processes, enterprise engagement, and continuing education.
- Appendix 20.7 – Laboratory Inventory: confirms availability and usage of equipment.

Analysis and assessment of the expert panel

Staff and staff development

The expert panel found that the academic staff resources for the Civil Engineering programme are both qualitatively and quantitatively adequate to ensure successful delivery of the curriculum. With 66 full-time teaching staff, including a balanced distribution of full and associate professors, and over 40% holding doctoral degrees, the faculty composition is suitable for the programme's scale and scope. The student–staff ratio of 17.5:1 is appropriate and allows for individual student supervision.

Faculty development is supported through institutional initiatives such as the "University Faculty Development Plan," certification systems for new lecturers, and access to doctoral and enterprise-based training programmes. However, implementation of these measures appears inconsistent across departments. Although continuing education is institutionally encouraged, structured mechanisms for follow-up and systematic mentoring – particularly for junior staff – remain underdeveloped. The panel suggests that greater emphasis on outcome tracking and teaching performance feedback would benefit quality assurance. Opportunities for reflection and improvement, especially for early-career academics, could be more formally embedded in a coordinated faculty development framework.

From a funding perspective, the programme appears sustainably resourced. Budget allocations are centrally managed and have enabled ongoing investments in laboratories and infrastructure. Nevertheless, detailed data on long-term financial planning and contingency budgeting were not made available to the panel. The panel considered the current level of financial support sufficient but recommended improving financial transparency for future quality assurance processes.

Student support and student services

The panel commended the university for its commitment to fostering a supportive learning environment. Students reported frequent and informal access to academic staff, particularly via digital platforms such as WeChat, which they find highly effective for resolving academic queries outside of class hours. Advising mechanisms, including academic advisors and mentorship structures, are in place. Yet, interviews revealed inconsistencies in the frequency and perceived helpfulness of advisory sessions, suggesting a lack of institutional oversight and standardisation in student support services.

While the library and learning facilities are generally adequate, students pointed to shortcomings in dormitory living conditions – highlighting overcrowding, noise, and insufficient privacy as impediments to academic focus. Moreover, some first-year lecture halls are located far from dormitories, with tight scheduling between classes contributing to physical strain in extreme weather conditions. These environmental and logistical issues, though external to academic content, affect students' ability to engage fully in their studies and should be considered in institutional planning.

Funds and equipment

Site visits confirmed that the programme benefits from well-equipped laboratories that support its practical orientation. BIM design studios, material testing labs, and geotechnical facilities align well with curricular needs. Equipment is in good working order, and staff demonstrated active engagement in laboratory teaching. However, several stakeholders

raised concerns about the limited availability of climate control systems, particularly in older teaching buildings. Insufficient air conditioning was reported to affect concentration and comfort during warmer months. While not directly affecting curriculum delivery, the panel considers this a quality-of-life issue that indirectly influences the learning environment and therefore should be given consideration by HNIE.

In summary, the experts find that the programme is appropriately resourced and that facilities are in place to support its objectives. Nonetheless, targeted improvements – notably in formalising staff development, standardising student advisory services, and addressing physical campus conditions – could ensure sustained programme quality and student satisfaction.

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

The panel considered the response of HNIE to the report. Based on that, it concluded that the institution *substantially complies* with the standard (*holistic judgment for criterion 3*; 3.1: full compliance; 3.2: substantial compliance, and 3.3: substantial compliance).

The planned or already implemented measures to enhance the academic support system, improve the dormitory situation, and to better align curricula with teaching locations and residence halls were positively noted. The same applies to HNIE's approach of regularly reviewing how laboratories and facilities contribute to achieving the intended learning outcomes. However, some recommendations were still made because HNIE only presented plans, with no evidence of implementation (see below, chapter F, E 7-9).

C-9 Transparency and documentation [ASIIN 4]

Description of the current status

Module descriptions [ASIIN 4.1]

The university provides detailed module descriptions of the courses offered by the faculty in the official module handbook (Appendix 09.1), which is available to students online. The modules offered by other schools and departments have not been made available.

The descriptions of the modules offered by the faculty contain key information, including module content, intended learning outcomes, prerequisites, assessment types, and credit allocations. The information is structured consistently across modules and adheres to national and institutional formatting standards.

Diploma and Diploma Supplement [ASIIN 4.2]

The programme issues a Chinese diploma (Appendix 21.1) alongside a Diploma Supplement (Appendix 21.2) that follows a format aligned with the European Higher Education Area (EHEA) conventions. The supplement outlines key data such as programme structure, learning objectives, grading scheme, and graduate qualifications. However, it does not specify the specialisation track (e.g., Building, Bridge, Geotechnical Engineering) pursued by the student, despite these being part of the internal curriculum.

Relevant rules [ASIIN 4.3]

Regulatory documents—including the Academic Affairs Manual (Appendix 01.2), Teaching Operation Management Regulations (Appendix 02.5), and the Regulations on Academic Performance Management (Appendix 17.5)—are publicly accessible through the university's official platforms. These documents cover governance structures, course management procedures, credit policies, and examination frameworks. Additionally, the university operates a digital information system where students access academic results, module plans, and schedules, although access may be limited internationally.

Evidence

Module Descriptions [ASIIN 4.1]

- Appendix 09.1 (Module Descriptions) Comprehensive and consistently structured descriptions including content, outcomes, prerequisites, assessment forms, and ECTS-converted credits. Aligns well with ASIIN expectations.
- Appendix 06.1 (Civil Engineering Programme Guide) Contains general guidance and overview; supports understanding of module linkages and learning paths.

Diploma and Diploma Supplement [ASIIN 4.2]

- Appendix 21.1 (Chinese Diploma) Formal national certification of programme completion. Meets local regulatory requirements but lacks international contextualisation.
- Appendix 21.2 (Diploma Supplement) Aligns with EHEA standards, details programme structure, content, and grading. Missing element: No indication of specialisation track (e.g., Road/Bridge/Geotechnical), limiting recognition of individual competence profiles.
- Appendix 06.2 (Student Grades) Shows detailed academic achievements, but not always linked to the specific specialisation.

Relevant Rules [ASIIN 4.3]

- Appendix 02.3 (Teaching Management Measures) Comprehensive institutional governance structure covering teaching responsibilities, curriculum design, and examination procedures. Strong foundation for quality assurance.
- Appendix 02.4 (Teaching Supervision Work Procedures) Describes mechanisms for monitoring teaching quality and implementation, supporting transparency and consistency.
- Appendix 02.5 (Teaching Operation Management Regulations) Defines operational procedures for module delivery and examination coordination.
- Appendix 17.5 (Regulations for Academic Performance Management) Outlines assessment rules, grade recording, appeals processes—supports procedural transparency.
- Appendix 17.7 (Sample Transcript) Demonstrates how student performance is documented and shared, but lacks a field for specialisation identification.

Analysis and assessment of the expert panel

Module Descriptions [ASIIN 4.1]

The expert panel found the given module handbook to be well-structured and comprehensive. Descriptions consistently define learning outcomes and assessments in a transparent manner. During interviews, students confirmed they regularly consult the module handbook and find the provided information helpful when selecting elective modules or preparing for exams. Experts positively noted that the descriptions of the modules provided by the faculty are published and regularly updated, with references to learning outcomes aligned with national guidelines.

Diploma and Diploma Supplement [ASIIN 4.2]

The diploma supplement provides a structured and informative overview of the programme and learning outcomes. Experts commended the use of EHEA-compatible formatting, which aids in international recognition. However, it was observed that the document lacks differentiation among the programme's specialisations. This limits its ability to reflect the actual competencies of graduates, especially in applications abroad or to graduate schools. Stakeholders also noted that while diploma formats comply with national standards, they could be expanded to include supplementary digital verification or links to student portfolios.

Relevant Rules [ASIIN 4.3]

The documentation of academic rules and procedures was found to be robust and clearly formulated. Students and faculty confirmed they have access to the relevant regulations, both in printed form and through the internal digital portal. Experts also noted positively that course schedules, performance metrics, and programme handbooks are updated regularly. However, international access to digital platforms is restricted in some cases, and some English translations are incomplete or inconsistent, which may affect transparency for non-Chinese stakeholders. The experts suggest to follow up on this issue in the quality development of the programme.

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

After considering the statement of HNIE, the panel concluded that the institution *partially complies* with the standard (*holistic judgment for criterion 4*; 4.1 and 4.3: fully compliant; 4.2 partly compliant).

Diploma Supplement

As already indicated, the experts strongly suggested that the Diploma Supplement transparently indicates the students' individual study track. While the panel appreciated that HNIE was willing to do so in future, the experts considered it necessary that HNIE provides evidence of the issuance of a Diploma Supplement containing this information (see below, chapter F, A 8; see also chapter C-1).

C-10 Quality management: Quality assurance and development [ASIIN 5]

Description of the current status

HNIE has established a structured quality management system for its Civil Engineering programme, addressing curriculum review, faculty evaluation, student feedback, and infrastructure oversight. The Undergraduate Programme Evaluation Plan (Appendix 02.7) outlines an annual review process involving internal academic audits and feedback loops, though the frequency and depth of these processes remain inconsistently reported. Faculty quality assurance is framed within documents like the Faculty Qualification Certification Implementation Measures (Appendix 20.4) and the Staff Continuing Education Management Measures (Appendix 20.5), which mandate ongoing training and minimum qualification standards.

On the infrastructure side, laboratory and facility oversight is managed through the Laboratory Management Regulations (Appendix 02.10), complemented by detailed safety provisions (Appendix 02.11). These documents describe clear organizational responsibilities, regular inspections, and required safety trainings for both students and faculty. The Laboratory Inventory (Appendix 20.7) demonstrates that the programme is equipped with specialized spaces supporting major disciplines such as geotechnical engineering, fluid mechanics, and BIM design.

Evidence List:

- Appendix 02.7: Outlines annual programme evaluation cycles and responsible bodies.
- Appendix 20.4: Faculty qualification management policies and certification requirements.
- Appendix 20.5: Details staff continuing education procedures and expectations.
- Appendix 02.10 and 02.11: Describe laboratory safety, operational duties, and compliance mechanisms.
- Appendix 20.7: Inventory of laboratories, with usage data and spatial specifications.
- Appendix 20.3: Industry-practice integration for faculty, a quality-enhancing policy.

Analysis and Assessment

The panel acknowledges HNIE's formalized efforts to ensure continuous quality development at both structural and instructional levels. The institution has in place a suite of administrative documents defining responsibilities and protocols for programme review, faculty evaluation, and infrastructure safety. Notably, the "Measures for Acquiring Industrial Engineering Experience" (Appendix 20.3) mandate practice-based engagement for faculty in local industry settings. This policy supports the alignment of teaching content with regional industry needs, contributing positively to applied learning quality.

Regarding programme evaluation, experts found that while periodic internal reviews occur, there is limited transparency on how student and graduate feedback tangibly informs curriculum reforms. Interviewed faculty confirmed that "graduate tracer studies and employer feedback are collected," but were unclear about how these findings are formally discussed and actioned within committees. Furthermore, students were generally unaware of opportunities to influence programme decisions directly, which suggests a missing feedback loop for quality assurance at the learner level.

In the domain of resources, the breadth and modernity of facilities were evident from the laboratory inventory. For instance, the BIM Training Centers (1-3) and geotechnical labs serve critical curricular areas and are equipped to support sizeable student cohorts (up to 120 per session). While the facilities, including laboratories and classrooms, were found to be well-equipped and functional, the experts noted that further transparency could be established in how the university evaluates the pedagogical effectiveness of these resources. In particular, there was no systematic documentation or stakeholder feedback mechanism identified that links specific learning outcomes to the utilisation of facilities or equipment.

In terms of physical learning conditions, both students and staff highlighted the importance of air conditioning in teaching spaces. Several students mentioned that classroom temperatures significantly affect their concentration during the warmer months. Faculty echoed these concerns, noting that maintaining a suitable teaching environment directly impacts not only student attentiveness, but also the ability of the teaching staff to deliver content effectively. This indicates that infrastructure quality – particularly thermal comfort – should be factored into the university's broader quality assurance planning.

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

The panel considered HNIE to be *substantially compliant* with the standard (*holistic judgment across all criteria*).

The experts recognised HNIE's notable efforts to establish effective quality assurance mechanisms for the CE programme. However, they also identified areas for improvement, particularly with regard to closing QA feedback loops effectively, and made corresponding minor recommendations (see below, chapter F, E 5-7, 10-11).

D Request for additional information

1. Submission of missing module descriptions for general education and cross-departmental courses included in the curriculum (see above C-3)
2. Example of introducing a new didactic method or form, or adapting proven didactic means, in response to student or stakeholder feedback (see above C-6)

E Statement of the Higher Education Institution (24.09.2025)

HNIE provided the following statement

"We sincerely appreciate the expert panel's meticulous guidance and valuable suggestions on the professional development of our university. The recommendations put forward are deeply insightful and have charted a clear course for us to further improve our degree programme and enhance the quality of talent cultivation. We highly value the panel's opinions and have promptly organized our faculty to hold dedicated discussions. We fully agree with and will adopt the panel's recommendations, and we will take this opportunity to pursue continuous improvement.

Enclosed please find the following materials for your review:

- *Appendix A*: Module descriptions for general education and cross-depart-mental courses
- *Appendix B*: Example of introducing didactic methods in response to student and stakeholder feedback
- *Appendix C*: Response to the expert panel's recommendations and planned measures for improvement"

F Summary: Expert recommendations (20.10.2025)

Taking into account the additional information and the comments given by the HIE, the peers 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

A 1. (ASIIN 1.1) Revise the intended learning outcomes of the programme to ensure they are clearly structured and aligned with the ASIIN Subject-Specific Criteria for Civil Engineering. Differentiate more explicitly between the three specialisations offered, thereby reflecting their respective competence profiles.

A 2. (ASIIN 1.3) Strengthen the integration of interdisciplinary content and complex, practice-oriented project work across all specialisations.

A 3. (ASIIN 1.3) Expand the systematic use of digital engineering tools and internationally relevant technologies (e.g., Python, BIM) throughout the curriculum to ensure consistency across all specialisations and better align with global professional standards.

A 4. (ASIIN 1.4) Clarify and document formal procedures for recognising prior learning to support potential international applicants and mobility scenarios.

A 5. (ASIIN 1.5) Implement a systematic mechanism to verify actual student workload across all types of learning activities, including lectures, self-study, internships, and the final thesis. Compile and analyse the results of workload surveys on a cohort basis and use the findings to calibrate ECTS allocations.

A 6. (ASIIN 1.5) Revise the documentation and crediting of time-intensive phases such as the internship semester and participation in structured competitions to ensure that the actual workload is appropriately reflected and transparent to both students and external stakeholders.

A 7. (ASIIN 2) Introduce structured, rubric-based assessment tools and ensure that students receive clear, constructive feedback, particularly for written and design-based work.

A 8. (ASIIN 1.2, 4.2) Include a clear reference to the student's selected track within the diploma supplement or transcript.

Recommendations

E 1. (ASIIN 1.3) It is recommended to develop supporting measures for outbound exchange, including recognition procedures and alignment with international academic calendars.

E 2. (ASIIN 1.3) It is recommended that the university reviews and, where possible, improves the sequencing of core and specialisation modules, particularly to support students with varying entry-level preparation.

E 3. (ASIIN 1.4) It is recommended to consider developing programme-specific admission guidelines to ensure better alignment between student preparedness and curricular demands. The university might also explore introducing preparatory courses or diagnostic assessments to identify and bridge knowledge gaps in foundational topics such as mathematics and physics.

E 4. (ASIIN 1.6) It is recommended that HNIE more consistently implement modern teaching methods across the curriculum. In particular, interactive and student-centered techniques such as project-based learning, digital simulation, and hybrid learning models should be more frequently adopted, especially in upper-level modules.

E 5. (ASIIN 1.6, 5) It is recommended that feedback from students and peer reviews should be more systematically analysed and used to inform professional development initiatives for teaching staff.

E 6. (ASIIN 1.6, 2, 5) It is recommended to more systematically use assessment results for refining the curriculum and enhancing formative learning, and to tailor written and practical assignments accordingly.

E 7. (ASIIN 3.2, 5) It is recommended that HNIE strengthen its student support infrastructure by implementing a more structured and regularly monitored academic advising system to ensure consistency and effectiveness across departments.

E 8. (ASIIN 3.3) It is recommended to reassess dormitory density and study conditions to improve student well-being and academic focus.

E 9. (ASIIN 3.3) It is recommended to review course scheduling, especially in the first year, to better align teaching locations with residence halls and allow sufficient time between classes.

E 10. (ASIIN 1.1, 1.3, 5) It is recommended that stakeholder feedback – particularly from students, alumni, and employers – be analysed and used more systematically to inform programme development and revision. This includes establishing transparent channels for reporting quality enhancement actions taken in response to tracer studies or course evaluations.

E 11. (ASIIN 5) It is recommended to regularly review facilities in relation to course delivery effectiveness, ideally tied to learning outcome attainment.

G Comment of the Technical Committee 03 – Civil Engineering, Geodesy and Architecture (04.12.2025)

Assessment and analysis for the award of the ASIIN seal:

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)

Assessment and analysis for the award of the ASIIN seal:

The Accreditation Commission discusses the procedure. Regarding requirement 3, the Commission considers the additional parentheses in requirement 3 concerning digital engineering tools to be relevant. However, it decides to reverse the order of the indicated tools, placing Building Information Modeling (BIM) first, and generally points out basic programming language competency instead of targeting Python. Furthermore, the Commission cancels the second sentence of requirement 5 concerning the workload monitoring issue, as it considers the rationale of the requirement sufficiently covered in the remaining sentence. 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 seals:

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) Revise the intended learning outcomes of the programme to ensure they are clearly structured and aligned with the ASIIN Subject-Specific Criteria for Civil Engineering. Differentiate more explicitly between the three specialisations offered, thereby reflecting their respective competence profiles.

A 2. (ASIIN 1.3) Strengthen the integration of interdisciplinary content and complex, practice-oriented project work across all specialisations.

A 3. (ASIIN 1.3) Expand the systematic use of digital engineering tools and internationally relevant technologies (e.g., BIM, recent programming language) throughout the curriculum to ensure consistency across all specialisations and better align with global professional standards.

A 4. (ASIIN 1.4) Clarify and document formal procedures for recognising prior learning to support potential international applicants and mobility scenarios.

A 5. (ASIIN 1.5) Implement a systematic mechanism to verify actual student workload across all types of learning activities, including lectures, self-study, internships, and the final thesis. Compile and analyse the results of workload surveys on a cohort basis and use the findings to calibrate ECTS allocations.

A 6. (ASIIN 1.5) Revise the documentation and crediting of time-intensive phases such as the internship semester and participation in structured competitions to ensure that the actual workload is appropriately reflected and transparent to both students and external stakeholders.

A 7. (ASIIN 2) Introduce structured, rubric-based assessment tools and ensure that students receive clear, constructive feedback, particularly for written and design-based work.

A 8. (ASIIN 1.2, 4.2) Include a clear reference to the student's selected track within the diploma supplement or transcript.

Recommendations

E 1. (ASIIN 1.3) It is recommended to develop supporting measures for outbound exchange, including recognition procedures and alignment with international academic calendars.

E 2. (ASIIN 1.3) It is recommended that the university reviews and, where possible, improves the sequencing of core and specialisation modules, particularly to support students with varying entry-level preparation.

E 3. (ASIIN 1.4) It is recommended to consider developing programme-specific admission guidelines to ensure better alignment between student preparedness and curricular demands. The university might also explore introducing preparatory courses or diagnostic assessments to identify and bridge knowledge gaps in foundational topics such as mathematics and physics.

E 4. (ASIIN 1.6) It is recommended that HNIE more consistently implement modern teaching methods across the curriculum. In particular, interactive and student-centered techniques such as project-based learning, digital simulation, and hybrid learning models should be more frequently adopted, especially in upper-level modules.

E 5. (ASIIN 1.6, 5) It is recommended that feedback from students and peer reviews should be more systematically analysed and used to inform professional development initiatives for teaching staff.

E 6. (ASIIN 1.6, 2, 5) It is recommended to more systematically use assessment results for refining the curriculum and enhancing formative learning, and to tailor written and practical assignments accordingly.

E 7. (ASIIN 3.2, 5) It is recommended that HNIE strengthen its student support infrastructure by implementing a more structured and regularly monitored academic advising system to ensure consistency and effectiveness across departments.

E 8. (ASIIN 3.3) It is recommended to reassess dormitory density and study conditions to improve student well-being and academic focus.

E 9. (ASIIN 3.3) It is recommended to review course scheduling, especially in the first year, to better align teaching locations with residence halls and allow sufficient time between classes.

E 10. (ASIIN 1.1, 1.3, 5) It is recommended that stakeholder feedback – particularly from students, alumni, and employers – be analysed and used more systematically to inform programme development and revision. This includes establishing transparent channels for reporting quality enhancement actions taken in response to tracer studies or course evaluations.

E 11. (ASIIN 5) It is recommended to regularly review facilities in relation to course delivery effectiveness, ideally tied to learning outcome attainment.

Appendix: Learning objectives and curriculum

The HEI has presented the **learning objectives** as follows (see Appendix 01.1-Degree Programme for Civil Engineering and Appendix 05.1- Educational Objectives and Learning Outcomes):

Within 5 years after graduation, graduates shall achieve the following objectives:

- Possess the ability to integrate engineering mathematics with multidisciplinary approaches to solve complex civil engineering problems, competent in investigation, design, construction, management, consultation, and operational maintenance.
- Exhibit a high sense of social responsibility and professional ethics, able to evaluate and integrate social, legal, economic and environmental considerations into engineering practices.
- Maintain a healthy body and mind, exhibit strong humanistic qualities, and demonstrate team spirit, as well as effective communication and presentation skills.
- Have the capability to coordinate, make decisions, and implement engineering projects, applying engineering management principles and economic decision-making methods in a multidisciplinary context.
- Proactively adapt to modernization and societal needs, demonstrating capabilities in self-directed and lifelong learning, with a strong grasp of sustainable development concepts and a global perspective.

The **expected learning outcomes** or graduation requirements of the Civil Engineering programme are as follows (see Appendix 01.1-Degree Program for Civil Engineering and Appendix 05.1- Educational Objectives and Learning Outcomes):

- **Engineering Knowledge:** Ability to apply knowledge of mathematics, natural sciences, engineering fundamentals, and professional expertise to solve complex problems in civil engineering.
- **Problem Analysis:** Ability to identify, formulate, and analyze complex civil engineering problems using principles of mathematics, natural sciences, and engineering sciences, and to derive valid conclusions through literature review and analytical reasoning.

- **Design/Development of Solutions:** Ability to design solutions for complex civil engineering problems, including the design of components (such as joints), structures, systems, or technical schemes that meet specific needs. The design process should reflect innovation and consider social, health, safety, legal, cultural, and environmental factors.
- **Investigation:** Ability to conduct investigations into complex civil engineering problems based on scientific principles and methods. This includes designing experiments, collecting and analyzing data, and synthesizing information to draw valid and applicable conclusions for engineering practice.
- **Modern Tool Usage:** Ability to develop, select, and use appropriate techniques, resources, modern engineering tools, and information technology tools for tasks such as analysis, design, computation, simulation, and prediction of complex civil engineering problems, with an understanding of their limitations.
- **The Engineer and Society:** Ability to assess the impact of engineering practice—including surveying, design, construction, management, consulting, and operation & maintenance—on society, health, safety, law, and culture, based on relevant civil engineering background knowledge and technical standards, and to understand the responsibilities associated with professional practice.
- **Environment and Sustainable Development:** Be capable of understanding and evaluating the impact of engineering practices for complex civil engineering problems on the environment and social sustainable development.
- **Professional ethics:** Possessing humanistic and social science literacy and a sense of social responsibility, they can understand and abide by the professional ethics and norms of civil engineers in engineering practice, serve the society and fulfill their responsibilities.
- **Individual and Teamwork:** Be capable of taking on the roles of an individual, a team member, and a team leader in a multi-disciplinary team when addressing complex civil engineering problems.
- **Communication:** Be able to effectively communicate and interact with industry peers and the general public regarding complex civil engineering issues, including writing reports and design documents, making presentations, and clearly expressing or responding to instructions. Possess a certain international perspective and be able to communicate and interact in a cross-cultural context.

- **Project Management**: Understand and master engineering management principles and economic decision-making methods, and be able to apply them in a multi-disciplinary environment.
- **Lifelong Learning**: Have the awareness of self-directed and lifelong learning, and possess the ability to continuously learn and adapt to the development of professional technology and society.

The following **curriculum** has been presented (see Appendix 08.1 Study plan):