ASIIN Seal

Accreditation Report

Bachelor Degree program
Electronic Information Engineering (EIE)

Offered by

Hunan City University

Version: 27/03/2026

Table of Content

A. About the Evaluation Process

Name of the degree program (in original language)	**(Official) English translation of the name**	**Labels applied for**	**Previous accreditation (issuing agency, validity)**	**Involved Technical Committees (TC)**
电子信息工程	Electronic Information Engineering (EIE)	ASIIN	/	02
Date of the contract: December 09, 2024 **Submission of the final version of the SAR:** August 15, 2025 **Date of the onsite visit:** September 25-26, 2025 **at:** Hunan City University, Yiyang, Hunan Province				
Expert panel: Prof. Dr. Gustav Vaupel, Hamburg University of Applied Sciences Prof. Dr. Yongjian Ding Magdeburg-Stendal University of Applied Sciences Dr. Yuming Song, TE Connectivity (formerly) Yundi Deng, PhD-student at University of Electronic Science and Technology of China				
Representatives of the ASIIN headquarter: Yangzemiao Song				
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 02 – Electrical Engineering/Information Technology as of September 23, 2022				

B. Context of the Degree Program

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
Electronic Information Engineering	工学学士 / B.Eng.	Electronic Information Engineering	6	Full time	--	8 Semester	209.9 ECTS	Annually / Sep. 1, 2003

B-2. Characteristics and features

Hunan City University (HNCU) is a public undergraduate institution under the authority of the Hunan Provincial Government. The university has outlined its education strategy in the "1234" System for Applied Talent Education, which includes a focus on professional training, ideological and political education, and the integration of innovation and entrepreneurship education throughout the student learning process. The strong focus on urban development, municipal engineering, and applied sciences positions HNCU as a practice-oriented higher education provider with close ties to the local industry and public service sectors, particularly in the Hunan province and central China region.

The School of Information and Electronic Engineering at HNCU, established in 1970, has 128 full-time faculty members, including 16 professors, 44 associate professors, and 43 with doctoral degrees. It offers a master's program in Electronic Information and seven undergraduate programs, including one national and four provincial first-class majors. The school hosts four provincial key laboratories and China's largest wildlife tracking big data centre. With five innovation bases and partnerships with over ten enterprises, it maintains strong industry collaboration and a consistently high graduate employment rate.

The Electronic Information Engineering program at HNCU was established in 2003. In 2016, it was designated as a pilot program for comprehensive major reform in Hunan Province. The program underwent the teaching audit and evaluation of general higher education institutions by the Ministry of Education in 2018 and again in 2024. In 2022, the program was ranked first in the first-class major ranking (applied type) in China by Almanac Network,

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

and in 2023 the university was granted the right to award Master's degrees in Electronic Information Engineering.

The program aims to align with China's rapidly developing electronic information industry and the "Three Highs and Four New Things" development strategy of Hunan Province, as well as the pillar industries of electronic components and information manufacturing in Yiyang city.

The talent training program, recently revised in 2023 by a team of professors, enterprise representatives, and alumni, is based on Chinese major certification standards, guidance from the Education Department of Hunan Province, and labor market demand. The program is typically revised every two years. Meanwhile, a new version is currently being released in 2025. The tuition fee is RMB 5900 (approx. EUR 720) per year.

The current ASIIN accreditation procedure includes a comprehensive documentation review, on-site evaluations, and stakeholder interviews to thoroughly assess the program's compliance with international accreditation standards. The detailed evaluation based on ASIIN criteria is provided in the subsequent sections of this report.

C. Assessment of the Expert Panel

This accreditation report is based on the preliminary evaluation report for the degree programme(s) 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 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: representatives of the rectorate's office, program coordinators, representatives of the Quality Management Department and the International Office, teaching and lab staff, students, partners from industry and the private sector, and alumni.

The focus of this stage of the evaluation lies on an assessment of the study program under review according to the criteria stipulated in the ASIIN General Criteria and the Subject-Specific Criteria (SSC) of the ASIIN Technical Committee Electrical Engineering / Information Technology (see Chapter A).

In addition to the audit meetings, the expert panel relies on the documentation about the program and the regulatory framework that Hunan City University has provided before, during and after the audit.

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

Description of the current status:

Based on the statement in the Self-Assessment Report (SAR) and relevant appendices, the Bachelor program **Electronic Information Engineering** (EIE) at Hunan City university (HNCU) aims to cultivate high-quality professionals with solid foundations in modern electronic technology, electronic information system design, signal processing, intelligent control, and related fields. Graduates are prepared to work in fields such as information communication, electronic technology, and intelligent control, engaging in product design, manufacturing, application development, and technical management.

As the **Appendix 05-1** states, the training objectives are defined as follows:

- **Objective 1**: Establish a strong foundation in mathematics, physics, and basic engineering, enabling the analysis and solution of complex problems in electronic and information systems.
- **Objective 2**: Acquire professional knowledge in information communication, electronic technology, intelligent control, and related fields, supporting interdisciplinary problem-solving.
- **Objective 3**: Cultivate the ability to independently conduct engineering practice, design and develop systems and devices, and evaluate solutions in professional contexts.
- **Objective 4**: Understand and apply industrial policies, standards, and engineering ethics, maintaining social responsibility and sustainable development awareness.
- **Objective 5**: Develop teamwork, communication, and project management skills, alongside the capacity for lifelong learning and self-development.

Graduates are expected to demonstrate the following outcomes:

1. **Engineering Knowledge**: Apply principles of mathematics, physics, and electronic information engineering to express and solve complex engineering problems.
2. **Problem Analysis**: Identify, express, and analyze complex problems using natural science and engineering principles, supported by literature research.
3. **Design and Development of Solutions**: Design functional modules and systems based on user requirements, showing innovation in electronic circuits and system development.
4. **Research**: Conduct experiments and data analysis to address engineering challenges using scientific methods and draw effective conclusions.
5. **Use of Modern Tools**: Select and apply appropriate instruments, software, and technologies for simulation, analysis, and design in engineering tasks.
6. **Engineering and Society**: Evaluate the societal, legal, health, and cultural impacts of engineering solutions, while understanding relevant industry standards and responsibilities.
7. **Environment and Sustainable Development**: Assess the environmental and sustainability implications of engineering practices and product life cycles.
8. **Professional Norms**: Exhibit ethics, honesty, and responsibility, aligning with core socialist values and national interests.

9. **Individual and Teamwork**: Function effectively as individuals or team members/leaders in multidisciplinary settings, with strong organizational and communication skills.
10. **Communication**: Communicate effectively in technical and cross-cultural contexts through written, oral, and visual means, and comprehend professional foreign literature.
11. **Project Management**: Apply principles of engineering and economic management in multidisciplinary environments for project planning and execution.
12. **Lifelong Learning**: Demonstrate awareness and capability for continuous learning and adaptation to technological and social developments.

In the SAR, the EIE program provides an Objective-Module Matrix, relating the training objectives to learning outcomes, and listing the corresponding modules, taking into consideration the SSC for the Technical Committee 02 (Electrical Engineering/Information Technology). The learning outcomes are broken down into knowledge, skills, and competences.

The SAR states that the EIE program is consistently evaluated by the Chinese Ministry of Education. Appendix 02-1 provides information on university´s measures to evaluate the Talent Training Program in systematic review cycle.

Analysis and assessment of the expert panel:

The expert panel concludes that the study objectives and learning outcomes of the Bachelor's degree program in EIE are clearly formulated, comprehensive, and consistent with the intended qualification level of a practice-oriented engineering program. The objectives adequately prepare graduates for professional employment or further academic study in the fields of Electronic Information and Communication Engineering.

The program demonstrates a strong connection to regional and national industry needs, reflecting the university's mission as an application-oriented institution. Graduates contribute not only to the local labor market but also to enterprises in the Pearl River Delta and Yangtze River Delta, regions of strategic economic significance. These linkages ensure that the training objectives remain relevant to the evolving industrial and technological landscape.

The expert panel recognizes that the program's learning outcomes are structured according to three main dimensions — knowledge, skills, and competences — and are aligned with the relevant SSC 02 (Electrical Engineering/Information Technology). The program objectives are clearly formulated and consistent with the intended qualification level of a

practice-oriented engineering program EQF 6. The university applies a structured objective–module matrix to map these learning outcomes to specific modules and graduation requirements. The program emphasizes not only theoretical and technical competencies but also the development of transferable skills, such as teamwork, communication and innovation, which are reinforced through project-based learning and practical training.

The review team notes that mechanisms for periodic revision of objectives and learning outcomes are in place. The university regularly reviews and updates the program objectives in consultation with academic staff, industry representatives, and external experts to maintain consistency with national engineering education standards and regional economic priorities.

However, the expert panel identified several discrepancies in the documentation and accessibility of the program information. During the on-site visit, it was clarified that the 2025 version of the *Talent Cultivation Plan* is currently in effect, while the 2023 version was used in the Self-Assessment Report and corresponding appendices. Furthermore, the 2019 version of the study plan remains the only one publicly available on the university's Chinese-language website (see https://xdy.hncu.edu.cn/bkjy/pyfa.htm).

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

The experts reviewed the revised talent training plan and confirm that the stated objectives and program learning outcomes are aligned with the 2025 version of the curriculum. The Chinese and English versions provided in the SAR are identical.

The expert panel welcomes that the university is committed to transparency and to making all relevant information accessible to its stakeholders. The current training plan (2025), including objectives and learning outcomes, was published on the official website on 10th December 2025. The experts therefore consider this requirement to be fulfilled.

Generally, the experts assess the criterion as fulfilled.

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

Description of the current status:

The academic degree awarded upon completion of the program is **"Bachelor of Engineering in Electronic Information Engineering" (电子信息工程)**. The title is consistent with national educational regulations and accurately reflects the program's disciplinary orientation. It follows the official nomenclature established by the **Ministry of Education of the**

People's Republic of China for undergraduate programs. The program is registered under the national discipline code 080701, within the category of *Electronic Information*.

The title reflects the program's academic focus, which integrates fundamental theories of electronics, information technology, and communication systems with practical applications in signal processing, circuit and system design, embedded systems, and intelligent control. It aligns with the expected learning outcomes and graduate competence profiles.

The program title is used consistently across all official university documents and communication materials.

For the purpose of international transparency and comparability, the program title is also presented in English as **"Bachelor of Engineering in Electronic Information Engineering"**, which is an adequate translation of the original Chinese title and follows international academic naming conventions.

Analysis and assessment of the expert panel

The expert panel acknowledges that the program title conforms with national standards and does not present any legal or formal inconsistencies. It states that the title of the degree program does reflect the intended objectives and learning outcomes as well as the teaching and learning content. The designation (both in the original language and in English) is used consistently in all relevant documents such as internal university documents, public websites, and student records.

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

As the university did not address this criterion in its statement, the experts confirm their previous evaluations and consider the criterion to be fully fulfilled.

C-3. Curriculum [ASIIN 1.3]

Description of the current status:

Content and structure

The program is structured over **eight semesters** and comprises **171 Chinese credit points**, which are converted into **230 ECTS credits**. Regarding this, more detailed information is provided under C-5 workload and credits.

The curriculum of the Electronic Information Engineering program is structured over four years (eight semesters) and is designed to provide a combination of theoretical knowledge,

practical skills, and professional competencies. It consists of eight categories of courses, including general education, foreign languages, mathematics and physics fundamentals, engineering fundamentals, engineering application courses, autonomous development courses (optional), centralized practice, and graduation thesis/design. Courses are sequenced to build foundational knowledge first, followed by specialized courses and applied practice. The program includes **lectures, laboratory exercises, project-based learning, internships, and design projects** to provide both theoretical understanding and practical skills. Elective courses allow students to tailor their learning according to interests and career goals.

- **General education & language** courses are scheduled mainly in **semesters 1–4** (e.g., College English, humanities/ideology, PE), to build communication and humanistic foundations.
- **Mathematics & physics basics** run through **semesters 1–5** to prepare for later technical study.
- **Engineering basics** (e.g., C programming, circuits, analog/digital electronics, signals & systems) are offered in **semesters 1–6** and lay the groundwork for applications.
- **Engineering application** courses (e.g., MCU, PCB design, high-frequency circuits, DSP) are concentrated in **semesters 3–6** to deepen professional practice.
- **Autonomous development (optional)** modules appear in **semesters 3–7** (with professional options notably in **semesters 5–6**) to broaden or individualize study.
- **Centralized practice** (comprehensive experiments, practical trainings, internships) runs **throughout semesters 1–7** to connect theory with design/practice in a timely manner. Internships are part of **Centralized Practice** (semesters **1–7**), including a **Graduation Internship** listed among the practice modules. Supervision follows a **"double tutorial system"** (academic mentors and enterprise mentors) described in the didactics/student support sections.
- The **Graduation Thesis/Design** is conducted in **semester 8**. The thesis phase in **semester 8** lasts **16 weeks** and is separated from the internship.

An **Objective-Module Matrix** and a detailed **module handbook** clarify how each course contributes to the program's intended learning outcomes. The matrix demonstrates how the curriculum supports the achievement of knowledge, skills, and professional competencies expected from graduates. Each module is associated with specific learning outcomes, ensuring alignment between course content and the program objectives.

Student Mobility

Student mobility is identified in the SAR as a **strategic development goal** of HNCU but remains in an early stage of implementation for the EIE program. The university has established administrative procedures for international exchange, including credit recognition, learning agreement approval, and academic progress monitoring. The **Office of International Exchange and Cooperation** publishes available exchange and visiting programs on the university website, providing students with information on short-term study opportunities abroad.

According to the SAR, HNCU encourages students to broaden their international perspective and has initiated collaborations with several overseas institutions. A notable example includes a cooperation agreement with **Victoria University of Wellington (New Zealand)** for the joint hosting of the *Visual Communication Design* program, which serves as a model for future internationalization efforts in other disciplines, including engineering.

However, no quantitative data or records on incoming or outgoing student mobility specific to the EIE program were provided in the SAR.

Periodic Review of the Curriculum

The training plan of Hunan City University is formulated and revised in line with the university's" Regulations on the Development and Implementation of Undergraduate Talent Cultivation Programs" and" Management Measures for Curriculum Construction". Its curriculum undergoes regular reviews: major revisions every four years and minor updates every two years to adapt to technological advancements, educational reform, and industry demands. The review involves multiple stakeholders—including the Teaching Steering Committee, Academic Affairs Office, faculty representatives, and industry partners—who jointly assess course content, workload, and alignment with learning outcomes.

Additionally, feedback from students, alumni, and employers is systematically gathered via surveys to support program improvement. As noted in the SAR, all curriculum adjustments are documented, reviewed, and approved through institutional processes before implementation to ensure traceability and compliance with quality management procedures.

Analysis and assessment of the expert panel

Content and structure

The expert panel finds that the EIE program at Hunan City University provides a coherent and comprehensive curriculum integrating theoretical foundations, engineering applications, and practical training across eight semesters.

The program progresses logically from general and foundational courses in the first four semesters to specialized and applied modules in later semesters. Core courses—such as C programming, circuits, analog and digital electronics, and high-frequency technology—develop key competencies in electronic system design and intelligent control. Centralized practice, including experiments, projects, and internships, runs throughout the program to connect theory and application.

The panel notes that courses such as *STM32 Electronic System Design and Engineering Application*, *Robot Development*, *FPGA Principles and Applications*, and *Principles and Applications of Embedded Systems* are de facto compulsory and should be formally reclassified as such.

During the interview with industry representatives, an industry representative suggested providing students with more flexibility to explore and cultivate their individual interests early in their studies through the introduction of elective specialization tracks such as game design, robotics, or microelectronics. In addition, it was also suggested to create a large-scale, open innovation platform incorporating video-based introductory modules that present different technological fields and potential career pathways. Such a platform could foster self-directed learning and peer mentoring, allowing senior students to guide junior peers in project-based and research-oriented activities. The importance of sustainable management was highlighted to ensure its long-term continuity, independent of changes in leadership. The expert panel has shared these suggestions with the program coordinators and encouraged them to carefully consider it in future curriculum development and program enhancement efforts.

Generally, the experts consider the program's content and structure to be consistent with ASIIN's Subject-Specific Criteria for Technical Committee 02 and to support the intended learning outcomes effectively.

Student mobility

The expert panel notes that internationalization and student mobility are recognized institutional goals at HNCU but are still at an early stage of implementation for the EIE program. While administrative procedures for credit recognition, learning agreements, and academic monitoring are in place, actual student mobility remains limited, and no program-specific data were provided in this regard.

During the on-site interviews, the experts learned from student representatives that the university regularly announces outbound exchange and summer school opportunities online. One student reported participation in a short-term academic visit to the University

of New South Wales (Australia). Students expressed a strong interest in spending a semester or internship abroad. However, insufficient English proficiency constitutes a major barrier. A few English and cross-cultural communication courses exist within the general education curriculum and they are not directly linked to the professional field.

The experts recommend therefore enhancing the English proficiency of both students and teaching staff by for example introducing additional bilingual or English-taught courses. The English-language website should be regularly updated to facilitate transparency and accessibility for global stakeholders. Furthermore, establishing formal partnerships with foreign universities and defining a clear mobility framework would promote both incoming and outgoing exchange and enhance the international orientation of the program.

Periodic review of the curriculum

During the onsite discussions with faculty and industry representatives, the expert panel learned that the curriculum of the Electronic Information Engineering program is regularly revised through a structured internal process, which confirmed the statement in SAR. Major revisions take place every four years, while minor adjustments are implemented every two years. These revisions are coordinated by the program management and take feedback from teachers, students, and industry partners into account.

The expert panel also learned from program coordinators that the review and continuous improvement of the talent cultivation plan at Hunan City University are conducted through multiple feedback mechanisms. These include field visits to enterprises led by the dean during vacation periods, alumni lectures, and discussion sessions with graduating students. Feedback from these activities is systematically collected and analyzed to assess whether the program meets its intended training objectives. Student achievement of learning outcomes is evaluated using a performance-based matrix that links assessment scores to specific program objectives.

Based on recent feedback from employers, alumni, and graduates highlighting the need to strengthen students' practical skills, the university revised the 2025 version of the talent training plan accordingly. In this updated version, the proportion of practical teaching increased significantly from 21.3% to 34% in order to better align with industry expectations and to enhance students' hands-on competence and professional readiness.

Overall, the expert panel concludes that the university demonstrates a structured approach to curriculum development, which supports continuous improvement.

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

In response to the recommendation of reclassifying four optional courses as compulsory, the university has modified the curriculum. In the new study plan, the respective courses—*STM32 Electronic System Design and Engineering Application, Robot Development, FPGA Principles and Applications, and Principles and Applications of Embedded Systems — are defined as compulsory.* After examining the provided documents, the experts consider this requirement to be fulfilled.

With regard to the English website, although the university has created an English webpage for the ASIIN accreditation process, there is currently no official English website providing information beyond accreditation purposes. Therefore, the experts maintain their recommendation to establish general and program-specific English websites to support the internationalization of both the program and the university. (see section F, E1).

Regarding the English proficiency of both students and teaching staff, the expert panel acknowledges that one bilingual course, "PCB Design and Fabrication," has been offered. The expert panel also welcomes the university's plan to offer additional 3-5 bilingual English taught courses in the future. Until those changes are implemented, the experts maintain their recommendation (see section F, E2).

The University states that they will develop a mobility framework and proactively pursue partnerships with international universities. While the experts acknowledge this intention, concrete measures have not yet been implemented; therefore, the recommendation is maintained. (see section F, E3).

In response to the recommendation of an open innovation platform, the university states that an open innovation platform has be established (including Rooms 102, 103, 107, 108, and 110 in the telecommunications Building), allowing students to participate in the development and production of small-scale projects from their freshman year. More such platforms will be provided in the future. The experts consider this recommendation to be fulfilled.

Generally, the experts consider the criterion to be substantially fulfilled.

C-4. Admission requirements [ASIIN 1.4]

Description of the current status:

According to the SAR, admission to the *EIE* program at Hunan City University follows national Chinese regulations set by the Ministry of Education. All applicants must participate in the **National College Entrance Examination** (*Gaokao*) and meet the general admission requirements for bachelor's degree studies in China: compliance with national laws, a high

school diploma or equivalent qualification, and good health. Admission is conducted through a standardized provincial batch system based on *Gaokao* scores. Typically, first-batch students—those with higher scores—are admitted to Hunan City University.

Specific subject requirements depend on the applicant's province, with candidates generally required to take *Physics* and *Chemistry* as elective subjects. The admission process involves online registration, document submission, and official verification procedures managed by the university's Academic Affairs Office.

Regarding **internal transfer**, HNCU allows students to apply for a change of major once during the first academic year. The transfer must be justified by academic performance or personal development considerations and is subject to review and approval by both the Academic Affairs Office and the President's Office. Credits for completed courses are reviewed for recognition according to institutional policies to ensure academic consistency.

The university ensures transparency through the work of the **admissions leading group and supervision office**, adhering to principles of impartiality, fairness, and openness (appendix 11 1-3).

Analysis and assessment of the expert panel

The expert panel finds that the admission procedures for the EIE program at HNCU comply with national regulations of the People's Republic of China, ensuring transparent selection process. Admission is primarily based on the *Gaokao* examination, which guarantees that incoming students possess the necessary academic foundation for undergraduate engineering studies.

During the on-site interview, the program coordinators confirmed the *Hunan City University Regulations for Full-time Undergraduate Students to Change Majors* as the policy framework governing internal transfers. However, the corresponding document was not included in the appendices. As a result, the expert panel could not verify the detailed procedures for internal transfers and credit recognition.

Furthermore, there are no obvious formal institutional policies for the recognition of prior learning (RPL) or for the transfer of credits earned at other domestic or international higher education institutions. The absence of such mechanisms restricts student mobility and limits its opportunities for academic exchange or credit transfer.

The expert panel therefore recommends that HNCU establish and implement a transparent and clearly defined recognition procedure for qualifications and credits obtained exter-

nally. *This should include credit transfer mechanisms, evaluation criteria, and documentation processes accessible to students and staff.* Such framework could enhance student mobility on both national and international levels and align the university's practices more closely with global standards of academic recognition.

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

The experts acknowledge that the university provided the regulation of study and intern aboard (Appendix 02). However, according to **ASIIN Criterion 1.4**, "Rules for the recognition of qualifications achieved externally [...] are clearly defined. They facilitate the transition between higher education institutions and with non-university places of learning without jeopardizing the achievement of learning outcomes at the desired level." The current regulations focus primarily on international exchange programs. They do not explicitly address the recognition of academic qualifications acquired at other domestic higher education institutions or prior learning obtained outside the higher education sector. Therefore, the experts maintain the requirement (see section F, A1).

The experts assess the criterion as partially fulfilled.

C-5. Workload and credits [ASIIN 1.5]

Description of the current status:

The **Electronic Information Engineering program** applies to a structured credit system to measure student workload and allocate credits. The program uses **Chinese credit points (CPs)** as the primary unit, which are converted to **ECTS credits** for international reference.

For theoretical courses, one Chinese credit corresponds to 16 contact hours and approximately 14 hours of independent study, equating to 1 ECTS credit. For practical courses, one Chinese credit corresponds to 32 contact hours with an additional 28 hours of self-study or laboratory work, equating to 2 ECTS credits. For courses combining both theoretical and practical components, total Chinese credits are calculated using the formula:

$$\text{Chinese Credit Points} = \frac{\text{Theoretical Hours}}{16} + \frac{\text{Practical Hours}}{32}$$

The curriculum documentation includes detailed module descriptions, specifying contact hours, self-study hours, and corresponding ECTS credits. Certain practical components, such as the graduation thesis, graduation practicum, military theory and skills training,

and course design, have additional ECTS allocations reflecting the independent work required by students.

The **total program workload** is distributed across eight semesters and combines classroom instruction, laboratory exercises, project-based learning, internships, and design projects. According to the SAR, the program comprises **171 Chinese credits**, corresponding to a total of **230 ECTS credits**. The table below provides statistics on the study hours of students in four years, to show the structure and classification of the workload.

Type of Course	Contact Hours	Self-study Hours	Total Study Hours	ECTS Credits	Proportion of Credits
General Courses	584	421	1005	33.5	14.57%
Language Courses	144	126	270	9	3.91%
Science and Engineering Courses	1648	1667	3315	110.5	48.04%
Practical Training	832	578	1410	47	20.44%
Graduation Thesis/Design	448	452	900	30	13.04%
Total	**3656**	**3244**	**6900**	**230**	**—**

Regarding the workload, courses are distributed evenly across semesters as can be verified in the following table.

Total	S1	S2	S3	S4	S5	S6	S7	S8
230,0	27,0	30,5	27,5	28,0	29,0	30,0	28,0	30,0

The workload for each module is defined in the *Module Handbook (Appendix 08-2)*, which includes course hours, expected self-study time, and assessment criteria. Course instructors and the Academic Affairs Office monitor workload distribution across semesters to ensure feasibility within the regular study period. Students reported that the workload is manageable within the standard four-year study period.

***Electronic Information Engineering*[1]**

Cohort Year[2]	Total Enrolled[3]	Graduated on Time[4]	Graduated Late[5]	Still Enrolled[6]	Dropped Out[7]
2024	169	166	2	25	1
2023	180	178	2	19	0
2022	127	125	1	13	1
2021	164	157	7	16	0
2020	91	87	3	10	1
2019	94	82	7	7	4
2018	101	88	10	4	3
2017	118	112	6	7	0
2016	100	90	10	7	0
2015	108	89	19	6	0

Average Graduation time (in semesters)[8]: 4.02 years

On average, it takes 8.04 semesters to graduate from this bachelor program. According to Appendix 16-1, the on-time graduation ratio is more than 94%, which further reflects the feasibility of completing the program within the prescribed timeframe.

Analysis and assessment of the expert panel

During the on-site discussion with the program coordinators, the expert panel has been informed that in the revised *Talent Cultivation Plan (2025)*, the total number of Chinese credit points has been reduced from 171 to 154.5 credits. This change aims to reduce students' study burden and allows more time for self-directed learning, while slightly increasing the proportion of credits allocated to engineering-related courses.

However, since the SAR and supporting appendices—such as the curriculum, workload tables, and module descriptions—are still based on the 171-credit system, the expert panel could not comprehensively assess the accuracy and appropriateness of the actual workload distribution.

During interviews, the panel also learned that counselors regularly check student workload and study time, including library self-study hours and participation in online learning activities. The university uses digital platforms to collect and analyze statistical data on student engagement. Self-study hours are incorporated into the class assessment component of certain courses. Laboratory preparation and homework assignments are monitored and recorded by instructors to quantify student effort.

Overall, the expert panel concludes that the university's current credit system aims to ensure consistent workload distribution. However, to enhance transparency and streamline international comparability, the panel strongly recommends re-evaluating the institution's internal credit structure with two key objectives: first, establishing a clear, traceable method to monitor actual workload; second, aligning this framework more closely with the European Credit Transfer and Accumulation System (ECTS) to ensure compatibility.

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

The expert panel acknowledges the revised ECTS conversion submitted by the university together with the revised 2025 curriculum. The total workload has been reduced from 230 ECTS to 209.9 ECTS, while the Chinese credit points have decreased from 171 to 154.5. This corresponds to a reduction of approximately 9% in ECTS and 9.6% in Chinese credits. The experts note that the documented student workload, expressed in ECTS, is unevenly distributed across the eight semesters, ranging from 16.56 ECTS in the seventh semester to

36.26 ECTS in the second semester (see the table below). No sufficient explanation for this imbalance is provided.

semester	1	2	3	4	5	6	7	8	total
ECTS	32,66	36,26	26,06	30,96	19,96	20,86	16,56	26,58	209,9
（%）	15,6%	17,3%	12,4%	14,7%	9,5%	9,9%	7,9%	12,7%	100,0%

To ensure a balanced student workload, the panel reformulates the requirement (see section F, A2).

In response to the recommendation to establish a transparent mechanism for evaluating and validating actual student workload, the university has submitted a new Appendix 3, *'Management of Undergraduate Course Hours (Trial)'*, which outlines the principles and procedures for workload evaluation.

The experts note that the university has taken prompt action and defined concrete methods. However, the implementation of a new principle requires time, and statistical data are needed to demonstrate its effectiveness. Therefore, the experts maintain the requirement (see section F, A2).

C-6. Didactics and teaching methodology [ASIIN 1.6]

Description of the current status:

Based on the SAR and on-site discussion, the EIE program employs a variety of didactic methods to support learning. The key aspects are:

- **Theoretical Teaching**: Large-class lectures (~80 students) are used for foundational courses. Some courses integrate in-class experiments conducted in smaller groups (up to ~25 students per group).
- **Practical and Experimental Teaching**: Practical training and internships are part of centralized practice courses. The program has access to more than 10 provincial-level teaching and research platforms, 37 on- and off-campus practical training centers, and collaboration with enterprises.
- **Double-Tutor System**: Each student can receive guidance from both an academic tutor and an enterprise tutor to enhance professional skills and practical experience.
- **Project-Based and Research-Oriented Learning**: Students participate in major innovation projects, academic competitions, and research projects led by faculty.

- **Learner-Centered and Digital Methods**: The program uses Problem-Based Learning (PBL), flipped classrooms, and online platforms (e.g., Yuketang, Ketangpai) to support self-directed learning, interactive experiences, and personalized learning. Digital tools are combined with face-to-face teaching to balance in-class interaction with independent study. During the on-site interview, faculty members provided examples of modern teaching practices, such as in the *Literature Search and Thesis Writing* course, where students simulate academic writing and peer review processes through mock journal submissions and defenses.

- **Comprehensive Skills Development**: Courses integrate theory, experiments, and practical applications to ensure students develop knowledge, skills, and professional competencies aligned with program learning outcomes.

In short, the program combines traditional lectures, experimental courses, internships, digital learning tools, project-based learning, and dual mentoring to create a learner-centered, practice-oriented teaching environment.

Analysis and assessment of the expert panel

The expert panel notes that the EIE program combines lectures, laboratory work, project-based learning, and internships to integrate theory and practice. Foundational courses are taught in large classes, while specialized and experimental modules are conducted in smaller groups, often combining theoretical instruction with in-class experiments.

Learner-centered approaches such as problem-based learning (PBL), flipped classrooms, and digital platforms (e.g., Yuketang, Ketangpai) support interactive and self-directed learning. A double-tutor system —pairing academic and enterprise mentors— guides students during internships and research projects.

Teaching staff confirmed to participate in pedagogical and digital workshops regularly, while new staff are mentored by senior faculty. Students confirmed the existence of structured feedback mechanisms and accessibility of instructors.

Overall, the program's didactic methods effectively support both theoretical learning and applied engineering competence.

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

As the university did not address this criterion in its statement, the experts confirm their previous evaluations and consider the criterion to be fully fulfilled.

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

Description of the current status:

The EIE program at HNCU implements a structured and standardized examination system, governed by the *Full-time Ordinary Higher Education Undergraduate Course Assessment and Grade Management Measures* (Appendix 17). Course assessments are categorized into **examinations** and **evaluations**. Examinations are primarily **closed-book written tests**, while selected courses adopt **open-book exams or oral defenses** as appropriate. Evaluation-based courses use alternative assessment formats such as projects, reports, or presentations. Examination content shall align with course syllabi and intended learning outcomes, with **question review and approval forms** required for all examinations.

The overall assessment typically comprises 60% final examination and 40% class assessment, including pre-class preparation, in-class participation, assignments, and mid-term tests. For practical modules such as internships and graduation projects, assessment relies on supervisor evaluations and oral defenses. Grades are recorded in the university's teaching management system, and credits are awarded upon achieving a passing score.

The **Graduation Comprehensive Training** (Graduation Project) occurs in the eighth semester over 16 weeks and includes independent research, experiment design, report writing, and oral defense. Each student is assigned to a supervisor who guides the process. Grading combines evaluations from the supervisor, an independent reviewer, and the defense panel (Appendix 17, Section 2-6).

Examinations are organized centrally by the **Academic Affairs Office** for general courses, while colleges schedule professional course assessments. Multi-instructor grading and cross-checking ensure fairness. Regulations also define procedures for exam deferment, retakes, and grade appeals (Appendix 17, Sections 2-1, 2-9).

The **bachelor thesis evaluation** process follows a structured system involving multiple evaluators and quality assurance measures.

The scoring breakdown is as follows:

- 40% from the supervisor,
- 30% from a second reviewer or external evaluator,
- 30% from the oral defense, which is conducted by a panel of three evaluators, occasionally including industry professionals.

Plagiarism detection mechanisms are in place, with a general similarity threshold set at 20%. In addition, the institution also employs tools to **detect AI-generated content**, with an acceptable low risk in line with its internal policies.

Analysis and assessment of the expert panel

The expert panel reviewed samples of examination papers and bachelor theses and confirmed that the EIE program operates under a structured and transparent examination system. Regulations clearly define assessment formats, grading criteria, and procedures for students with specific needs. Student representatives confirmed that examination requirements and evaluation standards are communicated through the course syllabi. Make-up and repeat examinations follow formal procedures, and a regulated appeals process for grade reviews is in place.

However, the expert panel notes that the failure rate in some written examinations exceeds 30%. When asked about this, the program coordinator explained that the exam papers are of relatively high difficulty and that some students have weak foundations of the required pre-knowledge. The final grade for each course consists of 40% class assessment (including assignments, experiments, and quizzes) and 60% from the written examination. The coordinator also acknowledged during the interview with teaching staff that a minimum of 45 points from 100 points is required specifically for the written exam.

The expert panel expressed concern that such a high failure rate could negatively affect students' motivation and engagement. It is therefore recommended that the program coordinators review the assessment design and take measures to reduce the failure rate. The expert panel observed, however, that most examinations remain traditional written tests, with limited use of alternative assessment formats such as oral presentations, project reports, or practical demonstrations. While some courses include experiment-design re-ports and literature-review assignments, these elements are not yet consistently applied across the curriculum. The panel encourages the university to further diversify assessment formats, such as oral exams, open-book exams, or thesis-based evaluations in order to evaluate a broader range of competences, including creativity, team-work, and problem-solving skills.

The experts consider the bachelor thesis as the program's final capstone, assessing students' ability to work independently and integrate theoretical and practical knowledge. Upon reviewing the theses, the expert panel observed limited analytical depth and insufficient scientific discussion in several submitted theses. In particular, documentation of design processes, theoretical analysis, and calculations was often marginal/superficial. The integration of appropriate usage of digital tools like circuit and control design tools or simulation software could also be promoted to enhance analytical accuracy and depth.

The panel recommends strengthening student preparation in academic and technical writing by requiring more detailed reporting of methodologies, analytical processes, and results, supported by appropriate digital design and simulation tools. Additionally, the panel would like to address the importance of adherence to standardized academic writing formats, including consistent citation and referencing practices. Together, these measures would enhance the overall quality of thesis work.

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

In response to the feedback on academic writing conventions, the university has outlined previously implemented guidelines, as documented in Appendices 4, 5, and 6. The experts acknowledge the university's stated intentions; however, measures aimed at quality control require time to be fully implemented, and corresponding improvements cannot yet be evidenced. Therefore, the experts maintain the requirement. (see section F, A3).

In response to the feedback on thesis quality, the university has stated its intention to strengthen thesis supervision and assessment criteria with a focus on independent scientific analysis, methodology, and evaluation of results. Additional training and clearer thesis guidelines are planned. While the experts acknowledge this intention, the proposed measures have not yet been implemented, and corresponding improvements cannot be evidenced at this stage. Therefore, the experts maintain the recommendation. (see section F, E4).

In response to the feedback on failure rate of the written exams, the university has stated the plan to analyse the causes of the high failure rate by focusing on the following four aspects: learning behaviour analysis, examination scoring patterns, teaching methods. While the experts acknowledge this intention, the proposed measures have not yet been implemented, and corresponding improvements cannot be evidenced at this stage. Therefore, the experts maintain the recommendation. (see section F, E5).

The university has committed to diversify the forms of assessment such as (oral exams, project work, lab reports, and continuous assessment. While the experts acknowledge this intention, the proposed measures have not yet been implemented. Therefore, the experts maintain the recommendation. (see section F, E6).

The experts assess the criterion as partially fulfilled.

C-8. Resources [ASIIN 3]

Description of the current status:

Staff and Staff Development [ASIIN 3.1]

The EIE program at HNCU is supported by a qualified and well-structured teaching team (Appendix 19-4, 20-1). The program has 27 full-time faculty members, including 7 professors, 7 associate professors, 7 lecturers, and 6 teaching assistants, with 54.85% under 45 years old. Among them, 10 hold doctoral and 15 hold master's degrees, giving a 92.59% rate of postgraduate qualification.

A **mentoring system** assigns each young instructor to a senior academic supervisor. The university ensures faculty development through systematic **training** for all newly hired teachers before they start teaching, in accordance with the *Hunan Provincial Department of Education Notice on Pre-Service Training for Higher Education Teachers (2024)*. Apart from this, it encourages ongoing **pedagogical and professional training**, participation in teaching reform and research projects, and bilingual teaching initiatives to strengthen teaching quality and international competence.

Student Support and Student Services [ASIIN 3.2]

Student support is coordinated by the **Academic Affairs Office** and the **Student Affairs Office** (Appendix 21-1). The Academic Affairs Office manages teaching organization, examinations, and student records through an online Teaching Management Information System (Figures 3.1–3.2). The Student Affairs Office oversees ideological and political education, legal education, psychological counselling, financial aid, and dormitory management. Each student is assigned an academic mentor who provides individualized study guidance, research supervision, and career counselling.

A **corporate mentor system** complements academic advising by pairing students with professionals from partner enterprises for practical training and innovation projects. Further, the university claims to promote student mobility through its *Regulations on Student Overseas Study and Internship*, administered by the Office of International Cooperation and Exchange.

Monitoring mechanisms are supposed to track student learning progress, participation, and performance. Feedback from students and mentors shall then be used for continuous improvement of educational support.

Funds and Equipment [ASIIN 3.3]

According to Appendix 23-1 and Appendix 23-2, total **teaching investment** for the EIE program reached RMB 18.15 million (approx. EUR 2.2 million) over the past five years, including RMB 14.21 million (approx. EUR 1.7 million) for laboratory construction, RMB 181,154 (approx. EUR 22,100) for course development, and RMB 482,795 (approx. EUR 58,900) for academic competitions. The "351 Talent Project" provides funding from RMB 160,000 to RMB 400,000 (approx. EUR 19,500 – 48,800) for academic leaders and teachers, while new PhD teachers receive RMB 100,000 (approx. EUR 12,200) research start-up funding. The Experimental Centre of the School of Information and Electronic Engineering covers 5,188 m^2 with equipment valued at RMB 47.15 million (approx. EUR 5.8 million).

HNCU reports that the program uses several **laboratories** —such as the Electrical and Electronic Training Centre, Metallurgical Experimental Teaching Centre, and Innovation and Entrepreneurship Training Centre— and 37 on- and off-campus internship bases (Appendix 09-2). In addition, ten provincial teaching and research platforms, including the *Hunan Provincial Key Laboratory of All-Solid-State Energy Storage Materials and Devices*, support academic and applied research.

The **university library** houses 2.845 million volumes and provides access to digital databases. **Modern IT infrastructure**, including over 800 computers and multiple smart classrooms, shall ensure effective teaching and learning. These resources are said to provide comprehensive support for both theoretical and practical components of the program.

Analysis and assessment of the expert panel

Staff and Staff Development [ASIIN 3.1]

The expert panel acknowledges that the EIE program is taught by a qualified and experienced faculty team whose expertise covers the core areas of the discipline. The program benefits both full-time academic staff and external lecturers from the industry, which strengthens its practical orientation and linkage with professional practice.

During the on-site discussions, the experts learned that the minimum teaching workload for faculty members is 320 contact hours per academic year, with most teachers carrying 400–500 hours per academic year. The teaching staff confirmed that this workload is well distributed and manageable. For example, a faculty member reported that he is currently pursuing a joint doctoral program between Hunan University and the University of Iceland while maintaining his full-time teaching position at HNCU. As long as he meets the university's minimum teaching workload requirement of 320 contact hours per academic year, he receives the same remuneration and treatment as full-time faculty. This arrangement allows teachers to advance their academic qualifications without compromising their

teaching. The experts also positively note that the university implements a mentoring system, pairing new teachers with senior faculty for professional guidance and that newly appointed lecturers are required to attend training sessions and classroom observations to enhance teaching quality.

In addition, the panel acknowledges that teachers are encouraged to participate in enterprise-based technical training programs, such as the Huawei Hardware Development Engineer Program in Guiyang and training at local companies in the Changsha region. This practice ensures that instructors remain updated with current industry technologies.

The expert panel commends the teaching staff's strong commitment to teaching and applied training, which contributes to the program's practice-oriented profile.

Despite these commendable efforts, HNCU should consider strengthening the professional development of its teaching staff by encouraging and supporting faculty members to participate in overseas training programs, joint research projects, visiting scholar initiatives, and international conferences. This would not only enhance their competence, but also contribute to the program's internationalization.

Student Support and Student Services [ASIIN 3.2]

The expert panel notes that HNCU offers comprehensive, well-structured student support services encompassing academic guidance, psychological counseling, and career assistance. Obviously, these resources are accessible through multiple channels, including the Student Career Guidance Center, academic advisors, and thesis supervisors. Further, it is commendable that a dedicated academic mentor is assigned to each student to provide personalized guidance on study planning, academic performance, and career development.

Feedback from students confirms that these support services are easily accessible, and they expressed full satisfaction with the assistance provided by teaching staff and the university. The panel concludes that the student support and advisory framework is not only well-organized and effective in practice but also aligns with student expectations, significantly contributing to their academic success and overall well-being.

Funds and Equipment [ASIIN 3.3]

The expert panel finds that the financial resources allocated to the EIE program are adequate and sustainably managed. The onsite visit confirms that the program is also supported by modern, well-maintained teaching and research infrastructure such as up-to-date equipment in laboratories, workshops and training centres, industry-joint labs enhancing practical learning, and comprehensive digital resources.

Both teaching staff and students expressed satisfaction with these facilities. The panel concludes that sufficient financial and material resources effectively and sustainably underpin high-quality teaching and continuous program improvement. The funding mechanisms and replacement cycles are well structured and effectively implemented.

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

Staff and Staff Development [ASIIN 3.1]

As stated above in section C-3, regarding the English proficiency of both students and teaching staff, the expert panel welcomes the university's plan to offer more bilingual English taught courses in the future. Until those changes are implemented, the experts maintain their recommendation (see section F, E2).

The experts assess the criterion as substantially fulfilled.

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

Description of the current status:

The Electronic Information Engineering program at Hunan City University (HNCU) operates under a comprehensive, multi-tiered **Quality Assurance (QA) system**, ensuring the ongoing enhancement of academic and teaching standards.

Organizational Structure and Responsibilities

According to the SAR, quality assurance (QA) at HNCU is implemented through a structured, multi-level management system involving the **University Academic Affairs Office**, the **Teaching Quality Monitoring and Evaluation Office**, and the **School of Information and Electronic Engineering**. The School Teaching Steering Committee and program coordinators oversee the implementation of quality policies, teaching supervision, and evaluation of learning outcomes. Responsibilities are defined for academic staff, mentors, and administrative departments. The *Sample of Traceability Study* demonstrates quality records at the course level, linking teaching performance and student feedback to continuous monitoring.

Standards and Monitoring

Teaching quality is governed by institutional regulations, including the *Teaching Quality Monitoring and Evaluation Measures* (SAR, Appendix 18). Evaluation mechanisms include

classroom observations, peer reviews, examination paper sampling, and student satisfaction surveys conducted every semester. Student learning outcomes are verified through a dual-track assessment of both process and final examinations. Feedback from students, employers, and alumni is collected through surveys and graduate tracking (Appendix 19). The additional *Traceability Study* shall provide evidence of consistent documentation and feedback analysis. Data and relevant information are to be reported to the Academic Affairs Office for follow-up action and shall be used to guide faculty development, curriculum revision, and workload adjustments. Cohort progression is tracked using graduation and retention data shown in Appendix 16-1.

Continuous Improvement

Reportedly, curriculum reviews occur every four years, with minor updates every two years, ensuring alignment with industrial and technological developments. Improvement measures are based on course evaluations, student surveys, and employer feedback, supported by external audits from provincial education authorities. The *SWOT Analysis* notes that while the system effectively identifies improvement areas, communication of outcomes to students and external stakeholders can be further strengthened.

Analysis and assessment of the expert panel

During the on-site visit, the expert panel found that HNCU operates a well-structured, multi-level quality management system that supports regular monitoring and continuous improvement. Internal evaluations are conducted each semester through student surveys, peer reviews, and classroom inspections. Course evaluations feed into institutional processes for both staff performance review and program enhancement. The system also includes measures to identify underperforming teaching staff and provide targeted professional support.

The experts also positively note that external feedback is collected from graduates, employers, and industry representatives through surveys, visits, and advisory meetings. This input informs curriculum adjustments and ensures that program objectives remain aligned with labor market needs. In addition, external audits by provincial and national education authorities confirm HNCU's commitment to maintaining high teaching standards.

It is noticed that students participate in mandatory, anonymous course evaluations with high response rates. The results are reviewed by program coordinators and discussed with faculty. However, the expert panel observed that the communication of evaluation outcomes to students – currently facilitated primarily through volunteer student representatives – lacks a systematic and standardized process. To fully close the feedback loop, the panel recommends formalizing the dissemination process to enhance the transparency of

its quality assurance system. This includes establishing a clear, documented procedure for sharing evaluation results and subsequent improvement measures with students.

Finally, the experts commented on the SWOT analysis provided for the EIE program. While generally commendable, the university had framed it around ASIIN accreditation criteria, which misinterprets its intended function. The SWOT analysis should instead serve as an internal strategic tool—helping the QA officers assess their genuine strengths and weaknesses, recognize external opportunities and risks, and guide targeted improvement measures. When applied in this way, SWOT supports sustainable internal quality development and naturally strengthens readiness for accreditation, rather than reducing it to a compliance exercise.

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

In response to the feedback regarding the closure of the feedback loop, the university has published the current evaluation results on the website (*https://xdy.hncu.edu.cn/ASIINrz/Electronic_Information_Engineering/fj_Appendix.htm*) and stated that it will ensure transparent communication of evaluation results to all affected students in the future. The expert panel acknowledges the establishment of a closed-loop communication process intended to enhance transparency and support continuous improvement. However, the panel also notes that the evaluation results are currently published only in English on a website created specifically for the ASIIN accreditation process. As the full implementation of these quality assurance measures will require additional time, the panel therefore raises a recommendation. (see section F, E7).

The experts assess the criterion as substantially fulfilled.

C-10. Transparency and documentation [ASIIN 4]

Description of the current status:

Module Descriptions [ASIIN 4.1]

The EIE program provides module descriptions (appendix 02-2, 08-2) covering mathematics, physics, engineering basics, engineering applications, autonomous development, centralized practice, and graduation thesis/design. The general education courses and foreign language courses are not included. Each module description includes course objectives, learning outcomes (knowledge, skills, and abilities), semester, contact hours, workload,

credit points, prerequisites, teaching methods, examination requirements, and recommended literature. Experimental and practical components are documented in detail, including content, contact hours, and self-study hours.

Module descriptions are maintained in the university's **personal management system** for department heads, faculty, and students. The system is accessible to students and staff using personalized login credentials and allows them to track current and past learning tasks.

Diploma and Diploma Supplement [ASIIN 4.2]

A sample of the graduation diploma for the EIE bachelor's degree and a template of the diploma supplement are included in the SAR appendix (21-1, 21-2). The sample diploma bears the university seal and the president's signature. The diploma supplement template is provided in English and includes information about the degree, the achieved learning outcomes, and an explanation of the grading system. However, it does not integrate the corresponding course list or transcript of records. At present, HNCU does not issue an official English-language diploma supplement together with the graduation certificate immediately after students complete their studies.

Additionally, the experts learned that awards obtained through participation in research projects or competitions are currently not reflected in the transcript of records. The panel therefore recommends that such awards be included in the transcript of records in order to motivate students and appropriately acknowledge their achievements.

Relevant Rules [ASIIN 4.3]

The university has established regulations (appendix 02) for teaching quality evaluation, student assessment and internal credit recognition for students with internal program transfer. These rules define procedures for monitoring and evaluating course delivery, examination performance, and student progression. They also specify requirements for attendance, homework, and examination eligibility. The documentation ensures that processes are transparent and accessible to students, faculty, and administrative staff, supporting consistency in program delivery and assessment.

According to the university, students are informed about these rules during orientation and can access relevant rules and information through the online management system via personal login. Along with this, HNCU reportedly has put in place mechanisms to keep the regulatory framework current and aligned with national education policies and institutional developments.

Analysis and assessment of the expert panel

Module descriptions

The expert panel acknowledges the existence and formal distribution of module and course descriptions within the program documentation. As this information is only accessible via a personal login to the university's personal management system, it should be made also be made available to non-students and other interested parties.

The expert panel learned that the latest curriculum updates were made in 2025, while the content of module descriptions is still based on the talent cultivation training plan in 2023. Therefore, in view of the missing descriptions, the panel requests an updated set of module descriptions covering all courses, including general education and foreign language courses, and accurately reflecting the curriculum structure as well as the student workload in converted ECTS. These updated documents should be submitted together with the university's formal statement in response to this report.

Diploma and Diploma Supplement

During the on-site visit, the expert panel observed that graduates of the EIE program currently receive only a Chinese-language diploma, without an accompanying English diploma supplement. The latter, which is standard in international higher education, should include a list of completed modules, corresponding credit points and grades, as well as a description of the program's learning outcomes and qualification framework.

Program coordinators confirmed that HNCU does not yet issue such a document but reported that the university's Quality Control Centre is developing an English-language diploma supplement which will be included in the official graduation documents. The new document will reference ECTS credits to improve international comparability.

The expert panel welcomes this development and recommends that HNCU finalize and implement the diploma supplement. To ensure compliance with ASIIN and European standards, it should be issued together with an official transcript of records detailing all completed modules, grades, and credit points, along with a clear explanation of the grading scale and the degree's placement within China's higher education system.

Relevant rules

The expert panel acknowledges that HNCU has established clear internal rules and regulations covering teaching, examinations, and quality assurance. These documents are regularly updated by the relevant administrative units and made accessible to students via the university's online management system and internal intranet. Students confirmed that they are informed of their rights and responsibilities during orientation sessions, can easily

access all necessary academic and regulatory documents through these digital platforms, and that the university's digital teaching and management tools further support a structured, transparent academic workflow. Additionally, to verify the availability of documents and the rigor of protocol-keeping processes, the panel conducted on-site checks and required samples of graduate files and examined meeting minutes from discussions focused on curriculum reviews. However, the panel also notes that information for external audiences such as prospective students remains limited. The experts emphasize that making program details publicly available would enhance transparency and help applicants better understand the degree program's structure and expectations.

Overall, the experts consider the internal framework effective and recommend improving public accessibility of program-related information.

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

Module Descriptions [ASIIN 4.1]

In response to the request to update the module descriptions in line with the revised ECTS allocation, the university has submitted updated module descriptions. After careful examination, the experts consider the content to be complete and accurately reflect the revised ECTS allocation.

Diploma and Diploma Supplement [ASIIN 4.2]

In response to the Diploma Supplement, the university states that it will ensure that all graduates receive a Diploma Supplement in English shortly after graduation. Processes will be standardized to generate and issue the English-language Diploma Supplement automatically with the diploma. The experts acknowledge the commitment of HNCU. However, until implemented, the panel maintain the requirement (see section F, A4).

Relevant Rules [ASIIN 4.3]

In response to the suggestion to include awards obtained through participation in research projects or competitions in the transcript of records, the university explained that awards from competitions are already recorded in students' academic transcripts (Appendix 7). The university also stated that an application will be submitted to the Academic Affairs Office to propose the inclusion of student participation in research projects and academic publications in the transcripts. The experts acknowledge the prompt response and consider the suggestion to be fulfilled.

Generally, the experts assess the criterion as partially fulfilled.

D. Additionally requested documents

Before preparing their final assessment, the panel ask that the following missing or unclear information be provided together with the comment of the Higher Education Institution on the previous chapters of this report:

- Confirmation that the stated objectives and program learning outcomes are aligned with the 2025 version of the curriculum or submission of objectives and program learning outcomes adapted to the latest version of the curriculum. The Chinese and English versions of learning outcomes should be identical. [ASIIN 1.1]
- Revised Objective-Module-Matrix with current learning outcomes. [ASIIN 1.1]
- Hunan City University Regulations on Student's Overseas Study and Internship [ASIIN 1.4]
- revised ECTS calculation based on the updated total of 154.5 Chinese credit points, ensuring that credit allocation accurately reflects the actual student workload. [ASIIN 1.5]
- Explanation of the ECTS conversion logics and how the real workload of self-study time is evaluated and monitored. [ASIIN 1.5]
- Updated module descriptions, which include all courses in the curriculum and reflect the student workload in converted ECTS. [ASIIN 4.1]

E. Comment of the Higher Education Institution (09.12.2025)

The institution provided a detailed statement as well as the following additional revised documents:

- Appendix 01 Undergraduate Talent Training Program for Electronic Information Engineering Major (2025 Edition)
- Appendix 02 Management Measures for Students of Hunan City University to Study and Intern Abroad
- Appendix 03 Undergraduate Course Hours (Trial)
- Appendix 04 Template for Training Report
- Appendix 05 Template for Graduation Project
- Appendix 05-3 Learning Outcomes and a matrix of objectives-module
- Appendix 06 Undergraduate Graduation Design (Thesis)
- Appendix 07 Subject Competition
- Appendix 08-2 Module Descriptions
- Appendix 09 Revised version of SWOT analysis

The following quotes the comment of the institution:

Response to Major Recommendations

R1. Publication of up-to-date program information on the Chinese-language website [ASIIN 1.1, 4.1]

Response and action: We have initiated a comprehensive update of the official Chinese-language EIE program web pages (https://xdy.hncu.edu.cn/).

R2. Curriculum restructuring and reclassification of mandatory courses [ASIIN 1.3]

Response and action: We acknowledges the inconsistency between the curriculum listing and actual practice for the courses STM32 Electronic System Design and Engineering Application, Robot Development, FPGA Principles and Applications, and Principles and Applications of Embedded Systems. We have revised the curriculum to reclassify these courses as compulsory (core) courses and updated the Talent cultivation programme (**Appendix 1,**) accordingly.

R3. Transparent rules for recognition of external qualifications [ASIIN 1.4]

Response and action: We have developed and published clear regulations and procedures for recognition of externally obtained academic qualifications, covering international degrees, prior learning recognition (PLR), and credit transfer (**Appendix 2 at** https://xdy.hncu.edu.cn/ASIINrz/Electronic_Information_Engineering/fj_Appendix.htm, and this is the Chinese website: https://www.hncu.edu.cn/xgjjlc/info/1067/1658.htm). These regulations will specify required documentation, evaluation criteria, responsible offices, processing timelines, and appeal procedures.

R4. Mechanism to evaluate and validate actual student workload and ECTS allocation [ASIIN 1.5]

Response and action: We recognize discrepancies between calculated and actual student workload and have established and published a systematic, transparent mechanism to evaluate and validate student workload (**Appendix 3**) recently.

R5. Academic writing conventions and standardized formatting [ASIIN 2]

Response and action: To enforce consistent academic writing and formatting standards across reports and student work, we have developed and publicized a university-wide academic writing and referencing guideline, including citation standards and thesis and report templates in Chinese and English (**Appendix 4, 5, 6**).

R6. Diploma Supplement in English for graduates [ASIIN 4.2]

Response and plan: HNCU will ensure that all graduates receive a Diploma Supplement in English shortly after graduation. Processes will be standardized to generate and issue the English-language Diploma Supplement automatically with the diploma.

R7. Informing students about evaluation results [ASIIN 5]

Response and action: We have published the current evaluation results at https://xdy.hncu.edu.cn/ASIINrz/Electronic_Information_Engineering/fj_Appendix.htm and will ensure transparent communication of evaluation results to all affected students in the future.

Response to Minor Recommendations

R8. Maintain and update English-language website to support international mobility [ASIIN 1.3]

Response and action: We have updated the revised evaluation results and the relevant document and information, will expand and regularly maintain the English-language EIE pages to mirror the Chinese pages.

R9. Enhance English proficiency of students and staff [ASIIN 1.3, 3.1]

Response and action: Currently, one bilingual course, "PCB Design and Fabrication," has been offered. To further improve the English language skills of students and faculty members, plans are underway to introduce an additional 3–5 bilingual courses in a phased manner.

R10. Facilitate student mobility and international partnerships [ASIIN 1.3]

Response and plan: At present, Hunan City University has relatively limited collaboration with overseas universities, particularly in the field of Electronic Information Engineering. We will develop a mobility framework and proactively pursue partnerships with international universities to enhance incoming and outgoing student mobility.

R11. Consider industry feedback and establish open innovation platform [ASIIN 1.3]

Response and action: We have established an open innovation platform (including Rooms 102, 103, 107, 108, and 110 in the Telecommunications Building), allowing students to participate in the development and production of small-scale projects from their freshman year. More such platforms will be provided in the future.

R12. Strengthen independent scientific analysis in bachelor theses [ASIIN 2]

Response and plan: We do recognize this issue and will gradually thesis supervision and assessment criteria to emphasize independent scientific analysis, methodology, and evaluation of results. Additional training and clearer thesis guidelines will be provided.

R13 & R14. Reduce written exam failure rate and diversify assessment methods [ASIIN 2]

Response and plan: We do acknowledge the existence of this issue at present. Moving forward, based on feedback from exam results, we will analyze the causes of the high failure rate. We plan to address this by focusing on the following four aspects: learning behavior analysis, examination scoring patterns, teaching methods, and diversification of assessment approaches (oral exams, project work, lab reports, and continuous assessment).

R15. Include awards from research projects or competitions on transcript of records [ASIIN 4.2]

Response and action: Awards from competitions have already been included in student academic transcripts (**Appendix 7**). Subsequently, an application will be submitted to the university's Academic Affairs Office to propose the inclusion of student participation in research projects and academic papers into the transcripts.

F. Summary: Expert recommendations (29.12.2025)

Taking into account the additional information and the statement given by Hunan City University, the experts summarize their analysis and **final assessment** for the award of the seals as follows:

Degree Program	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Electronic Information Engineering	With requirements for one year	31.09.2031	Wählen Sie ein Element aus.	

Requirements

A 1. [ASIIN 1.4] It is required that the university develops and publishes transparent rules and procedures for recognizing externally obtained academic qualifications, including international degrees and prior learning.

A 2. [ASIIN 1.5] It is required to ensure a balanced student workload across the semesters and to establish and implement a transparent mechanism for systematically evaluating and validating the actual student workload in order to identify and correct discrepancies between the calculated and the actual student workload in a timely manner.

A 3. [ASIIN 2] It is required that the university enforces consistent adherence to recognized academic writing conventions, including proper citation, referencing, and the use of standardized formatting templates to all reports and papers.

A 4. [ASIIN 4.2] It is required to ensure that all graduates are provided with a Diploma Supplement in English shortly after graduation.

Recommendations

E 1. [ASIIN 1.3] It is recommended to regularly maintain and update the English-language website to support the international mobility of the EIE students.

E 2. [ASIIN 1.3, 3.1] It is recommended to enhance the English proficiency of both students and teaching staff.

E 3. [ASIIN 1.3] It is recommended that HNCU facilitates incoming and outgoing student mobility through the implementation of a mobility framework and partnerships with universities abroad.

E 4. [ASIIN 2] It is recommended to strengthen the level of independent scientific analysis in bachelor theses regarding, in particular, theoretical analysis, presentation of methodologies, and evaluation of results.

E 5. [ASIIN 2] It is recommended to take measures to reduce the failure rate of the written exams.

E 6. [ASIIN 2] It is recommended to diversify the forms of assessment to include modes of assessment besides written exams to test different intellectual competences of the students.

E 7. [ASIIN 5] It is recommended that the transparency of existing quality assurance mechanisms be systematically improved by directly sharing evaluation results with students.

G. Comment of the Technical Committee 02– Electrical Engineering/Information Technology (10.03.2026)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the procedure, paying particular attention to Recommendations E5 and E7.

Regarding Recommendation E5, the Committee notes that the current wording is somewhat ambiguous. As it is currently worded, it could be interpreted as suggesting any measure aimed at reducing failure rates without necessarily addressing the underlying causes, and therefore perhaps implementing inadequate measures. The Committee emphasises that high failure rates may result from various factors, such as organisational aspects, the thematic or structural design of the course, the level of difficulty of examinations or insufficient preparation of students. In the Committee's view, the primary focus should therefore lie on identifying and analysing the root causes of high failure rates before determining appropriate corrective measures. The Committee therefore suggests reformulating the recommendation to explicitly emphasise the analysis of the underlying causes as the basis for any subsequent measures.

Regarding Recommendation E7, the Committee notes that the issue of the missing feedback loop appears to be more structural in nature. Based on the information provided in the report — particularly the statement that "the panel also notes that the evaluation results are currently published only in English on a website created specifically for the ASIIN accreditation process" — the Committee understands that a systematic feedback loop for students has not yet been fully established. In light of this, the Committee suggests converting the recommendation into a requirement, to ensure that evaluation results are communicated to students in a systematic and transparent manner.

The Technical Committee 02 – Electrical Engineering/Information Technology recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Electronic Information Engineering	With requirements for one year	31.09.2031	Wählen Sie ein Element aus.	

Requirements

A 1. [ASIIN 1.4] It is required that the university develops and publishes transparent rules and procedures for recognizing externally obtained academic qualifications, including international degrees.

A 2. [ASIIN 1.5] It is required to ensure a balanced student workload across the semesters and to establish and implement a transparent mechanism for systematically evaluating and validating the actual student workload in order to identify and correct discrepancies between the calculated and the actual student workload in a timely manner.

A 3. [ASIIN 2] It is required that the university enforces consistent adherence to recognized academic writing conventions, including proper citation, referencing, and the use of standardized formatting templates to all reports and papers.

A 4. [ASIIN 4.2] It is required to ensure that all graduates are provided with a Diploma Supplement in English shortly after graduation.

A 5. [ASIIN 5] Ensure that students are systematically informed about the evaluation results.

Recommendations

E 1. [ASIIN 1.3] It is recommended to regularly maintain and update the English-language website to support the international mobility of the EIE students.

E 2. [ASIIN 1.3, 3.1] It is recommended to enhance the English proficiency of both students and teaching staff.

E 3. [ASIIN 1.3] It is recommended that HNCU facilitates incoming and outgoing student mobility through the implementation of a mobility framework and partnerships with universities abroad.

E 4. [ASIIN 2] It is recommended to strengthen the level of independent scientific analysis in bachelor theses regarding, in particular, theoretical analysis, presentation of methodologies, and evaluation of results.

E 5. [ASIIN 2] It is recommended to identify the reasons for the high failure rates in the written exams and to take appropriate measures to reduce them.

E 6. [ASIIN 2] It is recommended to diversify the forms of assessment to include modes of assessment besides written exams to test different intellectual competences of the students.

H. Decision of the Accreditation Commission (27.03.2026)

Assessment and analysis for the award of the subject-specific ASIIN seal:

The accreditation commission discussed the procedure´s result and followed the vote of 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 Electronic Information Engineering	With requirements for one year	30.09.2031	/	/

Requirements

A 1. [ASIIN 1.4] It is required that the university develops and publishes transparent rules and procedures for recognizing externally obtained academic qualifications, including international degrees.

A 2. [ASIIN 1.5] It is required to ensure a balanced student workload across the semesters and to establish and implement a transparent mechanism for systematically evaluating and validating the actual student workload in order to identify and correct discrepancies between the calculated and the actual student workload in a timely manner.

A 3. [ASIIN 2] It is required that the university enforces consistent adherence to recognized academic writing conventions, including proper citation, referencing, and the use of standardized formatting templates to all reports and papers.

A 4. [ASIIN 4.2] It is required to ensure that all graduates are provided with a Diploma Supplement in English shortly after graduation.

A 5. [ASIIN 5] Ensure that students are systematically informed about the evaluation results.

Recommendations

E 1. [ASIIN 1.3] It is recommended to regularly maintain and update the English-language website to support the international mobility of the EIE students.

E 2. [ASIIN 1.3, 3.1] It is recommended to enhance the English proficiency of both students and teaching staff.

E 3. [ASIIN 1.3] It is recommended that HNCU facilitates incoming and outgoing student mobility through the implementation of a mobility framework and partnerships with universities abroad.

E 4. [ASIIN 2] It is recommended to strengthen the level of independent scientific analysis in bachelor theses regarding, in particular, theoretical analysis, presentation of methodologies, and evaluation of results.

E 5. [ASIIN 2] It is recommended to identify the reasons for the high failure rates in the written exams and to take appropriate measures to reduce them.

E 6. [ASIIN 2] It is recommended to diversify the forms of assessment to include modes of assessment besides written exams to test different intellectual competences of the students.

Appendix: Learning Outcomes and curricula

Learning outcomes based on SAR (Appendix 05-3):

Graduates of this major love their motherland, have a correct world outlook, outlook on life and values, abide by laws and regulations, unite and cooperate, love their jobs, be willing to contribute, and at the same time possess the following knowledge, ability and quality.

Graduation requirement 1 (Engineering knowledge): Be able to use mathematical, physical, engineering and professional knowledge to express, analyze, derive, compare and evolve complex engineering problems in information communication, electronic technology, intelligent control and other fields.

Indicator point 1.1: Have mathematical knowledge and basic engineering knowledge to understand and describe complex engineering problems in the fields of information communication, electronic technology and intelligent control.

Indicator point 1.2: Have mathematical knowledge, basic knowledge of electronics, information and computer, can abstract modeling and solution of electronic information devices, equipment and systems.

Indicator point 1.3: Be able to use electronic, information and other professional knowledge to analyze and deduce complex engineering problems in the field of electronic information.

Indicator point 1.4: Can comprehensively use engineering knowledge to compare and evaluate the design scheme of electronic circuit, signal processing and transmission system.

Graduation requirement 2 (problem analysis): able to apply mathematics, natural science, electronic science and information science principle, identification, expression and analysis of complex engineering problems in the field of information communication, electronic technology and intelligent control through literature research, and obtain effective conclusions.

Indicator point 2.1: Be able to use the basic principles of natural science, electronic science and information science to identify the appearance and key components, modules, equipment and programs of complex engineering problems in the fields of information communication, electronic technology and intelligent control.

Indicator point 2.2: For complex engineering key components, modules, equipment and programs in the fields of information communication, electronic technology and intelligent

control, they can use electronic science, information science, mathematical modeling methods and program flow charts to express them reasonably.

Indicator point 2.3: Through literature research, can understand the alternative problem solutions, and can draw effective conclusions through the analysis of the influencing parameters involved in key components, modules and equipment.

Graduation requirement 3 (Design/Develop Solutions): Be able to design solutions for electronic circuits, signal processing and transmission systems that meet user requirements, design unit circuits, functional modules, equipment design schemes and programs that meet the requirements of the solutions, and demonstrate innovative awareness in the design.

Indicator point 3.1: Can develop unit circuits, functional modules and program flows that meet specific requirements according to functional requirements.

Indicator point 3.2: For complex engineering problems in information and communication, electronic technology, intelligent control and other fields, it can propose system solutions, determine design objectives, technical requirements, development cycle and process, etc.

Indicator point 3.3: Able to apply electronic and information related knowledge to evaluate, optimize and improve the design/development solutions, and reflect innovation awareness.

Graduation Requirement 4 (Research): Be able to utilize principles of mathematics, natural sciences, engineering fundamentals, electronic science, principles of information science, and scientific methods to conduct research on complex engineering problems in the fields of information communication, electronic technology, and intelligent control, including designing experiments, analyzing and interpreting data, and drawing reasonable and effective conclusions through information synthesis.

Indicator point 4.1: Solutions for complex engineering problems in the fields of information and communication, electronic technology and intelligent control can be determined based on scientific principles to determine experimental objectives and methods and design experimental schemes.

Indicator point 4.2: Be able to select, build or develop hardware and software experimental environment for electronic circuits and signal processing and

transmission systems, conduct experiments and record and organize experimental data.

Indicator point 4.3: Able to statistically analyze and interpret experimental data, and draw reasonable and effective conclusions through information synthesis.

Graduation requirement 5 (Use of modern tools): Be able to use, select and develop appropriate technologies, resources, electronic measuring instruments and simulation software tools for complex engineering problems in the fields of information communication, electronic technology and intelligent control, including simulation analysis and prediction of complex engineering problems, and understand their limitations.

Indicator point 5.1: Be able to use commonly used modern electronic measuring instruments, simulation software and information technology tools to measure, analyze and design typical modules and systems in electronic information engineering practice, and understand their characteristics.

Indicator point 5.2: In the analysis, design and research of electronic circuits, signal processing and transmission systems, appropriate information technology tools, electronic measuring instruments and simulation software tools can be obtained and selected for testing, calculation and simulation.

Indicator point 5.3: For specific objects of complex engineering problems in the field of information and communication, electronic technology and intelligent control, they can simulate and predict by selecting and developing modern tools to meet specific requirements, and understand and analyze their limitations.

Graduation requirement 6 (Engineering and Society): Be able to apply industrial policies, industry standards and relevant laws and regulations of electronic information industries to engineering practice; be able to evaluate the impact of solutions to complex engineering problems in the fields of information communication, electronic technology and intelligent control on society, health, safety, law and culture, and understand the responsibilities to be undertaken.

Indicator point 6.1: Have the experience of engineering internship and social practice, and understand the operation mode of relevant enterprises in the electronic information industry.

Indicator point 6.2: Be able to apply technical standards, intellectual property rights, industrial policies and quality management systems related to electronics, information and computer fields to engineering practice for complex engineering problems in information communication, electronic technology and intelligent control fields.

Indicator point 6.3: Be able to objectively analyze and evaluate the impact of the development, production and operation of new products, technologies and processes on society, health, safety, law and culture, and understand the responsibilities to be undertaken.

Graduation requirement 7 (Environment and Sustainable Development): able to understand and evaluate the impact of engineering practices on environmental and social sustainability in response to complex engineering problems in the fields of information and communication, electronic technology, and intelligent control.

Indicator point 7.1: Understand the connotation and significance of environmental protection and social sustainability.

Indicator point 7.2: Familiar with environmental protection laws and regulations, able to understand the relationship between electronic and information engineering practices and environmental and social sustainability.

Indicator point 7.3: Solutions to complex engineering problems in the fields of information and communication, electronic technology and intelligent control can be evaluated for resource efficiency, pollutant disposal schemes and safety precautions, and the potential damage to human beings and the environment during the product life cycle can be assessed.

Graduation requirement 8 (professional norms): have humanistic and social science literacy, have a correct outlook on life and the world. They should have a sense of morality, understand the core socialist values and abide by professional ethics, be honest and trustworthy, and have a sense of responsibility.

Indicator point 8.1: Have humanistic and social science literacy, have a correct outlook on life, world view and moral view, understand the core socialist values and abide by professional ethics norms, be honest and trustworthy, and have a sense of responsibility.

Indicator point 8.2: Understand the core socialist values, understand the national conditions, be able to safeguard national interests, and have a sense of social responsibility.

Indicator point 8.3: Understand the core concept of engineering ethics, and be able to abide by professional ethics and norms in the development, experiment and production practice of electronic information projects, and fulfill the corresponding responsibilities.

Graduation requirement 9 (individual and team): able to assume the role of individual, team member and leader in a multidisciplinary team, with organizational management ability, interpersonal communication ability, academic communication ability and team cooperation ability.

Indicator 9.1: Can take the initiative to work with members of other disciplines.

Indicator point 9.2: Able to perform the role and responsibilities of team members, listen to the opinions of other team members, and cooperate to complete team tasks.

Indicator point 9.3: Able to build a team according to the characteristics of tasks and personnel, understand the role division and responsibilities in the team, and manage and coordinate the operation of the team.

Graduation requirement 10 (Communication): Be able to communicate and exchange effectively with peers in the industry and the public on complex engineering problems in the field of electronic information engineering, including writing reports, designing documents, making presentations, expressing or responding to instructions clearly, and having a certain international perspective to communicate and exchange in a cross-cultural context.

Indicator point 10.1: Able to write reports and documents with standard format, clear logic and accurate language according to theoretical and technical research and engineering practice needs in electronic circuits, signal processing and transmission systems, and make electronic materials convenient for demonstration and communication.

Indicator 10.2: Able to read foreign language materials in this major, able to express and respond to professional issues, and have basic cross-cultural background communication skills.

Indicator point 10.3: Have good expression and communication skills, and be able to communicate and exchange complex engineering problems in the field of electronic information through oral or written means.

Graduation requirement 11 (Project Management): Understand and master the principles of engineering management and economic decision-making methods, and apply them in a multidisciplinary environment.

Indicator point 11.1: Master the engineering management principles and basic economic decision-making methods involved in electronic information engineering projects.

Indicator point 11.2: In multidisciplinary engineering practice, time and cost management, quality and risk management, human resource management can be applied to the management of electronic information engineering projects.

Indicator point 11.3: Can comprehensively apply the principles of engineering management and economic decision-making methods to the development, design and optimization of electronic circuits, signal processing and transmission systems.

Graduation requirement 12 (lifelong learning): Have the awareness of independent learning and lifelong learning, and have the ability to keep learning and adapt to social development.

Indicator point 12.1: Be able to correctly understand the current situation and development trend of electronic and information science, and have the awareness of independent learning and lifelong learning.

Indicator point 12.2: Have a knowledge base for lifelong learning, be able to master the methods of independent learning, and understand ways to expand knowledge and skills.

Indicator point 12.3: Have a sound physique, be able to choose appropriate self-learning methods according to the needs of personal or professional development, and adapt to the development of industry and society.

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Curricula (based on Appendix 01 Talent Training Program):

9. Talent training plan schedule

(1) Teaching Plan Arrangement Table

Serial number	Course type	Module designation	Course Code	Course Name	Chinese CP	ECTS CP	Workload		Evaluation mode	S1	S2	S3	S4	S5	S6	S7	S8
							Contact hours	Self-study hours									
1	Compulsory	General Education	9123311011	Ideological and Moral Cultivation and Legal Basis	3	3.1	48	44	Examination courses	3.1							
2	Compulsory	General Education	9124311041	Outline of Modern Chinese History	3	2.9	48	38	Examination courses		2.9						
3	Compulsory	General Education	9121311021	Basic Principles of Marxism	3	2.9	48	38	Examination courses			2.9					
4	Compulsory	General Education	9122311081	Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	3	2.8	48	36	Examination courses				2.8				
5	Compulsory	General Education	9122311071	Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	3	3.1	48	46	Examination courses				3.1				
6	Compulsory	General Education	9125111040	Situation and Policy (1) - (8)	2	1.3	32	8	Assessment courses	0.16	0.16	0.16	0.16	0.16	0.16	0.16	0.18
7	Compulsory	General Education	9191311010	National Security Education	1	1	16	14	Assessment courses	1							
8	Compulsory	General Education	9132311020	Military Theory for College Students	2	1.8	36	18	Assessment courses		1.8						
9	Compulsory	General Education	9051111050	Practical Writing	1	0.8	16	7	Assessment courses		0.8						
10	Compulsory	General Education	9131311010	Mental Health Education for College Students	1.5	2.1	32	30	Assessment courses		2.1						

11	Compulsory	General Education	9103811010	University Physical Education and Health (1)	1	1.1	32	0	Assessment courses	1.1							
12	Compulsory	General Education	9103811020	University Physical Education and Health (2)	1	1.1	32	0	Assessment courses		1.1						
13	Compulsory	General Education	9103811030	University Physical Education and Health (3)	0.5	0.7	20	0	Assessment courses			0.7					
14	Compulsory	General Education	9103811040	University Physical Education and Health (4)	0.5	0.7	20	0	Assessment courses				0.7				
15	Compulsory	General Education	9063111011	Introduction to Artificial Intelligence	1.5	1.3	24	16	Examination courses	1.3							
16	Compulsory	General Education	9151311010	Career Development and Employment Guidance for College Students (1)	0.5	1	20	10	Assessment courses	1							
17	Compulsory	General Education	9151311020	Career Development and Employment Guidance for College Students (2)	0.5	1	18	12	Assessment courses					1			
18	Compulsory	General Education	9163311010	Basics of Innovation and Entrepreneurship	1.5	1.7	23	29	Assessment courses		1.7						
Subtotal (General Education)					**29.5**	**30.4**	**561**	**346**		**7.66**	**10.56**	**3.76**	**6.76**	**1.16**	**0.16**	**0.16**	**0.18**
19	Compulsory	Foreign language	9054111011	College English (1)	3	3.6	48	60	Examination courses	3.6							
20	Compulsory	Foreign language	9054111021	College English (2)	3	3.6	48	60	Examination courses		3.6						
21	Compulsory	Foreign language	9054111031	College English Extension Series (1)	1.5	1.9	24	32	Examination courses			1.9					
22	Compulsory	Foreign language	9054111041	College English Extension Series (2)	1.5	1.9	24	32	Examination courses				1.9				
Subtotal (Foreign language)					**9**	**11**	**144**	**184**		**3.6**	**3.6**	**1.9**	**1.9**	**0**	**0**	**0**	**0**

23	Compulsory	Mathematics and physics basics	9092112011	Advanced Mathematics A (1)	4.5	5	72	78	Examination courses	5							
24	Compulsory	Mathematics and physics basics	9092112021	Advanced Mathematics A (2)	5	5.5	80	85	Examination courses		5.5						
25	Compulsory	Mathematics and physics basics	9092112051	Linear Algebra	2.5	3	40	50	Examination courses			3					
26	Compulsory	Mathematics and physics basics	9092112061	Probability Theory and Mathematical Statistics	2	2.5	32	43	Examination courses				2.5				
27	Compulsory	Mathematics and physics basics	9061112041	Functions of Complex Variables	1.5	1.9	24	33	Examination courses			1.9					
28	Compulsory	Mathematics and physics basics	9065112011	College Physics (1)	3	3.6	48	60	Examination courses		3.6						
29	Compulsory	Mathematics and physics basics	9065112021	College Physics (2)	3	3.6	48	60	Examination courses			3.6					
30	Compulsory	Mathematics and physics basics	9065212030	College Physics Experiment	0.5	1.1	16	16	Assessment courses		1.1						
Subtotal (Mathematics and physics basics)					**22**	**26.2**	**360**	**425**		**5**	**10.2**	**8.5**	**2.5**	**0**	**0**	**0**	**0**
31	Compulsory	Engineering basics	9063313063	C Language Programming A	5	5.3	80	78	Examination courses	5.3							
32	Compulsory	Engineering basics	9061313011	Circuit Analysis	4	4	64	56	Examination courses	4							
33	Compulsory	Engineering basics	9063313083	Data Structure	4.5	5.1	72	80	Examination courses			5.1					
34	Compulsory	Engineering basics	9061313021	Analog Electronic Technology	4	6.4	64	128	Examination courses		6.4						

35	Compulsory	Engineering basics	9061313031	Digital Electronic Technology	3.5	4.2	56	69	Examination courses			4.2					
36	Compulsory	Engineering basics	9061313041	Signals and Systems	4	4.4	64	68	Examination courses				4.4				
37	Compulsory	Engineering basics	9062313021	Communication Fundamentals	3.5	4.3	56	72	Examination courses						4.3		
Subtotal (Engineering basics)					**28.5**	**33.7**	**456**	**551**		**9.3**	**6.4**	**9.3**	**4.4**	**0**	**4.3**	**0**	**0**
38	Compulsory	Engineering application	9061312010	PCB Design and Drawing	2	2	32	28	Assessment courses					2			
39	Compulsory	Engineering application	9061312031	C++ Programming Language	3	3.5	48	57	Examination courses		3.5						
40	Compulsory	Engineering application	9061313051	High Frequency Electronic Circuits	3.5	4.7	56	86	Examination courses				4.7				
41	Compulsory	Engineering application	9061313061	Digital Signal Processing	3.5	4	56	64	Examination courses					4			
42	Compulsory	Engineering application	9061313081	Principle and Application of Microcontroller	3.5	4.4	56	76	Examination courses				4.4				
43	Compulsory	Engineering application	9061324010	STM32 Electronic System Design and Engineering Application	2	3.4	32	70.5	Assessment courses					3.4			
44	Compulsory	Engineering application	9061324020	Robot Development	3	3.5	48	57	Examination courses					3.5			
45	Compulsory	Engineering application	9061324040	FPGA Principles and Applications	3	3.8	48	66	Examination courses						3.8		
46	Compulsory	Engineering application	9061324050	Principles and Applications of Embedded Systems	4	5	64	86	Examination courses						5		
Subtotal (Engineering application)					**27.5**	**34.3**	**440**	**590.5**		**0**	**3.5**	**0**	**9.1**	**12.9**	**8.8**	**0**	**0**

47	Compulsory	Centralized practice	9133315010	Labor education for college students	1	1.6	5	42	Assessment courses					1.6			
48	Compulsory	Centralized practice	9132315030	Admission Education and Military Training	0	3.6	24	84	Assessment courses	3.6							
49	Compulsory	Centralized practice	9141315010	Social Practice and Volunteer Service	1	3.2	8	88	Assessment courses						3.2		
50	Compulsory	Centralized practice	9162715010	Metalworking Practice A	1	1.5	24	20	Assessment courses				1.5				
51	Compulsory	Centralized practice	9161715010	Electronic and Electrical Practice A	1	1.6	24	24	Assessment courses	1.6							
52	Compulsory	Centralized practice	9061615010	Electronics Technology Internship and Electronic Product Assembly and Debugging Internship	1	1.9	24	32	Assessment courses	1.9							
53	Compulsory	Centralized practice	9061615020	Analog Unit Circuit Simulation and Development Comprehensive Practical Training Internship	1	2	24	36	Assessment courses		2						
54	Compulsory	Centralized practice	9061615030	Digital Unit Circuit Simulation and Development Comprehensive Practical Training Internship	1	2.6	24	54	Assessment courses			2.6					
55	Compulsory	Centralized practice	9061615040	Microcontroller System Comprehensive Practical Training Internship	1	2.8	12	71	Assessment courses				2.8				
56	Compulsory	Centralized practice	9061615050	Electronic System Engineering Practical Training Internship	1	2.3	9	61	Assessment courses					2.3			
57	Compulsory	Centralized practice	9061615060	Embedded System Comprehensive Practical Training Internship	1	2.4	12	60	Assessment courses						2.4		

58	Compulsory	Centralized practice	9061615070	Graduation Internship	6	14.4	32	400	Assessment courses							14.4	
Subtotal (Centralized practice)					**16**	**39.9**	**222**	**972**		**7.1**	**2**	**2.6**	**4.3**	**3.9**	**5.6**	**14.4**	**0**
59	Compulsory	Graduation thesis/design	9061515010	Graduation Comprehensive Training	12	24.4	136	595	Assessment courses								24.4
Subtotal (Graduation thesis/design)					**12**	**24.4**	**136**	**595**		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**24.4**
60	Elective	Autonomous development	9171824020	Humanities and Social Sciences	2	2	32	28	Assessment courses				2				
61	Elective	Autonomous development	9171824030	Art and Physical Education	2	2	32	28	Assessment courses					2			
62	Elective	Autonomous development	9163824020	Innovation and Entrepreneurship	2	2	32	28	Assessment courses						2		
63	Elective	Autonomous development		Others (1)	2	2	32	28	Assessment courses							2	
64	Elective	Autonomous development		Others (2)	2	2	32	28	Assessment courses								2
Subtotal (Autonomous development)					**10**	**10**	**160**	**140**		**0**	**0**	**0**	**2**	**2**	**2**	**2**	**2**
Total					**154.5**	**209.9**	**2479**	**3803.5**		**32.66**	**36.26**	**26.06**	**30.96**	**19.96**	**20.86**	**16.56**	**26.58**

Note:
1. S1 - S8 respectively refer to the 1st semester - the 8th semester.
2. ECTS credits = (contact hours + self-study hours) / 30;
(As the ECTS credits are rounded to one decimal place, the "total" item cannot form a perfect 1:30 ratio with "ECTS credits" and "contact hours + self-study hours".)
3. The self-directed development courses require a minimum of 10 credits. The current course schedule temporarily distributes the credits and hours from the 4th semester to the 8th semester. The actual situation is as follows:
(1) Students can choose the corresponding courses in any semester (S1 - S8).
(2) Students in natural science fields should select 2 credits each from humanities and social sciences, art and sports, and innovation and entrepreneurship.
(3) Other self-directed development courses (including cultural quality education and cross-disciplinary elective courses) should be no less than 4 credits.