Self-Assessment Report

Hunan City University

Bachelor's Degree Programme

Electronic Information Engineering

13 August 2025

Contents

A. About the Accreditation Procedure

General data

Name of the Higher Education Institution	Hunan City University
Faculty/Department offering the Degree Programme	College of Information and Electronic Engineering
Website of the Higher Education Institution	https://www.hncu.edu.cn/
Website of the Faculty/ Department	https://xdy.hncu.edu.cn/

Seals applied for

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for	Previous accreditation	Involved Technical Committees (TC)
电子信息工程	Electronic Information Engineering	ASIIN Seal	/	TC02

B. Characteristics of the Degree Programme

Name	Final degree (original/English translation)	Areas of Specialisation	Corresponding level of the EQF	Mode of Study	Double/Joint Degree	Duration	Credit points/unit	First time of the offer
Electronic Information Engineering	工学学士 / B.Eng.	Electronic Information Engineering	6	Full time	/	8 semesters	209.9 ECTS	1 September, 2003

Name	Intake rhythm	Intake Capacity per cohort	Average starting cohort size	Average number of graduates per cohort	Average time required to complete studies
Electronic Information Engineering	Annually	Max. 220 students	135 students	185 students	4 years

C. Self-assessment for the ASIIN-Seal

1. The Degree Programme: Concept, content & implementation

The Electronic Information Engineering program of Hunan City University was established in 2003, and in 2016, it was designated as a pilot program for comprehensive major reform in Hunan Province during the periods of 13th Five-Year Plan and 14th Five-Year Plan in 2021. In 2018, it was successfully completed the teaching audit and evaluation of general institute of higher education by Ministry of Education. In 2019, it was selected as a first-class undergraduate program construction site in Hunan Province, and in 2020, a national first-class undergraduate program construction site. In 2022, it was ranked first in the first-class major ranking (applied type) of China by the Almanac Network (a national third-party university evaluation institution). In 2023, the program has been granted the right to award Master degrees in Electronic Information Engineering. It was successfully accomplished the education and teaching audit and evaluation of general institute of higher education by Ministry of Education in 2024. This program closely aligns with China’s rapidly developing electronic information industry and "Three Highs and Four New Things" developing strategy of Hunan Province, and pillar industries of electronic components and information manufacturing in Yiyang city. The program adheres to the combination of theory, practice and innovation, adopting a “one-line, two-combined, four-level” diversified and three-dimensional practical teaching system, connects disciplines and majors with industrial chains, aiming to cultivate high-quality talents who possess solid foundational theories, rich professional knowledge and skills, and the ability to apply their acquired knowledge and skills to solve complex engineering problems.

Based on Chinese major certification standards, instructions and suggestions from the Education Department of Hunan Province and the information on talent demand from enterprises, industries, and the market, the current version of the talent training program was jointly guided by a team of professors, representatives from

enterprises, and alumni in 2023. Typically, the training program is revised once every two years. Compared to the 2021 version, the main improvements in the current implementation of the training program include: an increase in the proportion of hours and credits for practical courses, optimization of some engineering application courses and self-development courses, and adjustments to the semesters and hours for certain courses.

1.1 Objectives and learning outcomes of a degree programme

1.1.1 Training objectives

With the needs of the national strategy and the economic development of regional information manufacturing industries, this major deeply practices the mission of cultivating virtue and nurturing talents, while promoting the all-round development of morality, intelligence, physique, aesthetics, and labor. It aims to cultivate high-quality professionals who master modern electronic technology theory, electronic information system design, and application development, as well as possess capabilities in signal processing and hardware design and programming of electronic information systems. Graduates will be able to work in fields such as information communication, electronic technology, and intelligent control, engaging in product design, process manufacturing, application development, and technical management of various electronic devices and information systems, see **Appendix 05-1**.

The training objectives of the Electronic Information Engineering program c an be viewed on the English homepage of the college of Information and Elec tronic Engineering (https://xdy.hncu.edu.cn/ASIINrz/Electronic_Information_Engine ering/pymb_Objectives.htm).

1.1.2 Evaluation and demand in knowledge, skill and competency

1) Demand

The employment destinations of electronic information engineering majors are mainly R&D, manufacturing, service companies and institutions, covering industries such as electronics, communications, information, embedded systems, artificial

intelligence and big data. They require solid professional knowledge foundation, strong practical ability and innovation awareness, high professional quality, broad international vision and open learning ability.

The graduation requirements of this major are highly consistent with the expected training results of graduates, aiming to enable them to have good professional quality and international vision, and to be able to quickly adapt to and give play to professional advantages in electronic information and related fields. The expected achievement of talents is formulated according to social needs.

2) Evaluation

First, the curriculum system and practice innovation are one of the ways to evaluate the training results. The evaluation of course learning outcomes includes theory, experiment, innovative practice, and comprehensive training (including graduation design/thesis). Among them, the awards and project status of the subject competition are detailed in **Appendix 05-1**, the internship outline and requirements are in **Appendix 09-1**, and the school-enterprise cooperation internship units, student internship status and off-campus internship subsidies are in **Appendix 03-1 and 09-2**.

Secondly, the training results are evaluated through the results of graduate follow-up surveys. This major regularly tracks the employment and career development of graduates, analyzes the relevance of their job skills and the knowledge they have learned in school, and timely optimizes the curriculum system and teaching content to ensure that talent training is closely integrated with market demand, provide a basis for continuous improvement of the major, and help students adapt to career development needs. The employment quality report is in **Appendix 22-1**, and the graduate employment quality follow-up survey is in **Appendix 22-2**.

Finally, third-party evaluation (government, social institutions) is a comprehensive evaluation of a training plan. The major completed the undergraduate teaching qualification evaluation, teaching review evaluation and education and teaching review evaluation of the Ministry of Education with high quality in 2012, 2018 and 2024. The "Information and Communication Engineering" discipline it relies on was selected as a "Double First-Class" applied characteristic discipline in

Hunan Province in 2018. From 2022 to 2024, this major ranked first in the electronic information engineering major ranking (application-oriented) released by the Airis Alumni Association for three consecutive years, and its school level was rated as China's top application-oriented major. Hunan City University Undergraduate Professional Talent Training Program Review Opinion Form (Electronic Information Engineering) is in **Appendix 08-1**.

Multi-dimensional needs, evaluation, and feedback are the main basis for revising and implementing the achievements of the training.

1.1.3 Target matrix

Table 1-1 is a matrix of objectives-module compared with the ASIIN the ASIIN Subject-Specific Criteria (SSC). And the mapping relationship between degree courses and training outcomes is shown in **Appendix 07-1**, which is reviewed according to more relevant management measures (**Appendix 02-1**) by the Hunan City University Teaching Guidance Committee. There are differences in general education module, such as the courses of Ideological and Moral Cultivation and Legal Basis, Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics, Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, et al, which are determined by the specific circumstances of a country or region; no differences in other modules. Learning outcomes is shown in **Appendix 05-3**.

Table 1-1 A matrix of objectives-module compared with the ASIIN SSC

ASIIN Subject-Specific Criteria (SSC)	Learning Outcomes of the Study Programme (i.e., Achievements of the Training in section 1.1.2)	Corresponding Modules (More detailed description in sections 1.2 and 1.3)
Knowledge and Understanding Graduates have in particular		
acquired a broad and well-founded basic knowledge of mathematics, natural sciences, and engineering, which enables them to understand and analyse complex phenomena occurring in electrical engineering, information technology, or computer science,	2) Knowledge of engineering 3) Ability of problem analysis	Linear Algebra Functions of Complex Variables College Physics, College Physics Experiment C Language Programming

and to independently develop and apply practice-oriented or theory-oriented solutions		
acquired an understanding of the broader ethical and multidisciplinary context of engineering	1) Ideology and Morality 8) Engineering Ethics and Professional Standards	Outline of Modern Chinese History Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics
Interdisciplinary Competences Graduates		
can analyse and present technical contexts from their own and related fields in a comprehensible way	2) Knowledge of engineering	C Language Programming Introduction to Electronic Information Engineering Practical Writing
can work on technical tasks in a team and, if necessary, take over the coordination of the team	1) Ideology and Morality 9) Ability of individual and team cooperation 10) Skill of communication	Ideological and Moral Cultivation and Legal Basis Outline of Modern Chinese History Basic Principles of Marxism Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics Situation and Policy Literature Search and Thesis Writing Mental Health Education for College Students Career Development and Employment Guidance for College Students Basics of Innovation and Entrepreneurship Military Theory for College Students University Physical Education and Health College English College English Extension Series Practical Writing Metalworking Practice Microcontroller System Comprehensive Practical Training Internship Electronic System Engineering Practical Training Internship Embedded System Comprehensive Practical Training Internship Graduation Internship
know and understand the methods of project management and economic methods, such as risk and change management, as well as their limits	11) Ability of project mana-gement	Admission Education and Military Training Labor of Public Benefit Social Practice and Volunteer Service Metalworking Practice

		Graduation Internship Graduation Education Graduation Comprehensive Training
recognize the need for independent, lifelong learning and can pursue it	12) Ability of lifelong learning	STM32 Electronic System Design and Engineering Application FPGA Principles and Applications Innovation and Entrepreneurship Humanities and Social Sciences Art and Physical Education Basic Principles of Marxism Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics Career Development and Employment Guidance for College Students Basics of Innovation and Entrepreneurship Military Theory for College Students University Physical Education and Health Principle and Application of Microcontroller Modern Sensor and Detection Technology Digital Signal Processing.
know the foreign languages relevant to professional practice	10) Skill of communication	College English College English Extension Series Practical Writing
can identify problems and solve them using various research and working techniques	3) Ability of problem analysis 5) Ability of research	Linear Algebra, Functions of Complex Variables College Physics College Physics Experiment Digital Electronic Technology Signals and Systems Electromagnetic Field and Electromagnetic Wave
can work in an interdisciplinary environment	7) Ability of environmental and sustainable development	Ideological and Moral Cultivation and Legal Basis Situation and Policy STM32 Electronic System Design and Engineering Application FPGA Principles and Applications Principles and Applications of Embedded Systems Robot Development, Innovation and Entrepreneurship

		Humanities and Social Sciences Art and Physical Education
possess social and professional ethical competences and can shape social processes critically, reflectively, and with a sense of responsibility and in a democratic spirit	1) Ideology and Morality 8) Professional norms	Outline of Modern Chinese History Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics STM32 Electronic System Design and Engineering Application
Engineering Methodology Graduates are qualified to		
select and apply the current modelling, calculation, design, and test methods for their specialization	6) Ability to use modern tools 4) Ability of design/ development solution	C Language Programming Circuit Analysis Data Structure Analog Electronic Technology Digital Electronic Technology Signals and Systems Communication Fundamentals Electromagnetic Field and Electromagnetic Wave C++ Programming Language Principle and Application of Microcontroller PCB Design and Drawing High Frequency Electronic Circuits, Modern Sensor and Detection Technology Digital Signal Processing.
research technical literature and other sources of information on problems posed	1) Ideology and Morality 12) Ability of lifelong learning	Basic Principles of Marxism Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics Career Development and Employment Guidance for College Students Basics of Innovation and Entrepreneurship Military Theory for College Students University Physical Education and Health
design and conduct experiments and computer simulations, and interpret the data obtained	5) Ability of research 6) Ability to use modern tools	C++ Programming Language Principle and Application of Microcontroller PCB Design and Drawing Modern Sensor and Detection Technology Digital Signal Processing.
use databases, standards, codes of good practice and safety regulations	8) Engineering Ethics and Professional Standards	High Frequency Electronic Circuits STM32 Electronic System Design and

		Engineering Application
Engineering Development Graduates		
have special skills in the development of analogue and digital, electrical and electronic circuits, systems, and products	4) Ability of design / development solution	Principle and Application of Microcontroller High Frequency Electronic Circuits Modern Sensor and Detection Technology Digital Signal Processing
are proficient in the use of the process elements modelling, simulation, and testing in a problem-oriented way as well as their integration during development	5) Ability of research	Linear Algebra Functions of Complex Variables College Physics Digital Electronic Technology Signals and Systems Electromagnetic Field and Electromagnetic Wave
are capable of developing saleable products for the global market	4) Ability of design/ development solution 8) Engineering Ethics and Professional Standards	Electronics Technology Internship and Electronic Product Assembly and Debugging Internship Digital Unit Circuit Simulation and Development Comprehensive Practical Training Internship Metalworking Practice Electronic and Electrical Practice Microcontroller System Comprehensive Practical Training Internship Electronic System Engineering Practical Training Internship Embedded System Comprehensive Practical Training Internship, Graduation Internship, Graduation Education Graduation Comprehensive Training
Engineering Practice and Product Development Graduates		
can apply their knowledge and understanding to gain practical skills for solving problems, carrying out investigations and developing systems and processes	8) Engineering Ethics and Professional Standards	High Frequency Electronic Circuits
can draw on experience of the possibilities and limitations of the application of materials, computer-aided model designs, systems, processes and tools when solving complex problems	8) Engineering Ethics and Professional Standards	High Frequency Electronic Circuits Metalworking Practice Graduation Internship Graduation Education

know the practice and requirements in production operations	12) Ability of lifelong learning	Graduation Internship
can research technical literature and other sources of information	8) Engineering Ethics and Professional Standards	Computer Basics for College Students
demonstrate an understanding of the health, safety, and legal implications of engineering practice and the impact of engineering solutions in a social and environmental context	8) Engineering Ethics and Professional Standards	Computer Basics for College Students Metalworking Practice Graduation Internship
undertake to act following the professional principles and standards of engineering practice	8) Engineering Ethics and Professional Standards	Computer Basics for College Students Metalworking Practice Graduation Internship
can transfer new results of engineering and natural sciences into industrial and commercial production, taking into account sustainability, environmental compatibility, as well as economic and safety requirements	7) Ability of environmental and sustainable development	Ideological and Moral Cultivation and Legal Basis Situation and Policy Admission Education and Military Training Labor of Public Benefit Social Practice and Volunteer Service Metalworking Practice Graduation Internship Graduation Education
can deepen the acquired knowledge independently	12) Ability of lifelong learning	STM32 Electronic System Design and Engineering Application FPGA Principles and Applications
are aware of the non-technical implications of engineering	1) Ideology and Morality 11) Ability of project mana-gement 7) Ability of environmental and sustainable development 8) Engineering Ethics and Professional Standards	Ideological and Moral Cultivation and Legal Basis Outline of Modern Chinese History Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics Situation and Policy Literature Search and Thesis Writing Mental Health Education for College Students Career Development and Employment Guidance for College Students Basics of Innovation and Entrepreneurship Military Theory for College Students Computer Basics for College Students University Physical Education and Health STM32 Electronic System Design and Engineering Application FPGA Principles and Applications

		Principles and Applications of Embedded Systems Robot Development Innovation and Entrepreneurship Humanities and Social Sciences Art and Physical Education
are capable of developing saleable products for the global market	8) Engineering Ethics and Professional Standards	Metalworking Practice Graduation Internship Graduation Comprehensive Training

1.2 Name of the degree programme

According to the discipline characteristics, ability training needs, and education goals, the entire curriculum system is divided into eight competence fields: general education, foreign language, mathematics and physics basics, engineering basics, engineering application, centralized practice, graduation thesis/design and autonomous development.

1) General Education: they are aimed at cultivating students' humanistic qualities, social skills, and team spirit. Specific requirements are as follows: (1) To master the fundamentals of humanities and social sciences, possess good humanistic qualities, and undertake professional, social, and environmental responsibilities; (2) To receive training and exercise through various practical activities and team cooperation activities; (3) To be able to communicate and interact effectively, and possess the ability to adapt to the environment and society.

2) Foreign language: they are aimed to enable students to master a foreign language, have the ability to read professional foreign literature and communicate in the language, as well as the ability of international cooperation and cross-cultural exchange.

3) Mathematics and physics basics: they are aimed at the basic knowledge of mathematics, physics, and other natural sciences, deepening the understanding of natural sciences, improving the scientific literacy to solve practical problems in the application of science and technology, as to lay a solid foundation for further major study.

4) Engineering basics: they are aimed to enable students to master the

engineering fundamentals and professional knowledge in the field of computer and information technology, electronic and circuit theory, as to lay a solid foundation for the major.

5) Engineering application: they are aimed at transforming fundamental engineering knowledge into practical technical implementation capabilities, it focuses on cutting-edge fields such as embedded systems, FPGA development, digital signal processing, and robot design. Through project-based teaching, it strengthens students' systems thinking, engineering design, and comprehensive practical abilities, enabling them to possess professional qualities to solve complex engineering problems.

6) Centralized practice: they are designed to cultivate students' professional experimental skills, engineering application concepts, and innovative practical skills, including comprehensive experiments of basic courses, design of engineering basics, comprehensive professional experiments and designs, training and internships for innovation and entrepreneurship projects, etc. The aim is to enable students to understand the actual processes of electronic information systems, printed circuit board (PCB) manufacturing processes, organizational management, and technical support, further verify and consolidate theoretical knowledge, deepen the understanding of applied knowledge, and emphasize the cultivation of students' ability to comprehensively apply professional knowledge to analyze and solve practical complex engineering problems in the process of practice.

7) Graduation thesis/design: they are aimed at enabling students to combine knowledge and skills with abilities to execute and complete thesis/design tasks, propose solutions and solve practical problems; students are required to independently complete the graduation thesis/design task under the guidance of a supervisor and successfully pass the graduation thesis/design defense.

8) Autonomous development: it is an elective module covering humanities and social sciences, art, sports and innovation and entrepreneurship, etc. It encourages students to expand their knowledge structure across disciplines, promote individualized development and comprehensive quality improvement, and enhance their social adaptability, innovative consciousness and lifelong learning ability.

The proportion of credits in each competency in the entire training program is shown in **Figure 1.1**.

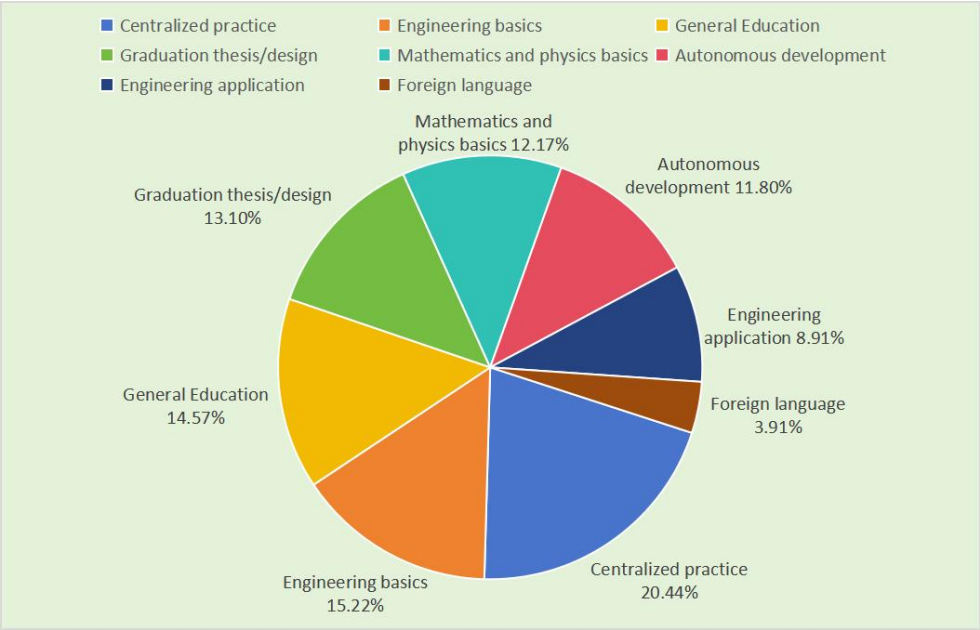

Figure 1.1 Credit composition of different competency

1.3 Curriculum

1.3.1 Content

According to the training objectives, all courses cover eight competence areas. The topological diagram of the logical relationship of the professional curriculum system is shown in **Figure 1.2**.

Moreover, the corresponding courses for each competence area are as follows:

1) General Education

Corresponding courses: Ideological and Moral Cultivation and Legal Basis, Outline of Modern Chinese History, Basic Principles of Marxism, Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics, Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, Situation and Policy (1) - (8), National Security Education, Military Theory for College Students, Practical Writing, Mental Health Education for College Students, University Physical Education and Health (1), University Physical Education and Health (2), University Physical Education and

Health (3), University Physical Education and Health (4), Introduction to Artificial Intelligence, Career Development and Employment Guidance for College Students (1), Career Development and Employment Guidance for College Students (2), Basics of Innovation and Entrepreneurship.

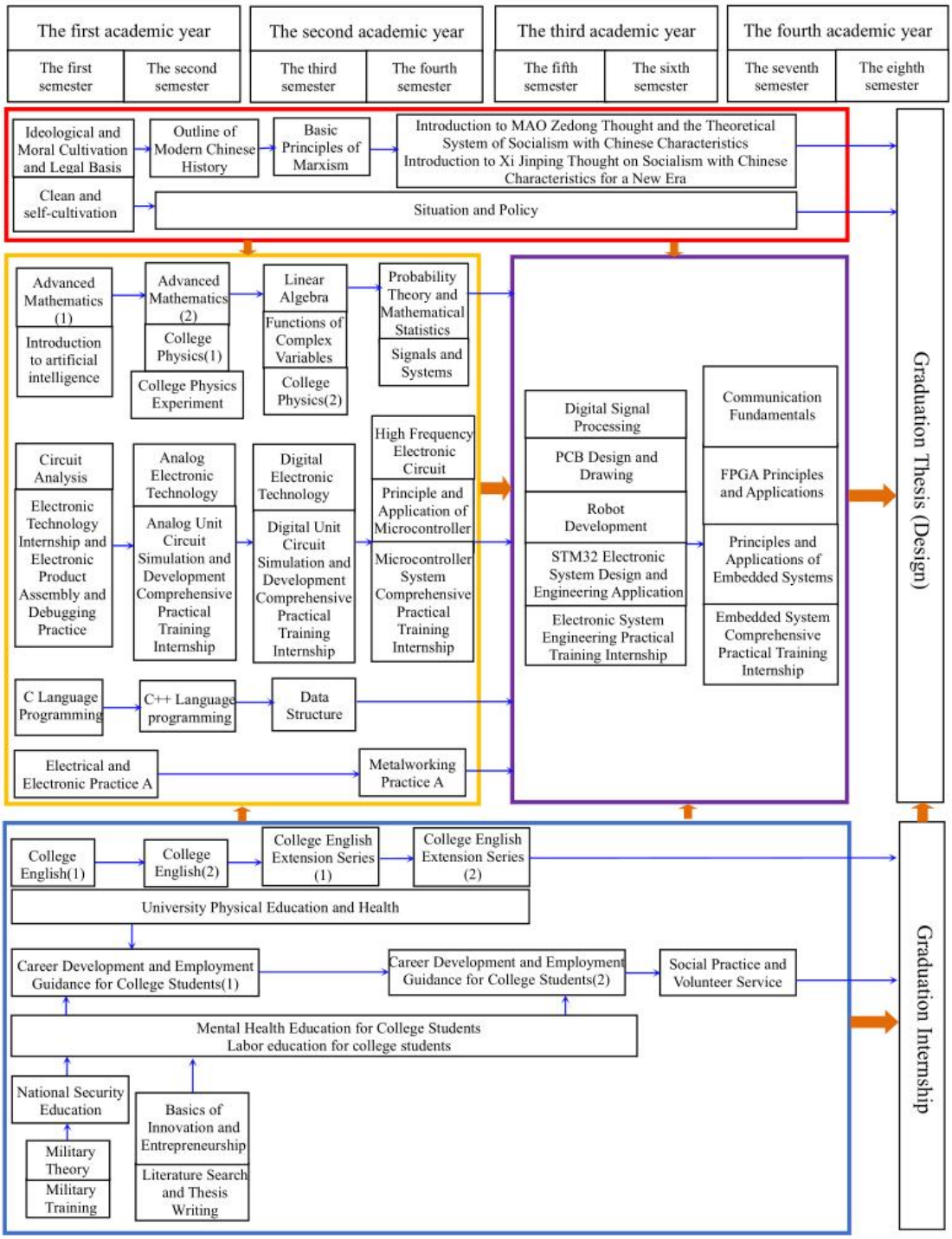

Figure 1.2 Topological diagram

2) Foreign language

Corresponding courses: College English (1), College English (2), College English Extension Series (1), College English Extension Series (2).

3) Mathematics and physics basics

Corresponding courses: Advanced Mathematics A (1), Advanced Mathematics A (2), Linear Algebra, Probability Theory and Mathematical Statistics, Functions of Complex Variables, College Physics (1), College Physics (2), College Physics Experiment.

4) Engineering basics

Corresponding courses: C Language Programming A, Circuit Analysis, Data Structure, Analog Electronic Technology, Digital Electronic Technology, Signals and Systems, Communication Fundamentals.

5) Engineering application

Corresponding courses: PCB Design and Drawing, C++ Programming Language, High Frequency Electronic Circuits, Digital Signal Processing, Principle and Application of Microcontroller, STM32 Electronic System Design and Engineering Application, Robot Development, FPGA Principles and Applications, Principles and Applications of Embedded Systems.

6) Centralized practice

Corresponding courses: Labor education for college students, Admission Education and Military Training, Social Practice and Volunteer Service, Metalworking Practice A, Electronic and Electrical Practice A, Electronics Technology Internship and Electronic Product Assembly and Debugging Internship, Analog Unit Circuit Simulation and Development Comprehensive Practical Training Internship, Digital Unit Circuit Simulation and Development Comprehensive Practical Training Internship, Microcontroller System Comprehensive Practical Training Internship, Electronic System Engineering Practical Training Internship, Embedded System Comprehensive Practical Training Internship, Graduation Internship.

7) Graduation thesis/design

Corresponding courses: Graduation Comprehensive Training.

8) Autonomous development

Corresponding courses: Innovation and Entrepreneurship, Humanities and Social Sciences, Art and Physical Education, and other (cultural quality education, aesthetic education, and cross-major optional courses).

1.3.2 Structure of the programme

Course structure and content design are critical to achieving the desired competencies. Through the evaluation of the implementation of the course objectives, the professional leader constantly adjusts the course structure and content to ensure that the modules are in a reasonable order and students are able to graduate within the standard study period. The course leader ensures that the curriculum is closely integrated with the ability training by clarifying the ability goal, optimizing the course structure and enriching the teaching content. Course participants (students) gradually develop their abilities through knowledge accumulation and active promotion. Over the past few years, the professional leadership organization has updated the talent development program several times, and the curriculum has been adjusted in response to changes in industry needs, student feedback, and educational policy changes to ensure that it matches the expected capacity configuration. At the same time, course leaders will constantly update the teaching content, improve the teaching methods and strengthen practical teaching according to the needs of ability training, so as to improve the quality of the course. Details of the knowledge, skills and competencies achieved in each course can be found in **Appendix 08-2**.

The undergraduate training plan is a four-year program. Overall, the curriculum is divided into eight competence fields, with the learning content of different competency being interconnected in chronological order. In terms of credit points and workload for each competency, language courses and general courses are scheduled in semesters 1-4, including English, Philosophy (Humanistic Ideology), Physical Education, etc., which can make students familiar with relevant knowledge of English, humanities and law, and further improve students' cross-cultural communication ability and humanistic quality. The mathematics and physics basis are scheduled in

semesters 1-5, gradually advancing from basic to advanced levels to lay a solid foundation for students subsequent specialized course studies.

The engineering basics are scheduled in semesters 1-6, covering courses related to electronic technology and information technology, such as C language programming, data structure, circuit analysis, analog electronic technology, digital electronic technology, etc., laying the groundwork for subsequent engineering applications and specialized course studies. The applied engineering are scheduled in semesters 3-6, encompassing core professional courses of this major, such as C++ language programming, PCB design and drawing, principle and application of microcontroller, etc. These applied engineering courses are crucial in the entire curriculum system, deepening and expanding professional knowledge and its application in the field of electronic information engineering, as well as modeling and proposing solutions for complex problems in electronic information engineering. Autonomous development cover interdisciplinary contents such as humanities, arts and innovation, aiming to broaden students' knowledge horizons and support their individualized development. Students can freely choose to take these courses from the 1st to the 8th semester according to their personal interests and development needs. Centralized practice courses run throughout the program, scheduled in semesters 1-7, enabling students to promptly connect theoretical knowledge with design practice. Graduation thesis/design is scheduled in 8th semester, with most topics derived from mentors' research projects or actual engineering projects in enterprises. Centralized practice courses and the Graduation thesis/design help students accumulate substantial practical engineering experience, enhancing their employ ability. The number of hours and credits for each competence fields are shown in **Appendix 02-2**. According to the curriculum, the program is designed so that students will earn 209.9 ECTS credits after eight semesters of study.

1.4 Admission requirements

1.4.1 Admission conditions

According to the Education Law of the Peoples Republic of China, the Higher

Education Law of the Peoples Republic of China, and other relevant laws and regulations as well as the provisions of the Ministry of Education, all individuals entering Hunan City University to study for a bachelors' degree or pursue a bachelor degree must participate in the National Examination for College Admissions. Those who meet the following conditions may apply: (1) Complying with the provisions of the Constitution and laws of the Peoples Republic of China; (2) Holding high school graduation or equivalent academic qualifications; (3) Being in good health: ①No major infectious diseases, maintaining public health and safety; ②Physical requirements of special majors, such as the art painting major requires the ability to distinguish colors normally. **Table 1-2** is a Statistics on Admission Rate, with other detailed data shown in **Appendix 12-1**.

Table 1-2 Statistics on Admission Rate

Year	Applicants	Available Seats	Admitted Students	Admission Rate (%)
2020	Not available	180	180	100%
2021	Not available	150	150	100%
2022	Not available	160	160	100%
2023	Not available	160	160	100%
2024	Not available	162	162	100%

1.4.2 Admission process

Chinese universities implement unified national enrollment. According to the scores, candidates are divided into the first batch, second batch, and third batch, and are admitted in order of their scores (from high to low). Overall, Hunan City University's Electronic Information Engineering program is admitted in the first batch.

During the admission stage, the enrollment department of Hunan City University evaluates candidates comprehensively based on their moral, intellectual, and physical qualities according to the predetermined enrollment plan, primarily selecting the best candidates based on their scores. The typical admission process includes: file submission, document review, preliminary admission, admission examination, and

issuance of admission notices.

When the freshmen enrolled at Hunan City University, they need to provide their admission notices and identification documents and then register according to the recommendations in the registration guidelines at the corresponding department. The typical enrollment process includes: confirming enrollment, paying tuition, registering for academic status, collecting learning tools and supplies etc.

1.4.3 Admission transparency

The admission and enrollment process for freshmen at Hunan City University strictly follows relevant procedural documents, ensuring a high degree of transparency. According to the "Education Law of the People's Republic of China", the recruitment and enrollment work for ordinary higher education institutions in China operates under a mechanism where "universities are responsible, and the admissions office supervises". Here, the "admissions office" refers to the provincial admissions office where the candidate is located, not the university admissions office. This means that for candidates who have passed the political and ideological assessment, abide by laws and regulations, completed the physical examination, scored above the control line of the same batch’s admission, and met the school's file adjustment requirements. Whether they are admitted and which major they will be enrolled in are determined by the higher education institution itself.

The school has promulgated and implemented the "Hunan City University 2024 General Higher Education Admission Brochure" (see **Appendix 11-1**), the "Hunan City University Online Admission Management Regulations" (see **Appendix 11-2**), and the "Hunan City University Online File Review Guidelines" (see **Appendix 11-3**) to standardize the enrollment process and improve promotional channels.

The institutions of higher education shall be responsible for the interpretation of candidates without being admitted and for the problems unsolved. The provincial enrollment offices where the candidates are located shall organize and implement the submission of electronic files of qualified students to the institutions of higher education, supervise the institutions of higher education to implement national

admission policies, admission plan adjustment and implementation, and correct behaviors that violate national admission policies and regulations.

1.5 Work load and credits

From the perspective of Chinese academic credits, the workload of students only considers contact hours. At Hunan City University, for theoretical module courses, completing 16 contact hours of study is equivalent to one Chinese credit. For experimental module courses or internship training courses, completing 32 contact hours of study is equivalent to one Chinese credit.

From the perspective of the European Credit Transfer and Accumulation System (ECTS), the workload of students is the sum of contact hours and self-study hours. Generally, 30 study hours (including contact hours and self-study hours) is equivalent to one ECTS credit. The only difference between the two credit systems lies in the calculation of self-study hours. According to the statistics of the workload of various module courses in the Electronic Information Engineering program, each undergraduate student must 6282.5 study hours and earn 209.9 ECTS credits after four years of study. Document describing the conversion from credit points to ECTS credits is shown in **Appendix 15-1 and Appendix 15-2**.

1.5.1 Study hours (workload), contact hours/self-study hours, credit points

Please refer to **Appendix 08-2** for the study hours and credit points of each module of courses of the Electronic Information Engineering. **Table 1-3** provides statistics on the study hours of students in four years, to show the structure and classification of the workload of compulsory courses, major degree courses, elective courses, language courses, etc.

Table 1-3 Overview of Study Hours and credit points of the Four-Year Program

Type of course	Contact hours	Self-study hours	Total study hours	ECTS credits	Proportion of credits
General Courses	561	346	907	30.4	14.48%
Language Courses	144	184	328	11	5.24%
Science and Engineering Courses	1416	1706.5	3122.5	104.2	49.64%

Practical Training	222	972	1194	39.9	19.00%
Graduation thesis/design	136	595	731	24.4	11.63%
Total	**2479**	**3803.5**	**6282.5**	**209.9**	
Compulsory Courses	160	140	300	10	4.76%
Optional Course	2319	3663.5	5982.5	199.9	95.24%
Total	**2479**	**3803.5**	**6282.5**	**209.9**	
Professional Courses	1217	2494.5	3711.5	123.9	59.03%
Non-Professional Courses	1118	1125	2243	75	35.73%
Language Courses	144	184	328	11	5.24%
Total	**2479**	**3803.5**	**6282.5**	**209.9**	

1.5.2 Credit system

The learning outcomes of students are primarily reflected in the form of ECTS credits. In addition to completing the prescribed contact hours and self-study hours, obtaining ECTS credits for each course also requires meeting the assessment criteria stipulated in the course syllabus. The course assessment grades are determined by the course instructors. If student fails to pass the assessment through examinations, retakes, or other means, they will not be awarded credits for that course. Furthermore, in cases of dropout or withdrawal, the credits previously earned will be retained by the university for four years.

Each student is required to complete a total of approximately 800 hours of study workload per semester. Every 30 hours of study workload corresponds to 1 ECTS credit. The specific number of credits and study workload allocated to each course can be found in the "Semester Course Schedule" (**Appendix 07-1**). The duration of course instruction is recorded and verified by the course instructor. The self-study hours of students are supervised and evaluated through attendance records, study logs, online platform data, and other means to ensure that the actual study workload invested by students is consistent with the requirements set in the teaching plan. For detailed rules and management mechanisms regarding the allocation of class hours for various courses, please refer to the "Detailed Rules for Allocation of Class Hours" in the Module Descriptions **(Appendix 08-2**).

1.6 Didactics and Teaching Methodology

Theoretical courses are mainly taught in large classes (about 80 students), some courses include theoretical content and in-class experiments, which are usually conducted in batches and groups. Optional courses can be chosen by students according to their own interests and developing needs.

In addition to theoretical and experimental teaching in the classroom, practical training and internships in the concentrated practice courses are also an essential part of the education in this major. The School of Information and Electronic Engineering, which offers this major, has more than 10 provincial-level and above teaching and research platforms, including the Hunan Modern Industrial College of Electronic Information and the Hunan Provincial Key Laboratory of All-Solid-State Energy Storage Materials and Devices. These platforms support students' scientific research activities. The college has established 37 on- and off-campus practical training centers and bases, such as the basic teaching and innovation laboratories for electronic information majors, artificial intelligence laboratories, and the Aihua Group internship base. These facilities provide excellent engineering practice conditions and ample opportunities for practical training and internships for students' concentrated practice courses. The major constructs the "double tutorial system" teaching mode under the guidance of academic tutors and enterprise tutors to help students develop their professional ability. Moreover, students can participate in major innovation projects, academic competitions, or engage in practical learning through in-house research projects led by professional teachers.

In the teaching process, this major adopts a variety of teaching methods and means, such as PBL and flipped classroom, to promote the achievement of learning outcomes. The major firmly support the student-centered teaching concept, pay attention to the integration of digital and face-to-face teaching, and balance classroom contact time and self-study time. In terms of digital teaching, the use of online platforms, multimedia resources, etc., to break the limitations of time and space, to provide personalized learning experience for students. Face-to-face teaching can

enhance the interaction and collaboration ability of teachers and students through group discussion, project-based learning, interactive lectures and other forms. The two complement each other and enrich the teaching mode.

In summary, Hunan City University has also developed a university development strategy (**Appendix 04-1**).

2. Exams: System, Concept & Organisation

2.1 Examination methods

To standardize undergraduate course assessment and enhance teaching quality, Hunan City University has formulated the "Full-time Ordinary Higher Education Undergraduate Course Assessment and Grade Management Measures". Assessment is divided into examinations and evaluations. Examinations are mainly closed-book written tests, but open-book exams may be used as needed. Evaluation courses do not use closed-book exams. Exam content must cover course syllabus outcomes **(Appendix 09-1 and 08-2**) and be explained in the Examination Question Review Form **(Appendix 17-1)**.

Courses can be assessed through oral exams, evaluations, and defenses, emphasizing learning processes. Practical components like graduation training and internships are assessed through evaluation or defense. Scores can be percentage-based or use a five-level grading system. Examination courses are mainly closed-book, with scores typically accounting for 60% of the final grade, and regular performance for 40%. This ratio can be adjusted based on course requirements.

A process evaluation mechanism must be established for regular performance, including multiple evaluation forms such as pre-class preview, classroom questioning, mid-term tests, assignments, etc. Regular performance evaluations are recorded in the "Student Academic Record Form" (**Appendix 17-2**) and cannot be changed once determined. Self-study scores are reflected in daily grade assessments.

Course assessment results are recorded in students' files as an overall score, including regular performance and final exam scores. A total score of 60 indicates

passing, and only those with a passing score can earn credits. Starting from the second semester of 2024, students with final exam scores below 45 will not be eligible for overall course evaluation based on regular performance, nor will they earn credits. The examination form and total score composition is stated in the course syllabus, so students know them upon course selection.

The assessment of student's moral character is based on the Code of Conduct, using individual summaries and democratic evaluations. Public sports are evaluated per national standards and university measures, combining regular performance (40%) and final exam scores (60%). Regular scores are based on morning running (70km to pass, 110km for full score). Final exams include free-throw shooting (30%), 1000m/800m runs (40%), and push-ups/sit-ups (30%). Public benefit labor results are judged by attendance, attitude, discipline, and task completion. Military training assessments are based on completing the teaching plan. All course evaluations use a credit point system, with grades corresponding to points as per university regulations (**Table 2-1**).

Table 2-1 Correspondence between assessment scores and grade points

Percentile results	Grade	Grade point	Median Grade point
90~ 100	Excellent	4.0-5.0	4.5
80~ 89	Good	3.0-3.9	3.5
70~ 79	Secondary	2.0-2.9	2.5
60~ 69	Pass	1.0-1.9	1.5
59 or below	Fail	0	0

Explanation: For those using the percentage system, an assessment score of 90 is equivalent to 4.0 GPA (Grade Point Average)), a score of 91 is equivalent to 4.1 GPA, and so on; scores below 60 are equivalent to 0 GPA. For those using the grading system, an excellent assessment score is equivalent to 4.5 GPA, a good score is equivalent to 3.5 GPA, a passable score is equivalent to 2.5 GPA, a failing score is equivalent to 1.5 GPA, and an unpassed score is equivalent to 0 GPA.

The calculation formula of GPA is:

Grade <60, GPA = 0;

Grade ≥ 60, GPA = (grade-50)/10.

The calculation formula of credit points is:

The credit point of a course = the grade point × the credit point of the course;

The average credit point of a semester, academic year or graduation = ∑ (credit point × course credit) / ∑ course credit.

Graduation comprehensive training is a crucial phase for undergraduates to apply their knowledge and skills, learn research methods, and cultivate innovation, practicality, and entrepreneurship.

In the eighth semester, students spend 14 weeks on their bachelor's thesis/design, completing tasks independently under a supervisor's guidance, following university regulations (**Appendix 02-3**). The thesis title, tasks, and schedule are detailed in the task book (**Appendix 09-3**). Students must stay in contact with their supervisors weekly, reporting progress and issues. Supervisors provide feedback to ensure timely and accurate thesis completion. The final grade is based on instructor, evaluator, and defense panel comments, along with a performance assessment (see **Appendix 09-4**). After completion, colleges report results to the Academic Affairs Office, conduct self-assessments, and the university organizes inspections or spot checks.

All the assessment results of the courses can be viewed by students through the teaching system by using their student number and password. The interface for students to check their grades is shown in **Figure 2.1**.

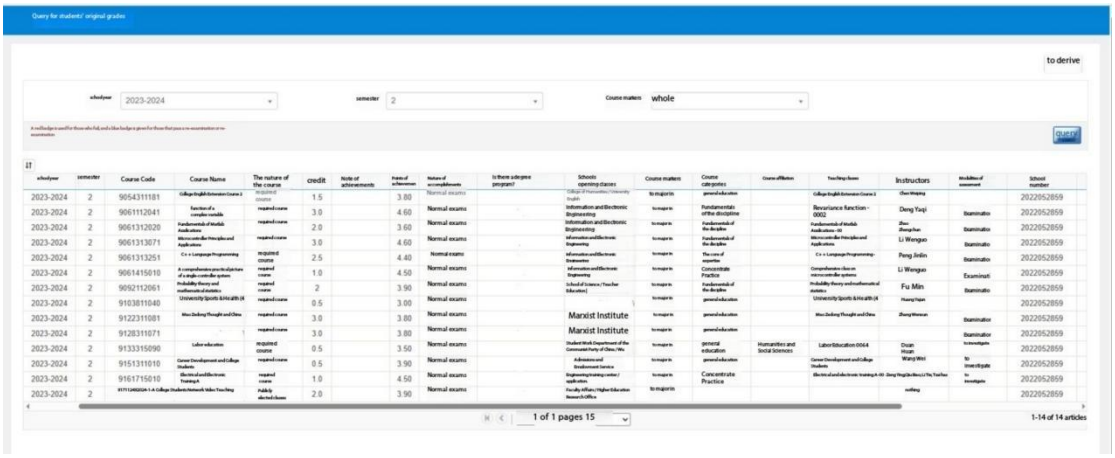

Figure 2.1 Student score query interface

2.2 Organization of the examination

Public course examinations are uniformly planned by the Academic Affairs Office, typically in the 19th and 20th weeks of each semester. Specialized courses are organized by the respective colleges, usually completing exams within two weeks after teaching or during the term, generally before the 18th week. Exam times and locations are arranged by secondary colleges and the Examination and Student Status Management Center, with details published in the teaching management system. Exams follow the Examination Management Measures of Hunan City University (**Appendix 02-4**), with multiple teachers grading the same exam using established answers and standards.

The same teacher corrects the same question, and papers are exchanged for review to ensure fairness. After grading, teachers analyze the papers, fill out the Paper Score Analysis Form (**Appendix 14-1**), and provide feedback. The Student Appeal Handling Measures (**Appendix 01-2**) are in place to ensure fair handling of appeals and protect student rights.

2.3 Course postponement, make-up and retake

In general, only students meeting school requirements can apply for deferred exams, typically three days before the exam or within one week after in special circumstances. Examination courses can't be deferred, and reapplication for deferred exams is allowed once. Deferred exam scores are based on regular grades and exam results, with credit points calculated as 1.0.

Students who failed previous semester courses (excluding practical components) can retake them in the next semester using reserve papers. Retake arrangements are made by the Academic Affairs Office, and scores are recorded based on actual results. A passing retake score earns up to 2.0 GPA points.

For failed make-up exams, students can retake unlimited times upon application and payment, with no more than 3 courses retaken per semester. Retaking can be

class-based or online, following regular schedules and assessments. Passing retake exams earn corresponding credits, recorded as actual grades with "Retake" marked, see **Appendix 01-1**.

2.4 Assessment of Learning Outcomes and Expected Competencies

The assessment of learning outcomes and expected competencies adopts a framework of dual-track process assessment and final examination. The process assessment is divided into two categories, contact hours are led by the instructor, and the real-time learning effect is evaluated through classroom participation, in-class tests, and the standardization of experimental operations. Self-study hours are jointly verified by counselors and academic advisors. Counselors supervise disciplinary data such as the duration of online learning and the completion rate of tasks, while academic advisors review the originality of after-class assignments, the depth of literature reports, and the ability to apply tools, etc. The final exam focuses on the transfer of abilities. The test questions require avoiding memory-based questions and designing more comprehensive application questions, experimental design questions, case analysis questions and other types of questions. The overall purpose is to assess the ability of problem analysis and design research, and to test the ability of engineering and social practice. The analysis report on the achievement degree of course objectives for specific courses can be found in **Appendix 05-2**.

3. Resources

3.1 Staff and Staff Development

The School of Information and Electronic Engineering boasts a faculty with a reasonable age and academic background structure, high comprehensive quality, and profound academic attainments. The school currently has a total of 129 staff members, including 108 full-time teachers, with the ratio of undergraduate students to full-time teachers 27:1. Among the full-time teachers, 33 hold doctoral degrees, representing a doctoral rate of 30.56%, and 46 have senior titles, accounting for 42.59%. There are 38 young teachers aged 40 or below, representing 35.19%. Additionally, 80 teachers

possess dual qualifications, representing 74.77%. In terms of academic teams, there is 1 expert enjoying the special allowance from the State Council, 1 Furong Scholar, 4 provincial-level talent project candidates such as leading talents in science and technology entrepreneurship in Hunan Province, 2 provincial-level academic leaders in higher education institutions, 9 young backbone teachers in higher education institutions, and 4 young teachers recognized as teaching experts in Hunan Province.

3.1.1 Composition of teachers

The Electronic Information Engineering program has established a faculty team with high academic standards, diverse academic backgrounds, and a reasonable age structure. The program has a total of 27 full-time teachers, including 7 professors, 7 associate professors, 7 lecturers, and 6 teaching assistants, with 54.85% of the faculty being under 45 years old. Among them, 10 teachers hold doctoral degrees, 15 hold masters' degrees, and the proportion of teachers with masters' degrees or higher is 92.59%. There are 8 master supervisors, one person selected for the Hunan Province 121 Innovation Talent Project, one person recognized as a leading academic figure in the higher education institutions of Hunan Province, six young backbone teachers in the higher education institution of Hunan Province, and three young teaching experts in Hunan Provinces higher education institutions, with a 100% ratio of dual-qualified teachers. For a detailed list of resumes of the faculty members, see **Appendix 19-1**.

3.1.2 Development of teaching and research by teachers

The Electronic Information Engineering program offers over 50 specialized courses, not only for undergraduate students in this major but also for undergraduate students in related fields such as Mechanical Engineering, Artificial Intelligence, and Communication Engineering. In recent years, the program has undertaken 19 teaching reform and course construction projects related to Electronic Information Engineering and other related disciplines, including 5 teaching reform research projects at ordinary higher education institutions in Hunan Province, and has developed 8 university-level quality courses. The program has won 1 university-level teaching achievement award, published over 40 teaching papers, and released 5 professional textbooks and

monographs. For details on provincial and ministerial-level course construction projects, university-level and above quality courses, university-level and above excellent teaching achievement awards, and published professional textbooks and monographs, please refer to **Appendix 19-2**. For some samples of research results, national-level and provincial-level scientific research projects, and award-winning situations, please refer to **Appendix 19-3**.

3.1.3 Teachers' workload

The rated workload for each professional teacher undergraduate teaching is 320 class hours per year, with actual workload requirements varying slightly depending on position and title. In addition to essential theoretical teaching, every teacher must provide students with adequate guidance, homework correction, and innovation and entrepreneurship guidance. Serving as an academic mentor and undertaking scientific innovation guidance for students in certified projects is an important reference for teacher promotion. To cultivate student's international communication ability, the major is equipped with teachers who can teach in English, and some bilingual teaching courses (Introduction to Electronic Information and Literature Search and Thesis Writing) are offered, to create a good environment for student's professional English learning and communication.

3.1.4 Relevant training

(1) Pre-service training for new teachers: According to the requirements of the Hunan Provincial Department of Education Notice on Bettering the Pre-service Training and Examination (Evaluation) Work for Ordinary Higher Education Teachers in Hunan Province in 2024 and other documents, all newly employed personnel engaged in educational and teaching work in higher education institutions, including full-time teachers, counselors, experimental technicians, other professional and technical personnel, administrators, and those transitioning from non-full-time teacher positions to full-time teacher positions, must participate in pre-service training organized by their institutions.

(2) Mentor system for young teachers: To strengthen the cultivation of young

teachers, the college must assign a mentor with an associate professor or higher title to each newly employed young teacher, fully leveraging the role of core teachers in imparting knowledge, assistance, and guidance, the list of young teachers in charge of electronic information engineering is in **Appendix 19-4**.

3.1.5 Related funding for teachers

Hunan City University provides research start-up funds for newly hired teachers, offering 100,000 RMB per person to young teachers with doctoral degrees. Since 2019, the university has implemented the "351 Talent Project," which includes three levels of talent programs: academic leaders, academic pioneers, and academic backbone talents, with funding amounts ranging from 160,000 to 400,000 RMB, and the funding of teacher development is detailed in **Appendix 19-4**. The detailed human resources plan is shown in **Appendix 20-1**.

3.2 Student support and student services

(1) The Office of Academic Affairs

The daily management and training of undergraduate teaching are mainly responsible by the Academic Affairs Office and the Teaching Quality Monitoring and Evaluation Office. The Academic Affairs Office comprises the Comprehensive Department, the Major Construction Department, the Teaching Operation Department, the Practical Teaching Department, and the Student Record Management and Examination Center. The login interface of the school's teaching management information system is shown in **Figure 3.1**. Each staff member can log in with their own account password. Those without a password cannot log in. After logging in, the staff details interface is shown in **Figure 3.2**.

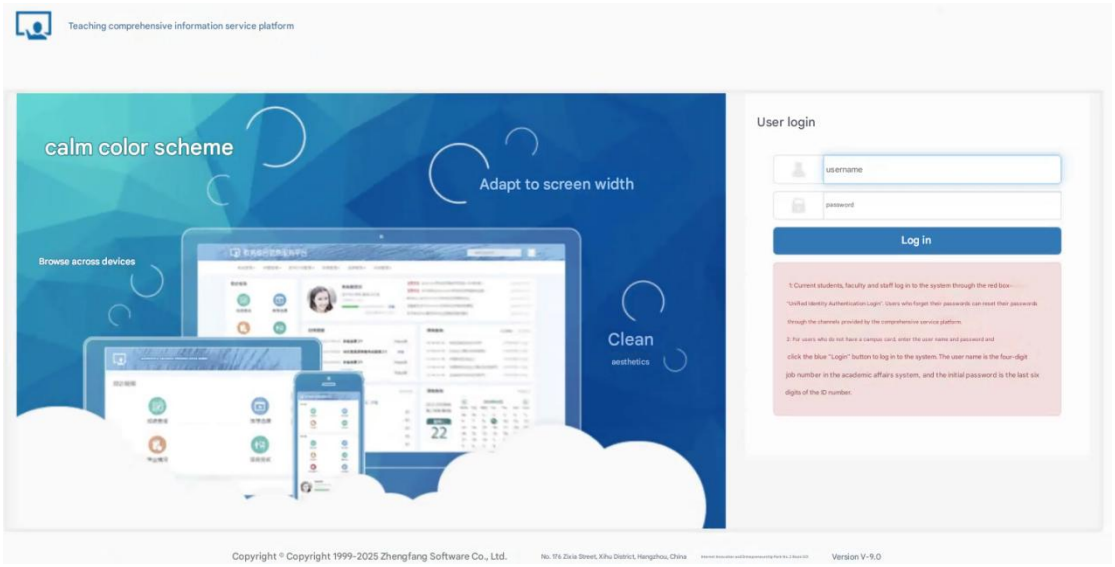

Figure 3.1 Login interface of teaching management information system

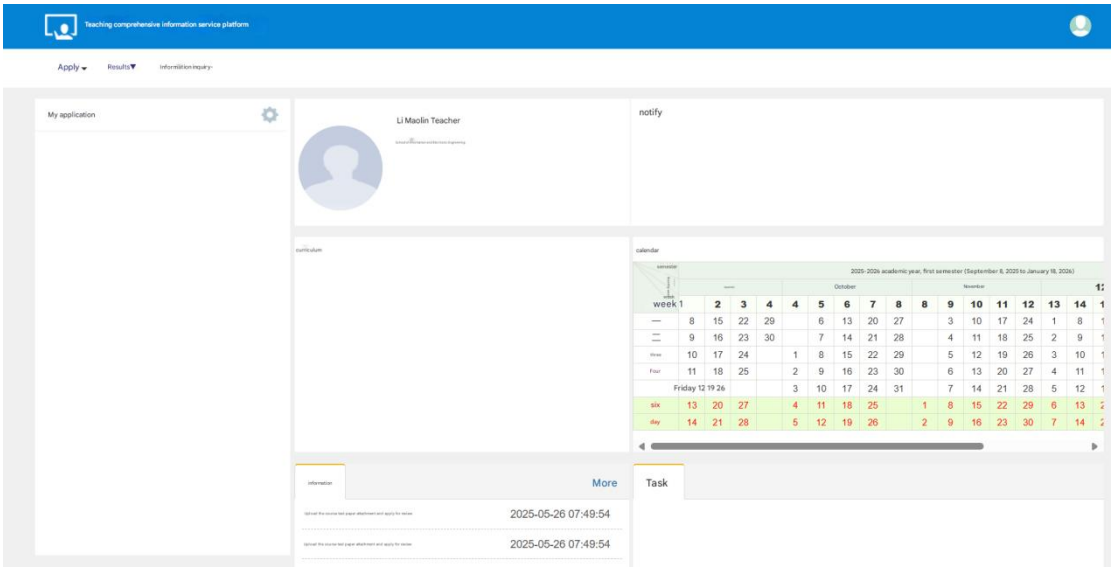

Figure 3.2 The login interface of teaching management information system

(2) Student Affairs Department (Office)

The Student Affairs Office of Hunan City University is a functional department responsible for student management, education, and service. Its main responsibilities include: verifying students' self-study hours, implementing ideological and political education, legal education, school discipline education, and mental health education for students, and promoting academic atmosphere construction, comprehensive quality assessment, scholarship and financial aid evaluation, hardship assistance, and dormitory management. The Student Affairs Office has established a comprehensive counselor system to carry out ideological education, cultivate party and league cadres,

guide class construction, help students develop good study habits, provide mental health consultation and career planning services, encourage students to seek employment and start businesses at the grassroots level, organize social practice and volunteer activities, and cultivate students' sense of social responsibility and spirit of dedication, thereby promoting the comprehensive development of students.

(3) Academic mentors

In the field of Electronic Information Engineering, each undergraduate student is assigned a dedicated academic mentor. The primary responsibility of the academic mentor is to help students clarify their academic goals and develop personalized study plans. By considering the students' foundation, interests, and career plans, the advisor guides them in arranging their course studies in a reasonable manner. This ensures that students not only master the fundamental theories but also delve into the cutting-edge areas of the major. In terms of professional knowledge and skill development, the academic mentor will make full use of laboratory resources to guide practical operations and project development. They will also organize student's participation in research projects, innovative experiments, and academic competitions to cultivate their innovative thinking and teamwork skills. At the same time, the mentor will provide employment information and job-seeking skills based on industry development trends, helping students to develop practical career plans.

(4) Corporate mentors

The university has implemented a corporate mentorship system, which provides the students with practical platforms closely aligned with the industry to stimulate their innovative thinking and entrepreneurial potential. Corporate mentors are managers or engineers from relevant enterprises certified by Hunan City University. The selection of corporate mentors follows a two-way principle between students and mentors. Students can choose their preferred corporate mentors based on their research interests, and corporate mentors can also select students. Most of the concentrated practical courses in this major are collaborative practice segments between the university and enterprises. During the concentrated practical courses and corporate internships, corporate mentors are responsible for guiding students' projects,

maintaining communication with the academic mentors from the university, and engaging in collaborative teaching to develop students' experimental skills, engineering application capabilities, and innovative practical abilities.

(5) Course website

Online teaching is an essential component of the teaching activities in this major, and online course learning accounts for a portion of students' self-study hours. The online course resources for this major are mainly concentrated on the school's official online course teaching platform, Yuketang and Ketangpai. These online platforms integrate a variety of course resources, allowing students to access detailed course web pages simply by logging in. Students can find course-related information on the websites and engage in online communication with instructors, which helps them gain a deeper understanding of the course content. At the same time, it enables instructors to more accurately grasp students' learning progress, thereby adjusting their teaching strategies and improving the quality of teaching.

(6) Transfer of specialty within the university

To grant students greater autonomy and choice their studies and to fully reflect the student-centered educational philosophy, the "Hunan City University Regulations for Full-time Undergraduate Students to Change Majors" has been formulated. This regulation aims to provide maximum convenience for students to change majors, considering the existing teaching resources and conditions of the university and colleges. The major change process is primarily targeted at first-year undergraduate students. Students can only change their major once during their studies, and once the application for a major change is approved by the university, it cannot be altered.

A Major Adjustment Review Group has been established by the university to handle matters related to major changes. The specific process includes: (1) student application; (2) participation of the major change examination or assessment after the completion of the first semester of the first year at university; (3) preliminary review of the list of students intending to change majors by the Academic Affairs Office; (4) review by the university leadership in charge of undergraduate teaching; (5) public announcement by the Academic Affairs Office; (6) approval by the President Office;

(7) processing of major adjustment procedures. After changing majors, students will be strictly assessed for graduation qualifications according to the talent training program of the new major. Credits already obtained that meet the requirements of the new major's talent training program should be recorded on the "Hunan City University Credit Recognition Application Form for Students with Academic Changes". These credits will be recognized after confirmation by the new college and submission to the Academic Affairs Office. For courses that have already been completed by the new major but not yet taken by the student, the credits must be obtained through retaking the courses.

(7) Abroad and Internship

To broaden student's international perspectives and enhance their comprehensive qualities and career competitiveness, the university encourages and supports undergraduate students to actively participate in overseas exchange, study abroad, and internship programs. All overseas programs are uniformly managed by the university's Office of International Cooperation and Exchange. Any independent arrangements for overseas study or exchange must be approved by the Office of International Cooperation and Exchange. Students selected for exchange programs maintain their student status at our university during their study abroad. For details on the recognition principles of examination results and credits, please refer to the "Hunan City University Regulations on Student's Overseas Study and Internship".

3.3 Funds and equipment

3.3.1 Teaching investment in the past five years

The teaching funds for the Electronic Information Engineering major are adequately guaranteed, with annual increases in basic business expenses for undergraduate teaching, teaching construction, student innovation and practical activities, and teaching reform projects, ensuring normal teaching activities with sufficient teaching funds. Over the past five years, the total investment in the professional teaching funds has reached 18.15 million RMB (**Appendix 23-1**). Among these funds, the laboratory construction investment is 14.21 million RMB, the

course construction investment is 181,154 RMB, the undergraduate innovation project investment is 61,916 RMB, and the academic competitions investment is 482,795 RMB.

3.3.2 Sufficient infrastructure

Hunan City University and School of Information and Electronic Engineering provide the sufficient infrastructure in terms of both quantity and quality.

(1) Laboratory

The Experimental Center of the School of Information and Electronic Engineering has several experimental training centers such as Electrical and Electronic Training Center, Metallurgical Experimental Teaching Center, Computer Experimental Center and Innovation and Entrepreneurship Training Center. The Experimental Center has a total floor area of 5,188 square meters and equipment assets worth 47.15 million RMB (More detailed introductions in **Appendix 23-2**). The relevant documents of management system are detailed in **Appendix 19-5**.

(2) Subject construction points and research platforms

The college has 10 provincial teaching and research platforms such as Hunan Provincial Key Laboratory of All-Solid-State Energy Storage Materials and Devices and Institute of Electronic Information Modern Industry, and 37 on- and off-campus internship and training centers/bases such as Basic Teaching and Innovation Laboratory of Electronic Information Specialties and Internship Base of Aihua Group.

In the past five years, students majoring in Electronic Information Engineering have actively participated in numerous competitions and innovation and entrepreneurship training projects, including the National Undergraduate Electronic Design Competition, the "Lanqiao Cup" and "Challenge Cup" National Undergraduate Extracurricular Academic and Scientific Works Competition, and the National Undergraduate Internet+ Innovation and Entrepreneurship Competition. For details on participation in projects and awards. Faculty co-constructed off-campus innovation and internship practice bases are shown in **Appendix 03-1**.

(3) International exchange and cooperation platform

In recent years, the School of Information and Electronic Engineering has attached great importance to the implementation of the "international exchange" strategy, aiming at forefront and strengthening international cooperation. In May 2024, the School of Information and Electronic Engineering jointly organized the "2024 Green Intelligent Quality: Urban Construction and Development" International Academic Conference on Artificial Intelligence and Urban Development with the University of Cape Coast in Ghana, which was successfully held in the Library Auditorium. In addition, the international cooperation projects and the international conferences held by the college and the specialized subject in recent years are shown in **Appendix 23-3**.

(4) Library and information resource platform

Currently, the Hunan City University Library houses over 2.845 million volumes of Chinese and foreign printed documents, nearly 400 types of Chinese and foreign printed journals, and nearly 9.75 million theses and doctoral dissertations. It also has Chinese and foreign language databases, academic journals, et al. In addition, the relevant management files of the library and Lectures organized by the library for students are listed in **Appendix 23-4**.

(5) Teaching and office facilities

The Experimental Center of the College of Information and Electronic Engineering currently has 52 undergraduate teaching laboratories, with more than 40 experimental courses offered in the undergraduate laboratories, and more than 10,000 students come to the Experimental Center every year. This experimental teaching center has 11 laboratories, including Circuit Board Design and Fabrication Laboratory, Programmable Logic Devices Laboratory, Artificial Intelligence Laboratory, etc. It mainly conducts professional basic experiments and professional comprehensive experiments, and the rate of comprehensive and design experiments conducted reaches 95% (more detailed information about the teaching and the office space in **Appendix 23-5**).

(6) Barrier-free facilities

All newly built laboratories, classrooms and office buildings are equipped with

barrier-free facilities so that disabled students can enter these teaching places smoothly. In short, to meet the needs of educational informatization, the school has comprehensively constructed a safe, efficient, scalable, and open information-based campus infrastructure, achieving full coverage of wireless networks in public areas within the school, realizing functions such as networked administrative offices, teaching informatization management, and resource sharing, thus meeting the needs of student's learning, teacher's instruction, and research work.

(7) Other external cooperation

The profession of electronic information engineering continuously optimizes the direction of the discipline, strengthens the cooperation and exchange between schools and enterprises, and has established good school-enterprise cooperation relations with Huawei, China Unicom, China Telecom and other professional counterparts. The list of off-campus cooperative enterprises and off-campus partners of this major is listed in **Appendix 23-6**.

4. Transparency and Documentation

4.1 Module descriptions

The college provides a comprehensive and efficient personal management system for department heads, faculty, and students, aiming to promote interconnectivity in work scheduling, processing, modification, and information dissemination. This system offers a wide range of targeted functional modules based on different user roles. Faculty, students, and college administrators can achieve smooth communication and feedback through the system. This interactive mechanism ensures the effective transmission of opinions from all parties, promoting information flow and decision optimization within the university.

For teachers, the system not only supports timetable inquiries and student list views but also allows teachers to record students' grades manage graduation thesis/designs and has practical functions such as class scheduling. These tools greatly simplify daily teaching management work helping teachers focus more on improving

educational quality. Student users can query their own schedules and grades through the system and participate in the management of graduation thesis/designs. Such design not only facilitates students to timely understand their learning status but also provides strong support for their academic planning.

Users can easily access the personal management system through the "Portal Entry" in the top navigation bar of the homepage of the official website of the college. The interface of the official website is shown in **Figure 4.1**. The portal login interface is shown in **Figure 4.2**.

The portal login interface design is intuitive and a model of user-friendly service. On the unified identity authentication platform users need to input accurate account numbers and passwords (student accounts are their student ID numbers while teacher accounts are staff numbers) and complete SMS verification to ensure account security. In addition, the system also supports a more convenient and secure QR code login option, further enhancing the user experience.

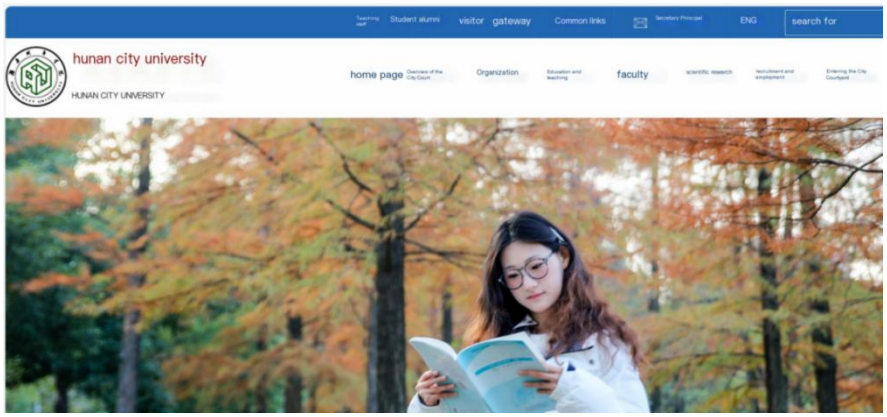

Figure 4.1 College website interface

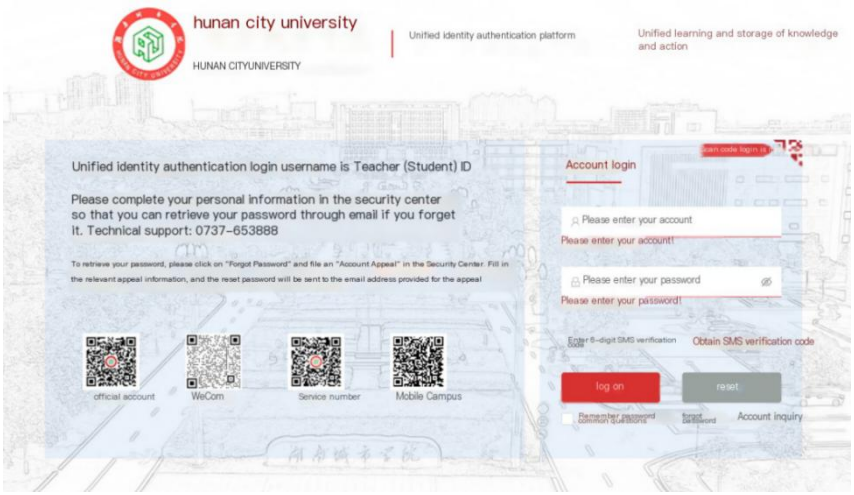

Figure 4.2 Portal login interface

For users who may encounter login difficulties, the page specifically provides a "Forgot Password" feature, detailing the steps to recover account information ensuring that every user can smoothly resolve account access issues. This series of thoughtful designs not only demonstrates attention to user needs but also showcases the commitment to providing efficient, secure, and convenient online services.

4.1.1 Teacher personal management system

The first thing that catches the eye is a carefully designed new finger guide function, which undoubtedly greatly facilitates the first-time user. After completing the novice guide, the teacher will enter the main interface (see **Figure 4.3**).

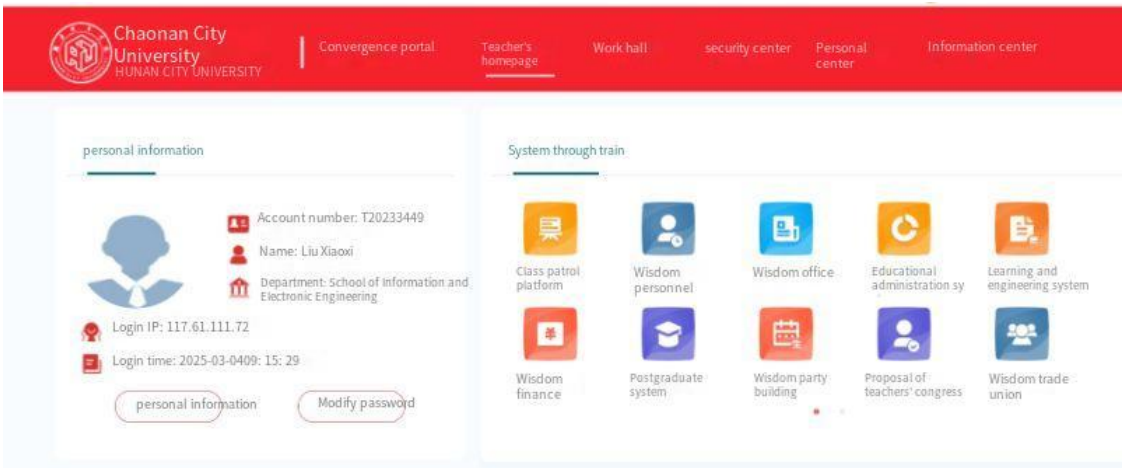

Figure 4.3 Personal interface for teachers

The "System Express" function located in the center of the interface provides a

one-click shortcut to several important modules including the Academic Affairs System and Practical Teaching. Through the Academic Affairs System, teachers can not only query various teaching-related data and information but also perform a series of operations and management tasks; in the Practical Teaching module, it is convenient to handle matters related to graduation thesis/design, greatly simplifying the workflow and improving work efficiency, fully demonstrating the colleges relentless pursuit of enhancing teaching quality and service levels. The Academic Affairs System interface is shown in **Figure 4.4** and the Practical Teaching interface and Graduation Comprehensive Training Management System in **Figure 4.5** and **Figure 4.6**.

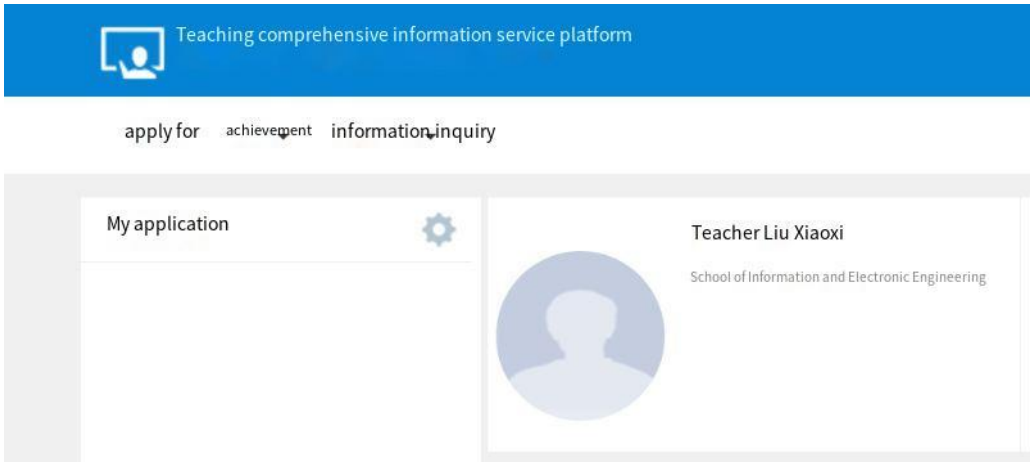

Figure 4.4 The academic system interface

Figure 4.5 Practical teaching interface

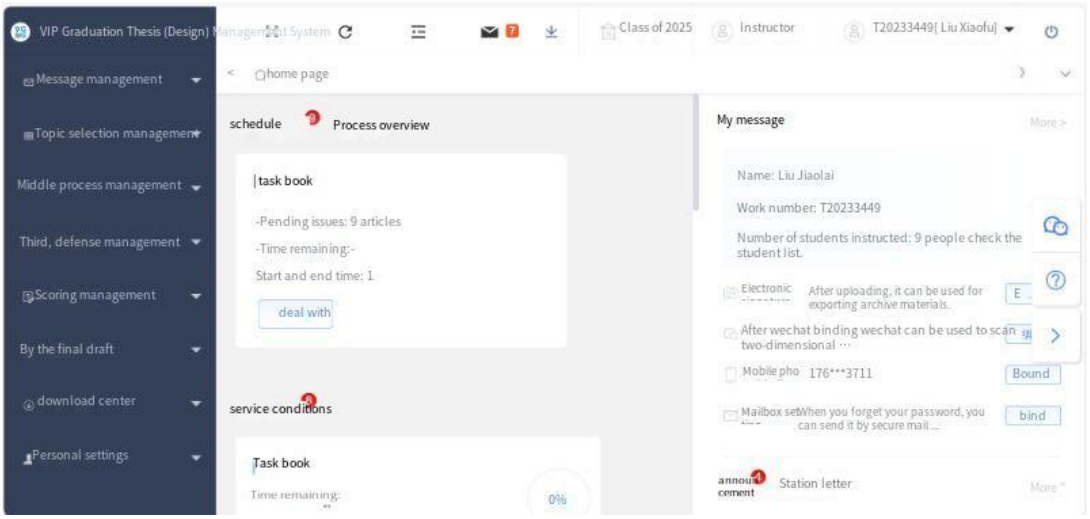

Figure 4.6 Graduation Comprehensive Training Management System

4.1.2 Student personal management system

The following is the interface that students see after logging in successfully (as shown in **Figure 4.7**). The personal interface is designed with great humanization, aiming to provide each student with a convenient and efficient service experience. This interface is mainly divided into two modules: the Personal Service Window and the System Express Window. Through these two carefully designed windows, not only is the interaction between students and the university strengthened, but it also significantly enhances student satisfaction and campus quality of life.

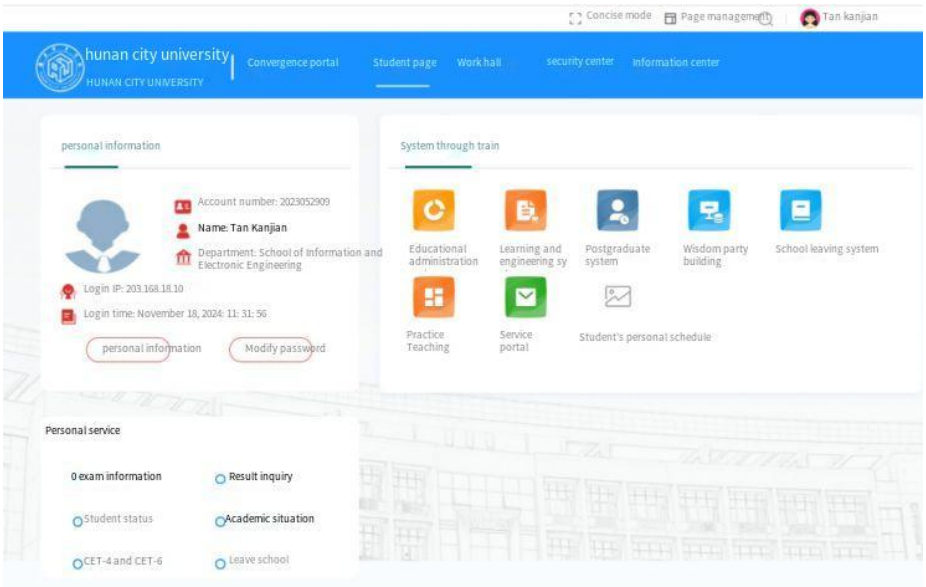

Figure 4.7 Personal Interface for students

Inquiry of students'

School Year 2023-2024 Term 2 Course Mark All

Those who fail are marked in red, and those who pass the make-up or re-examination are marked in blue.

examine	school year; academic year	school term	Course code	Course name	Course nature	credit
examine	2023-2024	2	9054311021	College English (2)	compulsory course	3.5
examine	2023-2024	2	9061313211	Circuit analysis	compulsory course	3.5
examine	2023-2024	2	9063313081	Data structure a	compulsory course	4.0
examine	2023-2024	2	9065112041	College Physics B(1)	compulsory course	3.5
examine	2023-2024	2	9092112021	Advanced Mathematics A (2)	compulsory course	5
examine	2023-2024	2	9103811020	College Physical Education and Health (2)	compulsory course	1.0
examine	2023-2024	2	9124311041	Outline of modern Chinese history	compulsory course	3.0
examine	2023-2024	2	9132311020	College students' military theory	compulsory course	2.0
examine	2023-2024	2	91333150100	Labour education	compulsory course	0.5
examine	2023-2024	2	9163311010	Innovation and entrepreneurship foundation	compulsory course	1.0
examine	2023-2024	2	9171124X2024-1-E	Network video teaching for college students	elective	2.0
examine	2023-2024	2	9171124Z2024-1-A	Network video teaching for college students	elective	2.0

Figure 4.8 Test Information Inquiry Interface for students

* school year 2023-2024 * term 2 exam name

Course name

school year; academic year	school term	Course name	Examination time	Examination place	Examination campus
2023-2024	2	Outline of modern history of China	2024-07-10(14:00-15:(	Engineering Training Building No.1 406A	main campus
2023-2024	2	College Physics B(1)	2024-07-03(14:30-16:3	Teaching Building No.1 109	main campus
2023-2024	2	Advanced Mathematics A(2)	2024-07-03(08:30-10:3	Management Building No.1 312	main campus
2023-2024	2	College English (2)	2024-06-29(1630-18	Engineering Training Building No.1 402	main campus
2023-2024	2	Data structure a	2024-06-27(10:10-12:	Teaching Building No.1 207	main campus
2023-2024	2	Circuit analysis	2024-06-13(14:30-16:	Management Building No.1 307	main campus

Figure 4.9 Score query interface for students

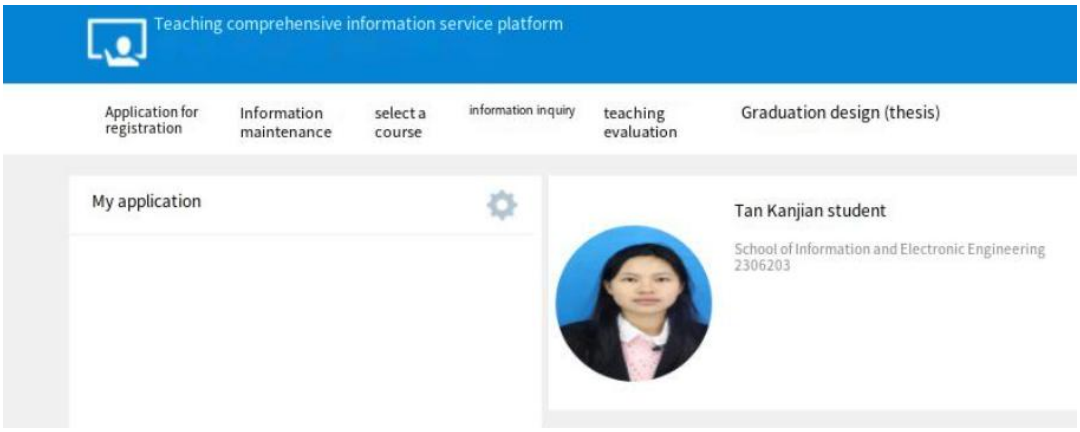

Figure 4.10 Academic System Interface for students

The Personal Service Window integrates a series of functions closely related to individual students, such as examination information (see **Figure 4.8**), grade inquiry (see **Figure 4.9**), etc., aiming to enable students to easily manage their learning lives and stay updated on their academic progress. The System Express Window focuses more on providing a rapid channel for accessing university resources and services, such as the Academic Affairs System (see **Figure 4.10**), enabling students to quickly obtain the information they need or complete specific operations, significantly improving efficiency and the convenience of campus life.

4.1.3 Credit and workload

Each student must earn 209.9 ECTS credits to graduate. Students who fail courses will be recorded. For students who fail the exams, the university will provide opportunities for retaking exams or retaking courses (see **Appendix 01-1**). Students who do not complete 209.9 ECTS credits will not be able to obtain a degree. Sample transcripts are available in **Appendix 14-2**. For students with learning difficulties, the university has established facilities and environments suitable for students with disabilities, including accessible restrooms and ramps to facilitate their learning.

4.1.4 Test score evaluation and continuous statistics

Teachers are required to submit students' examination results and course teaching analysis after each course examination and propose feasible suggestions for continuous improvement based on the analysis results to enhance teaching quality and student

learning results. If students fail the course examination, a dedicated academic advisor will be assigned to supervise and guide their course studies. **Table 4-1** shows the pass rates for the 13 core courses in the Electronic Information Engineering in 2024.

Table 4-1 The pass rate of 13 core courses in Electronic Information Engineering in 2024

NO.	Area of competence	Course code	Course title	Credit	Class hour	Type	Pass rate
1	Engineering fundamentals	9061313211	Circuit analysis	3.5	64	examination	95.7%
2	Engineering fundamentals	9061313051	Signals and Systems	4	72	examination	79.2%
3	Engineering fundamentals	9061313241	Digital electronic technology	3.5	64	examination	89.4%
4	Engineering fundamentals	9062313021	Communication Fundamentals	3	48	examination	85.2%
5	Engineering fundamentals	9063313081	Data structure	4	80	examination	91.9%
6	Mathematical fundamentals	9061112041	Function of complex variables	3	48	examination	92.8%
7	Mathematical fundamentals	9063112041	Discrete mathematics	3	48	examine	95.2%
8	Engineering application	9061313081	Digital signal processing	3	48	examination	82.3%
9	Engineering application	9061312050	Electronic measurement and sensor technology	2	40	examine	92.4%
10	Self-development	9061324030	Embedded principles and technology	3	48	examine	92.5%
11	Self-development	9061324020	FPGA principles and applications	2.5	48	examine	99.3%
12	Self-development	9061312010	Electronic integrated design	2.0	40	examine	100%
13	Self-development	9061324070	Robot development	2.5	48	examine	97.5%

4.1.5 Student admission assessment

Since 2020, the admission score line of Hunan City University has consistently been higher than the standard for the first-tier universities in the National College

Entrance Examination (college entrance examination). For detailed information and admission records over the past five years, please refer to **Appendix 12-1**. The university of Information and Electronic Engineering strictly adheres to the relevant regulations stipulated by the Ministry of Education of the Peoples Republic of China, the Hunan Provincial Department of Education, and the Hunan Provincial Education Examination Institute in its recruitment and admission work, and has established a dedicated recruitment leadership group to oversee all recruitment matters comprehensively. For detailed information on the regulations for Hunan City University's recruitment and admission work, the implementation details of recruitment publicity and supervision, the rules for recruitment examination work, and the system of conflict interest avoidance, please refer to **Appendix 13-1**, **13-2** and **13-3**.

4.1.6 Further development and continuous improvement

To meet the demands of the job market and technological development, College of Information and Electronic Engineering of Hunan City University places great emphasis on the continuous development of its programs. The college continuously explores innovations and has introduced a series of supporting management systems to adapt to the rapidly changing industry needs. For this purpose, Hunan City University has established a specialized graduate tracking information system aimed at collecting and analyzing feedback from graduates to understand their performance and development in the workplace. Additionally, the college holds annual alumni seminars during its anniversary celebrations to create a platform for communication and interaction with graduates, promoting the continuous improvement of the curriculum and enhancing teaching quality.

Considering the language barriers that some international students or non-native Chinese students may encounter during their studies, the university of Information and Electronic Engineering will further enhance the bilingual teaching capabilities of professional teachers, increase the number of bilingual courses, and strengthen Chinese language training for international students to help them adapt to the campus

life and learning environment of Hunan City University as soon as possible, ensuring that every student can receive a high-quality educational experience.

4.2 Diploma and Diploma Supplement

Appendix 21-1 shows a sample of the graduation certificate and bachelor degree certificate for students graduating from the Electronic Information Engineering program at Hunan City University, and all certificates must be stamped with the official seal of Hunan City University and signed by the president to take effect. **Appendix 21-2** depicts a supplementary diploma sample; a sample of the student academic transcript has described in **Appendix 06-1**.

4.3 Relevant rules

4.3.1 Teaching evaluation system

To regulate the preparation of lesson plans, lecture notes and other preparations for teachers, as well as the conduct of teaching and other related work, Hunan City University has formulated a set of rules and regulations and conducts strict qualification examinations for teachers, which are listed in **Appendix 02-5**.

The University's Academic Affairs Office regularly implements tripartite (student/peer/supervisor) evaluation of courses, and the results are summarized and fed back by the faculty and incorporated into the instructional system available for review, as detailed in **Appendix 02-6**.

4.3.2 Student admission assessment

Since 2020, the admission score line of Hunan City University has consistently been higher than the standard for the first-tier universities in the National College Entrance Examination (college entrance examination). For detailed information and admission records over the past five years, please refer to **Appendix 12-1**. The university of Information and Electronic Engineering strictly adheres to the relevant regulations stipulated by the Ministry of Education of the Peoples Republic of China, the Hunan Provincial Department of Education, and the Hunan Provincial Education Examination Institute in its recruitment and admission work, and has established a

dedicated recruitment leadership group to oversee all recruitment matters comprehensively. For detailed information on the regulations for Hunan City University's recruitment and admission work, the implementation details of recruitment publicity and supervision, the rules for recruitment examination work, and the system of conflict interest avoidance, please refer to **Appendix 13-1 to 13-3**.

4.3.3 Further development and continuous improvement

The College of Information and Electronic Engineering builds a dynamic professional optimization mechanism, implements a graduate tracking information management system, and holds regular alumni talks to promote iterative upgrading of teaching to buttress the demands of the job market and technological development. By collecting data on workplace performance and feedback from various parties, the curriculum system and training programmers are continuously improved.

The university of Information and Electronic Engineering will further enhance the bilingual teaching capabilities of professional teachers, increase the number of bilingual courses, and strengthen Chinese language training for international students to help them adapt to the campus life and learning environment of Hunan City University as soon as possible, ensuring that every student can receive a high-quality educational experience.

5. Quality Management: Quality Assessment and Development

5.1 Internal teaching quality evaluation

Every semester, under the unified planning of the university, each college and major conducts regular teaching inspections. These inspections assess teaching quality through classroom instruction, practical activities, thesis/project development, teaching sequence, lesson plans, examination papers, and other teaching materials. This process aims to identify and address potential issues in teaching management. For example, at the beginning of each semester, the Academic Affairs Office of Hunan City University conducts a spot check of the previous semester's exams, evaluating them based on scores, analysis, and improvement measures to promote standardization. Each semester,

the university analyzes the distribution of exam scores and student grades. Based on the results, faculty members are required to develop specific improvement plans (such as adjusting teaching methods and supplementing teaching content), forming a closed loop of "inspection-analysis-improvement." Suggestions and requirements for improving teaching quality are provided to faculty members, assigning responsibility for improving teaching quality to specific teaching links and encouraging faculty members to proactively optimize their teaching, detailed information is provided in the "Hunan City University Full-time Ordinary Higher Education Undergraduate Course Assessment and Grade Management Measures", and peer evaluation and supervision are shown in **Appendix 02-7**.

5.2 External teaching quality evaluation

The university adopts a system of feedback from student employers to listen to their opinions. In addition, the university has introduced external supervision, for example, the university has participated in the undergraduate teaching evaluation of higher education institutions initiated by the Ministry of Education of China and the excellent undergraduate course evaluation organized by the Hunan Provincial Education Commission, forming a teaching quality evaluation mechanism that combines internal and external evaluations with the participation of higher authorities, employers, teachers, and students. Here, the role of the Ministry of Education, employers, external experts, and third-party society is seen as external evaluation (see in **Appendix 02-8**: "Third-party Social Evaluation Implementation Plan (Trial))"; and the power of teachers and students and the university itself is acted as internal evaluation. Internal evaluation focuses more on the details of the teaching process (such as teacher performance and immediate student feedback), while external evaluation focuses more on final outcomes and broader standards. The combination of the two forms a complete quality chain. Leveraging external evaluation results requires transcending the school's internal perspective and using societal needs and educational standards as a lens. This requires translating external feedback into a comprehensive action chain encompassing adjustments to the school's positioning, optimization of

specialized courses, resource allocation, and improvement of talent development. Ultimately, this dynamic alignment between the school's quality of education and societal needs is achieved. The practical application results show the effectiveness of this evaluation method.

5.3 Tool methods and data

5.3.1 Number of students and graduation rate

According to the average class hours stipulated by Hunan City University: the normal study period for students is 4 years, but does not exceed 6 years, students who cannot graduate within 6 years will receive a certificate of suspension or be dismissed. **Table 5-1** lists the number of students and graduates for this program from 2020 to 2024. The beginning and ending time of each spring semester and autumn semester are basically the same, thus the annual schedule is determined. The destinations of graduates from this major are shown in **Table 5-1**. **Table 5-2** provides a detailed description of the initial attempt graduation rate/initial attempt degree acquisition rate for the first three years from 2022 to 2024. Through refined management and analysis of study years and graduation data, the school can transform "post-statistics" into proactive management of "pre-warning" and "in-process intervention", which not only helps students complete their studies smoothly, but also provides data support for the continuous optimization of the quality of professional talent training.

Table 5-1 Destinations of Major Graduates

The years	2020	2021	2022	2023	2024
Number of students	90	164	127	180	169
Number of graduating students	87	157	125	178	166
Graduate ratio	96.7%	95.7%	98.4%	98.9%	98.2%
Graduate employment ratio	96.7%	93.3%	96.1%	98.9%	94.7%
Proportion of graduates who continue their studies in China	11.1%	9.8%	10.2%	10.6%	14.8%
Proportion of graduates studying abroad	0%	0%	0	0%	0.6%
Other graduates	3.3%	6.7%	3.9%	1.1%	5.3%

Table 5-2 Initial attempt graduation rate/initial attempt degree rate, 2022-2024

	2022	2023	2024
Number of students	127	180	169
Number of first-time graduates	125	178	166
First attempt graduation rate	98.4%	98.9%	98.2%
Number of first-time degree candidates	121	175	165
First attempt to get a degree rate	96.8%	98.3%	99.4%

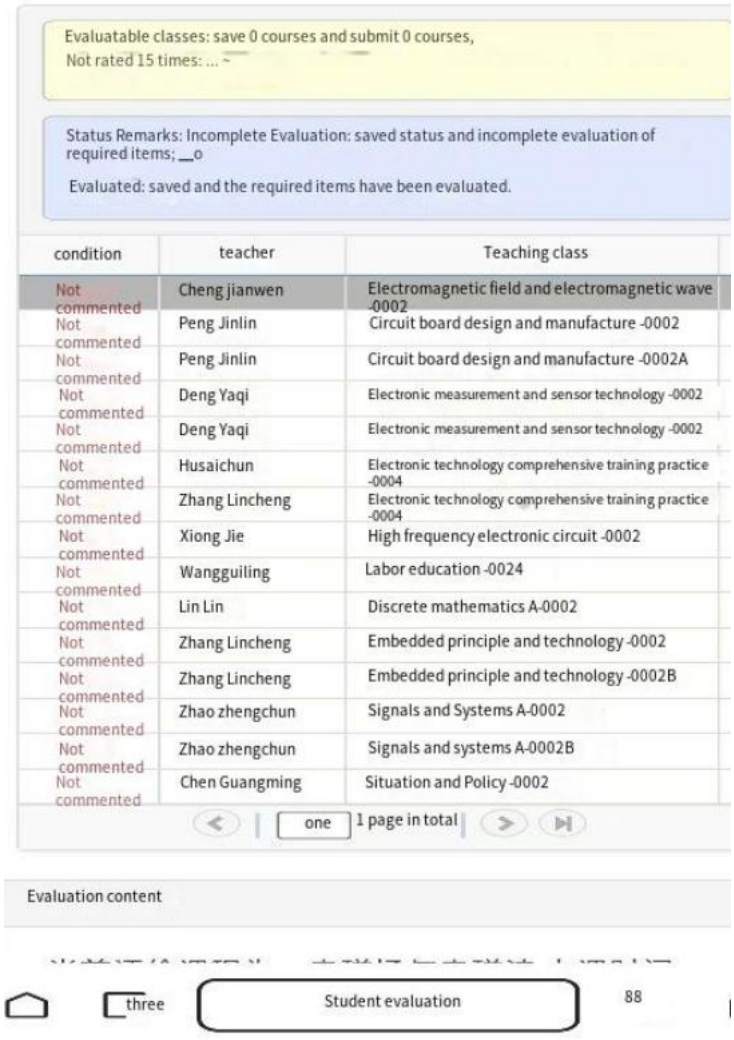

Figure 5.1 Evaluation Interface for students

5.3.2 Students evaluation of teaching quality

Student teaching quality evaluation is an important component of the teaching evaluation system. Each student must submit a teacher teaching quality evaluation form before selecting courses each semester, otherwise they will not be able to select

courses. The teaching suggestions listed in the evaluation form will be analyzed and used to improve teaching methods. Student evaluations of teachers are also used to assess teaching effectiveness and are linked to teacher's job performance. The students' evaluation interface is shown in **Figure 5.1**. The evaluation results of peer, supervisory, and student evaluations in the past three years are shown in **Appendix 02-7**, and the implementation plan for third-party social evaluations is shown in **Appendix 02-8**. The core of student teaching quality evaluation is to "optimize teaching through the student perspective while maintaining objectivity and rationality in evaluation". By refining the indicators, standardizing processes, and balancing correlations, this mechanism can truly reflect teaching issues while encouraging teachers to strike a balance between "meeting students' reasonable needs" and "adhering to teaching quality standards", and ultimately contributing to substantial improvements in teaching quality.

Appendix List

01Student Handbook

- 01-1 Management Measures for Assessment
- 01-2 Student Appeal Handling Procedures

02 Quality Management Handbook

- 02-1 Implementation Measures for the Evaluation of Talent Training Programs
- 02-2 Syllabus
- 02-3 Management Measures for Comprehensive Training of Undergraduate
- 02-4 Examination Management and Organization Measures
- 02-5 Catalog of Teaching Evaluation System Regulations
- 02-6 Student Evaluation of Teaching and Standards
- 02-7 Students and supervisors (peer evaluation)
- 02-8 Implementation Plan for Third-Party Social Evaluation(Trial)
- 02-9 Student evaluation records
- 02-10 Teacher evaluation records
- 02-11 Random lecture records
- 02-12 Analysis of final exam papers

03 Cooperation Agreement

- 03-1 List of Internship and Training Bases
- 03-2 List of Off-Campus Partners

04 University Development Plan

- 04-1 14th Five-Year Plan for Career Development

05 Objectives and Learning Outcomes

- 05-1 Talent Training Program for Electronic Information Engineering
- 05-2 Analysis Report on the Achievement of Course Objectives
- 05-3 Learning Outcomes

06 Official Programme Name

- 05-3 Learning Outcomes
- 06-1 Sample of student report card-1-2

06-2 Diploma Supplement

07 Objective-Module Matrix

07-1 Talent Training Program for Electronic Information Engineering

08 Study Plan or Curricular Overview

08-1 Undergraduate Professional Talent Training

08-2 Syllabus

09 Module Descriptions

09-1 Outline of the Internship

09-2 2024 Annual Internship Teaching Project Funding Table

09-3 Task Book for Graduation Thesis/Design

09-4 Assessment Form for Graduation Thesis/Design

09-5 2024 Dispersed Graduation Internship Students and Units

10 Statistics on Student Mobility(null)

11 Admission Regulation

11-1 2024 Admission Regulations for General Higher Education

11-2 Online Admission Site Management Regulations

11-3 Hunan City University's Online File Review Guidelines

12 Admission Rate Statistics

12-1 Admission of students in the past five years

13 Recognition of Externally Aquired Academic Credits

13-1 2024 Admission Regulations for General Higher

13-2 Online Admission Site Management Regulations

13-3 Online File Review Guidelines

14 Workload Verification

14-1 Score Analysis Form for Examination Papers

14-2 Sample of student report card-1-2

15 Conversion from Credit Points to ECTS Credits

15-1 Credit Transfer Explanation

15-2 The Number of Hours and Credits for Each Module

16 Statistics on Academic Success(null)

17 Examination Regulations

17-1 Question-setting Review Form

17-2 Student Grade Registration Form

17-3 Examination Management and Organization Measures

18 Statistics on Grade Distribution

18-1 Score Analysis Form for Examination Papers

19 Staff Handbook

19-1 Staff Handbook

19-2 Teaching Reform Research Projects, Quality Courses and Textbooks

19-3 Research Papers, Patents and Projects

19-4 List of Teacher Development

19-5 List of Laboratory Management Policy Documents

20 HR Plan

20-1 14th Five-Year Plan Development Plan

21 Graduation Certificates

21-1 Samples of Graduation Certificates Bachelor's Degree

21-2 Diploma Supplement

22 Student Surveys and Results

22-1 Employment Quality Report of Graduates

22-2 Employment Quality Tracking Survey for Graduates

22-3 Research and Innovative Experiments and Academic Competitions

23 Student Support and Student Services

23-1 Teaching Funds for the Past Five Years

23-2 Professional Laboratory

23-3 International Cooperative Education Program and Conferences

23-4 List of Management System Documents for the Library

23-5 Teaching and Office Space

23-6 List of Off-Campus Partners