Self-Assessment Report for an International ASIIN Program Accreditation for the Bachelor Degree of Civil Engineering

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About the SAR: A Brief Overview

Dear ASIIN Team,

Thank you for the opportunity to participate in the international ASIIN program certification. We are pleased to submit our Self-Assessment Report (SAR) for the International ASIIN Program Accreditation of the Bachelor of Civil Engineering Degree. Below is an overview of our university, college, and professional profiles.

Hunan Institute of Engineering (HIE) is a master's degree-granting institution and one of the first universities to implement the Ministry of Education's "Excellent Engineer Education and Training Program." It is also among the initial pilot universities for the "Serve the National Special Needs Talents Training Project" offering professional master's degrees. HIE serves as the chair institution of the National Local University Excellent Engineering Education School-Enterprise Alliance and was one of the first universities in Hunan Province selected for the "2011 Plan." Additionally, it is recognized as a Hunan Province "Double First-Class" high-level application-oriented institution and among the first batch of universities to offer undergraduate admissions in the province.

The university primarily focuses on engineering while fostering the coordinated development of multiple disciplines, including engineering, management, literature, science, economics, and the arts. HIE comprises 18 teaching and research units with 54 undergraduate programs. Notably, its engineering discipline ranks among the top 1% globally in the ESI system. Further details about HIE can be found on our official website:

https://www.hnie.edu.cn/xxgk/xxjj.htm.

The School of Architecture Engineering at Hunan Institute of Engineering was established in 1994. Currently, it offers four undergraduate programs: Civil Engineering, Building Environment and

Energy Application Engineering, Engineering Management, and Architecture (a five-year program). Civil Engineering is recognized as a provincial application-oriented characteristic discipline, while Civil Engineering and Building Environment and Energy Application Engineering are designated provincial first-class undergraduate programs. The school currently has over 2,400 undergraduate and master's students, with graduate employment rates consistently exceeding 90%. Additional details about the school can be found here:

https://jzx.hnie.edu.cn/xygk/xyjj.htm.

The Bachelor of Civil Engineering Program, founded in 2003, offers three specialized majors: Housing Construction Engineering, Road and Bridge Engineering, and Urban Underground and Geotechnical Engineering. This program is designed to cultivate application-oriented senior engineering professionals equipped with strong technical expertise, a commitment to lifelong learning, and skills in innovation and entrepreneurship. Further information about the program can be found here:

https://jzx.hnie.edu.cn/info/1005/1488.htm.

Students enrolled in this program acquire a solid foundation in mathematics, natural sciences, humanities, and social sciences. They gain systematic knowledge and hands-on experience in Civil Engineering, with specialized expertise in housing construction, road and bridge engineering, and geotechnical and underground engineering. Students are also trained to stay abreast of industry trends, proficiently apply computer skills, and communicate effectively in English. Teamwork, management capabilities, and the ability to solve complex engineering problems are core competencies fostered throughout the program, ensuring graduates are well-prepared for promising careers and lifelong learning.

The curriculum is structured into nine modules:

Mathematics and Natural Sciences

Informatics

Foundations of Engineering

Applications of Engineering

Practice

Foreign Language

General Studies

Quality Development

Graduation Project (Thesis)

The Civil Engineering program aligns closely with regional economic and industrial development needs, preparing graduates to excel in engineering survey, design, construction, management, consulting, and operation and maintenance roles.

We have carefully prepared the SAR in accordance with TC03's Subject-Specific Standard (SSC) and the relevant templates and guidelines. This process has deepened our understanding of the international ASIIN certification framework and greatly enhanced our efforts to improve teaching quality and talent cultivation.

Thank you again for this valuable opportunity. We look forward to your review and feedback.

Kind regards,

School of Architecture Engineering

Self-Assessment Report for ASIIN Program

Self-Assessment Report for an international ASIIN Program Accreditation

for the Bachelor Degree of Civil Engineering

Section A of the SAR includes tables in which basic data concerning the accreditation procedure.

Section B contains the Self-Assessment section organized according to the ASIIN Criteria

A About the Accreditation Procedure

General data

Website of the Higher Education institution	**https://www.hnie.edu.cn/**
Faculty/Department offering the Degree Program	**School of Architectural Engineering** **Department of Civil Engineering**

Seals applied for

Name of the degree program (in original language)	**(Official)English translation of the name**	**Labels applied for**	**Previous accreditation (is suing agency, validity)**	**Involved Technical Committees(TC)**
土木工程	**Civil Engineering**	**ASIIN Seal for a bachelor's degree program**	/	**TC 03**

B Self-assessment for the ASIIN-Seal

1 Program profile

Table 1-1 Program Profile

Name of the program (Chinese)	土木工程
Name of the program (English)	Civil Engineering
Final degree	Bachelor of Engineering
Standard period of study	Four-year schooling
Credit points (according to ECTS)	240
Type (several can be indicated)	Full time residential learning intensive program
School Website	https://www.hnie.edu.cn/
The First Time Program start date within the academic year	Sep. 01, 2004
Intake rhythm	Fall semester
Expected intake number of students	180-200
Amount and type of fees	5,900 RMB per academic year
Department	School of Architecture Engineering
Website of the Department	https://jzx.hnie.edu.cn/
Official contact person for publication on the web	PROF. Li Xiaohua
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2 Degree program: Concept, content and implementation

The Civil Engineering major was founded in 1997, with three directions: housing construction engineering, road and bridge engineering, geotechnical engineering and urban underground engineering. Relying on this major, the Civil engineering discipline was approved as the “Double first-class” applied characteristic discipline of Hunan Province in 2018; In 2019, the major was approved as the construction point of first-class undergraduate major in Hunan Province. The program has 1 provincial key laboratory and 2 provincial engineering research centers. This major closely connects with the needs of regional economic and industrial development, and cultivates application-oriented senior specialized talents who can engage in engineering survey, design, construction, management, consulting, operation and maintenance.

Graduates should master the basic theories and profound knowledge and skills of civil engineering, and be able to solve complex engineering problems. As well-developed graduates, they should have a strong sense of comprehensive innovation, independence and team spirit in the field of engineering technology; Good cultural literacy, professional ethics, social responsibility, international vision, and strong competitiveness and creativity; To meet the needs of the civil engineering industry and meet the requirements of internationally recognized engineering qualifications and engineers’ professional qualifications, thus laying a solid foundation for international mutual recognition.

2.1 Degree program objectives and learning outcomes of the program

2.1.1 Objectives

Civil engineering major aims to cultivate senior application-oriented specialized talents who have the basic theoretical knowledge of systematic profession and practical application skills of engineering, and can be engaged in the investigation, design, construction, management, consultation, operation and maintenance in the fields of housing construction, roads and Bridges, geotechnical and underground engineering,

etc., and can solve complex civil engineering problems. For the specific training objectives of civil engineering, please refer to the English homepage of the School of Civil Engineering: https://jzx.hnie.edu.cn/.

After four years of study, students of this major should have a solid basic knowledge of mathematics, natural sciences, humanities, social sciences, etc., systematically master a wide range of basic professional knowledge, and get training in engineering practice related to this major; Should master civil engineering, especially housing construction engineering, road and bridge engineering, geotechnical and underground engineering and other aspects of professional knowledge and skills, keep up with the development trend of civil engineering industry; Should have computer application skills, be able to read civil engineering related English documents, have the ability to communicate in English, have the ability of teamwork and management; Be able to apply the knowledge to solve complex engineering problems in civil engineering, be competent for various engineering tasks, and have good career prospects and lifelong learning ability.

2.1.2 Learning outcomes

The learning outcomes of the course are divided into the following six parts

(1) Basic scientific literacy

Ability to combine mathematical and natural science knowledge with engineering foundation and expertise to solve complex civil engineering problems.

(2) Professional engineering knowledge and ability

Ability to acquire and apply professional knowledge in the field of civil engineering; Have strong practical skills and professional ability; The ability to continue learning, receive advanced degrees and carryout scientific research.

(3) Ability in engineering and professional practice

Civil engineering survey, design, construction, management, consulting, operation and maintenance and other related engineering practice ability; Be able to investigate,

design, implement, analyze and evaluate complex engineering problems in civil engineering, and provide effective solutions;

Be able to evaluate the impact of engineering investigation, design, construction, management, consultation, operation and maintenance and other production practices and solutions to complex engineering problems on society, health, safety, environment, law and culture based on the background knowledge and technical standards related to civil engineering, and understand the responsibilities to be assumed;

Be able to master and participate in the production process of the engineering industry, and be able to engage in the technical work related to civil engineering, and be able to follow the development trend and application prospects of modern science and technology.

(4) Computer skills and information application ability

Ability to use computer software and the Internet;

Master the common methods of literature, information and data retrieval; the ability to access and use information, including literature; And the ability to combine specialized knowledge with computers, e.g. computer- aided design, simulation and simulation.

（5） Ability of international communication

Have sufficient professional knowledge of English, be able to communicate with foreign counterparts, and go abroad for further study; and enough foreign languages and cross-cultural background to be able to work and cooperate in foreign countries or multinational companies.

（6） Teamwork and management skills

Mental health and integrity;

A strong sense of legal and social responsibility;

Have team spirit and certain management ability;

Ability to work in competitive environment and challenging tasks.

2.1.3 Evaluation and demand

(1) Program evaluation

The audit and evaluation of undergraduate teaching work in ordinary colleges and universities of the Ministry of Education is carried out every five years, and this major has passed the evaluation every time, the latest one is in 2024. In 2019, it was approved as the construction point of first-class undergraduate major in Hunan Province.

(2) Demand of the job market

The graduates of this major have strong practical ability, solid professional knowledge and excellent adaptability, innovation awareness and comprehensive quality, which are highly recognized by employers. The employment destination of graduates is basically civil engineering survey, construction, testing, management related institutions and companies. In the past five years, the employment rate of graduates (including those who studied for master's degrees at home and abroad) has been above 90 percent, with an average employment rate of 94.2 percent.

(3) Graduate survey

The results of the survey show that the curriculum of the major is reasonably designed according to the needs of the job market. Graduates are adaptable and their academic performance fully meets their expectations.

2.2 Degree program name

Civil Engineering is a civil engineering undergraduate program established by the Ministry of Education of the People's Republic of China. The program code is 081001. The Civil engineering program of Hunan Institute of Engineering aims to cultivate application-oriented senior professionals who can engage in engineering investigation, design, construction, management, consultation, operation and maintenance. The establishment of the major and the formulation of training programs are mainly based on the long-term demand for professional talents in the civil engineering industry and the development of national infrastructure construction. In China, a large number of civil engineering graduates have been employed in the industry, and the expectations of students and employers are consistent with the name of the major.

2.3 Learning outcomes of course modules

2.3.1 Modules of the program

According to the talent training plan, the curriculum system can be divided into general education basic courses, subject basic courses, professional courses, practice courses, involving nine modules: mathematics and natural science, informatics, engineering foundation, engineering application, practice, foreign language, general studies, quality development, graduation design (thesis).

(1) Mathematics and natural science courses

Learning objective: To master the basic knowledge of mathematics, physics, chemistry and other natural sciences, so as to lay a solid foundation for subsequent courses. Have the ability to apply basic knowledge and master basic natural science methods.

Learning results: able to apply mathematics, natural science combined with engineering foundation and professional knowledge to solve complex civil engineering problems; able to apply the basic principles of mathematics, natural science and engineering science to identify and express complex civil engineering problems, and analyze them in combination with literature to obtain effective conclusions.

Related courses: Advanced Mathematics A (1), Advanced Mathematics A (2), Linear Algebra, Probability Theory and Mathematical Statistics, University Physics (1), University Physics (2), University Physics Experiment (1), University Physics experiment (2), University Chemistry, Operations Research B.

(2) Information Science courses

Learning objective: to master the basic knowledge of computer skills and information technology, so as to lay a solid foundation for further courses. The ability to apply the basic knowledge of informatics to solve practical engineering problems.

Learning outcomes: ability to use computers and the Internet; Master the common methods of literature, information and data retrieval; The ability to access and use information, including literature; And the ability to combine specialized knowledge with computers, e.g. computer-aided design, simulation and simulation.

Related courses: Fundamentals of University computer, C language programming, BIM and structural design software, bridge computer calculation, geotechnical correction software and application.

(3) Basic engineering courses

Learning objectives: to enable students to master the basic knowledge and principles of mechanics, drawing, engineering drawing, concrete structure and steel structure, and to analyze various engineering phenomena in civil engineering; Master the methods and skills to solve practical problems in engineering applications.

Learning results: the ability to summarize, explain, judge and deduce engineering phenomena according to the characteristics of civil engineering; Ability to identify and analyze engineering problems related to civil engineering; Be able to conduct research on complex civil engineering problems based on scientific principles and using scientific methods, including designing experiments, collecting, processing, analyzing and interpreting data, and drawing reasonable and effective conclusions, which can be applied to engineering practice.

Related courses: Introduction to Civil engineering, Mechanics (theoretical mechanics, material mechanics, structural mechanics, soil mechanics and foundation), descriptive geometry, engineering drawing, civil engineering materials, engineering surveying, engineering geology, principles of concrete structure design, principles of steel structure design, construction technology and organization of civil engineering.

(4) Engineering application courses

Learning objective: master professional knowledge and skills in construction engineering, road and bridge engineering, geotechnical and urban underground engineering, etc. Have the practical ability of civil engineering investigation, design, construction, management, consultation, operation and maintenance, etc.; Have the ability to solve complex engineering problems in related fields.

Learning achievements: Able to design solutions for complex civil engineering problems, design components (nodes), structures, systems or technical solutions to meet specific needs, and be able to reflect innovation awareness in the design process; Be able to evaluate the impact of engineering investigation, design, construction,

management, consultation, operation and maintenance and other production practices and solutions to complex engineering problems on society, health, safety, environment, law and culture based on the background knowledge and technical standards related to civil engineering, and understand the responsibility.

Related courses:

Architectural engineering direction: Building architecture, Steel structure design, concrete and masonry structure design, building earthquake resistance, high-rise building, budget estimate of building engineering;

Road and Bridge engineering direction: Road survey and design, roadbed and pavement engineering, bridge and culvert hydrology, bridge engineering, highway engineering budget estimate;

Geotechnical and urban underground engineering: Rock mechanics, geotechnical investigation and testing, underground building structure, slope engineering and foundation treatment, subway and tunnel engineering, underground engineering budget.

Elective Courses: Structural plane integrated design method, BIM and structural design software, Engineering accident Analysis and engineering Safety, Introduction to engineering supervision, Bridge computer calculation, intelligent construction, tunnel engineering, engineering structure test and inspection, introduction to environmental protection, geotechnical correct software and application, geotechnical mass improvement and reinforcement, geological disaster and prevention, prefabricated construction, fluid mechanics, engineering economics and project management , Construction laws and Regulations

(5) Practical courses

Learning objectives: The ability to apply theoretical knowledge and practical skills to solve practical problems, consolidate theoretical knowledge and deepen the knowledge, understanding and application of civil engineering related fields.

Learning outcomes: Cultivate professional practical skills, engineering application concepts and innovative practical skills; Use relevant theories and software to calculate and design components (nodes), structures and systems, master the principles and methods of investigation, design, construction and site management, further consolidate

theoretical knowledge, and deepen the understanding of the application of professional knowledge and theories to civil engineering practice.

Related courses:

Military training and entrance education, English application ability practice, professional knowledge practice, C-language programming course design, engineering drawing course design, social investigation, engineering survey practice, construction organization course design, enterprise professional practice (1), enterprise professional practice (2), graduation design (thesis). Among them, architectural engineering, road and bridge engineering, geotechnical and urban underground engineering also need to complete the course design of each direction.

Architectural engineering direction: building architecture course design, basic engineering course design A, steel structure course design, concrete and masonry structure course design, architectural engineering budget course design;

Road and bridge engineering direction: Road survey course design, concrete course design A, roadbed and pavement course design, basic engineering course design A, bridge engineering course design, highway engineering budget estimate course design;

Geotechnical and urban underground engineering: Course design B of concrete, course design of geotechnical investigation and testing, course design B of basic engineering, course design of underground building structure, course design of slope and foundation treatment, course design of subway and tunnel engineering, and course design of underground engineering budget estimate.

(6) Foreign language courses

Learning objective: To have a certain international perspective and be able to communicate and exchange ideas in a cross-cultural context.

Learning outcomes: Master a foreign language, have the ability to read professional literature in English, and be able to communicate and discuss professional problems in English; Skills in cross-cultural communication.

Related courses: College English (1), College English (2), College English (3), College English (4), Professional English.

(7) General Studies

Learning objectives: to understand the current social model and social norms in China, have humanistic and social science literacy, social responsibility, and be able to understand and abide by the professional ethics and norms of civil engineers in engineering practice, serve the society and fulfill their responsibilities; All-round development of morality, intelligence, physical fitness, beauty and labor.

Learning achievements: Master modern Chinese history, basic principles of Marxism, laws and regulations, patriotism, humanistic spirit, sports, military training and other knowledge; Understand social phenomena, pay attention to and adapt to social development; Have the ability to communicate and cooperate with others, have the spirit of team work; The ability to recognize the legitimacy of work and promote physical and mental health and self-improvement; Cultivate a sound personality and good psychological quality, and have a correct outlook on life, values, ethics and legal outlook; Have a humanistic quality and a sense of social responsibility.

Related courses: Ideology, morality and rule of law, basic principle of Marxism, Outline of Chinese Modern History, Introduction to Mao's Thought and the theoretical system of socialism with Chinese characteristics, Introduction to the Xi's Thought on Socialism with Chinese Characteristics for a New Era, Situation and Policy (1) , Situation and Policy (2).

(8) Development of quality

Learning objectives: to broaden my horizon and keep up with the development trend of related fields of the major; Have a healthy body and mind and good humanities literacy; Be able to comprehensively consider and analyze the impact of engineering activities on society, health, safety, law, culture and environment in practical engineering activities.

Learning outcomes: A systematic understanding of expertise in the field of civil engineering and an understanding of new and related areas of expertise in civil engineering. Be able to deepen and expand professional skills, track trends in the profession and related fields, and build a knowledge base for continuous learning; And the ability to evaluate projects holistically and across disciplines. Ability to extend the

program of study to socialization and the practice of working in a business or scientific setting.

Related courses: Physical Education (1)~(4), Cultural Quality Education Course, College Student Psychology and Health Education, Second class.

(9) Undergraduate Graduation Project (Thesis)

Learning objective: To be able to make comprehensive use of the theoretical knowledge and professional skills of this major, and to formulate the overall research plan of the graduation project by consulting relevant literature; Design units and systems to meet specific needs, forming processes, etc., and reflect the sense of innovation; Be able to apply modern engineering tools or professional CAD/CAE software to modeling and simulation analysis of the material forming process, to analyze, calculate and design the engineering problems involved in the graduation project, and to analyze its limitations; In the process of graduation design, able to communicate effectively with team members or peers, able to use industry norms, standards, drawings, modeling and other means to carry out technical exchanges.

Learning achievements: Able to complete the graduation design under the guidance of my supervisor, write a thesis and pass the defense.

Related courses: Graduation Design (thesis)

2.3.2 Objective matrix

The six learning outcomes proposed in Section 2.1 2.2 are decomposed into knowledge, skills and abilities, and the corresponding module objectives and expected learning outcomes are listed in the course modules to form the objective module matrix, as shown in Table 2-1.

Table 2-1 Objective Matrix for Civil Engineering Program

Program objectives	Expected learning outcomes for the Program -Knowledge -Skills -Competence	Modules of the program

Basic scientific literacy: Ability to combine mathematical and natural science knowledge with engineering fundamentals and expertise to solve complex civil engineering problems	**Knowledge:** Master the basic knowledge of mathematics and natural science **Skills:** Ability to apply the basic principles of mathematics, natural science and engineering science to identify and express complex civil engineering problems; Able to establish basic models to solve practical engineering problems.	Mathematics and Science Courses: Advanced Mathematics A (1), Advanced Mathematics A (2), Linear Algebra, Probability Theory and Mathematical Statistics, University Physics (1), University Physics (2), University Physics Experiment (1), University Physics experiment (2), University Chemistry, Operations Research B
Professional engineering knowledge and ability: Ability to acquire and apply professional knowledge in civil engineering field; Have strong practical skills and professional ability; Have the ability to continue learning, receive higher degrees, and carry out scientific research	**Knowledge:** Enable students to master the basic knowledge and principles of mechanics, drawing, engineering drawing, concrete structure and steel structure, and analyze various engineering phenomena in civil engineering; Skills: master the methods and skills to solve practical problems in engineering applications, and have the ability to summarize, elaborate, judge and deduce engineering phenomena according to the	**Basic Engineering Courses:** Introduction to Civil engineering, Mechanics (theoretical mechanics, material mechanics, structural mechanics, soil mechanics and foundation), descriptive geometry, engineering drawing, civil engineering materials, engineering surveying, engineering geology, principles of concrete structure design, principles of steel structure design,

	characteristics of civil engineering; **Ability:** The ability to identify and analyze engineering problems related to civil engineering; Be able to conduct research on complex civil engineering problems based on scientific principles and scientific methods, including designing experiments, collecting, processing, analyzing and interpreting data, and drawing reasonable and effective conclusions, which can be applied to engineering practice;	construction technology and organization of civil engineering **Practical Courses:** Professional knowledge practice, engineering drawing course design, engineering surveying practice, construction organization course design, concrete course design, basic engineering course design
Engineering and professional practice skills: With civil engineering survey, design, construction, management, consulting, operation and maintenance related engineering practice ability; Be able to investigate, design, implement, analyze and evaluate	**Knowledge:** Master professional knowledge and skills in construction engineering, road and bridge engineering, geotechnical and urban underground engineering, etc. Skills: Able to design solutions for complex civil engineering problems, design components (nodes), structures, systems or technical solutions to meet specific needs, and be able	**Engineering Application Courses**: Architectural engineering direction: Building architecture, steel structure design, concrete and masonry structure design, building earthquake resistance, high-rise building, construction engineering budget; Road and bridge engineering direction:

complex engineering problems in civil engineering, and provide effective solutions;	to reflect innovation awareness in the design process; Be able to use modern engineering tools or professional CAD/CAE software to model and simulate the material forming process, analyze, calculate and design engineering problems, and analyze their limitations. **Ability:** Based on the background knowledge and technical standards related to civil engineering, evaluate the impact of engineering investigation, design, construction, management, consulting, operation and maintenance and other production practices and solutions to complex engineering problems on society, health, safety, environment, law and culture, and understand the responsibility; Apply theoretical knowledge and practical skills to solve practical problems and deepen the knowledge, understanding and application of civil engineering related fields.	road survey and design, roadbed and pavement engineering, bridge and culvert hydrology, bridge engineering, highway engineering budget; **Practical courses:** Enterprise Professional Practice (1), Enterprise Professional Practice (2), graduation design (thesis). Course design of architectural engineering, road and bridge engineering, geotechnical and urban underground engineering. Undergraduate graduation Project (Thesis)

Computer skills and information application ability: Ability to use computer software and the Internet; Master the common methods of literature, information and data retrieval; The ability to access and use information, including literature; Ability to combine professional knowledge with computers, such as computer aided design, simulation.	**Knowledge:** Master the basic knowledge of computer skills and information technology to lay a solid foundation for the study of subsequent courses. **Skills:** ability to use computers and the Internet; Master the common methods of literature, information and data retrieval; The ability to access and use information, including literature; **Ability:** Able to combine professional knowledge with computer, computer-aided design, simulation to solve practical engineering problems.	Informatics course: University computer foundation, C language programming, BIM and structural design software, bridge computer calculation, geotechnical correct software and application.
International communication ability: Have sufficient professional knowledge of English, be able to communicate with foreign counterparts, and go abroad for further study; Have sufficient foreign language and cross-	**Knowledge:** Master a foreign language and be able to communicate well with others in the foreign language. **Skills:** Have a certain international perspective and the ability to read professional English literature, be able to communicate and discuss professional issues in	Foreign Language Courses: College English (1), College English (2), College English (3), College English (4), Professional English.

cultural background to work and cooperate in foreign countries or multinational companies.	English; **Ability:** Have cross-cultural communication skills, and be able to work and cooperate in foreign countries or multinational companies.	
Teamwork and management skills: mental health and integrity; Have a strong sense of law and social responsibility; Have team spirit and management ability; Ability to work in competitive environments and challenging assignments.	**Knowledge**: Master modern Chinese history, basic principles of Marxism, laws and regulations, patriotism, humanistic spirit, sports, military training and other knowledge; Understand social phenomena, pay attention to and adapt to social development; **Skills:** Have the ability to communicate and cooperate with others, have the spirit of team work; The ability to identify the legitimacy of work and promote physical and mental health and self-improvement; Cultivate a sound personality and good psychological quality, have a correct outlook on life, values, ethics, law; Have humanistic quality, have social responsibility. **Ability:** With humanities and social science literacy,	general education curriculum: Ideology, morality and rule of law, basic principle of Marxism, Outline of Chinese Modern History, Introduction to Mao's Thought and the theoretical system of socialism with Chinese characteristics, Introduction to the Xi's Thought on Socialism with Chinese Characteristics for a New Era, Situation and Policy (1) , Situation and Policy (2) **Quality development course:** Physical Education (1)~(4), Cultural Quality Education Course, College Student Psychology and Health Education, Second class.

	social responsibility, able to understand and abide by the professional ethics and norms of civil engineers in engineering practice, serve the society and fulfill their responsibilities; All-round development of morality, intelligence, physical fitness, beauty and labor; Ability to communicate effectively with team members or peers.	

2.4 Career prospects and practical relevance

2.4.1 Career prospects and positioning

Civil engineering discipline was approved as “double first-class” application characteristic discipline in Hunan Province in 2018; In 2019, this major was approved as the construction point of first-class undergraduate major in Hunan Province. In the process of personnel training, it has always emphasized the cooperation mode of production, university, research and university and enterprise, adhered to the “integration of production, teaching, research and application”, emphasized the organic connection between personnel training and society, served the regional economic and industrial development, and cultivated high-quality applied talents. Most of the graduates are employed by state-owned enterprises, including China Railway No. 5 Bureau, China Construction No. 5 Bureau, Hunan Road and Bridge, Hunan Construction Engineering, Minmetals 23 MCC and so on.

The employment prospects of graduates are bright and the employment rate is good. The employment situation in the past three years is shown in Table 2-2.And the establishment of the graduate tracking system, a comprehensive analysis of the situation

of graduates. The analysis results show that graduates have jobs in all provinces of China and are confident and recognized in the industries they are engaged in. Many employers expressed satisfaction with their graduates. In the past five years, nearly 800 graduates have been hired as technicians and managers by railway, construction, road and bridge companies, among others. Please refer to **Appendix B** for the questionnaire survey of graduates and employers.

Table 2-2 Number of graduates and employment rates in the last three years

	2022	2023	2024
Number of Graduates	183	201	251
Employment rate	95.24%	96.20%	98.81%

The employing units include China Railway Five Bureau Group Co., LTD., China State Construction Fifth Engineering Bureau Co., LTD., China Energy Construction Group Hunan Thermal Power Construction Co., LTD., Zhongneng Road and Bridge Engineering Co., LTD., Hunan Road and Bridge Construction Group Co., LTD., China Power Construction Group Shandong Electric Power Construction First Engineering Co., LTD., Hunan Construction Engineering Group Co., LTD., Minmetals twenty-three Metallurgical Construction Group Limited company, China Coal Jiangnan Construction and Development Group Co., LTD.

2.4.2 Practi`cal capability

(1) Experiment

The major cultivates students' experimental ability through the engineering training center, the physics experiment Center, the Innovation and Entrepreneurship Training Center and the laboratory of the School of Architecture Engineering. Experiments are divided into three categories: basic experiment, comprehensive experiment and open innovation experiment. The basic experiments are conducted in the engineering training center and the physics experiment Center. The comprehensive experiment is carried out in the laboratory of the School of Architecture Engineering.

The open innovation experiment was conducted in the Innovation and Entrepreneurship Training Center. Experiments are set up to improve students' understanding of theoretical courses and cultivate their design and innovation abilities.

(2) Practice

Practice includes professional knowledge practice, measurement practice and enterprise practice (1) ~ (2). Professional knowledge practice, students under the guidance of school and enterprise mentors, to house construction, road and bridge, geotechnical and other different types of engineering site to visit the practice, and submit the practice report; Surveying practice is under the guidance of teachers, complete the topographic map measurement and drawing in the school, and submit the practice report; Enterprise practice (1) ~ (2) is to go to the project site, under the guidance of the enterprise mentor, to carry out the internship, and under the joint guidance of the enterprise mentor and the internship instructor to complete the internship report. The company providing the internship and its mentor evaluate the student's performance. See **Appendix C** for an internship outline and related requirements.

(3) Course Design and Graduation Project (Thesis)

Course design ofArchitectural Engineering: Course design ofhousing architecture, course design of Basic Engineering A, course design of steel structure, course design of concrete and masonry structure, course design of architectural engineering budget;

Course design for Road and Bridge engineering: Road survey course design, concrete course Design A, Roadbed and pavement course design, Basic engineering course design A, Bridge engineering course design, highway engineering budget estimate course design;

Course design for Geotechnical and urban underground engineering: Course design of concrete B, course design of geotechnical investigation and testing, course design ofbasic engineering B, course design ofunderground building structure, course design of slope and foundation treatment, course design of subway and tunnel engineering, and course design ofunderground engineering budget estimate.

The subject of graduation design (bachelor's degree thesis) of Civil engineering major is selected from the school research project or the enterprise engineering

application project, aiming to test the students' knowledge application ability. The graduation design (thesis) emphasizes the cultivation of design and comprehensive ability, focusing on the cultivation of students' engineering consciousness, independent problem-solving ability, teamwork spirit, innovation consciousness and innovation ability. The graduation project adopts the "school-enterprise dual tutorial system", employing enterprise tutors with rich engineering and practical experience to provide guidance for students. The procedure of graduation project (thesis) includes the topic selection, proposal, mid-term examination, defense draft examination, defense qualification examination, defense, instructor, review teacher and defense team score and other links, aiming at strictly controlling the content and quality of graduation project (thesis).

(4) Extracurricular scientific research and innovation practice activities

In addition to participating in innovation and entrepreneurship practice training, you can also participate in extracurricular practice activities of technological innovation. The average participation rate of undergraduate students in innovation and entrepreneurship practice activities exceeds 20%. Relying on the teaching team, we actively build a communication platform between undergraduate students and professional teachers, and actively promote various innovation and entrepreneurship projects for college students with the college students' innovation studio as the carrier, as detailed in **Appendix D-2.** The innovative practice projects participated by students have won a number of national and provincial awards. See Appendix **D-1** for details of the awards**.**

2.5 Admission and entry requirements

2.5.1 Admission and entry conditions

All students who enter Hunan Institute of Engineering to pursue undergraduate and bachelor's degrees are required to take the National College entrance Examination of the People's Republic of China or the college entrance examination organized by some provinces and cities. Those who meet the following conditions may apply for the

examination: 1) conform to the Constitution and laws of the People's Republic of China; 2) have a high school diploma or its equivalent; And 3) be in good health.

2.5.2 Admission process

Admission to Chinese universities is determined by provinces and cities based on the number of candidates and test scores. According to the scores, the first, second and third batches are conducted in the order of scores (from highest to lowest). In general, the admission of most majors in Hunan Institute of Technology is the second batch, but the admission scores of civil engineering majors have reached the level of the first batch in some cities in China.

In the admission stage, the admissions department of Hunan Institute of Engineering makes a comprehensive evaluation of the candidates' morality, intelligence and physical fitness based on the predetermined enrollment plan, and selects the candidates mainly according to their scores. The typical admission process is: file filing, file reading, pre-admission, admission inspection and announcement, and the issuance of admission notice.

When entering Hunan Institute of Engineering, freshmen are required to provide the admission notice and identification documents, and then register with the corresponding department according to the suggestions in the registration instructions. The registration process is as follows: confirm the registration, pay the tuition fee, and register the student status.

2.5.3 Transparent admission procedures

The admission and admission procedures for new students of Hunan Institute of Engineering are strictly in accordance with relevant procedures and documents, with a high degree of transparency. According to the *Education Law of the People's Republic of China*, the admission mechanism of Chinese universities is "the responsibility of the university and the supervision of the admission office". The "admission office" refers to the provincial admission office where the candidates are located, rather than the admission office of the university. Colleges and universities may decide to admit

candidates if they pass the ideological and political, moral and physical examinations, achieve the same batch of admission scores in the unified examination, and meet the requirements of colleges and universities in transferring files.

It is the responsibility of universities to explain to candidates who have not been admitted and solve other remaining problems. The admission offices of the provinces where candidates are located shall store electronic files of qualified candidates with colleges and universities, supervise their implementation of the national enrollment policy planning and adjustment, and correct behaviors that violate national policies and regulations.

2.6 Objective matrix

Training program is the basis for organizing teaching activities and the basic document for the management, monitoring and evaluation of school teaching quality. Professional objectives, learning outcomes and curriculum system are clearly stipulated in the training plan. The University has formulated the "Hunan Institute of Engineering Personnel Training Plan Management Measures (Revision)" (**Appendix E-1**). The training plan of this major is jointly formulated by the college, the department of the major, experts from the same industry and enterprises, and the vice dean in charge of teaching organizes the professors' committee and the professional committee to conduct quality control. The training plan formulation process is shown in Figure 1-1.

Focusing on teaching and student training, the major has established a mechanism for continuous improvement of teaching quality according to the social demand for talents in the major and the needs of employers, guided by engineering education certification, and established a diversified teaching quality supervision mechanism to continuously improve and revise the training plan in accordance with the "Hunan Institute of Engineering Management Measures for Talent Training Plan (Revision)", as shown in Figure 2-2. The 2023 version of the Civil engineering talent training program curriculum system is submitted this time, see **Appendix A** for details.

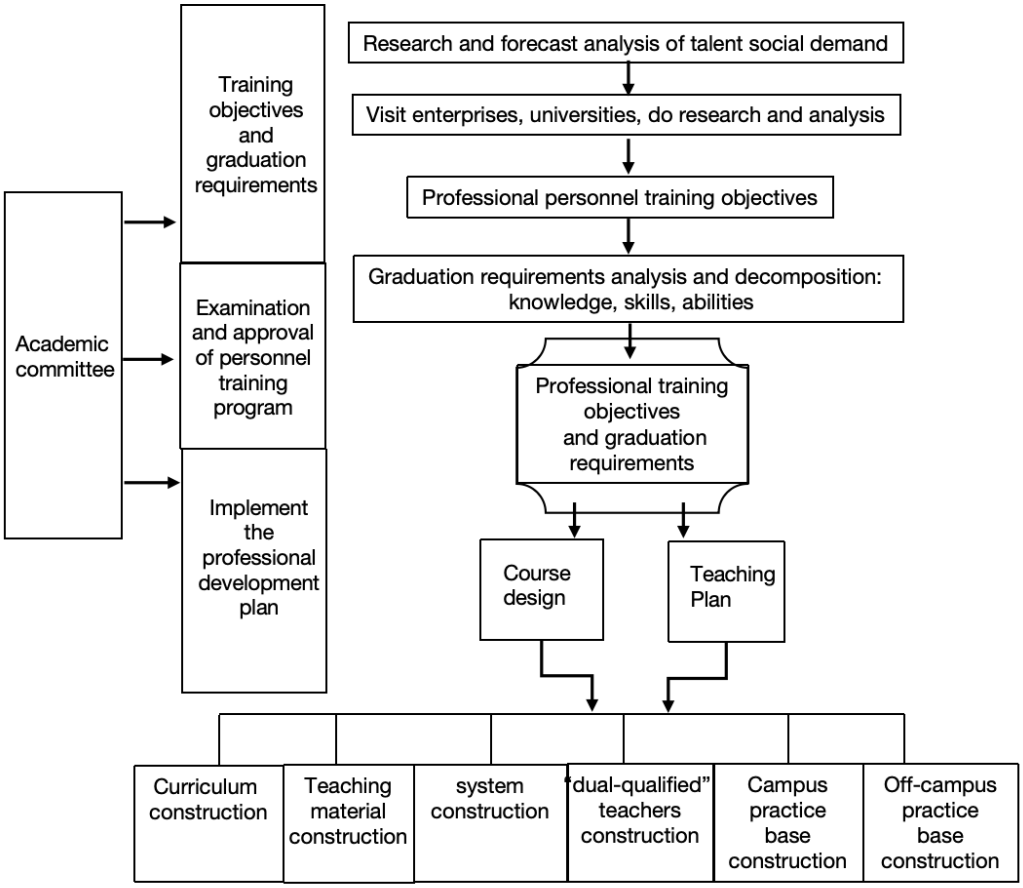

Figure 2-1 Talent training program formulation process

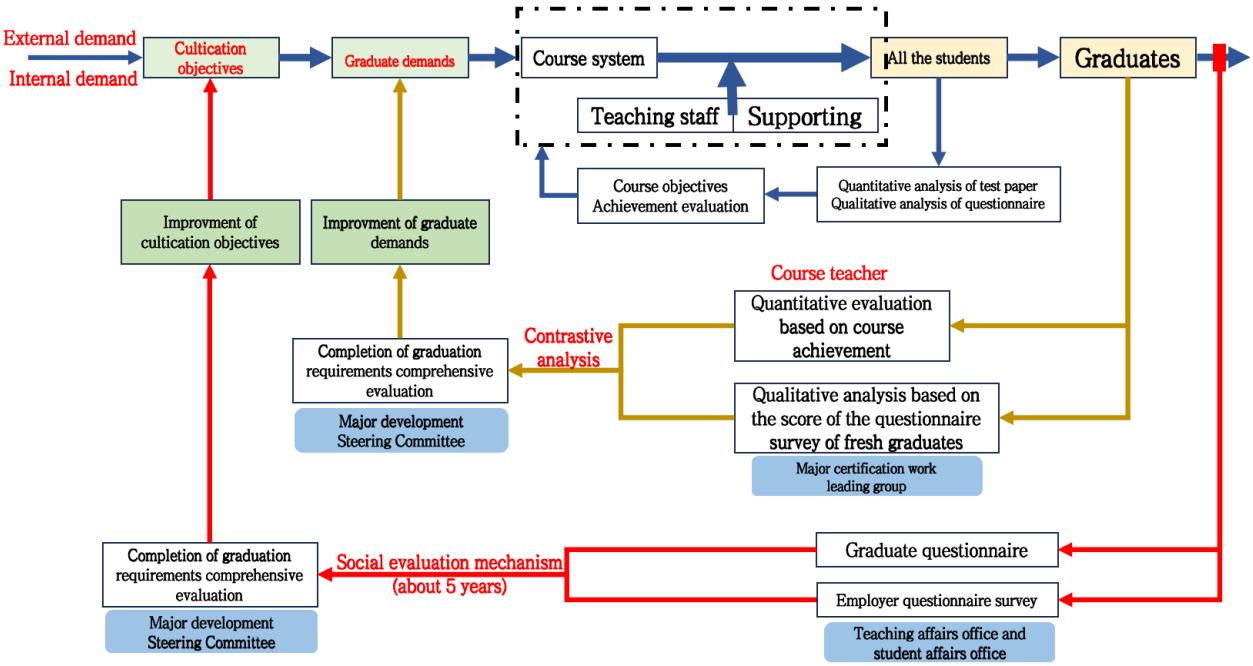

Figure 2-2 Flow chart of continuous improvement and revision of training plan

3 Degree program: Structures, methods and implementation

3.1 Structures and modules

The duration of civil engineering is 4 years. According to the talent training program, the curriculum system is divided into nine ability modules: mathematics and natural science, informatics, engineering foundation, engineering application, practice, foreign language, general studies, quality development, graduation design (thesis). The learning content of different ability modules is related to each other in chronological order.

Semester 1-3 courses in natural sciences such as mathematics, physics, chemistry and information technology are offered to equip students with the basic knowledge and skills needed for subsequent specialized courses.

Engineering foundation courses are offered in semesters 1-5 to lay a foundation for students to learn subsequent engineering application courses and specialized courses.

Engineering application courses are offered in semesters 2 and 4-7,including civil engineering-related professional courses, which occupy an important position in the curriculum system.

Elective courses are offered in semesters 4-7, aiming to further strengthen and expand students' engineering application ability. Students can choose these courses according to their interests.

Depending on credits and workload, language courses and general studies courses are offered during semesters 1 to 7 to familiarize students with English humanities and law, and to improve students' intercultural communication skills and humanistic literacy.

Practical teaching courses run through the whole course and are arranged in the 1st to 7th semester, so that students can timely connect the theoretical knowledge they have learned to the design practice.

The graduation design (thesis) is arranged in the 8th semester, most of its topics come from the practical engineering project, and a small part comes from the scientific research project of the instructor. Practical teaching courses and graduation project

(thesis) can help students accumulate a lot of practical engineering experience and improve their employment competitiveness. Depending on the curriculum, students will end up with 240 ECTS credits after eight semesters of study.

3.2 Workload and credit points

In China, 16 face-to-face credit hours is usually equivalent to 1 credit point in China. For practical training courses, 1 week (22 class hours) is equivalent to 1 Chinese credit point. Only contact hours are considered in the calculation of credit hours. However, when calculating credit hours for the European Credit Transfer and Accumulation System (ECTS), it is important to consider not only face-to-face teaching, but also self-study hours. From the point of view of ECTS credits, the student's workload is the sum of his/her face-to-face and self-study hours. In general, 30 credit hours (including associate and self-study) is equivalent to 1 ECTS credit, but the two credit systems differ in terms of self-study credit hours. Chinese credits convert to ECTS credits, and the average credit for an academic year is 60ECTS credits or 1800 credit hours (workload).

3.2.1 Study period (workload)/contact hours, credit points and self-study

The study hours and credits of each module of civil engineering are detailed in **Appendix** A. The syllabus for each course is in **Appendix C**. In order to show the workload structure and classification of different programs such as compulsory courses, specialized courses, elective courses, language courses, etc., Table 3-1 provides statistics of students' credit hours over four years.

Table 3-1 Study Hours in Four Years

Item, M=Module	Contact hours	Self-study hours	Total study hours
Science and Engineering Courses (M1, M2, M3, M4, M8)	1268	1402	2670
Language Courses (M6)	176	154	330

General Courses (M6)	596	844	1440
Practical and Practical Courses (Practical and Practical Courses) (M5)	726	1134	1860
Graduation Thesis (M9)	160	740	900
Total (Total)	2926	4274	7200
Required courses (Required Courses) (M1, M2, M3, M4, M5, M6, M7, M9)	2726	4099	6825
Electives Courses (M8)	200	175	375
Total	2926	4274	7200
Specialized courses (M3, M4, M5, M8, M9)	1466	2529	3995
Non-Specialized Courses (M1, M2, M6, M7)	1460	1475	2935
Total	2926	4274	7200

3.2.2 Credit point system

Students' learning results are mainly reflected in the form of credit points. Each undergraduate student must earn the equivalent of 240 ECTS credits after completing four years of study, or an average of 30 ECTS credits per semester. The deviation of credits from semester to semester should not exceed 3ECTS credits. The number of credit hours in each semester is relatively balanced, and there is no structural pressure on the learning effectiveness of students and the teaching quality of teachers. Test scores are analyzed by lecturers, and students' study time is investigated by counselors and academic tutors to obtain the actual study workload of students each semester and ensure that the actual study workload of students is in line with the planned workload.

Each student is required to complete approximately 900 credit hours (workload) per semester. 30 credit hours (workload) is equivalent to 1 ECTS credit.

3.3 Teaching methodology

Basic natural science courses and subject basic courses are mainly taught in large classes (about 80-120 students), while professional courses are usually taught in small classes (about 60-70 students). Some courses contain theoretical content as well as in-class experiments, which are usually conducted in batch groups. Electives may be chosen by students according to their interests and developmental needs.

In addition to classroom teaching, practice and training are also important ways of undergraduate education. The Civil Engineering major of the School of Civil Engineering is a first-class undergraduate construction major in Hunan Province, which has Hunan Key Laboratory of Civil Engineering Intelligent Disaster Prevention and Reduction and Ecological Restoration, Hunan Engineering Research Center of "Disaster and Reinforcement of Dangerous Engineering Structures", Hunan Engineering Research Center of "Green Low-carbon Building Energy Saving and Material Technology", The school has maintained long-term cooperative relations with more than 20 enterprises such as China Energy Construction Group Hunan Thermal Power Construction Co., LTD., Hunan Construction Engineering Group Co., LTD., Minmetals 23 MCC Construction Group Co., LTD. These companies provide practice opportunities for more than 300 students every year. In addition, students can choose professors' research projects for practical research. Every student must participate in comprehensive experiments, internships, innovation and entrepreneurship training, practice and graduation project (thesis). Online teaching is widely carried out in the major. The online teaching platform of Hunan Institute of Technology provides dedicated pages for most courses, providing rich resources for improving students' autonomous learning ability.

3.4 Support and counseling

3.4.1 Academic affairs

The Academic Affairs is mainly responsible for the daily management and training of undergraduate teaching. The Academic Affairs consists of General Section, Teaching Operation and Quality Management Section, Practice Teaching Management Section, Student status and Score Management section, Examination Center and New Engineering and New Arts Construction Section. Outside the school teachers and students need to log on to https://jwc.hnie.edu.cn/index.htm and click on the school educational administration system website: https://jwcmis.hnie.edu.cn/. No staff member is allowed to log on to this website without their account or password. Staff may log in to this website with their account and password.

Each school of the University has a dedicated teaching office, which is responsible for the teaching management of the school under the guidance of the Associate Dean of Teaching.

3.4.2 Student affairs office

The student affairs office is the functional department responsible for ideological and political education, daily management and service of students of the whole university. Centering on the fundamental task of promoting morality and cultivating people, the department adheres to talent training as the center and takes serving students as the purpose, and does a good job in ideological and political education, daily management and service, financial assistance, mental health education and dormitory management of students in an all-round way. It is responsible for the daily work of the university students' ideological and political education leading group, the student dormitory management and service leading group, the student financial assistance leading group and the college students' mental health education leading group.

3.4.3 Student counselor system

Each major has a full-time undergraduate counselor, who is responsible for providing life guidance and psychological guidance to college students. They are responsible for the communication between the school and students' families, organize students to hold various cultural and sports activities, and provide students with a healthy, safe and dynamic learning and living environment. Counselors and professional leaders introduce the current situation of professional development and future career direction to freshmen, and help them establish reasonable career goals and career planning as soon as possible.

Most freshmen make career plans under the guidance of counselors during their first year of college life. For sophomores and juniors, counselors will help them adjust their career plans and improve their employment goals to enhance their competitiveness and make them stand out in the job market. For fourth-year students, counselors keep in touch with enterprises and employers, provide students with the latest employment information, guide them to improve their interview skills, and guide students to establish the concept of lifelong learning and maintain the sustainability of career development.

For topics of concern to students, counselors regularly organize experience exchange meetings for students of different grades, so that lower grade students can receive guidance on study and life from upper grade students. In order to help undergraduates participating in the innovation and entrepreneurship training program improve their innovation ability, the counselor organizes special skill training seminars from time to time, such as inviting experienced professional teachers or enterprise technicians to teach the use and development techniques of various professional engineering software.

3.4.4 Academic tutors

Every new undergraduate student has a designated academic tutor who guides his/her academic, professional and professional development. Academic mentors guide students in learning knowledge and problem-solving methods, help them establish

personal academic and life goals, and stimulate students' learning and career motivation. Academic mentors and students of different grades can operate in a unified and harmonious manner, allowing students to make full use of the advantages of their learning inheritance. Academic mentors encourage students to actively participate in their mentors' scientific research projects or apply for university-level, provincial and national college students' innovation and entrepreneurship programs, and carry out competitions in related disciplines. All full-time civil engineering teachers can serve as academic mentors, identify students' learning needs and formulate effective learning strategies according to students' majors and interests, and make constructive suggestions for students in academic research and career planning.

3.4.5 Enterprise mentor

The major implements the enterprise mentor system, encouraging students to carry out industry practice in enterprises, communicate with engineers, and cultivate innovation and entrepreneurship. Enterprise tutors are managers or engineers of related enterprises certified by the Academic Committee of the School of Architecture Engineering, Hunan Institute of Technology. Students can choose their preferred corporate tutors based on their research interests, and corporate tutors can also choose students. During the student's internship in the enterprise, the enterprise tutor is responsible for guiding the student's internship practice, and maintains communication with the academic tutor of the college to cooperate in teaching.

3.4.6 Course website

Online teaching is widely used in the teaching activities of this major. Professional online courses in Hunan Institute of Engineering online teaching platform on the corresponding course website (https://hnie.fanya.chaoxing.com/portal). The website includes course introduction, course background, teaching content, syllabus and exercises, etc. Students can find information related to the course and communicate with the course teachers online. They can also send questions to the course teachers by

E-mail. At appointed times each week, teachers answer questions related to the course and can also communicate with students via email at any time.

3.4.7 Program transfer between different discipline categories and within the discipline category

In order to fully mobilize and give play to students' learning enthusiasm and effectiveness, and to give students greater autonomy and choice in learning, students in our school can change majors through two ways: transfer students on campus and transfer majors within the platform. According to the relevant regulations of Hunan Institute of Engineering Undergraduate Student Status Management (Amendment) (**Appendix E-2**) and Hunan Institute of Engineering General Full-time Undergraduate Student Transfer Management (Amendment) (**Appendix E-3**), first-year undergraduate students of our university can apply for transfer of major in the second semester, and second-year undergraduate students can apply for transfer of major in the fourth semester.

The College has set up a leading group and a working group for major transfer, which are responsible for leading the college's major transfer work, formulating and announcing relevant measures, organizing interviews and other work. The working process includes: 1) students apply; 2) transfer out of the college for review, after the review and approval, publicize the list of students to be transferred out, and report to the academic affairs Office; 3) the Academic Affairs Office for review; 4) Transfer to the college organization to transfer students assessment (examination); 5) Determine and publicize the list of transferred students, and report it to the Academic Affairs Office; 5) The Academic Affairs Office will summarize the list of transferred majors reported to the college and submit it to the president in charge for approval; 6) Report on the students' arrival at the transferred college; 7) Transfer of study files.

4 Assessment: System, concept and organization

4.1 Assessment system

Whether the student meets the conditions for awarding a bachelor's degree, that is, to be assessed or tested by various examinations (assessments) prescribed by the university. Specifically, students should complete theoretical courses, practical courses (including course design, experiments and practical practice) and graduation project (thesis) in accordance with the training plan and teaching outline of the major. All of these courses are subject to rigorous examinations or evaluations.

According to the Implementation Rules for the Granting of Bachelor's Degrees of Hunan Institute of Engineering (**Appendix E-8**), students of this major can be awarded a bachelor's degree if they meet the following conditions:

1) Within the specified study period, complete all the courses (including practice links) stipulated in the talent training plan, pass the scores, have a good grasp of the basic theory, specialized knowledge and basic skills of the major, meet the graduation requirements of the school, and have the initial ability to engage in scientific research work or undertake specialized technical work;

2) Grasp a high level of foreign language

Participated in the National College English Test Band 4 (CET-4), ranking within the top 98% (students majoring in science and technology in the university).

Minority language students who have not participated in the English Proficiency test or the English Proficiency Test may participate in the international level test of the language, the national unified test or the comprehensive assessment organized by the school.

To sum up, students must pass various tests before they are eligible for awarding a bachelor's degree. The whole examination system can be divided into course examination, foreign language examination and graduation project (thesis) examination.

(1) Course assessment

Course assessment is an important part of teaching, which not only tests the ability and degree of students to master and apply knowledge, but also tests the teaching effect of teachers. For the specific provisions on the course assessment, see the Regulations on the Management of the Course Assessment of Hunan Institute of Engineering (Revised) (**Appendix E-4**).

(2) Foreign language assessment

Participated in the National College English Test Band 4 (CET-4), and the test score ranked within the top 98% (students majoring in science and technology in the university). The foreign language examination requirements are detailed in the Implementation Rules for the Granting of Bachelor's Degrees of Hunan Institute of Engineering **(Appendix E-8)**

(3) Graduation project (thesis) assessment

Graduation project (thesis) is an important part of the school to achieve the goal of talent training, and is a key part of training college students' innovative ability, practical ability and entrepreneurial ability. In the evaluation of undergraduate graduation thesis, students are required to complete the task independently under the guidance of their tutors and write their undergraduate graduation thesis. For the specific provisions of undergraduate graduation thesis, please refer to the "Hunan Institute of Engineering Graduation Design (Thesis) Work Management Measures (Revision)" (**Appendix E-5**).

4.2 Assessment concept

4.2.1 Course assessment method

Course examination is an important link to check students' learning and measure the teaching effect. The course examination is carried out by the course assessment management regulations of Hunan Institute of Engineering **(HIE)**. According to the "Management of the Course Assessment of Hunan Institute of Engineering (Revised) **(Appendix E-4)**, students must participate in the curriculum assessment prescribed by the training plan, the course assessment is divided into two kinds of examination

and examination, the examination and examination course is determined by the personnel training plan. The examination content must cover the expected learning outcomes stipulated in the course outline (**Appendix C**).

To make it easier for students to prepare for the exam, a clear description of the exam format is included in the syllabus for each course. When selecting a course, students can know the relevant information such as the test format, content, scope and grading criteria of the course. The assessment of the course is carried out during the specific examination week. For some elective courses, the teacher can determine the time of the exam. However, the exam should be scheduled during the term.

The course assessment forms are written (open book, closed book), computer test, oral test and other forms. See **Appendix G** for a sample of course assessment.

Those who have failed the course assessment and the centralized assessment score is above 30 points (inclusive), and those who have not participated in the centralized assessment and have applied for the delayed examination can participate in the make-up examination at the beginning of the course.

If students are unable to participate in the course assessment for any reason, they must go through the procedures for postponing the examination in accordance with the regulations, otherwise they will be punished as being absent from the examination. Students who miss the examination will be given zero marks in the assessment of the course and will be disqualified from taking the make-up examination. They can only take the course again.

Students who have not participated in the assessment of practical teaching links such as experiment, practice, course design, graduation design, cannot apply for suspension of the exam, but can only participate in the retake. Students who fail the retaking assessment will not be arranged for retaking, and can apply for retaking with the lower grades.

4.2.2 Course assessment code

The results of the course assessment are recorded in the student file in the form of an overall score. Course assessment is divided into centralized assessment and process

assessment. Centralized assessment focuses on the assessment of students' learning effects. Centralized assessment mainly refers to the centralized examination at the end of the semester or after the end of the course; Process assessment focuses on the assessment of students' learning process, and the process assessment content includes the usual attendance, usual homework, classroom question and answer (discussion), reading report, investigation report, usual test, experiment report, case analysis, literature review, experiment operation, technical skills demonstration and other content.

Course assessment scores are composed of centralized assessment scores (generally referring to paper scores) and process assessment scores (generally referring to peacetime scores). The composition ratio of examination course assessment scores is: centralized assessment scores account for 60%, process assessment scores account for 40%; The proportion of examination course assessment scores is: centralized assessment scores account for 50%, process assessment scores account for 50%. Where the centralized assessment score of the course (including examination courses and examination courses) is less than 40 points, the assessment score of the course is failed, and only the centralized assessment score is registered.

The assessment results of examination courses are assessed according to the percentage system, the assessment results of examination courses are assessed according to the percentage system or the five-level system (excellent, good, medium, pass, fail), and the practical link assessment results are assessed according to the five-level system (excellent, good, medium, pass, fail). The conversion standard is: excellent >90 points, 80 points ≤ good <90 points, 70 points ≤ medium <80 points, 60 points ≤ pass <70 points, fail <60 points.

Appendix F provides the report of the course examination results, the Hunan Institute of Engineering Undergraduate Student Status Management (Amendment) (Appendix E-2) also provides the conversion method between the course results and GPA, and the calculation method of GPA, as shown in Table 4-1 below:

Table 4-1 Conversion method between course grades and GPA

<table>
<tr><td rowspan="2">Percentage grade point calculation method</td><td>Instructions for calculation</td><td colspan="4">Grades below 60 (excluding 60) in the course will not be awarded credit and will not be calculated for grade point.</td></tr>
<tr><td>Calculation formula</td><td colspan="4">When the total course score is between 60 and 100 points:
Grade point of all courses taken = (course final rating -50) ÷10</td></tr>
<tr><td rowspan="2">5 grades grade point calculation method</td><td>Merit</td><td>Good</td><td>Medium</td><td>Passing grade</td><td>Fail</td></tr>
<tr><td>4.5</td><td>3.5</td><td>2.5</td><td>1.5</td><td>0</td></tr>
</table>

At the end of each semester (or school year) and at the end of the course of study, the student's grade point average should be calculated as follows:

Grade point average at the end of the semester (or school year) and completion =∑ course credit points /∑ course credits.

Where: GPA of the course = GPA of the course x credit points of the course.

4.2.3 Graduation thesis

The graduation project (thesis) is scheduled in the 8th semester, students need to complete the task independently under the guidance of the supervisor, and prepare the graduation thesis. The duration of the graduation project (thesis) is generally 16 weeks. The graduation project (thesis) work includes the main links of topic selection, proposal, mid-term inspection, thesis writing, academic misconduct detection of graduation project (thesis), defense, excellent graduation thesis selection, random inspection and so on.

Undergraduate graduation project (thesis) is an important link to achieve the goal of talent training, and is a necessary condition for students to graduate and award bachelor's degree. The evaluation of graduation project (thesis) is based on the "Hunan

Institute of Engineering Graduation Project (Thesis) Work Management Measures (Revision)" (**Appendix E-5**).

For an off-campus bachelor's thesis, students are required to keep in touch with their on-campus supervisor and report the progress of the thesis in writing at least once a week to keep up with the progress of the on-campus bachelor's thesis.

The score of graduation project (thesis) is composed of three parts: the evaluation score of the instructor (40%), the evaluation score of the reviewing teacher (20%) and the defense score (40%). The score of the total evaluation adopts the five-level scoring system of excellent, good, medium, pass and fail. The proportion of grades rated as excellent (90 points and above) shall not exceed 20%.

The defense committee shall review and determine the score of the dissertation, submit it to the college for approval, and announce it to the students within 3 days after the defense of the dissertation.

4.2.4 Student academic dishonesty

Students are expected to complete homework and experiments as required by teachers and instructors. Examples of student dishonesty in assignments and experiments include:

Falsifying or fabricating assignment or experiment (report) data;

Forging or copying the homework or experiment reports of others;

Asking others to complete homework or experiments (reports) on behalf of others or to complete homework or experiments (reports) on behalf of others;

Obtaining records of extracurricular physical exercise by others or by other means;

And other acts of dishonesty in addition to those described above.

Students should use truthful data and information for academic research and essay writing. Students should write their papers independently and show respect for the academic work of others through annotations and citations. Examples of dishonesty by students in their essays include:

Fabricating the data or content of the essay;

Plagiarizing, plagiarizing, forging, tampering, buying and selling, or writing papers on behalf of others;

Directly quoting the achievements of others or the contents of a thesis without indicating the source;

Other dishonest acts other than those mentioned above.

4.3 Assessment organization

4.3.1 Course assessment organization

The organization and management of the course assessment shall be undertaken by the academic affairs and each teaching school (department and center), and the examination shall be organized in accordance with the relevant assessment management measures of Hunan Institute of Engineering. For details, see "Management of the Course Assessment of Hunan Institute of Engineering (Amendment)" **(Appendix E-4)**, "Hunan Institute of Engineering Graduation Design (Thesis) Work Management Measures (Amendment)" **(Appendix E-5)**, "Hunan Institute of Engineering Experimental Teaching Management Measures" (**Appendix E-6**), "Hunan Institute of Engineering Practice (Practical Training) Teaching Management Measures" (**Appendix E-7**).

At the end of the course, the assessment of the examination course shall be arranged and organized by the teaching Institute (Department and Center) which undertakes the teaching task. The teaching Institute (department, center) shall be responsible for the course assessment arrangement, and notify the class and invigilator one week in advance, and submit the summary of invigilator arrangement to the examination center of the Academic Affairs one week in advance, so that the Academic Affairs Office can arrange examination and spot check.

The course assessment proposition implements the course responsible person responsibility system and the director of the teaching and research office review system. The School of Teaching and Learning (Department and Center) is responsible for organizing and implementing all kinds of course proposition work. Each department organizes and discusses the scope and standard of proposition according to the

requirements of the course teaching outline and assessment outline, and determines the person in charge of proposition according to the major, course, assessment type and assessment form. In the past three years, the repetition rate of test questions for the same course does not exceed 30%.

The whole process from the preparation of the questions to the examination should be kept strictly confidential. After the test questions are setup, the first draft of the test papers, electronic documents and other materials related to the test questions must be destroyed to prevent information leakage.

After the examination, each teaching institute (department, center) should organize the marking work in time (including marking, grading, marking, etc.). In principle, the marking work of the final examination should be completed within five days after the end of the final examination.

The marking teacher should evaluate the examination paper according to the standard (reference) answers and marking standards, so as to be serious, rigorous, objective and fair, and shall not arbitrarily lower the marking standards and send points or deduct points too strictly. The deduction should be clearly marked, and each score section should be filled in correctly.

Teachers are not allowed to accept students' requests to check scores and papers without permission, and students can check their own assessment results online. If students have doubts about their course scores, they can apply to the unit responsible for the teaching task in the first week after the beginning of the next semester, and they can only check the test papers with the approval of the person in charge of teaching. The examination shall be organized by the unit undertaking the teaching task. The marking teacher or professional teacher, students and educational secretary shall review the examination together. After the examination, the examination conclusion shall be written in time and notified to the students and their colleges.

The result that has been entered and reported shall not be changed. If the result needs to be changed due to special reasons, it must be approved by the vice president in charge of teaching of the college. The procedures for correction of records shall be handled by the Academic Affairs Office. If the circumstances of the mistake are serious,

the responsible person shall be given sanctions according to the relevant regulations of the university.

Assessment after the completion of the grading work, the grading teacher should be timely assessment related materials (student grade book, process assessment score composition table, standard (reference) answers and scoring standards, paper analysis information table, paper, etc.) binding and archiving, to the unit's reference room unified storage until two years after graduation, in order to prepare for necessary inquiries.

4.3.2 Graduation thesis assessment organization

The graduation thesis work shall be managed at two levels: university and college. The Academic Affairs Office is generally responsible for the organization, coordination and overall management of the graduation project (thesis). The college is specifically responsible for the formulation and implementation of the implementation rules of graduation design (thesis) work, process monitoring, condition support, quality assurance and other work.

For details about the implementation of graduation project, see the "*Hunan Institute of Engineering Graduation Design (Thesis) Work Management Measures (Amendment)*" (**Appendix E-5**).

5. Resources

5.1 Faculty and staff

The School of Civil Engineering currently has 90 faculty and staff, including 9 professors, 20 associate professors and 45 lecturers. Among them, 52 are doctors, 21 are master supervisors; 1 national excellent teacher, 1 Hunan Province "lift talent", 1 Hunan Province Furong teaching famous teacher, Huxiang high-level talent gathering project - innovation talent 1; Hunan Province "121 talent Project" 4 people, Hunan Province, 8 young backbone teachers. The college has established a scientific research team with high academic qualifications and high-level teaching ability and a team of

experienced and stable double-qualified teachers with a scientific and reasonable structure in terms of titles, ages and academic qualifications. The faculty structure is shown in Figure 5-1.

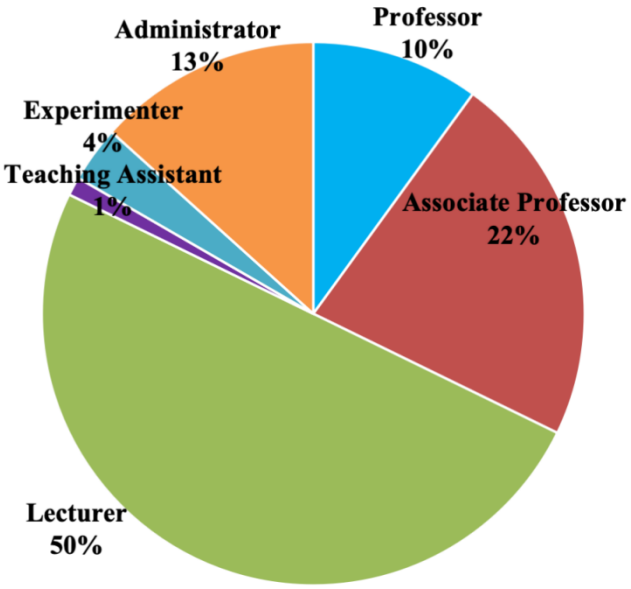

Figure 5-1 Composition of faculty

5.1.1 Composition of faculty

The Civil engineering major has established a team ofteachers with high academic level, diverse academic structure and reasonable age echelon structure. There are 38 full-time teachers in the team, including 7 professors, 11 associate professors, 16 lecturers, 1 assistant teacher and 2 full-time laboratory teachers. Among them, 30 have a doctor's degree, accounting for 78.9%, and 6 have overseas high-level university study and exchange experience, accounting for 15.8%. The academic structure of the faculty covers structural engineering, bridge and tunnel engineering, geotechnical engineering, geological engineering and other fields, which can meet the needs of basic engineering teaching, engineering application teaching and elective module teaching of civil engineering majors. In addition, schools and colleges have dozens ofteachers with related majors responsible for the teaching ofbasic courses and general courses such as mathematics, physics, chemistry, information technology and languages for civil engineering majors. As a professional leader, Professor Li Xiaohua has been teaching for 29 years, and has won many honors in his professional

field, and has won one third prize of Hunan Science and Technology Progress Award. Please refer to **Appendix H** for the curriculum vitae of the professional teachers.

5.1.2 Teaching and research development of faculty

The Civil engineering major has setup 73 professional courses, each of which has more than 3 main teachers to form a teaching team around the course; High-level teachers are the main lecturers of specialized courses and specialized basic courses. 100% of the lecturers have the title of lecturer or above, 97.2% have the master's degree or above, 77.7% have the doctor's degree, and 100% of the professors teach for undergraduates.

In the past 3 years, the major has undertaken 4 provincial teaching reform projects around civil engineering and other related subjects, including 1 provincial and ministerial teaching achievement award, 1 provincial teaching competition third prize, 4 provincial first-class undergraduate courses, 44 teaching papers published, 5 textbooks published. Table 5-1 and Table 5-2 show the provincial-level teaching reform projects, provincial-level first-class courses and published textbooks and monographs respectively. See **Appendices I-5** and **I-6** for details.

Table 5-1 Teaching Reform research projects and provincial first-class courses undertaken by professional teachers in Hunan Province

Serial Number	Item type	Project name
1	2022 Teaching Reform Research Project of ordinary colleges and Universities in Hunan Province	Teaching reform and practice of applied undergraduate Civil Engineering Structural Design course based on OBE concept
2	2023 Teaching Reform research project of ordinary colleges and universities in Hunan Province	Teaching and learning of Soil Mechanics and Foundation from the perspective of Generative Artificial Intelligence (AIGC)

3	Research Project of Teaching Reform in Colleges and Universities of Hunan Province in 2024 (Key points)	Exploration and practice of talent training model for intelligent construction major in application-oriented undergraduate colleges
4	2024 Research Project of Teaching Reform in Colleges and universities of Hunan Province	Exploration on the training mode of practical ability of civil engineering applied talents under the background of new engineering
5	Hunan Province online first-class courses	Steel Structure Design
6	First-class offline courses in Hunan Province	Soil mechanics and Foundation
7	Hunan Province offline first-class courses	Structural plane overall design method
8	Hunan Province offline first-class course	Principles of concrete structure design

Table 5-2 Textbooks and monographs

	Textbook (monograph) name	Author	Publishing House	ISBN number
1	Structural flat design and reinforcement calculation	Peng Liying	China Machine Press	978-7-111-68651-4
3	Civil engineering major main course essentials and exercises fine solution	Zeng Xiantao	Wuhan University of Technology Press	978-7-5629-6118-5
4	Underground Engineering Construction	Pendy	Chemical Industry Press	978-7-122-39703-4

5	Fundamentals of innovation and Entrepreneurship for college students	Girder Bridge	Higher Education Press	978-7-04-059223-8

In the past three years, professional teachers have completed 38 research projects, including 3 projects of the National Natural Science Foundation of China, as shown in Table 5-3, and 12 projects of the Natural Science Foundation of Hunan Province, as shown in Table 5-4, as detailed in **Appendix I-1**. The total research funding is more than 15 million yuan.

Table 5-3 National Research Projects

Serial number	Item number	Project name	Fund type
1	52478311	Research on prestress degradation mechanism and compressive and seismic performance of three-axis prestressed rapid reinforced circular section concrete columns	Project of National Natural Science Foundation
2	52404080	Study on rheological failure mechanism of frozen wall in weak bedrock section of offshore shaft under tidal dynamics	National Natural Science Foundation of China Youth Project
3	52108405	Research on mechanism of crack propagation and shallow instability of carbonaceous mudstone cutting slope under dry-wet cycle	National Natural Science Foundation of China Youth Project

Table 5-4 Hunan Province Research Project

Serial number	Item number	Project name	Fund type

1		International and regional Science and Technology Exchange Program of Hunan Province	Hunan Science and Technology Association Project - International exchange and cooperation
2	2022TJ-Q17	Hunan Young and middle-aged science and technology Lifting Talent project	Hunan Science and Technology Association Project - Provincial science and technology talent lifting project
3	2022RC4032	2022 Huxiang high-level Talent Gathering Project - Innovative talent	Innovation Platform and talent Plan-Huxiang High-level Talent Gathering Project
4	2022ZK4254	Disaster prevention and escape science education	Inclusive policy and Innovative Environment Construction plan - Science Popularization topic
5	2022JJ30193	Research on key technologies of low-carbon ecological concrete preparation based on artificial intelligence	Hunan Province Natural Science Foundation project-surface project

6	2022JJ40122	Study on damage evolution and stability of fractured soft rock cutting slope under the interaction of moisture and heat	Hunan Provincial Natural Science Foundation Project - Youth
7	2022JJ40123	Research on seismic performance of embedded H-type steel concrete-filled steel tube column under compressive bending and torsion coupling	Hunan Provincial Natural Science Foundation Project - Youth
8	2022JJ50117	Research on deformation and reinforcement control of tunnel	Hunan Province Natural Science
		construction with new Austrian Method in full section based on model test	Foundation Project - Regional joint
9	2023JJ30191	Mechanism of rock breaking by hob under laser attenuation-induction	Hunan Province Natural Science Foundation project - surface project
10	2023JJ40212	Creep damage and high strength control mechanism of deep pillar under the coupling action of fissure - humidity - stress	Hunan Province Natural Science Foundation Project - Youth
11	2024JJ7103	Research on data-driven digital twin modeling method and intelligent operation and maintenance technology of suspension bridge	Hunan Province Natural Science Foundation Project - Regional joint

12	2024JJ6182	Study on Fatigue performance and State evaluation of CRTSIII type plate-type ballastless track structure of high-speed railway under the action of train load and temperature	Hunan Province Natural Science Foundation Project - Youth

In the past 3 years, professional teachers have published 33 research papers (including 13 domestic EI and SCI Region II above articles) and obtained 21 patents (including 8 invention patents). Specific examples can be found in **Appendices I-2** and **I-3**. He won two third prize of Hunan Science and Technology Progress Award, two second prize of Chongqing Science and Technology Progress Award, one third prize of Jilin Province Science and Technology Progress Award, and one Gold prize of Geneva International Invention Award, as shown in Table 5-5. See **Appendix I-4** for details**.**

Table 5-5 Provincial and ministerial awards and above

Serial number	Result name	Name of award	Grade	Year
1	Key techniques and applications for emergency repair and rapid stability evaluation of disturbed rock and soil anchorage	Hunan Province Science and Technology Progress Award	The third Prize	2021
2	Key technology innovation and engineering application of green construction and rapid reinforcement of new structures and new materials for Bridges and tunnels on transportation lines	China Invention Association Invention Enterprise Award Achievement Award	First Prize	2022

3	Key technology and engineering application of integrated structure of urban integrated pipe corridor assembly	Chongqing Science and Technology Progress Award	Second Prize	2022
4	Research and development and application of key technologies for green treatment of special geotechnical foundation in cold area	Jilin Province Science and Technology Progress Award	The third Prize	2023
5	3D prestressed	Geneva International	Gold	2024
	reinforcement technology for engineering structures and its application	Invention Award	Award	
6	Key technologies for the preparation of green building materials from multi-source solid waste and its application	China Invention Association Invention Enterprise Award Achievement Award	First Prize	2024

5.1.3 Rated workload for faculty

The minimum undergraduate teaching workload of teachers is 240 hours per year. In addition to the necessary theoretical teaching, each teacher must also provide students with adequate guidance, homework correction, and guidance on innovation and entrepreneurship; Serve as an academic tutor and undertake students' scientific innovation guidance. The above work is an important way for teacher evaluation and promotion, and at the same time, it ensures that every student in the major can get adequate guidance on courses and extracurricular homework, helping students

complete the courses required by the training plan, acquire various abilities required by the major, and achieve the training goals specified in the training plan.

5.2 Faculty development

5.2.1 Relevant training

The University has setup a Teacher Teaching Development Center, which mainly carries out teaching research, teaching resource construction, teaching evaluation and teacher development, aiming to carry out teaching quality evaluation and diagnosis through teacher training, teaching exchange, teaching evaluation, teaching research and teaching consultation, so as to provide services for the improvement of teachers' teaching ability, promote teaching reform and innovation, and promote the continuous improvement of teaching quality. At present, a series of activities such as different forms of teaching training, teaching forums, teaching demonstration and observation have been organized and carried out. At the same time, a number of education and teaching experts and famous teaching teachers from famous universities have been invited to give lectures.

In order to strengthen the development of young teachers, Hunan Institute of Engineering arranges a one-month training for new teachers in the summer vacation every year. At the same time, each new teacher is equipped with a tutor to guide and help them get familiar with teaching and research work as soon as possible. At the same time, the Hunan Provincial Department of Education has arranged a three-month comprehensive training program for young teachers to improve their ideological and political quality as well as their professional ability in education and teaching.

In order to strengthen teachers' experience in business practice and international vision, lecturers must have at least one year of practical experience in business engineering before they can be promoted to associate professor, according to the relevant regulations of the university's professional title evaluation and recruitment. Associate professors are encouraged to have more than one year of overseas research or visiting experience before being promoted to full professor. Faculty members are

encouraged to participate in academic exchanges at home and abroad, and more than 20 people have participated in various international academic conferences in the past three years.

5.2.2 Relevant funding

Every year, 2-3 faculty members of the school can receive funding from Hunan Provincial Education Commission for 6-12 months of overseas training and study. Hunan Institute of Engineering encourages all faculty and staff, especially young ones, to go abroad for training and study. These teachers can receive at least 80,000 to 150,000 yuan of funding each year. Hunan Institute of Technology provides research start-up funds for newly hired teachers, and grants 100,000 yuan to young teachers with doctoral degrees.

5.3 Institute/School profile, financial resources and facilities

5.3.1 HIE Profile

The university is one of the first universities to implement the "Excellent Engineer Education and Training Plan" of the Ministry of Education, the first batch of national master's degree pilot universities to "Serve the National Special Needs Talents Training Project", the chairman unit of the national Universities and Enterprises Alliance for Excellent Engineering Education, the first batch of universities to be selected in the "2011 Plan" of Hunan Province, and the "double first-class" construction of high-level applied characteristic colleges in Hunan Province. Since 2020, it has been listed as one of the first batch of universities admitted to undergraduate programs in Hunan Province.

Hunan Institute of Engineering was established by the merger of the former Xiangtan Mechanical and Electrical College and Hunan Textile College in June 2000. Xiangtan College of Mechanical and Electrical Engineering, founded in 1951, belongs to the former Ministry of Machinery Industry. It is a national demonstration key construction school for higher engineering colleges. Hunan Textile College was

founded in 1978, under the former Hunan Textile Industry Department. From 1958 to 1963, Xiangtan Electrical Engineering College, the predecessor of Xiangtan Mechanical and Electrical College, offered undergraduate education for 5 years.

The school now has two campuses, the main campus and the Shuyuan Road campus, along the river and the lake, the environment is quiet and elegant, the ink and the book. The campus covers an area of 1,830.6 mu, with a construction area of 576,000 square meters. It is "garden-style unit" and "civilization model campus" in Hunan Province. The school has adhered to engineering education for 73 years, with a profound accumulation, and has always been based in Hunan, facing the whole country and serving the grassroots. It has transported more than 200,000 high-quality applied talents for the mechanical and electrical industry, textile industry and social and economic construction.

In 2000, the University took the lead in establishing the educational orientation of application-oriented talents training among local universities in China, and is one of the provincial universities with the most engineering application characteristics in China. The University is the deputy leader unit of the "National Engineering Applied Undergraduate Education Cooperation Group", the deputy chairman unit of the "Special Committee for Applied Undergraduate Colleges and Universities Teaching Research Association", and the chairman unit of the "General Higher Education Applied Talents Training Planning Textbook Compilation Committee" The University is the director unit of "Application-Oriented Colleges and Universities International Exchange Branch of China Education Association for International Exchange" and the deputy director unit of "Hunan University New Engineering Construction Cooperation Group". In 2007, he passed the undergraduate teaching level evaluation of the Ministry of Education with excellent results; In 2018, it passed the teaching work evaluation of the Ministry of Education.

The university focuses on engineering with coordinated development of multiple disciplines, covering 6 disciplines including engineering, management, arts, science, economics and arts, and has formed competitive professional groups such as electrical, mechanical, textile, chemical, management and information. At present, the university

has 18 teaching and research units, 54 undergraduate programs and 2 professional master programs. The engineering discipline has entered the top 1% of ESI worldwide, and the engineering education reform achievements have won the second prize of national teaching achievements. Now there are 8 “double first-class” construction and application characteristic disciplines in Hunan Province; The Ministry of Education “Excellence Plan” implementation of 8 majors, 6 national first-class undergraduate major construction points, provincial first-class undergraduate major construction points 24; 4 majors have passed the engineering education professional certification, and 5 majors have been accepted. Currently, there are 2 national first-class undergraduate courses, 77 provincial quality courses, first-class undergraduate courses/quality online courses, and curriculum ideological and political demonstration courses. It has 4 modern industry colleges, of which 2 industrial colleges of artificial intelligence and smart energy have been approved as provincial modern industry colleges; One provincial excellent engineer training (practice) base. It has 4 national-level practical education platforms, 1 national-level university student science and technology innovation team, 52 provincial-level innovation and entrepreneurship platforms, 25 provincial-level school-enterprise cooperation talent training demonstration bases and excellent practice bases, and 9 provincial-level virtual simulation experiment centers and demonstration laboratories (centers). The metalworking practice base is a training and examination center for national college metalworking practice teaching guidance personnel determined by the Ministry of Education.

The school adheres to the strategy of strengthening the school with talents, and the teaching staff has a reasonable structure and outstanding strength. The university has 1,478 faculty members, including 442 teachers with senior titles, 178 doctoral and master’s supervisors, and 266 master’s supervisors from enterprises. There are 9 national-level high-level talents such as academicians and Jieqing. There are 11 special experts of The State Council, national excellent teachers, and members of the Education Advisory Committee of the Ministry of Education. China Association for Science and Technology sponsored talents, Ministry of Education New century outstanding talents and other 4 people; There are nearly 100 provincial government special stickers experts,

provincial famous teachers and provincial Jieqing, and 14 provincial teaching and scientific research teams. The university has actively promoted scientific research, and its scientific and technological innovation and social service capabilities have been significantly improved. The university has 39 provincial-level platforms such as the first batch of 2011 Collaborative Innovation Center of Hunan University "Wind Power Equipment and Electric Energy Conversion", Hunan Provincial Key Laboratory "Automotive Power and Transmission System" and "Intelligent Logistics Unmanned Driving Technology", and Hunan Engineering Research Center. It is the cooperation unit of national key Laboratory of "Offshore Wind Power Equipment and Efficient Utilization of Wind Energy". In the past five years, it has undertaken more than 50 research projects such as the national key research and development plan and the national self-science (Social science) fund key (general) research projects, more than 700 provincial and ministerial research projects, undertaken more than 1,400 projects entrusted by enterprises, authorized more than 300 invention patents, and won 33 provincial and ministerial research achievements awards. The university has vigorously strengthened industry-university-research cooperation and the transformation of scientific and technological achievements, established six innovation research institutes, and has established industry-university-research cooperation relations with nearly 1,000 enterprises; More than 150 scientific research results have been applied or transformed, generating a cumulative economic benefit of more than 20 billion yuan. In 2019, the amount of scientific and technological achievements transformation ranked among the top 100 universities in China. In 2022, it was selected as the first batch of scientific and technological achievements transformation and technology transfer bases of colleges and universities in Hunan Province, and in 2023, it was selected as the first batch of technology transfer demonstration institutions and pilot bases of scientific and technological achievements transformation in Hunan Province.

The University has always adhered to the strategy of opening up, carried out in-depth exchanges and cooperation with other countries, and is one of the first universities in Hunan Province to carryout Sino-foreign cooperation programs. The University has established friendly cooperative relations with more than 50 universities and institutions from more than 20 countries and regions. It has set up 3 Chinese-foreign

cooperative undergraduate programs run by the Ministry of Education, and has enrolled students from more than 10 countries to study at the university.

5.3.2 Overview of the School of Architecture Engineering

The School of Architecture Engineering was founded in 1994. The school has four undergraduate programs: Civil Engineering (construction engineering, Road and Bridge Engineering, Tunnel and Urban Underground Engineering), Built Environment and Energy Application Engineering, Engineering Management and Architecture (five-year program). In 2015, the Building Environment and Energy Application Engineering started to recruit professional degree and master degree candidates in the field of new energy technology and application in the field of power engineering, and in 2018, the Civil Engineering major recruited professional degree and master degree candidates in the direction of materials and chemical engineering. At present, the college has more than 2,400 school-based and master's students (including students from secondary colleges), and the employment rate of graduates has been stable at more than 90%.

The college closely connects with the development needs of regional economy and civil construction industry to improve the level of teaching and education. The discipline of civil engineering is the provincial applied characteristic discipline, and the discipline of architecture is the university-level applied characteristic discipline. The major of civil engineering, building environment and energy application engineering is the provincial first-class undergraduate construction major; Won the first prize of the third Hunan Provincial College Teachers' Teaching Innovation Competition; The college has a provincial-level outstanding graduate tutor team and a graduate teaching team; There is 1 provincial innovation and entrepreneurship center for college students, 1 provincial innovation education base and 1 provincial graduate joint training base. 6 provincial-level first-class courses, 1 provincial-level excellent courses, 2 provincial-level famous teacher space courses, 4 university-level excellent courses and 5 university-level excellent courses; In the past five years, it has obtained more than 20 provincial teaching research and reform projects, and edited 9 teaching materials.

Adhering to the principle of strengthening talents, the school has greatly improved its teaching staff. There are 90 faculty members, including 9 professors, 20 associate

professors, 52 PHDS and 21 master supervisors. There is 1 national excellent teacher, 1 Hunan Province “Lift talent”, 1 Hunan Province Furong teaching famous teacher, 1 Hunan high-level talent Gathering Project - Innovation talent; Hunan Province “121 talent Project” 4 people, Hunan Province, 8 young backbone teachers.

The college actively promotes scientific research, and vigorously enhances scientific and technological innovation and social service capabilities. It has three provincial-level platforms, including “Civil Engineering Intelligent Disaster Prevention and Mitigation and Ecological Restoration Laboratory”, Hunan Provincial Key Laboratory, “Green Low-carbon Building Energy Conservation and Materials Research Center”, Hunan Engineering Center, “Structural Disaster and Reinforcement Research Center of Dangerous Engineering Structures”, and Xiangtan City “Engineering Technology Research Center for Stepwise Recycling Development and Utilization of Steel Slag”. In recent years, it has presided over 3 national research projects, 1 provincial key research and development project, 48 provincial and ministerial projects, participated in 5 national key research and development program projects, and received more than 50 million yuan of scientific research funds. 96 social service projects have been completed. He has won 2 first prizes, 7 second prizes and 3 third prizes of provincial science and technology awards. He has published 6 works and obtained 40 invention patents.

Centering on the orientation of applied talents and adhering to the goal of cultivating talents by virtue, the School strives to build itself into a training base of high-quality applied talents in the field of civil engineering and architecture with excellent teaching quality, good academic influence and strong service to the local economy.

5.3.3 Laboratories

The School has built a basic experimental center for Civil Engineering, an experimental center for Building Environment and Energy Application Engineering, an engineering design training room, and an architectural Virtual Reality technology laboratory, with a total of 32 experimental sub-rooms (see **Appendix J** for the list of

laboratories). The total area of each laboratory is 6000m^2, 1630 sets of experimental equipment, and the total value of experimental equipment is more than 20 million yuan. The necessary infrastructure for students to achieve graduation requirements is fully guaranteed, and there are special experimental managers to manage and maintain experimental facilities to ensure that experimental teaching meets the teaching requirements.

The university has formulated the "Hunan Institute of Engineering Laboratory Management Regulations" (**Appendix E-9**) to strengthen the construction and management of the laboratory and ensure the needs of teaching and scientific research.

Management Organization: The laboratory of the School of Civil Engineering is jointly managed by the University and the School. The Deputy Dean of the School is in charge of the laboratory work of the school. Under the Office of Academic Affairs, the Practical Teaching Management Section is set up, which is responsible for the planning management of laboratory construction and the inspection, assessment and management of experimental teaching. The Director of the laboratory is responsible for the overall work of the laboratory.

Management duties: The director of the laboratory is responsible for the preparation of laboratory construction plans and plans, scientific management of the laboratory, the implementation of relevant rules and regulations, in charge of the continuing training plan for experimental personnel and the assessment of business technology.

Safety management: In order to ensure the safety of the campus and teachers and students, and ensure the normal conduct of teaching and scientific research, the school has formulated the "Hunan Institute of Engineering Laboratory Safety Management Measures" (**Appendix E-10**). The laboratory safety management adheres to the policy of "people-oriented, safety first, prevention first, comprehensive management", and implements the principle of "who is in charge, who is responsible, who is used, who is responsible". Implement safety responsibilities step by step and at different levels.

Equipment management and maintenance: the laboratory attaches importance to the management of instruments and equipment, in order to improve the efficiency of

the use of instruments and equipment, experimental personnel are responsible for the daily maintenance of experimental equipment, regularly carry out the measurement, identification and maintenance of instruments and equipment, and strive to improve the integrity rate and utilization of instruments and equipment, reduce the damage, loss and waste of instruments and equipment, to ensure the orderly conduct of experimental teaching and scientific research.

5.3.4 Disciplinary research platform

The College has 1 provincial key laboratory and 2 provincial scientific research centers, namely: Hunan Provincial Key Laboratory of Civil Engineering Intelligent Disaster Prevention and Reduction and Ecological Restoration, Hunan Provincial Engineering Research Center of "Disaster and Reinforcement of Dangerous Engineering Structures", Hunan Provincial Engineering Research Center of "Green low-carbon Building Energy Saving and Material Technology".

5.3.5 International exchange and collaboration platform

Adhering to the strategy of opening up, the University has carried out in-depth exchanges and cooperation with other countries, and has established friendly cooperative relations with more than 50 universities in more than 20 countries, including the United Kingdom, the United States, Australia, New Zealand and Germany.

In 1998, the university began to cooperate with TAFE College of Australia to enroll students majoring in "International Business Management". It is one of the earliest institutions of higher learning in Hunan Province to carry out Sino-foreign cooperation in running schools. In 2000, the school cooperated with the University of Canberra to organize the program of "Business Administration". In 2003, it cooperated with the University of Southern Queensland to organize the "Business Administration" program.

Approved by the Ministry of Education, the school cooperated with the University of the British Highlands and Islands in 2011. In 2012, the school cooperated with the University of the Highlands and Islands. At present, the University has 1,165

undergraduate students in cooperation with foreign countries. The university actively carries out the education of international students in China. Currently, students from many countries along the Belt and Road are studying Chinese language and undergraduate courses in the university.

In 2023 and 2024, one graduate from the School of Architecture Engineering will go to the University of Liverpool in the UK and Kitakyushu City University in Japan for further study.

In order to help students who are not proficient in Chinese to study in our Civil engineering major, we will further improve the oral English level of teachers in this major and offer more bilingual courses. We will strengthen Chinese language training for students who apply to study in China, and help them adapt to the campus life and learning environment of Hunan Institute of Engineering as soon as possible.

5.3.6 Enterprise practice platform

There are 29 off-campus practice and practice teaching bases for this major. The main practice and practice teaching bases are listed in **Appendix K**, which can provide students with better practice opportunities. According to the talent training objectives and training program requirements, both the university and the enterprise shall jointly formulate the internship teaching syllabus, compile the internship guide, and formulate the corresponding safeguard measures. Each base is equipped with stable enterprise practice instructors, who guide and manage students' practice work together with teachers in the school. The school instructor is responsible for clarifying the internship content, tasks, plan progress, schedule and internship management regulations to the students. The enterprise instructor shall, according to the requirements of the school and the actual production of the enterprise, do a good job in the education of production safety, rules and regulations and confidentiality system of the enterprise. These off-campus practice bases can meet the practical teaching tasks of civil engineering students' professional practice and graduation practice, and the number of students admitted to this major is about 300 people every year, so that students can fully accept

good engineering practice and training, improve the ability to deal with practical problems, so as to achieve the teaching goal of improving comprehensive ability.

5.3.7 Library and information resources platform

The library has abundant reference materials such as paper and electronic books and periodicals, standardized management and high resource sharing, which can fully meet the needs of students' learning and teachers' daily teaching and scientific research. There are sufficient computer facilities and various information resource platforms. Students can access the Internet through computer rooms, classrooms and campus wireless networks, and easily use various network resources. Students can obtain the necessary teaching resources through a variety of channels. Through the main course research topics, experimental teaching, course design, graduation design and other links, students are clearly required to carry out literature search, problem analysis, and analysis of domestic and foreign research status, which effectively supports the realization of their graduation requirements.

1) Library, reference materials and digital media information

The library of Hunan Institute of Technology is the literature and information center of the university, with a total construction area of 35,000 square meters. It consists of the main library of the main campus and the branch library of the south campus, with 31 libraries and reading rooms of various kinds, and 2,600 reading seats.

The library has offices, information consulting and technology Department, collection and editing department, circulation department, reading department and other business departments. At present, the library has 31 regular staff members with rich professional knowledge and practical experience. They can skillfully carry out library and information services and scientific research work, and provide readers with various forms of services such as document borrowing, document retrieval, information reference consultation, information development and utilization.

The library has rich collection resources of more than 2.57 million volumes, including more than 1.73 million paper documents, more than 840,000 electronic books (kinds), 47 Chinese and foreign electronic literature databases, including academic

journals, master's degree papers, scientific and technological information, business information, national patents, Chinese and foreign standards, copies of Renmin University newspapers and periodicals, foreign periodicals, multimedia courseware, etc. You can log on to the library's website http://tsg.hnie.edu.cn/ for one-stop query directly. The multi-carrier collection resource structure broadens the service channels and provides effective document resources guarantee for teachers and students in teaching, scientific research, discipline construction and management. In order to ensure the full utilization of library resources, the library provides the following services: document lending, document copying, printing, binding, interlibrary loan, document delivery, electronic reading, audio-visual materials, subject navigation, scientific and technological achievements retrieval, fixed title retrieval, document retrieval, document collection query, information retrieval teaching and training, etc.

The library adopts the layout of collection, borrowing and reading and the service mode of full open shelf. The weekly opening hours reach more than 100 hours, and the electronic document resources are open 24 hours. For the convenience of readers, there area general return desk and a public computer retrieval stand in the lobby of the library, and bag storage cabinets inside and outside of each reading room and study room.

This major clearly requires teachers to make full use of computer, network and book resources in course teaching, experiment courses, course design, professional practice, graduation design and other links, as well as most of the professional courses in the third and fourth grade, teachers require students to use reference books and network resources for learning. It mainly includes the collection and screening of relevant literature, reference books, translation of foreign literature, preliminary formulation of experimental plans, and the teacher checks the learning effect of students by submitting large assignments, course reports and other forms.

2) Teaching Management Information Resource Platform

The university has sufficient computer resources, among which the computer resources closely related to the major are mainly distributed in the library, the computing center, and the computer room of the college.

The school has two multimedia computer rooms, 314 computers open to students free of charge all day, mainly used for daily classes, graduation design (thesis) and other professional teaching links, the school and the school of computer resources can meet the needs of students, teachers teaching and research work.

(3) Information resource platform

1) Campus network foundation platform

The campus network has an outlet bandwidth of 2.3G, the core backbone reaches ten gigabits, the desktop access reaches one gigabit, the wired network covers all the campus websites in the teaching, scientific research and office environment, and the full implementation of campus identity authentication online. The university has carried out the first phase of wireless network construction, and the wireless broadband network (WIFI) is fully covered. The advanced campus network basic platform provides important support for the improvement of undergraduate teaching quality and management level.

2) Campus information base platform

The university has established three basic platforms, including a shared database platform, a comprehensive service portal for teachers and students, and a unified identity authentication platform. The shared database platform is a unified data resource sharing and exchange application service platform, which realizes public data sharing for five departments, including personnel, scientific research, educational affairs, student and engineering, and graduate students. The comprehensive service portal provides students and teachers with comprehensive information services including student, educational affairs, finance, books, campus card and life. The unified identity authentication platform is one of the basic platforms for the construction of smart campus. It provides a unified user management platform and identity authentication services for various network services and application systems of smart campus.

3) Campus ID card

Schoolteachers and students use the campus card, which is mainly used for dining in the cafeteria, on-campus borrowing, attendance, meeting sign-in, access control, on-campus medical treatment and many other aspects. It has the function of replacing the

work card, student card and library card, and has become an indispensable tool for students and teachers to study and work in school.

4) Network Teaching Center, Hunan Institute of Engineering

Up to now, the number of courses in the Network teaching Center of Hunan Institute of Engineering has reached more than 1,200, which has become a high-quality teaching resource sharing platform for teachers and students. The platform can facilitate teachers to change their teaching and educational concepts, promote teachers to update teaching content in time, constantly improve teaching methods, and promote the mutual communication between teachers and students, teachers and students. For students, it can improve their ability and interest in independent and research-based learning, and create conditions for cultivating more and better innovative talents. The core course of this major has been set up in the school curriculum center teaching website, all the electronic teaching materials of the course have been online, with the help of the network can break the restrictions of time and place, increase the communication opportunities between teachers and students

5) Teaching management information system

The school has established a teaching management information system, which is the main platform for implementing teaching management and ensuring teaching operation. It is responsible for the allocation of resources for various teaching services, the arrangement of teachers, and the recording of the whole process of students' study.

The system is equipped with many personalized function points, covering all aspects of teaching management, to meet the requirements of school teaching management and daily teaching operation management needs, the platform is powerful, easy to use, is the main platform for teaching management. Students can choose courses, evaluate teaching quality and inquire course evaluation results through this platform. Through the platform, teachers can publish teaching calendars, obtain student information and conduct test score management.

6) Graduation project management platform

In cooperation with Chongqing Vipu Information Co., LTD., the University has established the Vipu Graduation Project (thesis) management system. The website is

https://vgms.fanyu.com/. Teachers can publish bachelor's degree thesis topics through this platform, and students are free to choose the topics they are interested in. The system can monitor the quality of graduation theses, and realize the whole process management from the topic selection, mid-term examination and defense of graduation theses.

7) Barrier-free facilities

The campus offices, laboratories, lecture halls, libraries to achieve full wireless network coverage; The computer in the computing center is updated every year according to the actual needs to meet the needs of development. The network and virtual reality technology can easily realize the remote operation of high-end computer-aided equipment; All newly built laboratories, classrooms, office buildings, etc., are equipped with barrier-free facilities, so that students with disabilities can enter the teaching place smoothly.

In short, in order to meet the needs of educational informatization, the school has built a safe, efficient, scalable and open informatization campus infrastructure, realized full coverage of wireless network in public areas, realized networked administrative office, teaching information management, resource sharing and other functions, and met the needs of students' learning, teachers' teaching and scientific research.

5.3.8 Teaching and office facilities

The main teaching facilities of the program include the school buildings, the engineering training center and the college experimental center.

The university has a total building area of 576,000 square meters and 312 classrooms, all of which are equipped with multimedia facilities. The facilities and lighting in the classrooms meet the national standards and meet the requirements of various classroom teaching and students' self-study. The Asset and Laboratory Management Office has set up a number of management duty rooms in the teaching building to be responsible for the management, maintenance and repair of the building to ensure the normal use of teaching facilities. In order to improve the management and resource utilization of teaching facilities, the use of all multimedia classrooms in the

school can be queried through the teaching management information system. Faculty and staff can apply through the system to meet the needs of undergraduate teaching.

The construction building of the School of Civil Engineering has a construction area of 13,524 square meters, and the total area of professional laboratories is more than 6,000 square meters, which can meet the requirements of teachers' office and students' professional courses teaching and experiments. At the same time, there are 3 lecture halls and 7 small conference rooms, which are used to hold seminars and academic reports of visiting scholars.

5.3.9 Teaching investment in the past five years

The teaching funds of civil engineering major are sufficient and guaranteed, which are used for the basic operating expenses of undergraduate teaching, laboratory construction, etc., and there are enough teaching funds to ensure normal teaching activities. In the past five years, the investment of professional teaching funds has reached 3.176 million yuan, special funds for professional construction 1.622 million yuan, and teaching funds 1.554 million yuan. The input of professional teaching funds in the past five years is shown in Table 5-6.

Table 5-6 Teaching Investment in the Past 5 Years

Project name	Fund (Unit: ten thousand yuan)				
	2020	2021	2022	2023	2024
Internship and practice expenditures	11.2	15.4	15.4	16.8	16.8
Graduation project expenses	2.8	2.8	4.2	4.2	4.2
Teaching expenses	9.6	11.2	12.8	13.6	14.4
Laboratory maintenance fee	12.5	13.5	14.6	42.5	20.3

Expenditures on education and employment of industry-university cooperation Expenditures on education and Employment of industry-University cooperation	1.1	1.3	1.4	1.5	1.5
(2) Internal development expenses	5	5	6	10	8
(Others)	2	3	3	5	5
Total (Total)	44.2	52.2	57.4	93.6	70.2

6. Quality assurance measures

6.1 Quality assurance and further development

6.1.1 Internal teaching quality evaluation

Every semester, under the unified arrangement ofthe school, each college and each major will carry out routine teaching inspection to evaluate the teaching quality of teachers' classroom teaching, practice links, graduation design process, teaching order, teaching plans, test papers and other basic teaching materials, and find and solve possible problems in the teaching management process. Taking examination papers as an example, at the beginning of each semester, the Academic Affairs Office of Hunan Institute of Engineering will carry out spot checks on the examination papers of the previous semester, and evaluate the examination papers from three aspects: test paper score, test paper analysis and improvement measures, so as to promote the standardization of the examination papers. Every semester, the college will analyze the distribution of teachers' test scores and students' scores, and put forward suggestions and requirements for teachers to improve teaching quality certification.

6.1.2 External teaching quality evaluation

The university will listen to the opinions and feedbacks of graduate employers through visits and questionnaires. In addition, the university has introduced external supervision, participated in the undergraduate teaching evaluation and audit evaluation by higher education institutions of the Ministry of Education, and the first-class undergraduate course evaluation organized by the Hunan Provincial Department of Education, forming a teaching evaluation mechanism with the participation of higher departments, employers, teachers and students, and the combination of internal and external evaluation.

The role of the Ministry of Education, employers and external experts is defined as external evaluation; The evaluation of teachers, students and the school itself is defined as internal evaluation. Internal and external evaluation of teaching quality feedback and continuous improvement of professional teaching quality.

6.2 Methodology and data

6.2.1 Number of students and graduation rate

According to the regulations of Hunan Institute of Engineering, the normal study period of students is 4 years, the longest is 6 years, and those who do not graduate within 6 years will receive an associate degree or drop out. Table 6-1 lists the number of students and graduates of the program in 2020-2024. In the past five years, the average graduation rate of major students is 97.3%, the non-graduation rate is 2.7%, and the average employment rate is 94.2%.

Table 6-1 Choices of Graduates of the Program

The past 5 years	2020	2021	2022	2023	2024
Number of students	168	171	189	209	254
The number of students who graduate	163	166	183	201	251
Percentage of graduates	97%	97.1%	96.8%	96.2%	98.8%
Graduate employment rate	90.05%	90.63%	95.24%	96.2%	98.81%

Proportion of graduates who continue their studies in China	8.33%	16.67%	10.44%	10.0%	20.1%
Proportion of graduates going abroad for further study	0	0	0	0	0

The annual employment information and quality analysis of graduates are in Appendix P

6.2.2 Student assessment

Each student must obtain 240 ECTS credits in order to graduate. Courses in which the student fails will be recorded. For students who fail the exam, the school will offer the opportunity to retake the exam or retake the course. Students who fail to complete 240 ECTS credits will not receive a degree. See **Appendix L** for a sample of student transcripts.

6.2.3 Examination score evaluation and continuous statistics

Teachers submit students' test scores and teaching analysis at the end of the course, and make feasible suggestions for continuous improvement based on the analysis results to improve teaching quality and student learning outcomes. For students who do not pass the course exam, the school will arrange for an academic tutor to supervise and guide their course learning. The 2023 core course pass rate for Civil engineering majors is shown in Table 6-2.

Table 6-2 Passing Rate of 5 Core Modules of Civil Engineering in 2024

Serial number	Competence field	Module name	Credit point (CP)	Credit hours (Study hours)	Type	Passing rate
1	Engineering application	Housing architecture	3	90	Examination	100%

2	Engineering application	Steel structure design	2.5	75	Examination	93.4%
3	Engineering application	Design of concrete and masonry structures	3.5	105	Examination	92.3%
4	Engineering application	Earthquake resistance of buildings	1.5	45	Examination	81.8%
5	Engineering application	High-rise building	2	60	Examination	81.8%
6	Engineering application	Construction engineering budget estimate	2	60	Examination	93.2%
7	Engineering application	Road Survey and Design	3	90	Examination	100%
8	Engineering application	Roadbed and pavement engineering	3	90	Examination	100%
9	Engineering application	Bridge and culvert hydrology	1.5	45	Examination	94.5%

10	Engineering application	Bridge Engineering (1)	2.5	75	Examination	78.8%
11	Engineering application	Bridge Engineering (2)	2.5	75	Examination	94.3%
12	Engineering application	Highway engineering budget Estimate	2	60	Examination	84.4%
13	Engineering application	Rock Mechanics	2	60	Examination	98.6%
14	Engineering application	Geotechnical investigation and testing	2	60	Examination	100%
15	Engineering application	Underground building structure	3	90	Examination	100%
16	Engineering application	Slope Engineering And foundation treatment	2.5	75	Examination	100%
17	Engineering application	Subway and tunnel engineering	3	90	(Examination)	95.40%

18	Engineering application	Budget estimate for underground engineering	2	60	(Examination)	97.2%

6.2.4 Students evaluation of teaching quality

Students' evaluation of teaching quality is an important part of the teaching evaluation system. The evaluation methods include: online evaluation of teaching, questionnaire evaluation of teaching and student forum; The evaluation contents include: teaching attitude, content, method and course guidance and assessment, the evaluation results should be applied to the continuous improvement of teachers' teaching and feedback to students, as shown in Figure 6-1. Each student submits the teacher's teaching quality evaluation form at the end of each semester. The teaching suggestions listed in the evaluation form will be analyzed and used to improve the teaching methods. The student evaluation will also be used to evaluate the teacher's teaching effectiveness and be linked to the teacher's work performance. Students online appraisal website is: https://jwmis.hnie.edu.cn/jwweb/home.aspx, to the teachers' classroom teaching quality evaluation form (questionnaire), see **appendix M - 1**.

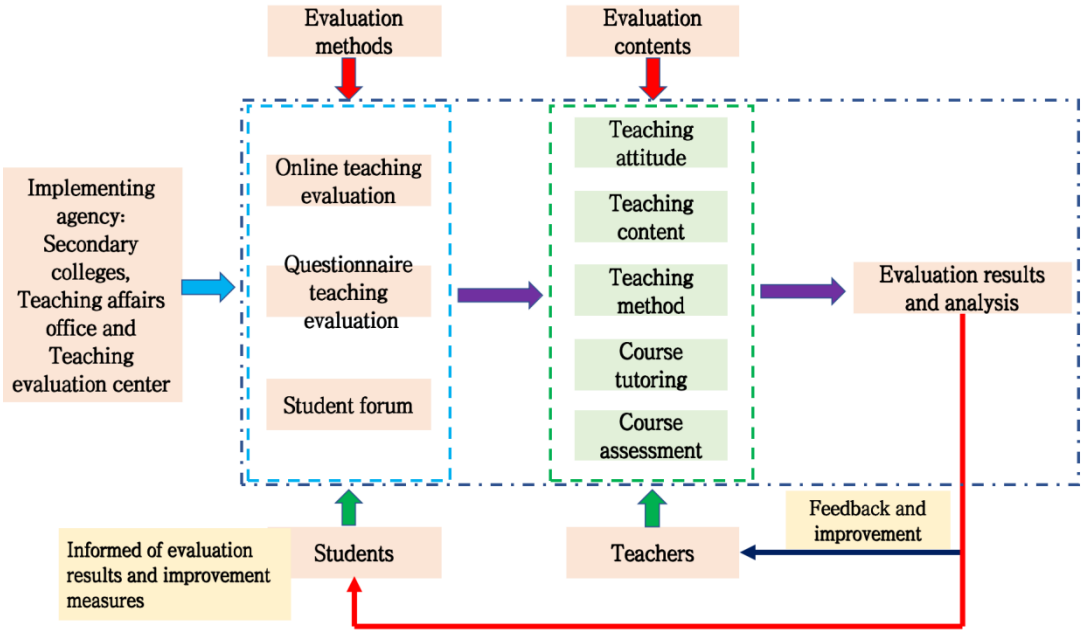

Figure 6-1 Curriculum evaluation and feedback system

7 Quality assurance and transparency

7.1 Relevant regulations

7.1.1 Teaching evaluation system

In terms of teaching, the school strictly follows the teaching management measures of Hunan Institute of Engineering to screen the qualifications of course teachers, who are required to prepare the course content in accordance with the basic norms of teaching plans, teaching plans and lecture notes. In accordance with the constitution of the Teaching Committee of Hunan Institute of Engineering, Hunan Institute of Engineering teacher curriculum teaching assessment measures, Hunan Institute of Engineering deepening the new era education evaluation reform implementation plan, Hunan Institute of Engineering teaching management measures, Hunan Institute of Engineering teaching accident identification and handling measures, Hunan Institute of Engineering teaching supervision work measures, Hunan Institute of Engineering teaching quality excellence award selection methods. The teaching process shall be managed and evaluated in accordance with the relevant regulations of the teaching and research honor award Method of Hunan Institute of Engineering, as detailed **in Appendix E-11~E-18**.

The school's Academic Affairs Office will conduct teaching evaluation for each course every semester to understand the basic performance of teachers in all aspects of the teaching process, including student evaluation, peer evaluation and supervision evaluation (i.e., tripartite evaluation) for each course. The evaluation and feedback process is shown in Figure 7-1. The tripartite teaching evaluation form will be collected and sorted out by the school's Teaching Affairs Office, and submitted to the lower colleges, and the relevant course teachers will be notified. Course teachers can also check the teaching evaluation results in the teaching management system. The sample of the tripartite evaluation and the evaluation results are detailed in **Appendix M-1~M- 4**.

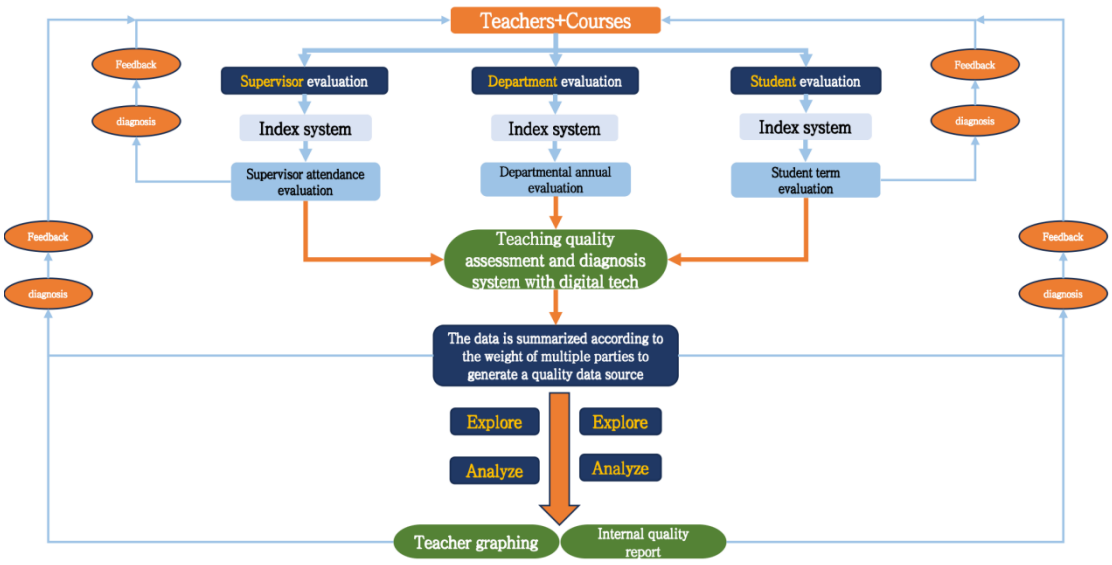

Figure 7-1 Feedback system of teaching evaluation quality

7.1.2 Student admission evaluation

Since 2020, the admission score of Hunan Institute of Engineering has been higher than the national first-class undergraduate admission score in the National Entrance Examination for Ordinary Colleges and Universities in China. The relevant admission policy and admission situation in the past five years are set out in **Appendix N**. Our University enlists students in strict accordance with the relevant regulations stipulated in the statutes of Admission of colleges and universities and the Prospectuses of Enrollment. The Leading Group for Enrollment of Hunan Institute of Engineering has been established, which is responsible for studying and deciding the enrollment scale of the university, formulating policies and other important matters. The Enrollment, Employment, Innovation and Entrepreneurship Guidance Office is responsible for the daily work of enrollment organization and implementation. During the enrollment period, the discipline inspection and supervision department of the university supervises and inspects the whole process of enrollment and enrollment to ensure that it is standardized, orderly, fair and just. The Admissions Leading group is fully responsible for admissions matters. Please refer to **Appendix E-12** for details about the regulations on enrollment, the implementation rules of enrollment publicity and enrollment supervision, the discipline of enrollment examination and the withdrawal system.

7.1.3 Further development

In order to meet the needs of the job market and professional and technical development, the School of Architecture Engineering of Hunan Institute of Engineering attaches great importance to the continuous development of the profession. The School has continuously explored and put forward the relevant supporting management system. Hunan Institute of Engineering has established a special graduate tracking information system to collect and analyze the feedback information of employed graduates. In addition, Hunan Institute of Engineering holds a graduate-related conference every year on the occasion of the school anniversary to build a platform for communication with graduates and promote the continuous improvement of teaching plans and the continuous improvement of teaching level and quality.

In order to help the students who are not proficient in Chinese to study in our university, we will further improve the speaking level of professional teachers and offer more bilingual courses. We will strengthen Chinese language training for the students who apply to study in China, and help them adapt to the campus life and learning environment of Hunan Institute of Technology as soon as possible.

7.2 Supplementary explanation of diploma and qualification certificate

Appendix O-1 provides samples of graduation certificates and bachelor's degree certificates for students graduating from the Civil engineering program of Hunan Institute of Engineering. All certificates are valid only after they are stamped with the official seal of Hunan Institute of Engineering and signed by the President. **Appendix O-2** is a sample diploma supplement. See **Appendix L** for sample graduate transcripts.