ASIIN Seal

Accreditation Report

Bachelor's Degree Programme

Materials Science and Engineering

Provided by
Suqian University

Version: 27 März 2026

Table of Content

A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for [1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
工学学士/	Materials Science and Engineering	ASIIN -Seal	/	TC 05
Date of the contract: 16 May 2025 **Submission of the final version of the self-assessment report:** 7 October 2025 **Date of the onsite visit:** 22-23 October 2025 **at:** Suqian, China				
Expert panel: Prof. Dr. Anne Schulz-Beenken, FH Südwestfalen – South Westphalia University of Applied Sciences Prof. Dr. Lothar Budde, Hochschule Bielefeld – University of Applied Sciences and Arts (HSBI) Dr. Li Zhifeng, Changchun Zhuojun Automotive Technology Research and Development Co., Ltd. Chengkai Hong, Shanghai Jiaotong University				
Representative of the ASIIN headquarter: Dr. Natalia Vega				
Responsible decision-making committee: Accreditation Commission for Degree Programmes				

[1] ASIIN Seal for degree programmes

[2] TC: Technical Committee for the following subject areas: TC 01 - Mechanical Engineering/Process Engineering; TC 02 - Electrical Engineering/Information Technology; TC 03 - Civil Engineering, Geodesy and Architecture; TC 04 - Informatics/Computer Science; TC 05 - Materials Science, Physical Technologies; TC 06 - Engineering and Management, Economics; TC 07 - Business Informatics/Information Systems; TC 08 - Agriculture, Forestry, Food Sciences, and Landscape Architecture; TC 09 - Chemistry; TC 10 - Life Sciences; TC 11 - Geosciences; TC 12 - Mathematics; TC 13 - Physics; TC 14 - Medicine.

Criteria used: European Standards and Guidelines as of 15 May 2015 ASIIN General Criteria, as of 28 March 2023 Subject-Specific Criteria of Technical Committee 05 – Material Sciences and physical Technologies as of 25 September 2025	

B Accreditation Status

Result Overview

The most recent decision for the ASIIN Seal was made by the ASIIN Accreditation Commission on 27.03.2026.

Degree Programmes	ASIIN Seal/ Accredited by German Engineers	Validity
Ba Materials Science and Engineering	Accredited with requirements	27.03.2026 – 22.04.2027

Fulfilment of the Accreditation Criteria

ASIIN General Criteria / Subject-Specific Criteria	Ba Materials Science and Engineering
1 Degree programme: Concept, Content & Implementation	
1.1 Objectives and learning outcomes (intended qualification profile)	Fulfilled
1.2 Title of the degree programme	Fulfilled
1.3 Curriculum	**Not fulfilled** Requirement **A1**
1.4 Admission requirements	Fulfilled
1.5 Workload and credits	Fulfilled
1.6 Didactics and teaching methodology	Fulfilled
2 Exams: System, Concept and Organisation	
2 Exams: System, Concept and Organisation	Fulfilled
3 Resources	
3.1 Staff and staff development	Fulfilled

ASIIN General Criteria / Subject-Specific Criteria	Ba Materials Science and Engineering
3.2 Student support and student services	Fulfilled
3.3 Funds and equipment	Fulfilled
4 Transparency and Documentation	
4.1 Module descriptions	Fulfilled
4.2 Diploma and Diploma Supplement	**Not fulfilled** Requirement **A2**
4.3 Relevant rules	Fulfilled
5 Quality Management: Quality Assessment and Development	
5 Quality Management: Quality Assessment and Development	**Not fulfilled** Requirement **A3**

Requirements

A 1. (ASIIN 1.3) Complement theoretical education by enhancing the lab practical extent of the courses.

A 2. (ASIIN 4.2) Ensure that the Diploma Supplement includes statistical data on the distribution of final grades.

A 3. (ASIIN 5) Ensure that students get feedback regarding the results of those course evaluations they are involved in.

Accreditation History

The programme has not been previously accredited by ASIIN.

C The Characteristics of the Degree Programme

Name	Final degree (original/ English translation)	Areas of Specialisation	Corresponding level of the EQF	Mode of Study	Double/ Joint Degree	Duration	Credit points /unit	First time of offer
Materials Science and engineering	工学学士 / B. Eng	Materials Science and engineering	6	Full time	/	8 semesters	240 ECTS	Sep. 01, 2016

Name	Intake rhythm	Intake Capacity per Cohort	Average starting cohort size	Average number of graduates per cohort	Average time required to complete studies
Materials Science and engineering	Fall semester	Max. 100 students	45 students	41 students	4 years

Introduction

Suqian University is a public undergraduate institution located in Suqian City, Jiangsu Province, China. Established in 2002, the university has developed into a comprehensive higher education institution offering a wide range of bachelor's degree programs. Currently, it enrols approximately 15,000 to 17,000 full-time undergraduate students. It offers around 40 to 45 bachelor's degree programs across a broad range of disciplines, including engineering, natural sciences, economics, management, law, education, agriculture, humanities, and the arts. The university is supported by a faculty and academic

staff of 700 to 1,000 members. Since its founding, Suqian University has educated and graduated more than 50,000 students.

The Bachelor's degree in Materials Science and Engineering is offered by the School of Materials and Chemical Engineering and provides students with fundamental and applied knowledge of material structures, properties, processing methods, and applications.

Summary

The expert panel acknowledges several strong features of the study programme. The teaching staff are highly committed, and the curriculum is well structured, supported by an effective onboarding process for new professors. Students benefit from high-quality language courses, a systematic talent cultivation plan, and strong recognition of the programme within the local industry. Participation in national competitions, diverse teaching and learning methods, constructive feedback practices, and access to extensive academic resources further contribute to a positive learning environment. The programme also operates a solid monitoring and quality management system that ensures continuous improvement.

Alongside these strengths, the panel identified several areas where further development is needed. The practical dimension of the study programme could be strengthened, including expanded opportunities for students to engage in self-initiated project work and increased integration of real-world applications. Students should also receive more systematic communication regarding the outcomes of course evaluations. Additionally, the Diploma Supplement requires completion with relevant statistical information on grade distributions.

The experts also see room for broader institutional development. Cooperation with local industry could be intensified, including greater involvement of external practitioners in teaching and formalized communication structures. Opportunities for students to gain practical experience could be expanded, for instance through a more substantial internship component. Increasing the number of courses offered in clear and accessible English would support the language proficiency of both students and staff. Moreover, international mobility for students and lecturers should be enhanced through stronger partnerships with external institutions. Teaching staff would benefit from increased opportunities for international exchange, conference participation, collaboration with colleagues from other institutions, and improved support for research activities. Finally, some laboratory facilities require updating to ensure they remain aligned with current academic and technological standards.

For the Bachelor's degree programme in Material Science and Engineering the institution has presented the following profile and objectives on the website:

"The Programme of Materials Science and Engineering at Suqian University was founded in 2003. Initially, it offered three undergraduate programmes: Metal Materials, Inorganic Non-metallic Materials, and Material Forming and Control Engineering. The Materials Science and Engineering programme first enrolled students in 2016 and was designated as a first-class programme at Suqian University in 2021".

Adhering to the characteristics of application-oriented talent training, the school has always tracked the high-tech of the materials science and engineering industry and strives to cultivate application-oriented technology undergraduate talents who "apply what they learn."

Objectives

"The programme in Materials Science and Engineering is committed to moral education as a fundamental task, responds to the needs of regional economic and social development, and cultivates students with sound personality and social responsibility, all-round development of morality, intelligence, physical conditions, aesthetic feeling and labour skills, mastering professional knowledge, and having the ability to solve complex engineering problems in the field of materials science and engineering. Graduates are prepared to engage in scientific research, technological development, materials analysis and testing, process development, equipment design, and management roles within the materials science and engineering industry.

After four years of study, graduates should possess a solid foundation in mathematics, natural sciences, and professional knowledge. They should have completed programme-related engineering practice training and be able to closely follow industry trends. They should be capable of addressing complex engineering issues such as the study and analysis of material structures, control of microstructures, and surface modification. They should possess excellent independent learning abilities and have promising development prospects. They should have basic foreign language skills in listening, speaking, reading, and writing, be able to understand professional English documents, and be capable of communicating and interacting in a cross-cultural context. They should have the ability to work independently or collaboratively within a team, organize and coordinate team members to achieve goals, and possess a good understanding of humanities, social sciences, engineering ethics and standards, service consciousness, legal awareness, and sense of social responsibility".

D Expert Report for the ASIIN Seal[3]

1. The Degree Programme: Concept, Content & Implementation

Evidence:

- Self-Assessment Report
- Module Handbook
- Objective-module-matrices
- University Development Plan
- University's Website
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The experts take note that the faculty presents extensive sets of objectives and learning outcomes for the study programme to be assessed in this accreditation procedure and have an overall positive impression of the intended learning profile initially based on the framework of objectives and learning outcomes of the degree programme under review. They also refer to the Subject-Specific Criteria (SSC) of the respective Technical Committee Material Sciences and physical technologies. Based on the objective-module-matrices provided by the university, the experts conclude that the ASIIN Subject-Specific Criteria (SSC) and the learning outcomes of the programme are highly consistent in their core framework and both emphasize foundational knowledge in natural sciences, engineering, and mathematics, stress interdisciplinary integration capabilities, and explicitly require teamwork, innovative practice, and social responsibility.

As stated in the Self-Assessment-Report, the Bachelor's programme in Materials Science and Engineering is guided by a continuously updated talent cultivation plan developed and reviewed by a dedicated committee comprising program leaders, department heads, and key faculty members. The programme's educational objectives and learning outcomes are regularly evaluated to ensure alignment with industry needs and societal development,

[3] This part of the report applies also for the assessment for the European subject-specific labels. After the conclusion of the procedure, the stated requirements and/or recommendations and the deadlines are equally valid for the ASIIN seal as well as for the sought subject-specific label.

drawing on biennial surveys and interviews with graduates, employers, and industry partners, as well as insights from educational and scientific research. Graduate tracking and systematic feedback collection support ongoing curriculum optimization while maintaining overall program stability. Employer and alumni satisfaction surveys indicate strong recognition of the program's effectiveness, with high levels of satisfaction regarding graduates' professional skills, overall performance, and employability, particularly within materials-related industries in Jiangsu Province and surrounding regions. These findings confirm that the program's learning outcomes are well aligned with labour market requirements and are continuously enhanced through iterative improvement of the training plan, with the most recent revision implemented in 2024.

During the discussions on-site, the programme coordinators explain that the Bachelor's programme in Materials Science and Engineering follows a development strategy that is strongly oriented toward local economic and industrial needs, with a particular focus on applied training. To enhance graduate employability, the program increasingly integrates industry-related content, expands the proportion of practical and application-based courses, and regularly invites external industry experts to contribute to teaching. The relevance of the programme's objectives and learning outcomes is reviewed through close cooperation with enterprises, joint problem-solving projects, graduate and employer feedback, and student quality questionnaires. Students are encouraged to develop innovation and entrepreneurial competencies through innovation projects, professional competitions, and challenge contests, for which they can earn academic credits. The program maintains a stable structure while responding to stakeholder input from students, faculty, graduates, and industry partners through regular updates of the talent cultivation plan. Enrolment has expanded significantly, from approximately 30 students per cohort before 2021 to around 100 students in the 2024–2025 academic plan, with further growth anticipated in line with teaching capacity, including the recent recruitment of additional doctoral-level faculty. Employer feedback from both local and national enterprises indicates strong recognition of graduates' performance, particularly in the materials processing and manufacturing sectors, which represent a major industry in the Suqian region. Overall, the programme aims to ensure that graduates meet industry expectations while continuously improving educational quality and practical relevance. The programme coordinators emphasize that the development strategy is to strength the collaboration with the local industry and create more practical courses which integrates the industry inviting external experts.

Most of the lecturers' participants would like to see stronger exchange and cooperation with local companies. Additionally, the majority of the students interviewed would welcome further opportunities for interaction and collaboration with industry

professionals, such as internships with the assistance of the university and guest lecturers from industry.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The experts are convinced that the intended qualification profile of the programme under review enables students to pursue a career that matches their qualifications. This impression is confirmed by business representatives, who describe a high demand for graduates with the intended qualifications in the labour market. They are also satisfied with the knowledge and skills of students and graduates of the programme.

The experts conclude that the objectives and intended learning outcomes of the degree programmes adequately reflect the intended level of academic qualification and correspond with the ASIIN Subject-Specific-Criteria (SSC) of the Technical Committee 05 – Material Sciences and physical Technologies. However, the experts emphasize that the objectives and learning outcomes of the programme need to be published and make available to students, lecturers and interested third parties. Furthermore, based on the feedback of the students and the lecturers, the exchange and cooperation with the local industry should be strengthened. For instance, more lecturers from the industry should be invited to give lectures. It is also recommended to build up a board of industry experts.

Criterion 1.2 Name of the Degree Programme

Evidence:

- Self-Assessment Report
- Sample Diploma Supplement
- Discussions during the audit

Preliminary assessment and analysis of the experts:
It is stated that the university had to choose the name of the degree programme from a list of titles provided by the ministry. Furthermore, the designation (both in the original language and in English) is used consistently in all relevant documents.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The experts agree that the teaching and learning content and the competence profile are consistent with the name of the programme under review. The title of the degree programme reflects the intended objectives and learning outcomes as well as the teaching and learning content and, in principle also the teaching language of the programme.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- Study plan
- Course map
- Module Handbook
- List of cooperation agreements
- Statistics on Student Mobility
- University's webpage
- Discussions during the audit

Preliminary assessment and analysis of the experts:

Curriculum Content and Structure

The curriculum is divided into 8 modules or competence fields: Mathematics, Physics, and Chemistry; Engineering Fundamentals; Engineering Applications; Electives; Foreign Language Courses; General Courses; Practical Courses, and Bachelor's Thesis.

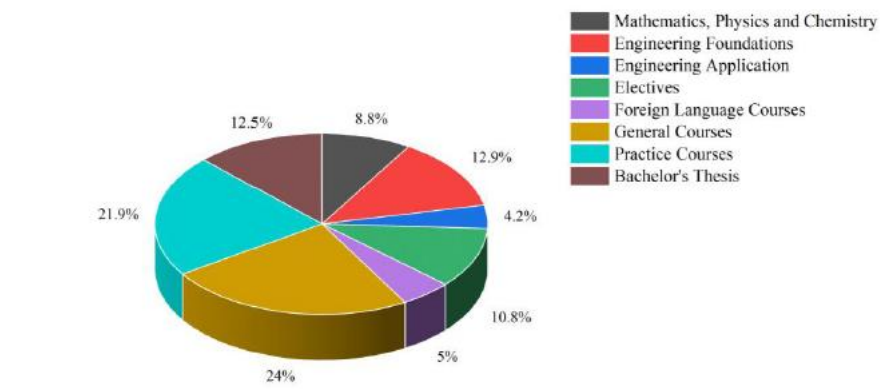
The curriculum starts in the first two years with fundamentals in mathematics and natural sciences and includes general engineering basics as well (Advanced mathematics I-II, Engineering Chemistry, Engineering Drawing, C Programming Design, Linear Algebra, College Physics Experiment, Engineering Mechanics, Physical Chemistry). Starting with the fourth semester specific fundamentals of materials science and engineering are included such as Principles of Microstructure Control in Metallic Materials, Modern Surface Engineering, Materials Processing and Forming, Metallic Materials, Fundamentals of Materials Science, Fundamentals of Materials Engineering, Materials Performance, and Materials Testing Methods. The degree programme concludes with a Graduation Practice and a Bachelor's thesis as the final components. The last semester is focused on the Bachelor's Thesis where they propose solutions based on the analysis and resolution of practical complex materials engineering problems and complete actual projects.

In the elective courses, students can choose from a wide range of lectures. Each semester, students also apply their knowledge of fundamentals in practical courses which is intensified in the sixth and seventh semesters. In addition, an English course is offered each semester during the first two years. The programme also offers a bilingual course titled "Introduction to Materials" which is taught in both Chinese and English, covering core knowledge in the field of new materials. Students learn professional terminology and stay

updated on international research trends through English textbooks and classroom discussions.

Additionally, so called general courses include: Ideology and Morality and Rule of Law, Military Theory, College Physical Education (I), Safety Education, Mental Health Education for College Students, Military Training and Entrance Education, Labor Education Practice, Aesthetic Education Practice, Situation and Policy, “Four Histories” Education Issue, College Physical Education (II), Basic Application of Information Technology, Labor Education, Ideological and Political Theory Course Practice, Outline of Modern Chinese History, College Physical Education (III), Aesthetic Education, Basic Principles of Marxism, College Physical Education (IV), Social Practice, Introduction to Mao Zedong Thought and Theoretical System of Socialism with Chinese Characteristics, Writing and Communication, Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era.

Following figure provided in the SAR shows the structure and proportion distribution of the Materials Science and Engineering programme:



The experts inquired about the practical courses on offer and the structure of internships. The programme coordinators emphasise that the practical courses involve intensive laboratory work, where students can apply their fundamentals and submit a report at the end. Furthermore, the practical components of the course involve an internship component of three weeks' duration, during which students will have the opportunity to acquire hands-on experience within a company that the university has entered into an agreement with. Most students complete their final project in an external enterprise. It is emphasised that several factors are taken into consideration when selecting companies for internship programmes. The equipment, safety conditions and guarantee for your students are all thoroughly checked.

It has come to the attention of the experts that the regional industry is very satisfied with the qualification profile of the graduates and with the existing cooperation. They are involved in the further development of the programme through regular surveys on the

qualifications of graduates. In addition, the faculty regularly surveys the experiences of alumni. The alumni interviewed also have a positive opinion of the programme and could find quickly an adequate job. However, they comment that the programme should place greater emphasis on practical skills to meet the demands of the job market.

The students who participated in the interview expressed high satisfaction with the programme. They are of the opinion that the programme provides excellent preparation for their professional future and has several strong, comprehensive strengths. In their opinion, the elective courses are both flexible and adequate for expanding knowledge and meeting individual interests. Furthermore, students have highlighted that they feel supported by the programme when it comes to identifying suitable companies for their final project. Visits to companies to receive explanations are also beneficial as part of practical courses. Nevertheless, most students would appreciate more internships in the industry and would be grateful for any assistance that the university could provide.

Periodic Review of the Curriculum

The experts also discuss with the programme coordinators the process of further developing the curriculum and learn that programme coordinators and lecturers regularly discuss the sequence of courses, the calculation of workload, didactical methods, form of exams etc. Smaller changes are conducted every two years and major modifications every four years.

In their summative evaluation of the curriculum, the ASIIN expert team comes to the following conclusions:

The appropriate scientific and engineering fundamentals are taught, and the foundations in mathematics and the natural sciences are very strong. Students also can develop their soft skills, as well as their personal interests and abilities.

However, based on feedback from students, alumni and industry, the experts conclude that the theoretical education should be complemented by increasing the practical element of the courses and finding ways to enable students to undertake project work related to their programmes of study. Furthermore, the university should introduce a mandatory two-month internship in industry. This could be integrated into the summer holidays, for example. In this context, the university should support students in finding placements for internships and establish a communication platform with industry. As previously mentioned, cooperation with local industry should be intensified, with more industry lecturers being invited to deliver lectures.

Mobility

Regarding student mobility, both the university and the faculty support international exchange. The office for international affairs of the university concludes cooperation agreements with universities abroad at the university level and offers exchange programmes for university students as part of the cooperation. Usually, there is an agreement between the partner universities on the recognition of courses and accumulated credit points. The university has established co-operative relationships with foreign institutions such as Wrexham University, Southern Cross University, Krirk University, The National University of Malaysia and University of Nairobi. In addition, based on the regulations, students transferring programmes can apply for credit substitution for similar courses already completed.

Following statistic on students' mobility are presented by the university:

Summary of Student Mobility

Year	Incoming Students (Total)	Outgoing Students (Total)
2024	1	3
2023	5	6
2022	0	2
2021	0	3
2020	0	12

According to the SAR, the university's strategic goals include increasing the proportion of bilingual courses to 20% in the future and further elevating the level of international education. They emphasise that several bilingual courses are currently under active development. In addition to bilingual courses, the programme regularly organises English forums and study corners. The English forum is held once per semester and invites faculty and students to discuss innovative topics in materials science in English, fostering cross-cultural exchange. The study corner is open on a weekly basis, offering students the opportunity to hone their professional English speaking and writing skills under the guidance of mentors. This initiative is designed to support students in enhancing their academic communication abilities, contributing to their success in both their studies and professional pursuits.

Some of the students interviewed reported on their study stays abroad, e.g. in Singapore. They are satisfied with the support and information provided by the university, through lecturers and the website. They explain that there are government scholarships available for studying abroad. However, due to financial issues, only a few students are able to study abroad. Furthermore, 80% of students would like more lectures in English and more opportunities to interact with international students.

In their summative evaluation regarding mobility, the ASIIN expert team comes to the following conclusions:

In summary, experts recognise the significant efforts being made to enhance the support of students' international academic mobility and appreciate that the university already is committed to improve its internationalization strategy. However, it is noted that the number of incoming and outgoing students is very low and has decreased in recent years. Based on these statistics and students' feedback, the experts believe that students' international experience should be increased by providing more opportunities for mobility, offering more scholarships for stays abroad, and providing more international exchange programmes. They also recommend extending the number of incoming students from other countries by building relations with international universities, improving academic mobility and providing more financial support, as only a few students study abroad due to financial issues. As the programme is planning to offer more bilingual courses, the experts are of the opinion that lectures on engineering topics should be offered in easy English. For example, an online lecture on material science could be offered on a regular basis inviting international guests.

Criterion 1.4 Admission Requirements

Evidence:

- Self-Assessment Report
- Admission Regulation
- Statistics on Admission Rate
- Regulation on Recognition of externally acquired Academic Qualifications
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The auditors understand that the government centrally regulates the admission to undergraduate degree programmes in China. All applicants must take part in the National College Entrance Examination or the College Entrance Examination organized in their province or city. The applicants must meet the following conditions: Comply with the relevant regulations of the national and Jiangsu provincial education authorities regarding the admission of ordinary higher education institutions; have a diploma of senior high school or polytechnic school or equivalent education level; meet relevant physical requirements.

The Admissions and Employment Office of Suqian University is responsible for formulating enrolment plans, determining admission criteria and procedures, verifying admission results, and handling other specific enrolment matters.

Candidates who pass the assessment of ideological and political qualities, meet ethical standards, comply with relevant laws and regulations, pass the physical examination, and achieve the required admission scores for specific programmes may be admitted. The university determines whether to admit and into which programme based on the candidates' stated preferences. The admissions work at Suqian University is supervised by higher authorities and the university's discipline inspection and supervision departments.

The experts learn that "physical requirements" are intended to exclude contagious diseases and that no restrictions for applicants with disabilities are implemented.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The terms of admission are found to be binding and transparent as defined in the admission regulations.

Criterion 1.5 Workload and Credits

Evidence:

- Self-Assessment Report
- Workload verification document
- Conversion from Credit Points to ECTS Credits
- Statistics on Academic Success
- Module Handbook
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The university provide following explanation regarding Chinese national credit point system:

"In most universities in China, the calculation of student workload is based on classroom teaching time, where 1 Chinese credit includes 16 hours of course teaching time or 32 hours of experimental teaching practice, without accounting for self-study time."

"Generally, 1 credit at our university is equivalent to 1 to 2 ECTS credits. The specific conversion ratio depends on the nature of the courses in each discipline (theoretical

modules and experimental/practical modules) as well as the number of contact hours and self-study hours. Generally, the specific conversions are as follows:

(1) Theoretical Module Courses

Credits obtained at Suqian University = 1 ECTS credits.

(2) Experimental Module Courses

Credits obtained at Suqian University = 2 × ECTS credits.

(3) Practical Training Module Courses

Credits obtained at Suqian University = 2.5 × ECTS credits.

Exceptions: For special courses or projects, each program at our university may adjust the conversion ratio based on specific circumstances, but it must communicate with the academic affairs office to confirm the specific conversion rules."

As stated in the SAR, student workload in the Bachelor's program in Materials Science and Engineering is systematically monitored through an integrated evaluation and feedback framework. Course objective attainment is assessed using a combination of formative methods, including class participation, assignments, laboratory work, and progress tests, as well as summative assessments such as final examinations, course projects, and theses. Monitoring results are used to identify workload imbalances or insufficient attainment levels, with teaching content and methods adjusted when achievement rates fall below defined thresholds. Student workload perception is further evaluated through structured pre- and post-class activities, end-of-semester course evaluation questionnaires, and regular student forums reviewed by the academic committee. An academic warning mechanism supports early identification of at-risk students through credit acquisition reports and warning lists, followed by targeted interventions such as academic advising and remedial support. Workload planning and verification are embedded in a continuous improvement process that includes benchmarking against peer institutions, alignment with industry standards, ongoing instructor reporting, and dynamic curriculum optimization based on monitoring outcomes.

The workload seems to be relatively balanced each semester, averaging 900 hours, totalling 30 ECTS. Course assessments are conducted by the teachers responsible for each course. The department chair and academic secretary review the accumulated workload of students to ensure its consistency with the planned workload in the cultivation plan. In addition to the credit recognition for student course learning outlined in the talent cultivation plan, the university also awards credits for students' innovation and entrepreneurship achievements.

According to the Statistics on Academic Success provided by the university, most of the students graduate on time i.e. in 8 semesters.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The estimated workload is realistic and transparently anchored, as confirmed by students. The students also report that the workload is not too high. The experts are of the opinion that the programme has developed an adequate system to monitoring students' workload.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-Assessment Report
- Study plan
- Module Handbook
- Discussions during the audit

Preliminary assessment and analysis of the experts:

Various teaching and learning methods have been implemented including lectures, computer training, classroom and lab exercises, individual and group assignments, and seminars. Several didactic methods are used such as lecture-based, discussion-based, or case-based teaching method, blended online and offline teaching, integrated teaching of theory and practice, project-based teaching method and flipped classroom. Structured activities of the students include tutorials, homework, assignments, and practical activities.

As stated in the SAR, based on the teaching methods outlined in the course syllabus, teachers conduct practical teaching work to ensure that the chosen methods achieve the teaching objectives. To improve students' understanding of key points and their ability to learn independently, lecturers often assign homework in the form of practice exercises and comprehensive assignments. These assignments typically involve researching a specific topic and writing stage-based course papers or investigative reports. In some cases, teachers also use group presentations to enable students to deliver oral reports. Through these methods, students develop their abilities in literature retrieval, problem solving, academic writing, data visualisation, organisation and coordination, PowerPoint presentation, and oral expression. These skills are crucial for students' future academic or professional pursuits. Due to the wide range of knowledge covered in this programme and its strong applicability, the jobs that students may engage in after graduation can vary

greatly. Therefore, throughout the teaching process, the integration of theory and practice and cultivate students' practical application abilities is emphasized.

According to the university, online teaching is a widespread practice. Suqian University's online teaching platform provides dedicated websites for most courses. Students can access course-related information on the website, study at any time, and communicate with teachers online.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The experts appreciate the diversity of teaching methods used. The teaching methods and instruments seems to be suitable to support the students in achieving the intended learning outcomes. However, it is recommended to introduce a central AI policy especially on the ethics of usage.

Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 1:

As stated by the university, the objectives and intended learning outcomes are now clearly published on the programme website, making them accessible to students, staff, and external stakeholders. In the experts' view, this requirement can therefore be considered fulfilled.

Furthermore, the university has announced that the establishment of an industry advisory board for the programme will commence in the second quarter of 2026. In addition, it is planned to invite at least five industry experts per semester to deliver guest lectures or workshops, with effect from the Spring 2026 semester. The university's efforts in implementing these measures for the future have been acknowledged by the experts. As this is not yet implemented, they are maintaining the recommendation in this regard.

The university also states that a two-month industrial internship will be formally integrated into the timetable. However, industrial partnerships and a corresponding support process still need to be developed. There are also plans to purchase new teaching and research equipment for the new campus, which will improve the practical learning opportunities for bachelor's degree programmes in the future. Nevertheless, these are all still in the planning stage. Therefore, the experts have decided to maintain the requirement (**A1**) and the recommendation regarding the internship.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, Concept and Organisation

Evidence:

- Self-Assessment Report
- Student Handbook
- Module Handbook
- Examination Regulation
- Statistics on Grade Distribution
- Sample exams and final theses
- Discussions during the audit

Preliminary assessment and analysis of the experts:
The type of exams, duration and assessment are guided by the rules that have been set by the university based on governmental regulations. The exams are designed to evaluate the intended achievement of student learning outcomes. The final grade is the result of the different activities in the course (e.g. laboratory work, midterm exam, the final exam, quizzes, or other given assignments).

Several examination forms are used in the programme under review such as written exams, computer operations, comprehensive assignments, and laboratory (internship) reports. Each course syllabus clearly specifies the assessment methods. When choosing courses, students can access information on assessment methods, content, and other details.

Course assessments are scheduled at the end of each semester. The instructor for each course is required to complete the grading within three days after the end of the exam.

The assessment results and the grade point numbers are as follows:

Assessment results	Grade point numbers
90-100	4.0-5.0
80-89	3.0-3.9
70-79	2.0-2.9
60-69	1.0-1.9
<60	0

The maximum score for a course is 100 points, and a score of 60 or above is considered passing. The regular assessment scores account for 40%-50% of the overall course grade, and the final exam scores account for 50%-60% of the overall course grade.

If a student disputes the exam results, a review can be requested by the student submitting a request to their school. After approval by the department chair, the Academic Affairs Office is to be informed, and a review will be organised by them. Any errors discovered during the review must be corrected in accordance with the relevant procedures.

Students who fail the exam will be given one opportunity for a make-up exam, usually scheduled at the beginning of the next semester. Students who could not take the final exam are required to submit a written application to the university prior to the examination. With approval, deferral of the exam is permitted. Deferred students are required to take the corresponding course make-up exam, which will be organised by the university at the beginning of the next semester. If students fail to take the deferred or make-up examination on time, or if they fail the deferred or make-up examination, they are required to retake the course. Students who were absent from the examination or whose examination qualification was cancelled are generally not permitted to take the make-up examination. However, they can register for a course retake.

Regarding the final thesis, the overall score of the bachelor's thesis is made up of the scores given by their instructor (covering 30%), the scores by an evaluator (covering 30%) and the scores by the Defence panel (covering 40%). According to the regulations, the topic of the Bachelor's thesis should be scientifically chosen, aligning with the requirements of the professional curriculum, and effectively demonstrating the comprehensive application of fundamental knowledge and skills in the field. In addition, it should possess a certain degree of innovation, academic level, insightful perspectives, practical value, or reference significance.

The experts observe that the responsibilities of the students in the evaluation process are very clearly defined. Students feel well informed about the compensation for students with special needs, in case of absence due to illness, and other admissible reasons for not showing up for the exam. Students may also discuss the results of exams with the lectures and know the process for complaining about the results.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

After reviewing sample examinations, the experts conclude that the requirements are demanding and that students are expected not only to demonstrate their knowledge, but also to analyse problems and apply their learning. The level of the students' academic performance and the content of the modules are sufficient for the programmes concerned. The Bachelor's theses are considered to be of a high standard by the expert team. The experts also examine samples of final theses submitted by the programmes under review. According to them, the theses are of a high standard and show that students are able to work independently. They also consider that the number and distribution of examinations ensure an appropriate workload and sufficient time for preparation.

3. Resources

Criterion 3.1 Staff and Development

Evidence:

- Self-Assessment Report
- Staff Handbook
- Human Resources Plan
- Teacher Development and Appraisal Regulation
- Representative Academic Achievements of Faculty
- University’s Website
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The School of Biological and Materials Engineering employs 75 faculty members, including 58 full-time teachers, 10 professors and 19 associate professors, with 76% holding doctoral degrees and 50% holding senior positions. The programme in Materials Science and Engineering is staffed by 20 full-time faculty members, including five professors, one senior experimentalist, four associate professors, and ten lecturers. The university emphasises that the team is youthful, with 80% of the teaching staff being under the age of 45. Among them, 16 hold doctoral degrees and 4 have master's degrees. Furthermore, 40 faculty members from associated academic departments at the university are responsible for delivering foundational courses, including mathematics, physics, English, and general education for this programme. Each lecturer has a teaching load of 330 hours per year. According to the "Professional and Technical Qualification for Teachers at Suqian University", to be promoted to a senior title, lecturers are required to have accumulated

more than two years of working experience in enterprises or institutions before joining the university, or to have accumulated more than one year of practical experience at the forefront of production in an enterprise after joining the university.

Suqian university has strategic cooperation agreements with several departments of the local government and enterprises and collaborates with various scientific research institutes to enhance its research capabilities and the synergy between academia, industry and research institutes. Additionally, the university cooperates with enterprises in teaching staff training, talent cultivation, and construction of off-campus internship bases.

The Academic Affairs Office/Centre for Faculty Development provides services to enhance teachers' instructional abilities, promote teaching reform and innovation, and improve teaching quality. To strengthen the development of young teachers, the Academic Affairs Office/Centre for Faculty Development arranges a one-month training for new lecturers every year. Each new lecturer is assigned a mentor who guides and assists them in familiarising teaching and research.

The Science and Technology Bureau of Suqian City provides various types and levels of support for the teachers at Suqian University, including domestic and international academic visits, industry-university-research collaboration and development funds for experimental teams. Specifically, each newly hired teacher with a doctor degree is funded through the "Doctoral Research Start-up Projects".

During the on-site discussions, the lecturers confirm that the university has a number of available further qualification opportunities, particularly for newly recruited teachers. It is emphasised that there is a productive exchange between lecturers. They share insights from their professional experience and provide constructive suggestions and guidance to one another. This approach represents a valuable opportunity to enhance the quality of teaching. However, the lecturers remark that they would like to have more interaction and collaboration with colleagues from international institutions. With regard to the research activities, the experts learn from the discussion that lecturers would appreciate to have even more support for research and opportunities for participation in international conferences.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The teaching staff covers all core content of the programmes adequately. The composition, scientific orientation and qualification of the teaching staff team are suitable for sustaining

the degree programme. Furthermore, the quantity of the teaching staff appears to be adequate according to the experts. They highlight that the teaching staff is very engaged. The faculty's support mechanisms and opportunities for developing personal skills and the further qualification offers for new teachers are considered to be adequate by the experts. Nevertheless, experts are of the opinion that the communication and exchange with colleagues from other institutions could be increased, for example, though an online platform. Additionally, further measures should be taken to improve the international experience of the teaching staff. These measures should include inviting international guest lecturers, providing more support for teaching staff mobility, and expanding cooperation with national and international institutions, as well as the exchange of international teaching staff. Furthermore, more support should be provided for the continuous education of the lecturers, with a view to facilitating visits to conferences and increasing support and funds for lecturers' research activities. The experts propose that lectures on engineering subjects in straightforward English could be made available. For example, there could be an online lecture on material science on a regular basis with international guests, facilitating the exchange of ideas with other colleagues and enhancing the professional development of the teaching staff.

Criterion 3.2 Student Support and Student Services

Evidence:

- Self-Assessment Report
- Study Regulation
- Discussions during the onsite visit

Preliminary assessment and analysis of the experts:

As stated in the SAR, Suqian University offers comprehensive support and advisory services to students. For instance, the Student Affairs Office formulates regulations and rules related to student affairs and supervises their implementation. It is in charge of daily ideological and political education of students and management service of students such as dormitory management, rewards and assistance, employment guidance (graduates' archives), career planning, psychological health education and counselling, scientific and technological innovation, campus cultural and sports activities, student clubs, publicity and the student union.

Students are assigned a full-time counsellor who carefully fulfil nine major duties, including: ideological education, value guidance; party and class construction, academic atmosphere building, daily affairs management and psychological health education and counselling, campus crisis response, career planning and employment guidance, and theoretical and

practical research. In addition, each class is assigned a head teacher, primarily responsible for serving and managing the class. The main responsibilities include ideological education and guidance for the class; establishment of a good learning atmosphere in the class; guidance in academic planning and career planning; assistance in academically difficult students and concern for students' lives by visiting their dormitories.

The Career Office combines individual counselling, group coaching, and teaching practice. It focuses on the fundamental tasks of fostering the morality of talents, aiming to promote more high-quality employment for students. It provides professional, modular, and standardized instruction and consultation for all the students at the university by focusing on three dimensions: career planning, job-hunting skills enhancement (career positioning, information searching, job application materials, interview skills, job management) and advancement of thinking mode in the workplace.

Through platforms such as WeChat, QQ and others, students can discuss course-related learning content with their teachers at any time. Teachers are available to answer students' course-related queries in their offices during designated times each week, as specified in the schedule.

The students interviewed express their satisfaction with the advisory and support services available. They emphasize that they get continuous feedback and advice from their teachers. For academic issues, they consider the support of their advisors very satisfactory.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The experts are of the opinion that this support system helps students to achieve the intended learning outcomes, completing their studies successfully and without delay. Students are well informed about the services available to them. The system for guidance and mentoring is considered to be adequate by the relevant experts.

Criterion 3.3 Funds and equipment

Evidence:

- Self-Assessment Report
- Discussions during the audit
- Visitation of the institution

Preliminary assessment and analysis of the experts:

As described in the SAR, the faculty is funded from three sources: governmental funding, student fees, and third-party funding. The School of Biological and Materials Engineering

places a high priority on teaching funds, ensuring that the annual budget prioritizes and fully allocates daily teaching funds to educational activities. The school emphasizes that over the past five years, the programme has allocated over 12 million yuan on teaching funds.

During the audit, the experts visit the facilities, lecture rooms, and the library as well as laboratories for teaching. The programme's main laboratories include Heat Treatment Laboratory, Material Preparation Laboratory, Metallographic Preparation Laboratory, Metallographic Analysis Laboratory, Inorganic Chemistry Laboratory, Analytical Chemistry Laboratory, Physical Chemistry Laboratory, Functional Materials Laboratory, Material Analysis and Testing Comprehensive Laboratory, and Polymer Synthesis Laboratory.

During the on-site visit, it was noted that the university is planning to purchase new equipment and transfer it to the new campus under construction. The lecturers have indicated that they would appreciate the opportunity to use more modern equipment. Teaching facilities, including classrooms and a well-equipped library, are satisfactory, as confirmed by students. In relation to the library, students have confirmed to the experts that they have access to a broad range of international journals via the most common online libraries.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

In the opinion of the experts, the available funds, facilities, and library resources provide a robust foundation for the degree programme. The construction of a new campus has been met with approval by experts' group. According to the experts, the equipment in the laboratories is adequate for teaching at bachelor's level. However, based on feedback from students and lecturers, the equipment of the labs should be updated. Furthermore, as previously stated, the experts recommend increased financial support and additional funds for lecturers' research activities.

4. Transparency and Documentation

Criterion 4.1 Module Descriptions

Evidence:

- Self-Assessment Report

- Module handbook
- University's website: https://scxy6.squ.edu.cn/info/1062/1536.htm

Preliminary assessment and analysis of the experts:
The module handbook is published on the university's website and is thus accessible to the students as well as to all stakeholders.

The experts found that the module descriptions contain the required information for each module. It includes module title, the person responsible for each module, teaching method(s), credits and workload, intended learning outcomes, module content, admission and examination requirements, examination format(s) and details explaining how the module mark is calculated, recommended literature, date of last amendment.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The experts note that all compulsory modules as well as electives are included in the module handbook. These are accessible to all students and teaching staff and contain the required information.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Self-Assessment Report
- Sample Diploma
- Sample Diploma Supplement

Preliminary assessment and analysis of the experts:
The experts confirm that students who successfully complete the programme are awarded a Diploma and a Diploma Supplement upon graduation.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The Diploma Supplement provides comprehensive details in English regarding the educational objectives and learning outcomes, as well as the educational system. However, the statistical data on the distribution of final grades according to the ECTS-Users' guide, in addition to the final grade, must be included in the diploma supplement.

Criterion 4.3 Relevant Rules

Evidence:

- Self-Assessment Report
- Student Handbook
- All relevant regulations

Preliminary assessment and analysis of the experts:
The university explains that the students' rights and responsibilities are included in the Student Handbook and available for all students. There is also an orientation lecture regarding the general information about the institution and the programme for all new students. In addition, the university's policies and documents related to teaching quality and student management are published on website of Suqian University to ensure that each student is familiar with the relevant policies. The students interviewed confirm that they can find all relevant information on the website.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The rights and duties of both the university and the students are clearly defined and binding. All rules and regulations are published on the university's website and hence available to all stakeholders. In addition, the students receive all relevant course material in the language of the degree programme at the beginning of each semester.

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

With regard to the diploma supplement, a revision and update is planned, but this is not due to be implemented until July 2026. Therefore, the requirement has not been met (**A2**), according to the conclusions of the experts.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- Quality Management Handbook

- Sample Student Surveys and Results
- Academic Regulation
- Discussions during the audit

Preliminary assessment and analysis of the experts:
According to the "Quality Standards of the Main Teaching Procedures at Suqian University", the university comprehensively monitors the various aspects such as talent cultivation, curriculum and syllabi, teaching preparation, theoretical course teaching, practical course teaching, internships (training), course design, examination, and the bachelor's dissertation. The university has further formulated the "Quality Evaluation Plan for the Main Teaching Procedures at Suqian University."

The university has also formulated the "Regulations on Teaching Supervision at Suqian University". It appoints supervisors to inspect, evaluate, consult, and guide each stage of teaching. They evaluate the teaching process and provide suggestions or decision-making basis for the teaching and education of the whole university, thus promoting application of innovative teaching methods and improving teaching quality. Based on these regulations, the university and the school supervision teams have been established.

According to the "Implementation Measures for Teaching Quality Monitoring at Suqian University", the university organises school-level supervision teams to check their own teaching quality management every semester. This includes the routine teaching inspections at three stages: the beginning of the semester, the mid-semester, and the end of the semester, as well as random inspections during the semester.

The university's supervision team holds regular meetings to address any issues identified in classroom teaching. These meetings also serve to formulate specific investigation reports. Each school and functional department is responsible for carefully reading the investigation reports in order to identify relevant information for the improvement of future work.

At the end of each semester, the School of Biology and Materials Engineering runs an evaluation survey to collect students' feedback on teaching effectiveness. The Academic Committee then analyses the data and shares the results with the teaching staff. They then use the results to make improvements to teaching methods and incorporate them into the

Furthermore, the university states that teaching-related information is gathered via multiple channels, including the President's mailbox, hotline, QQ, WeChat, and other online platforms.

During the discussions on site, the students confirm that they complete each semester the teaching survey They also feel that the teaching evaluation is really helping to develop the programme. They get direct feedback and can speak with their teachers and ask for advice or help regarding any kind of problems. There is also a meeting at the end of the term. In addition, they welcome other channels for giving feedback such as the chat app where they can address problems and they give solutions with a fast reaction. The students state that the survey results about the teaching are not communicated to them. However, they perceive their feedback is regarded adequately and they can voice their feedback anytime.

In their summative evaluation of this criterion, the ASIIN expert team comes to the following conclusions:

The experts acknowledge the comprehensive quality management system developed by the university and faculty, which encompasses quality assurance for both the study programmes and the faculty as a whole, including all services that support the educational objectives. They confirm that responsibilities and mechanisms are clearly defined and binding, and that students actively participate in the quality assurance process. Nevertheless, from the discussion with students, the experts learn that students do not receive any feedback about the results of the teaching evaluation. From the perspective of the experts, it is essential to implement feedback loops regarding the results of the evaluations for the students who participated. In this context, they also recommend communicating the results of the evaluations to the students.

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

As stated by the university, a clear feedback mechanism is to be implemented and, in future, appropriate measures based on the evaluation surveys are to be published. These are still plans for the near future without any evidence. As they have not yet been implemented, the experts conclude to maintain the requirement (**A3**).

E Additional Documents

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

No additional documents needed.

F Comment of the Higher Education Institution (05.01.2026)

The following quotes the comment of the institution:

“1. Response to Criterion 1.1: The Degree Programme: Concept, Content & Implementation

Expert Observation: The experts are convinced that the intended qualification profile of the programme under review enables students to pursue a career that matches their qualifications. This impression is confirmed by business representatives, who describe a high demand for graduates with the intended qualifications in the labour market. They are also satisfied with the knowledge and skills of students and graduates of the programme.

The experts conclude that the objectives and intended learning outcomes of the degree programmes adequately reflect the intended level of academic qualification and correspond with the ASIIN Subject-Specific-Criteria (SSC) of the Technical Committee 05 – Material Sciences and physical Technologies. However, the experts emphasize that the objectives and learning outcomes of the programme need to be published and make available to students, lecturers and interested third parties. Furthermore, based on the feedback of the students and the lecturers, the exchange and cooperation with the local industry should be strengthened. For instance, more lecturers from the industry should be invited to give lectures. It is also recommended to build up a board of industry experts.

Our Response: We accept this recommendation and are pleased to report proactive steps have been taken.

Publication of Objectives: The programme's Objectives and Learning Outcomes in both Chinese and English have now been published on the dedicated programme website, ensuring easy and immediate access for all stakeholders.

Industry Collaboration: Building on our existing practice of regularly inviting industry technicians for exchanges with faculty and serving as enterprise mentors, we will further formalize and strengthen this engagement. The process of establishing an Industry Advisory Board for the programme will be initiated in the second quarter of 2026. Additionally, we will enhance our guest lecture programme by actively inviting at least five industry experts per semester to deliver guest lectures or workshops, starting from the Spring 2026 semester.

2. Response to Criterion 1.3: Curriculum

Curriculum Content and Structure

Expert Observation:

The appropriate scientific and engineering fundamentals are taught, and the foundations in mathematics and the natural sciences are very strong. Students also can develop their soft skills, as well as their personal interests and abilities.

However, based on feedback from students, alumni and industry, the experts conclude that the theoretical education should be complemented by increasing the practical element of the courses and finding ways to enable students to undertake project work related to their programmes of study. Furthermore, the university should introduce a mandatory two-month internship in industry. This could be integrated into the summer holidays, for example. In this context, the university should support students in finding placements for internships and establish a communication platform with industry. As previously mentioned, cooperation with local industry should be intensified, with more industry lecturers being invited to deliver lectures.

Our Response: We fully accept these constructive recommendations.

Mandatory Internship: A compulsory two-month (8-week) industrial internship will be formally integrated into the curriculum for the Class of 2026 study plan, scheduled during the summer break between the second and third academic years. The implementation plan, including partnership development and a support system for placements, will be executed starting with the 2026 intake cohort. We are currently in discussion with the National Innovation Center par Excellence regarding collaboration on the student industrial internship programme.

Mobility

Expert Observation:

In summary, experts recognise the significant efforts being made to enhance the support of students' international academic mobility and appreciate that the university already is committed to improve its internationalization strategy. However, it is noted that the number of incoming and outgoing students is very low and has decreased in recent years. Based on these statistics and students' feedback, the experts believe that students' international experience should be increased by providing more opportunities for mobility, offering more scholarships for stays abroad, and providing more international exchange programmes. They also recommend extending the number of incoming students from other countries by building relations with international universities, improving academic mobility

and providing more financial support, as only a few students study abroad due to financial issues. As the programme is planning to offer more bilingual courses, the experts are of the opinion that lectures on engineering topics should be offered in easy English. For example, an online lecture on material science could be offered on a regular basis inviting international guests.

Our Response: We fully accept these constructive suggestions. Building on the recent outcomes of our overseas exchanges, we will implement the following three measures: First, accelerate the advancement of "3+1" and "2+2" joint cultivation programmes, summer study tours, and other initiatives with partner universities abroad, with the first cohort of students to be dispatched by September 2026; and establish a dedicated scholarship in collaboration with overseas partners to reduce the financial barriers for student exchanges. Second, leverage cooperative resources with foreign universities to launch specialized training programs aimed at attracting international students to our university. Third, advance the plan to raise the proportion of bilingual courses to 20% ahead of schedule, and pilot English-language online lectures on Materials Science in the 2026-2027 academic year, inviting international experts to lead these sessions to further deepen international academic exchange.

3. Response to Criterion 1.6: Didactic and Teaching Methodology

Expert Observation: The experts appreciate the diversity of teaching methods used. The teaching methods and instruments seems to be suitable to support the students in achieving the intended learning outcomes. However, it is recommended to introduce a central AI policy especially on the ethics of usage.

Our Response: We thank the experts for acknowledging the diversity of our teaching methods. In response to the recommendation to introduce a central AI policy focusing on usage ethics, we will develop a university-wide framework by Q3 2026. This policy will outline ethical guidelines for AI use in teaching and research, complemented by faculty training and student workshops to ensure responsible adoption.

4. Response to Criterion 3.1: Staff and Development

Expert Observation: The teaching staff covers all core content of the programmes adequately. The composition, scientific orientation and qualification of the teaching staff team are suitable for sustaining the degree programme. Furthermore, the quantity of the teaching staff appears to be adequate according to the experts. They highlight that the teaching staff is very engaged. The faculty's support mechanisms and opportunities for developing personal skills and the further qualification offers for new teachers are considered to be adequate by the experts. Nevertheless, experts are of the opinion that the

communication and exchange with colleagues from other institutions could be increased, for example, though an online platform. Additionally, further measures should be taken to improve the international experience of the teaching staff. These measures should include inviting international guest lecturers, providing more support for teaching staff mobility, and expanding cooperation with national and international institutions, as well as the exchange of international teaching staff. Furthermore, more support should be provided for the continuous education of the lecturers, with a view to facilitating visits to conferences and increasing support and funds for lecturers' research activities. The experts propose that lectures on engineering subjects in straightforward English could be made available. For example, there could be an online lecture on material science on a regular basis with international guests, facilitating the exchange of ideas with other colleagues and enhancing the professional development of the teaching staff.

Our Response: We thank the experts for their constructive feedback and fully accept the recommendations. To enhance international exchange, we will organize 2–3 annual lectures in clear Englis as part of a "Global Perspectives in Materials Science" series, featuring scholars from internationally recognized institutions. For research and mobility support, we will establish a Faculty International Exchange Fund by the 2026–2027 academic year to subsidize conference attendance, short-term visits, and research activities, aligning with national initiatives for teacher development. We are also exploring agreements with universities offering complementary expertise in materials science to facilitate joint research and faculty exchanges, ensuring sustainable improvements in our staff’s global engagement.

5. Response to Criterion 3.3: Funds and Equipment

Expert Observation: In the opinion of the experts, the available funds, facilities, and library resources provide a robust foundation for the degree programme. The construction of a new campus has been met with approval by experts' group. According to the experts, the equipment in the laboratories is adequate for teaching at bachelor's level. However, based on feedback from students and lecturers, the equipment of the labs should be updated. Furthermore, as previously stated, the experts recommend increased financial support and additional funds for lecturers' research activities.

Our Response: We note the positive feedback on the new campus and accept the recommendation.

Equipment Update: The equipment modernization plan for the new campus (2026–2028) has been concretely budgeted and scheduled. Specifically, 24 sets of advanced research equipment—including transmission electron microscopes and nanoindentation testers—will be acquired at a total cost of approximately 30.21 million RMB, significantly

enhancing our research capabilities. In parallel, 38 sets of teaching instruments such as digital pendulum impact testers and vacuum heat treatment furnaces will be procured for about 5.41 million RMB, directly upgrading hands-on learning facilities for bachelor-level training.

Research Funds: To further support faculty research activities, we are establishing a structured funding mechanism that prioritizes ongoing enhancements in resource allocation. This includes optimizing the integration and sharing of high-value equipment across university-level platforms to improve resource efficiency and sustain academic and scientific output.

6. Response to Criterion 4.2: Diploma and Diploma Supplement

Expert Observation: The Diploma Supplement provides comprehensive details in English regarding the educational objectives and learning outcomes, as well as the educational system. However, the statistical data on the distribution of final grades according to the ECTS-Users' guide, in addition to the final grade, must be included in the diploma supplement.

Our Response: We accept this requirement. The format of the Diploma Supplement will be revised to include a statistical overview of the final grade distribution for the respective graduating cohort. This update will be implemented for all students graduating from July 2026 onwards.

7. Response to Criterion 5: Quality management

Expert Observation: The experts acknowledge the comprehensive quality management system developed by the university and faculty, which encompasses quality assurance for both the study programmes and the faculty as a whole, including all services that support the educational objectives. They confirm that responsibilities and mechanisms are clearly defined and binding, and that students actively participate in the quality assurance process. Nevertheless, from the discussion with students, the experts learn that students do not receive any feedback about the results of the teaching evaluation. From the perspective of the experts, it is essential to implement feedback loops regarding the results of the evaluations for the students who participated. In this context, they also recommend communicating the results of the evaluations to the students.

Our Response: We agree with this observation and will implement a clear feedback mechanism. Starting from the Spring semester of 2026, a summary of the key findings and planned actions from the end-of-semester teaching evaluation surveys will be communicated to students via the university’s teaching management system.

Additional Remark

Regarding the criteria in the expert report for which no specific recommendations were provided, Suqian University confirms that the existing arrangements and practices for these criteria (including but not limited to Criterion 1.2, 1.4, 1.5, 2, 3.2, 4.1, and 4.3) are already in full compliance with ASIIN standards. We will continue to uphold these standards as part of our ongoing quality assurance efforts.

Closing Statement

Suqian University sincerely thanks the ASIIN expert panel for their valuable recommendations, which will undoubtedly enhance the quality of our Bachelor's programme in Materials Science and Engineering. We have formulated concrete and actionable plans to address every point raised in the report and are fully committed to their successful implementation.

We are confident that our responses and planned measures robustly demonstrate our commitment to excellence and full compliance with ASIIN's standards. We look forward to a positive decision from the Accreditation Commission.”

G Summary: Expert recommendations (18.02.2026)

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

Degree Programme	ASIIN Seal	Accredited by German Engineers	Maximum duration of accreditation
Materials Science and Engineering	With requirements for one year	With requirements for one year	30.09.2031

Requirements

A 1. (ASIIN 1.3) Complement theoretical education by enhancing the practical extent of the courses and find ways to allow students to perform project work initiated by themselves and related to the study programmes.

A 2. (ASIIN 5) Ensure that students get feedback regarding the results of those course evaluations they are involved in.

A 3. (ASIIN 4.2) Ensure that the Diploma Supplement includes statistical data on the distribution of final grades.

Recommendations

E 1. (ASIIN 1.1) It is recommended to strengthen the exchange and cooperation with the local industry and to invite more lecturers from the industry to give lectures. It is also recommended to build up a board of industry experts and build a communication platform with the industry.

E 2. (ASIIN 1.3) It is recommended to introduce a mandatory internship in a company of about two months with support provided to students in finding a placement.

E 3. (ASIIN 1.3) It is recommended to offer lectures on various engineering topics in straightforward English to improve lecturers' and students' English proficiency.

E 4. (ASIIN 1.3) It is recommended to provide more chances and support for students' mobility and to extend the number of incoming students from other countries by building up relations with international universities and more cooperation.

E 5. (ASIIN 3.1) It is recommended to improve the lecturers' international experience, for example by inviting more international guest lecturers, providing more support for teaching staff mobility and international teaching staff exchange as well as expanding cooperation with national and international institutions.

E 6. (ASIIN 3.1) It is recommended to increase collaboration with colleagues from other institutions, for example, though an online platform.

E 7. (ASIIN 3.1) It is recommended to provide more support for lecturers to visit conferences.

E 8. (ASIIN 3.1) It is recommended to increase support and funds for lecturers' research activities.

E 9. (ASIIN 3.3) It is recommended to update the equipment of the labs.

H Comment of the Technical Committee

Technical Committee 05 – Materials Science, Physical Technologies (12.03.2026)

Assessment and analysis for the award of the ASIIN seal:

The TC members discuss the meaning of requirement A1 and propose to specify what is meant by practical extent, adding the term 'lab'. Additionally, the second element of the requirement concerning project work is to be regarded as a separate matter, the specification “initiated by themselves” should be only given as an option. They are of the opinion that the issue related to project work should be a recommendation (see E2).

The Technical Committee 05 – Materials Science, Physical Technologies recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Accredited by German Engineers	Maximum duration of accreditation
Materials Science and Engineering	With requirements for one year	With requirements for one year	30.09.2031

Requirements

A 1. (ASIIN 1.3) Complement theoretical education by enhancing the lab practical extent of the courses.

A 2. (ASIIN 5) Ensure that students get feedback regarding the results of those course evaluations they are involved in.

A 3. (ASIIN 4.2) Ensure that the Diploma Supplement includes statistical data on the distribution of final grades.

Recommendations

E 1. (ASIIN 1.1) It is recommended to strengthen the exchange and cooperation with the local industry and to invite more lecturers from the industry to give lectures. It is also

recommended to build up a board of industry experts and build a communication platform with the industry.

E 2. (ASIIN 1.3) It is recommended to find ways to allow students to perform project work (e.g. initiated by themselves) related to their study programme.

E 1. (ASIIN 1.3) It is recommended to introduce a mandatory internship in a company of about two months with support provided to students in finding a placement.

E 2. (ASIIN 1.3) It is recommended to offer lectures on various engineering topics in straightforward English to improve lecturers' and students' English proficiency.

E 3. (ASIIN 1.3) It is recommended to provide more chances and support for students' mobility and to extend the number of incoming students from other countries by building up relations with international universities and more cooperation.

E 4. (ASIIN 3.1) It is recommended to improve the lecturers' international experience, for example by inviting more international guest lecturers, providing more support for teaching staff mobility and international teaching staff exchange as well as expanding cooperation with national and international institutions.

E 5. (ASIIN 3.1) It is recommended to increase collaboration with colleagues from other institutions, for example, though an online platform.

E 6. (ASIIN 3.1) It is recommended to provide more support for lecturers to visit conferences.

E 7. (ASIIN 3.1) It is recommended to increase support and funds for lecturers' research activities.

E 8. (ASIIN 3.3) It is recommended to update the equipment of the labs.

I Decision of the Accreditation Commission (27.03.2026)

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

The Accreditation Commission follows the experts' assessments and changes proposed by the Technical Committee 05.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Accredited by German Engineers	Maximum duration of accreditation
Materials Science and Engineering	With requirements for one year	With requirements for one year	30.09.2031

Requirements

A 1. (ASIIN 1.3) Complement theoretical education by enhancing the lab practical extent of the courses.

A 2. (ASIIN 5) Ensure that students get feedback regarding the results of those course evaluations they are involved in.

A 3. (ASIIN 4.2) Ensure that the Diploma Supplement includes statistical data on the distribution of final grades.

Recommendations

E 1. (ASIIN 1.1) It is recommended to strengthen the exchange and cooperation with the local industry and to invite more lecturers from the industry to give lectures. It is also recommended to build up a board of industry experts and build a communication platform with the industry.

E 2. (ASIIN 1.3) It is recommended to find ways to allow students to perform project work (e.g. initiated by themselves) related to their study programme.

E 3. (ASIIN 1.3) It is recommended to introduce a mandatory internship in a company of about two months with support provided to students in finding a placement.

E 4. (ASIIN 1.3) It is recommended to offer lectures on various engineering topics in straightforward English to improve lecturers' and students' English proficiency.

E 5. (ASIIN 1.3) It is recommended to provide more chances and support for students' mobility and to extend the number of incoming students from other countries by building up relations with international universities and more cooperation.

E 6. (ASIIN 3.1) It is recommended to improve the lecturers' international experience, for example by inviting more international guest lecturers, providing more support for teaching staff mobility and international teaching staff exchange as well as expanding cooperation with national and international institutions.

E 7. (ASIIN 3.1) It is recommended to increase collaboration with colleagues from other institutions, for example, though an online platform.

E 8. (ASIIN 3.1) It is recommended to provide more support for lecturers to visit conferences.

E 9. (ASIIN 3.1) It is recommended to increase support and funds for lecturers' research activities.

E 10. (ASIIN 3.3) It is recommended to update the equipment of the labs.

Appendix: Programme Learning Outcomes and Curricula

According to the SAR the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Material Sciences and Engineering:

Program Learning Outcomes (knowledge, skill and competence)

The learning outcomes of the program is divided into the following 4 parts:

1. Knowledge and Understanding

(1) Master the basic knowledge of mathematics, natural sciences, and engineering, and possess the ability to solve complex engineering problems using multidisciplinary knowledge.

(2) Systematically understand the intrinsic relationship between material structure, properties, and processing, and be familiar with core theories in metal materials and surface engineering.

(3) Have knowledge in interdisciplinary fields such as mechanics, electronics, and computer science, and can carry out material design, process development, and equipment application in a multidisciplinary environment.

(4) Master engineering structure design, material selection, and scientific logical thinking abilities, and understand the role of materials engineering in the entire production cycle and elements of sustainable development.

(5) Possess the ability for material development, process design, and engineering implementation, and can take on different roles in a multidisciplinary team to complete complex engineering projects.

(6) Master experimental design, data analysis, and modern tool application methods, capable of systematically conducting material research, process optimization, and technological innovation.

(7) Understand the capability requirements of society for the materials discipline, grasp industry development trends, and possess professional ethics and social responsibility.

2. Research, analysis, problem solving and evaluation.

(1) Possess the ability to search literature, collect data, and filter information, proficient in using Chinese and foreign databases and professional tools to obtain cutting-edge dynamics in the materials field.

(2) Master the norms of experimental recording, data organization, and report writing, able to systematically present research results in accordance with engineering ethics requirements.

(3) Possess the ability for data comparison, theoretical validation, and independent analysis, able to propose innovative solutions by combining literature with experimental data.

(4) Master methods for identifying and defining engineering problems, able to solve complex challenges in material research and production through interdisciplinary knowledge.

(5) Have the ability to analyze requirements and decompose tasks, and can use modeling, simulation, or experimental methods to optimize material properties and improve processes.

(6) Master the methods of technology transfer and promotion, and can drive the innovative application of materials engineering through technical reports, patents, or academic exchanges.

(7) Proficient in numerical simulation, experimental design, and CAE tools, able to independently complete material process optimization and equipment improvement.

(8) Have the ability to construct models and optimize parameters, and can choose material characterization, thermodynamic or kinetic analysis methods based on engineering needs.

3. Application

(1) have the ability in material design, process optimization, and engineering implementation, and can solve complex problems in material development through experimental validation and engineering practice.

(2) Master the methods of analyzing the demand for technological innovation, able to propose feasible solutions for material performance enhancement and process improvement, and demonstrate their value.

(3) Proficient in using material characterization instruments, simulation software, and programming tools to complete the entire process of material preparation and performance analysis.

(4) Understand the application boundaries of material properties and techniques such as forming, heat treatment, and surface modification, and have the ability to reasonably select materials and their processing methods based on engineering scenarios.

(5) Possess the ability to analyze the full lifecycle cost of material development, able to evaluate and make decisions on engineering economics by combining process costs and market benefits.

(6) Master safety regulations in material preparation, processing, and testing, able to identify health and environmental risks in engineering practice and develop preventive measures.

4. General and social competences

(1) Possess team awareness and collaboration skills, able to effectively participate in team collaboration and undertake specific tasks in projects such as material research and development and process optimization.

(2) Master the ability to write technical reports, deliver academic presentations, and prepare engineering documents, able to engage in cross-cultural and interdisciplinary technical communication.

(3) Have an awareness of engineering ethics, can assess the impact of material preparation and processing techniques on the ecological environment, and comply with professional standards.

(4) Master the full-cycle management methods of materials engineering projects, can conduct risk assessment, cost control, and resource optimization.

(5) Have an awareness of independent learning, master methods such as literature tracking and practical guidance learning to continuously update cutting-edge knowledge and skills in the field of materials.

The following **curriculum** is presented:

(1) Possess the ability to search literature, collect data, and filter information, proficient in using Chinese and foreign databases and professional tools to obtain cutting-edge dynamics in the materials field.

(2) Master the norms of experimental recording, data organization, and report writing, able to systematically present research results in accordance with engineering ethics requirements.

(3) Possess the ability for data comparison, theoretical validation, and independent analysis, able to propose innovative solutions by combining literature with experimental data.

(4) Master methods for identifying and defining engineering problems, able to solve complex challenges in material research and production through interdisciplinary knowledge.

(5) Have the ability to analyze requirements and decompose tasks, and can use modeling, simulation, or experimental methods to optimize material properties and improve processes.

(6) Master the methods of technology transfer and promotion, and can drive the innovative application of materials engineering through technical reports, patents, or academic exchanges.

(7) Proficient in numerical simulation, experimental design, and CAE tools, able to independently complete material process optimization and equipment improvement.

(8) Have the ability to construct models and optimize parameters, and can choose material characterization, thermodynamic or kinetic analysis methods based on engineering needs.

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(4) Master the full-cycle management methods of materials engineering projects, can conduct risk assessment, cost control, and resource optimization.

(5) Have an awareness of independent learning, master methods such as literature tracking and practical guidance learning to continuously update cutting-edge knowledge and skills in the field of materials.

The following **curriculum** is presented:

Study plan of materials science and engineering								
Competence fields	Module	Type	Chinese CP[i]	ECTS CP	Contact Hours	Self-Study Hours	Semester	Remark
Mathematics, Physics and Chemistry	Advanced Mathematics II (1)	L[ii]	5	6	80	100	1	
	Engineering Chemistry	L	2	2	32	28	1	
	Advanced Mathematics II (2)	L	5	6	80	100	2	
	College Physics I	L	3	3.5	48	57	2	
	Linear Algebra	L	2	2	32	28	3	
	College Physics Experiment	P[iii]	1	2	32	28	3	
	Probability Statistics	L	2	2	32	28	4	
Engineering Foundations	Engineering Drawing	L&P	3	3	48	42	1	
	Major Introduction	L	1	1	16	14	1	
	Engineering Mechanics	L&P	3.5	3.5	56	49	3	
	Physical Chemistry	L&P	3.5	4	64	56	3	
	Electrical and Electronics Engineering	L&P	2.5	3	48	42	4	
	Fundamentals of Mechanical Design	L&P	3	3	48	42	4	
	Fundamentals of Materials Science	L&P	4.5	4.5	72	63	4	
	Fundamentals of Materials Engineering	L	2	2	32	28	4	
	Materials Performance	L&P	3	3	48	42	5	
	Materials Testing Methods	L&P	2	2	32	28	5	
	Introduction to Materials (bilingual course)	L	2	2	32	28	5	
Engineering Application	Professional Innovation and Entrepreneurship Practice	L	1	1	16	14	4	
	Principles of Microstructure Control in Metallic Materials	L&P	2	2	32	28	5	
	Modern Surface Engineering	L&P	2	2	32	28	5	
	Materials Processing and Forming	L&P	2.5	2.5	40	35	6	
	Metallic Materials	L&P	2.5	2.5	40	35	6	
Electives	C Programming Design	L&P	3	4	64	56	2	26 ECTS credits are required
	Python Programming Design	L&P	3	4	64	56	3	
	Advanced Materials Preparation Techniques	L&P	2	2	32	28	5	
	Composite Materials	L	2	2	32	28	5	
	Materials Corrosion and Protection	L	2	2	32	28	5	
	Polymer Chemistry	L	2	2	32	28	5	

	Coatings and Adhesives	L&P	2	2	32	28	6	
	Foundations of Economics and Management	L	2	2	32	28	6	
	Metal Materials Toughening	L&P	2	2	32	28	6	
	New Energy Materials	L	2	2	32	28	6	
	Polymer Physics	L	2	2	32	28	6	
	Thin Film Materials and Thin Film Technology	L	2	2	32	28	6	
	Computer Applications in Materials Engineering	L&P	2	2	32	28	7	
	Functional Materials	L	2	2	32	28	7	
	Mold Material Selection and Toughening	L&P	2	2	32	28	7	
	Polymer Material Processing Additive	L	2	2	32	28	7	
	Polymer Materials Processing	L	2	2	32	28	7	
	Scientific Innovation and Academic Writing	L&P	2	2	32	28	7	
Foreign Language Courses	College English	L	4	4	64	56	1	
	English Extended Course (1)	L	4	4	64	56	2	
	English Extended Course (2)	L	2	2	32	28	3	
	English Extended Course (3)	L	2	2	32	28	4	
General Courses	Ideology and Morality and Rule of Law	L	3	3	48	42	1	9 ECTS credits of other general elective courses are required
	Military Theory	L	1	1.5	36	9	1	
	College Physical Education (I)	L&P	1	2	36	24	1	
	Safety Education	L&P	1	1	16	14	1	
	Mental Health Education for College Students	L&P	2	2.5	40	35	1	
	Military Training and Entrance Education	P	1	2	30	30	1	
	Labor Education Practice	P	1	2	30	30	1-7	
	Aesthetic Education Practice	P	1	2	30	30	1-7	
	Situation and Policy	L	2	4	64	56	1-8	
	"Four Histories" Education Issue	L	1	1	16	14	2	
	College Physical Education (II)	L&P	1	2	36	24	2	
	Basic Application of Information Technology	P	1	2	32	28	2	
	Labor Education	L	1	1	16	14	2	
	Ideological and Political Theory Course Practice	P	2	4	60	60	2	
	Outline of Modern	L	2	2	32	28	3	

	Chinese History							
	College Physical Education (III)	L&P	1	2	36	24	3	
	Aesthetic Education	L	1	1	16	14	3	
	Basic Principles of Marxism	L	3	3	48	42	4	
	College Physical Education (IV)	L&P	1	2	36	24	4	
	Social Practice	P	1	2	30	30	4	
	Introduction to Mao Zedong Thought and Theoretical System of Socialism with Chinese Characteristics	L	2	2	32	28	5	
	Writing and Communication	L	1	1	16	14	5	
	Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	L	3	3	48	42	6	
Practice Courses	Familiarization Practice	P	1	2.5	30	45	2	
	Metalworking Practice	P	2	5	60	90	3	
	Innovation Practice Week	P	2	5	60	90	3	
	Mechanical Design Fundamentals Course Design	P	2	5	60	90	4	
	Materials Engineering Fundamentals Course Design	P	1	2.5	30	45	4	
	Surface Engineering Course Design	P	2	5	60	90	5	
	Surface Engineering Experimental Skills Training	P	2	5	60	90	6	
	Production Practice	P	2	5	60	90	6	
	Comprehensive Materials Course Design	P	2	5	60	90	7	
	Integrated Skills Training Project	P	2	5	60	90	7	
	Professional Experiment Week	P	2	5	60	90	7	
	Graduation Practice	P	1	2.5	30	45	8	
Bachelor's Thesis	Bachelor's Thesis	P	12	28	240	600	8	
Total ECTS: 240, ECTS/PER SEMESTER:30								

[i] CP - Credit Point

[ii] L - Lecture

[iii] P - Practice