ASIIN Seal
Accreditation Report

Bachelor's Degree Programme
Computer Science and Technology

Provided by
Taizhou University

Version: 25 September 2026

Status: final version

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Abbreviations

DS	Diploma Supplement
ILO	Intended Learning Outcome
EQF	European Qualifications Framework
HE	Higher Education
HEI	Higher Education Institution
LO	Learning Objective
QA	Quality Assurance
SAR	Self-Assessment Report
ToR	Transcript of Records
TZU	Taizhou University

A. Accreditation Status

Result Overview

The most recent decision for the ASIIN Seal was made by the ASIIN Accreditation Commission on 25.09.2026.

Degree Programmes	ASIIN Seal	Validity
Ba Computer Science and Technology	Accredited with requirements	30.09.2026 - 30.09.2032

Fulfilment of the Accreditation Criteria

ASIIN General Criteria / Subject-Specific Criteria	Ba Computer Science and Technology
1 Degree programme: Concept, Content & Implementation	
1.1 Objectives and learning outcomes (intended qualification profile)	Not fulfilled Requirement A1
1.2 Title of the degree programme	Fulfilled
1.3 Curriculum	Not fulfilled Requirement A1, A2
1.4 Admission requirements	Fulfilled
1.5 Workload and credits	Not fulfilled Requirement A4
1.6 Didactics and teaching methodology	Not fulfilled Requirement A3
2 Exams: System, Concept and Organisation	
2 Exams: System, Concept and Organisation	Not fulfilled Requirement A3

ASIIN General Criteria / Subject-Specific Criteria	Ba Computer Science and Technology
3 Resources	
3.1 Staff and staff development	Fulfilled
3.2 Student support and student services	Fulfilled
3.2 Funds and equipment	Fulfilled
4 Transparency and Documentation	
4.1 Module descriptions	Not fulfilled Requirement A1
4.2 Diploma and Diploma Supplement	Not fulfilled Requirement A5
4.3 Relevant rules	Fulfilled
5 Quality Management: Quality Assessment and Development	
5 Quality Management: Quality Assessment and Development	Not fulfilled Requirement A6

Requirements

A1. (ASIIN 1.1 & 1.3 & 4.1) Ensure that all programme documents — module descriptions, module-level achievement reports and the mapping matrices — present the module objectives and the intended learning outcomes consistently, and that the contribution of each module to the intended programme learning outcomes is transparently defined, so that the curriculum demonstrably supports the achievement of the intended learning outcomes.

A2. (ASIIN 1.3) (Re-)design the curriculum so that students acquire the foundations of theoretical computer science (formal languages, automata theory) and competences in the field of cybersecurity, and display the elective components transparently in the curricular overview.

A3. (ASIIN 2 & 1.6) Make the examination formats module-based and competency-oriented so that the respective course objectives can be adequately assessed, and document the design and the results of the examinations in such a way that the achievement of each course objective is traceable.

A4. (ASIIN 1.5) Implement a credit system based on the total student workload, award credits accordingly to all curricular components with student workload — including components currently assigned 0 ECTS — and apply the underlying workload reference value consistently across the whole curriculum. The ECTS-based credit system may run in parallel with the Chinese credit-point system.

A5. (ASIIN 4.2) Provide every graduate with a Diploma Supplement in English together with the diploma, and ensure that the Diploma Supplement provides the statistical data on the distribution of final grades foreseen by the ECTS Users' Guide.

A6. (ASIIN 5) Systematically monitor and document the achievement of the intended learning outcomes at course and at programme level, use the outcomes of the internal evaluations — including the review of the teaching and learning methods and of the suitability of the examinations — systematically to improve the quality of the degree programme, document this process continuously, and inform the students about the evaluation results.

Accreditation History

The programme has not been previously accredited by ASIIN.

B. About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for	Involved Technical Committees (TC)
Ba. 计算机科学与技术	Ba. Computer Science and Technology	ASIIN	04

Date of the contract: 25.08.2025

Submission of the final version of the self-assessment report: 13.04.2026

Date of the Audit: 18-19.05.2026

at: Taizhou University, China

Peer panel:

Prof. Dr. Carsten Vogt, Technische Hochschule Köln

Prof. Dr. Zheng Liu, Shandong University of Finance and Economics

Dr. Martin Witte, Siemens AG

Ms. Shumo Wang, Northeastern University, Shenyang, China

Representative of the ASIIN headquarter: Dr. Xin Jiang

Responsible decision-making committee: Accreditation Commission for Degree Programmes

Criteria used:

European Standards and Guidelines as of May 15, 2015

ASIIN General Criteria, as of December 10, 2015

Subject-Specific Criteria of Technical Committee 04 – Informatics/Computer Science as of March 29, 2018

C. Characteristics of the Degree Programme

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[1]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Ba. Computer Science and Technology	Ba. 计算机科学与技术 Computer Science and Technology	Computer Science	Level 6	Full time	-	8 Semester	212 ECTS	September 2015

For the Bachelor's degree programme Computer Science and Technology Taizhou University (TZU) has presented the following profile in its Self-Assessment Report:

Taizhou University is a publicly funded, application-oriented university located in Taizhou, Jiangsu Province, with thirteen secondary colleges, thirty-seven undergraduate programmes, more than 800 full-time teachers and around 13,500 students. The Bachelor's degree programme Computer Science and Technology is offered by the Department of Computer Science and Technology within the College of Information Engineering, which was founded in 2014 and which also offers the programmes Internet of Things Engineering, Data Science and Big Data Technology, and Cyberspace Security.

"The programme of Computer Science and Technology adheres to the fundamental task of moral education and aligns with the needs of regional economic and social development. After four years of study, graduates are expected to possess solid theoretical knowledge of mathematics, natural sciences and computer science — including programming, data structures and algorithms, computer networks, operating systems, databases, software engineering and artificial intelligence — and to be able to propose effective solutions to complex engineering problems in computer applications while considering environmental, safety and sustainable-development factors. Graduates are prepared to undertake roles such as software engineers or system developers in the IT industry, research institutions, enterprises and public organisations, and to grow into technical backbones or project managers."

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

The programme is offered as a full-time programme over eight semesters, comprising 212 ECTS credits, and leads to the degree of Bachelor of Engineering (EQF level 6). The programme was first offered in September 2015, admits students once a year in the autumn semester, and has an intake capacity of up to 172 students per cohort. According to the Self-Assessment Report, the programme has been recognised as a first-class undergraduate construction project of Jiangsu Province and as part of the provincial Outstanding Engineers Education and Training Programme 2.0.

D. Peer Report for the ASIIN Seal[2]

1. The Degree Programme: Concept, Content & Implementation

Criterion 1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)

Evidence:

- Self-Assessment Report, section 1.1
- Student Handbook / Cultivation Plan)
- Objective–Module Matrix
- Support Matrix of Programme Learning Outcomes (PLOs) to Programme Educational Objectives (PEOs)
- Documents on programme-specific objectives and learning outcomes
- Programme documents published in English at https://jsj.tzu.edu.cn/ASIIN/list.htm (including programme objectives and learning outcomes, module descriptions, staff information and admission rules)
- Webpage of the College of Information Engineering: https://jsj.tzu.edu.cn/ (in Chinese)
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The experts refer to the Subject-Specific Criteria (SSC) of the Technical Committee 04 – Informatics/Computer Science as a basis for judging whether the intended learning outcomes of the Bachelor's degree programme Computer Science and Technology as defined by Taizhou University correspond with the competences outlined by the SSC.

According to the Self-Assessment Report, the programme pursues the fundamental task of moral education and aims to educate application-oriented graduates who possess a sound personality, a strong sense of social responsibility and engineering ethics, and who are able

[2] 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.

to solve complex engineering problems in the field of computer science and technology. The programme defines four Programme Educational Objectives (PEOs), which describe the intended professional profile of graduates three to five years after graduation, and eleven Programme Learning Outcomes (PLOs). The eleven PLOs cover engineering knowledge; problem analysis; design and development of solutions; research; the use of modern tools; engineering and sustainable development; engineering ethics and professional conduct; individual and teamwork; communication; project management; and lifelong learning. Each PLO is further broken down into two assessable sub-indicators, resulting in a system of twenty-two indicators that the programme uses for its outcome mapping. The objectives and the intended learning outcomes are reproduced in full in the Appendix to this report.

The relationship between the PEOs, the PLOs and the curriculum is documented in three matrices. A Support Matrix of PLOs to PEOs describes how each of the eleven PLOs contributes to the four PEOs; an Objective–Module Matrix maps the six SSC04 competence areas onto the PLOs and onto representative courses; and a weighted Course–PLO Support Matrix assigns to each course a numerical contribution to the individual PLO indicators. The programme states that the SSC04 competence areas are systematically decomposed into the eleven PLOs and that all SSC04 competence areas are fully covered.

On the basis of the Self-Assessment Report and the discussions during the audit, the experts see that the eleven PLOs cover the subject-specific competences defined in the SSC of the Technical Committee 04 — including formal, algorithmic and mathematical competencies; analysis, design, implementation and project-management competencies; technological competencies; methodological and transfer competencies; interdisciplinary competencies; and social and self-competencies — and that they are formulated at a level appropriate for a Bachelor's degree (EQF level 6). The experts also note that the qualification profile is clearly oriented towards the regional ICT labour market and towards an application-oriented profile, and that the objectives and learning outcomes are in principle suitable to allow graduates to take up an occupation corresponding to their qualification. During the audit, the representatives of the cooperating enterprises confirm their satisfaction with the competences of the graduates and their employability in the regional ICT sector.

At the same time, the experts observe that the intended learning outcomes, as currently formulated, remain rather generic: the wording follows closely the standard national engineering-education outcome catalogue and could apply to almost any Computer Science and Technology programme in the country, so that it does not yet visibly express the distinctive features of the programme at Taizhou University. The experts hold the view that a sharper formulation of the intended learning outcomes would better express the specific

profile of the programme and would more effectively guide the organisation of the curriculum and the teaching process.

The ASIIN criteria require that the relevance of the objectives and intended learning outcomes for the labour market and society be regularly reviewed in a process involving the relevant stakeholders, and that the objectives be revised accordingly. The experts see that a corresponding mechanism is in place: the programme consults graduates, employers and external experts and tracks the professional development of its graduates. They note, however, that these inputs remain largely descriptive and that the process relies on the documented existence of consultation rather than on a systematic, quantitative analysis of labour-market data. The experts consider that the periodic review of the objectives is more robust if it is anchored in a clearly defined institutional procedure, if it is operated on a regular cycle with documented results, and if the responsible staff share an understanding of how quantitative labour-market data are to be collected and fed back into the revision of the objectives.

In summary, the experts judge the objectives and intended learning outcomes of the Bachelor's degree programme Computer Science and Technology to be reasonable, to allow graduates to take up an occupation corresponding to their qualification, and to correspond with the ASIIN Subject-Specific Criteria of the Technical Committee 04. The experts see room for improvement with regard to the distinctiveness of the formulated profile and to the data basis of its periodic revision, and they recommend that the intended learning outcomes express the distinctive features of the programme more clearly and that their periodic revision be supported by quantitative labour-market data collected on a regular basis.

Criterion 1.2 Name of the degree programme

Evidence:

- Self-Assessment Report, section 1.2
- Sample diploma, academic transcript and Diploma Supplement
- Discussions during the audit

Preliminary assessment and analysis of the experts:

The programme is named “计算机科学与技术” in Chinese and “Computer Science and Technology” in its official English translation. According to the Self-Assessment Report, the programme name has been used consistently since the programme was first offered in 2015, and the name falls under the national category of information and communication technology.

The experts hold the opinion that the English translation “Computer Science and Technology” and the original Chinese name of the programme correspond with the intended aims and learning outcomes, with the contents of the curriculum, and with the main course language (Chinese). The experts confirm that the name adequately reflects the dual focus of the programme on the scientific foundations of computing and on their technological application, and that it is therefore appropriate.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report, section 1.3
- Study plan / Curricular overview
- Module descriptions, also published in English at https://jsj.tzu.edu.cn/ASIIN/list.htm
- Objective–Module Matrix and Course–PLO Support Matrix
- Course-level achievement reports for selected courses
- Statistics on Student Mobility
- Cooperation agreements on internship bases
- Discussions during the audit

Preliminary assessment and analysis of the experts:

Content and Structure

The curriculum comprises 212 ECTS credits over eight semesters. According to the Self-Assessment Report, it is organised into modules covering basic disciplinary courses, specialised courses, general courses and integrated practical teaching. The main courses include C Programming, Discrete Mathematics, Computer Organization and Architecture, Data Structure, Database Principles and Applications, Design and Analysis of Algorithms, Operating Systems, Computer Networks, Software Engineering and Artificial Intelligence; mathematical and scientific foundations are provided through Advanced Mathematics, Linear Algebra, Probability and Mathematical Statistics, and College Physics. The practical components comprise laboratory courses, course projects, a software-engineering project, professional practice and internships, and the Bachelor’s degree thesis. For each module, intended learning outcomes are defined in the module descriptions, and the experts see that the curriculum covers the core areas of computer science and that, in principle, it allows students to achieve the intended learning outcomes.

The curriculum integrates practical training and professional internships as compulsory components. For this purpose the university has established off-campus training bases in

cooperation with enterprises of the region and has concluded the corresponding cooperation agreements; the placements are supervised jointly by a teacher of the programme and by a mentor of the host company, and they are assessed on the basis of an internship report and of the assessment provided by the host company. The experts note that the institution assumes responsibility for the content and the structure of these internships and coordinates the placements with the participating companies.

During the audit, the experts ask how the programme ensures that the internships confront students with authentic engineering work rather than with observation or routine tasks only, and how the engineering content of an individual placement is verified. From the discussion, the experts understand that the choice of the training bases and the general framework of the placements are agreed with the enterprises and that every student is assigned a supervisor, but that the engineering substance of the individual placement is documented mainly through the internship report and is not measured against explicit criteria. The experts consider the practical components of the curriculum to be, in principle, adequate and well embedded in the cooperation with the regional ICT industry. They encourage the programme to define more explicitly which engineering content an internship has to provide, and to monitor the fulfilment of these expectations, so that the contribution of the internships to the intended learning outcomes remains verifiable.

During the audit, the experts examined in detail how the curriculum supports the achievement of the intended learning outcomes, since the programme presents itself as following outcome-based education (OBE). The programme has established three matrices — a PLO–PEO matrix, an Objective–Module matrix and a weighted Course–PLO support matrix — which on paper link the educational objectives, the learning outcomes, the SSC competence areas and the individual courses. In the Course–PLO support matrix, the contributions of all courses to each PLO indicator are normalised so that they sum to one. The experts acknowledge that this represents a structured and, in its ambition, commendable approach to outcome-based education, and that the programme has invested considerable effort in building these mapping instruments.

However, the experts note that the realisation of outcome-based education remains partial at the level of the individual course. Two parallel sets of course objectives coexist: the module descriptions formulate the objectives of each course in terms of knowledge, skills and competencies, whereas the course-level achievement reports submitted by the programme formulate the course objectives as integrated competencies derived from the Chinese engineering-education framework, in which each objective combines knowledge, skills and attitudes oriented towards graduate employability. These two formulations are not mapped onto each other, so that it is not transparent which course objective in the achievement report corresponds to which knowledge/skills/competency statement in the

module description, nor which of them is addressed by a given teaching or assessment element. In addition, the contribution of individual courses to the programme learning outcomes, as expressed in the Course–PLO support matrix, is not in all cases plausible: for example, the course Mobile Application Development is credited with a single, low weighting on one indicator only, while the professional internship is credited with supporting seven PLO indicators, including the indicator for cross-cultural communication on professional issues, and the course Data Visualization is not listed in support of the indicator on the analysis and interpretation of experimental results, although it would appear directly relevant. The experts hold the view that a consistent formulation of the course objectives across module descriptions, achievement reports and support matrices is a precondition for the intended learning outcomes to take effect and to be verifiably attained. They require the programme to ensure that the curriculum systematically supports the achievement of the intended learning outcomes, that the course objectives are formulated consistently in all programme documents, and that their contribution to the programme learning outcomes is defined transparently and verifiably.

With regard to the breadth and depth of the curriculum, the experts note several points that require updating. The foundations of theoretical computer science (computing theory) are only weakly visible in the curriculum, although the Self-Assessment Report names computing theory, alongside algorithm design and system architecture, as one of the three core components of the programme. The course Principles of Compilers is offered, but the more fundamental area of formal languages, automata and computability and complexity theory is not clearly or adequately represented in the curriculum. Furthermore, Cybersecurity is offered only as an elective and is credited in the support matrix with a contribution to two indicators only; the experts consider it inappropriate that, given the strategic importance of the field, a student could in principle graduate from a Computer Science and Technology programme without having taken a dedicated cybersecurity module. The experts also note that the curricular overview does not contain a clearly visible placeholder for elective courses — for instance, no elective slot is shown in the fifth semester — which reduces the transparency of the study plan and makes it difficult for students to plan a coherent specialisation. The experts require the curriculum to be updated so that an appropriate breadth and depth of content is maintained, in order to support both the disciplinary foundations of computer science and the distinctive profile of the programme.

The experts further note an apparent inconsistency in the description of the curriculum: the Self-Assessment Report states in one place that the curriculum is divided into eight modules, while only four module groups are named and used to organise the module descriptions. The experts understand from the discussion that this is partly a wording issue,

but they expect the programme to present a consistent and complete account of the module structure in the updated documentation.

Mobility

According to corrected data clarified during the audit, the programme recorded the following numbers of outgoing students over the period 2021–2025: one (2021), two (2022), six (2023), two (2024) and zero (2025). The figures originally provided in the Statistics on Student Mobility referred to internal programme transfers and cannot be counted as student mobility. The mobility opportunities currently offered are listed as four programmes: a short-term summer cultural-exchange programme in Macau, two short-term academic-exchange programmes focusing on artificial intelligence (with City University of Macau and with Macquarie University, Australia) and a course-based programme in artificial intelligence at Macquarie University. All four are short-term, three of the four focus on artificial intelligence, and all are concentrated on partner institutions in Macau and Australia.

The experts note that, although a certain and not negligible level of student mobility exists, the opportunities are limited in geographic spread and thematic breadth and are exclusively short-term. The experts also ask how credits acquired abroad are recognised. Rules for the recognition of credits acquired at another institution exist for students who transfer into the programme (see criterion 1.4), but a specific procedure for the recognition of study achievements acquired abroad has not been presented; as the mobility formats offered are exclusively short-term and are not credit-bearing, the question has so far hardly arisen in practice. The experts consider that a curriculum which offers a genuine mobility window presupposes both attractive partnerships and a transparent recognition procedure. They recommend that the programme take effective measures to broaden the range of mobility opportunities — in scale, geographic spread and thematic breadth — and that it address the practical barriers to outgoing mobility, in particular the recognition of credits, language, cost and the timing of graduation, thereby strengthening the international openness of the programme.

Periodic Review

According to the Self-Assessment Report, the curriculum is reviewed on a regular annual basis, with more comprehensive revisions conducted every few years, in accordance with the principles of being student-centred, outcome-based and oriented towards continuous improvement. The review process involves the Teaching Quality Evaluation Center, the Office of Academic Affairs, full-time faculty members and external experts as well as students; in the most recent evaluation, twenty experts and 128 students are reported to have participated. The Self-Assessment Report reports a high level of satisfaction, with an average expert score of 98.3 and an average student satisfaction score of 92.6.

The experts note, however, that the same student surveys reproduced in the appendices also contain substantive criticism — for example that some course content is perceived as outdated and that a higher proportion of practical, project-based and AI-related learning is desired. The experts consider that the reconciliation between these qualitative findings and the very high headline scores is not fully transparent. They also note that this periodic review is the natural place in which the regular evaluation of the teaching and learning methods (criterion 1.6) and of the suitability of the examinations for determining the achievement of the learning outcomes (criterion 2) should be integrated; at present, the review concentrates on course content and overall satisfaction rather than on these aspects. The experts encourage the programme to make the periodic review demonstrably effective — by anchoring the review cycle in an identifiable institutional regulation, by operating it on a documented regular basis that records which curricular changes result from which findings (including findings on teaching methods and on examinations), and by ensuring that the responsible staff have a shared understanding of how qualitative findings are to be translated into curricular change. The action arising from this finding is consolidated under the chapter on quality management (see criterion 5).

In summary, the experts see that the curriculum covers the core areas of computer science and in principle allows the students to achieve the intended learning outcomes, and that the practical components are well embedded in the cooperation with the regional ICT industry. At the same time, the experts identify two points which, in their view, require action by the institution: the course objectives have to be formulated consistently across all programme documents and their contribution to the programme learning outcomes has to be defined transparently and verifiably, so that the curriculum demonstrably supports the achievement of the intended learning outcomes; and the curriculum has to be updated with regard to the breadth and depth of its content, in particular in the foundations of theoretical computer science and in cybersecurity. In addition, the experts see room for improvement — without seeing a need for formal action — with regard to student mobility and its recognition procedures, and they recommend that the periodic review of the curriculum be operated in such a way that it demonstrably translates its findings into curricular change; the corresponding measures are consolidated under criterion 5.

Criterion 1.4 Admission requirements

Evidence:

- Self-Assessment Report, section 1.4
- Official admission regulations
- Statistics on Admission Rate

- Statistics on Academic Success
- Statistics on Grade Distribution
- Documents on the recognition of externally acquired qualifications
- Discussions during the audit

Preliminary assessment and analysis of the experts:

Admission to the Bachelor's degree programmes of Taizhou University is based on the result of the National College Entrance Examination (Gaokao) of the People's Republic of China, supplemented by examinations organised by certain provinces. The experts understand from the documentation and the discussions during the audit that admission to Bachelor's degree programmes in China is centrally regulated and organised by the government: graduates of high schools take the Gaokao, apply to the universities for which their results make them eligible, and are admitted according to nationally and provincially regulated procedures. To be eligible for admission, applicants must comply with the relevant national and provincial regulations, hold a high-school diploma or an equivalent qualification, and be in good physical health. The university operates an enrolment-promotion workstation that organises outreach activities, and the admissions process is supervised by higher-level authorities.

According to the Statistics on Admission Rate, the number of available seats and admitted students developed as follows over the last five years: 88 (2021), 160 (2022), 204 (2023), 204 (2024) and 200 (2025), with a reported admission rate of 100 % in each year. The experts note that the "Applicants" column of these statistics has been left blank, which is consistent with the centralised allocation system in which admitted numbers follow the planned seats; they understand that the actual selectivity of the programme is reflected in the Gaokao score bands rather than in an application/admission ratio, and they take note of the programme's explanation to this effect.

With regard to the recognition of externally acquired qualifications, the experts understand that students who transfer into the programme from another programme may apply for credit substitution for comparable courses already completed, in accordance with the university's transfer regulations. The experts note that the procedure does not make explicit on which basis comparability is established. They recommend that the recognition procedure be made more explicit, so that recognition rests on a comparison of the learning outcomes achieved rather than on the similarity of course titles, and so that it can also be applied to study achievements acquired abroad.

The experts also reviewed the data on student progression and success. According to the Statistics on Academic Success, the average graduation time is reported as 8.04 semesters,

which corresponds closely to the standard duration of the programme, and the drop-out numbers are very low. The experts initially observed several apparent inconsistencies in the submitted cohort statistics: for the cohorts 2016, 2017 and 2018, enrolment figures are reported (48, 53 and 39 students respectively) while all completion columns are reported as zero; and for the 2019 cohort, 42 enrolled students are recorded against 78 graduates on time. During the audit, the programme clarified that the figures had been entered year by year rather than by cohort, so that the reported graduates on time refer to the graduating year and not to the entry cohort. The experts take note of this clarification and consider the matter resolved.

In summary, the experts find the terms of admission to be binding and transparent and confirm that the admission requirements support the students in achieving the intended learning outcomes. The experts see no need for formal action with regard to this criterion, but they recommend that the procedure for the recognition of externally acquired credits be made more explicit.

Criterion 1.5 Workload and Credits

Evidence:

- Self-Assessment Report, section 1.5
- Study plan / Curricular overview
- Document on the conversion from credit points to ECTS credits
- Documents on workload verification / student surveys
- Module descriptions
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, the total student workload is defined as the sum of contact hours and self-study hours, including both compulsory courses and practical components. On this basis, the programme assigns 212 ECTS credits over four academic years, with an average of approximately 26.5 ECTS credits per semester, which the Self-Assessment Report describes as a balanced distribution avoiding structural overload in individual periods. In addition to the credits awarded for course learning, the university awards credits for innovation and entrepreneurship achievements and for "second-classroom" activities. To verify that the assigned credits correspond to the actual workload, the programme reports that it conducts student workload surveys each semester and analyses the results together with the programme coordinators, the department chair and the academic secretary, making adjustments where imbalances are identified. The experts regard

the existence of such a workload-verification process, in which students are involved, as positive.

The experts acknowledge that the programme has, in principle, adopted a credit system based on student workload, that it documents the workload per semester, and that the total volume of 212 ECTS credits clearly exceeds the minimum of 180 ECTS credits required for a Bachelor's degree. During the audit, the experts ask on which basis the ECTS credits are calculated and how many hours of student workload correspond to one ECTS credit. The document submitted on the conversion from the national credit points to ECTS credits and the discussion show that no single reference value is applied consistently throughout the programme: the number of student working hours corresponding to one ECTS credit varies between the individual curricular components, although the values observed remain within the range of 25 to 30 hours per credit foreseen by the ECTS Users' Guide. The experts do not expect a fixed conversion rate to be prescribed, but they consider that within one and the same degree programme the reference value has to be applied consistently to all curricular components; otherwise the credits awarded to different courses are not comparable with each other and the credit volume of the programme cannot be interpreted.

The consequence of an incompletely implemented workload logic is visible in the curriculum. Several courses that carry a substantial number of contact and self-study hours — in some cases more than one hundred student hours — are assigned 0 ECTS, for example Situation and Policy, Military Training, Outline of Modern Chinese History and Fundamentals of Marxism. Under a workload-based credit system, every compulsory component of the programme that requires genuine student workload has to be awarded credits in proportion to that workload; assigning 0 ECTS to a course that nevertheless demands real student effort is not consistent with this principle.

The experts therefore require that the credits awarded reflect the actual student workload of all compulsory components of the curriculum, including those components currently assigned 0 ECTS, and that the workload reference value on which one ECTS credit is based be applied consistently across the whole curriculum. The experts point out that this is not a matter of a single symptom: the introduction of ECTS has to be carried out correctly and comprehensively, covering the underlying regulation, the day-to-day operation across all components of the curriculum, and a shared understanding among the responsible staff of what ECTS is, how it relates to the actual student workload and how it differs from a purely mechanical conversion of national credit points. The ECTS-based credit system may continue to run in parallel with the Chinese credit-point system.

In summary, the experts see that a workload-based credit system is in place in principle, that the workload is documented and verified with the involvement of the students, and

that the volume of the programme is appropriate. They require, however, that the allocation of the ECTS credits be brought fully into line with the actual student workload of all curricular components and that the underlying reference value be applied consistently throughout the programme.

Criterion 1.6 Didactic and Teaching Methodology

Evidence:

- Self-Assessment Report, section 1.6
- Module descriptions
- Cooperation agreements on internship bases
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, professional courses are usually taught in small classes of typically 40–50 students, and the main teaching methods comprise lectures (using a combination of slides and blackboard), case-based teaching drawing on the faculty's engineering and research experience, blended online and offline teaching supported by the university's online platform, integrated theory-and-practice teaching, and project-based teaching. Practical experiments are embedded in several specialised courses, and the programme operates teaching laboratories as well as off-campus internship bases established in cooperation with enterprises. Students are also required to complete comprehensive assignments, course papers, investigation reports and group presentations, through which skills such as literature retrieval, academic writing, data visualisation, organisation and oral presentation are developed.

The experts see that the programme employs a range of teaching methods and has access to adequate laboratory facilities, and that practical and project-based elements are a genuine part of the curriculum. They regard this positively and consider the teaching and learning methods, as such, to be suitable for supporting the achievement of the intended learning outcomes.

At the same time, the experts gain the impression that classroom teaching still relies to a considerable extent on lectures supported by slides and blackboard, and that the more interactive and student-centred formats described in the Self-Assessment Report are not yet used to their full potential at the current class sizes. The experts recommend implementing more interactive and student-centred in-class teaching methods, including a wider use of project-based formats and live demonstration, in order to support the achievement of the intended learning outcomes more effectively. The experts further note that, with

the exception of the dedicated English-language courses and of Scientific and Technical Writing, the technical courses are taught in Chinese; given the cross-cultural and English-language communication competences referred to in the intended learning outcomes, they recommend increasing the active use of English in selected technical courses, for instance through a journal-club format in which students present and discuss current papers in English (see also criterion 3.1).

The ASIIN criteria require that it be regularly reviewed whether the teaching and learning methods support the achievement of the programme objectives. The experts point out that their reservation does not concern the teaching methods themselves, which they consider appropriate, but the fact that this review does not yet take place in a systematic manner. They consider that the review of the teaching methods is to be integrated into the periodic review of the curriculum (see criterion 1.3), so that decisions on retaining, replacing or extending particular teaching formats are taken on a documented, regular basis and on the basis of evidence of their effect on the attainment of the intended learning outcomes; the corresponding measures are consolidated under criterion 5.

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

Objectives and learning outcomes (1.1): The experts acknowledge that Taizhou University has rewritten its four PEOs and eleven PLOs into one coherent qualification profile referencing the programme's application-oriented regional mission and its focus on computer systems, biomedical informatics and intelligent manufacturing informatics, and that it has introduced an annual labour-market evidence cycle. The experts welcome these revisions. As the distinctiveness of the profile and the consistency of the objectives across all programme documents can only be judged once the revised documents have been verified and have guided an actual revision cycle, the experts maintain their requirement and recommendation (see G, A1 and E1).

Curriculum – consistency (1.1 & 1.3 & 4.1): The experts acknowledge that the University has reconciled its cultivation plan, curricular overview, module handbook and the three TC04 matrices to a single set of four PEOs, eleven PLOs, twenty-two indicators, 194 ECTS and a minimum of 18 elective ECTS, with a documented cross-file consistency audit. The experts regard this as a substantial step but retain their requirement until the consistency and the transparent Course-PLO contribution are evidenced in practice (see G, A1).

Curriculum – theoretical computer science and cybersecurity (1.3): The experts positively note that the foundations of theoretical computer science are now distributed across Dis-

crete Mathematics, Design and Analysis of Algorithms and Principles of Compilers, that Cybersecurity has become a compulsory Semester 5 module (3 ECTS) with an additional elective, and that the elective windows and minimum elective requirement are shown in the curricular overview. As their delivery and assessment still have to be demonstrated through the course archives, the experts maintain the requirement (see G, A2).

Workload and credits (1.5): The experts acknowledge the uniform reference value of 30 hours per ECTS, the removal of 0-ECTS components and the ±10 % survey-based recalibration mechanism. Because the corrected allocation still has to be verified across the whole revised curriculum and confirmed through the workload surveys, the experts maintain the requirement (see G, A4).

Admission and didactics (1.4 & 1.6): The experts acknowledge the recognition procedure now based on achieved learning outcomes, the differentiated teaching-method framework and the assessed English components in selected technical modules. As these are recently adopted measures whose effectiveness will become visible only in future cycles, the experts maintain the corresponding requirement and recommendations (see G, A3, E3, E4, E5).

Final assessment: the experts consider criterion 1 to be *partly fulfilled*.

2. Exams: System, Concept and Organisation

Criterion 2 Exams: System, concept and organisation

Evidence:

- Self-Assessment Report, section 2
- Examination regulations
- Course-level achievement reports for selected courses
- Representative sample of graded examinations, reports and final projects
- Statistics on Grade Distribution
- Module descriptions
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, students must pass course assessments, a foreign-language requirement and the Bachelor's degree thesis in order to be awarded the degree. Course assessment may take various forms — written examinations, computer-

based operations, comprehensive assignments and laboratory or internship reports — and is specified in each course syllabus. The overall grade of a course is in principle composed of continuous assessment (typically 30–50 %) and a final examination (typically 50–70 %); a total score of 60 out of 100 points is considered a pass. Examinations are organised by the relevant teaching and research office, which prepares both an examination paper A and a paper B together with standard answers and scoring rubrics; papers are approved by the department chair and the dean, printed under controlled conditions, invigilated according to the invigilation rules, marked against the established standards, and archived for five years. Students may request a review of their results. The foreign-language requirement obliges students to take the National College English Test (CET-4), and the Bachelor's degree thesis is assessed by the supervisor, an evaluator and a defence panel.

The experts confirm that the organisation of the examinations — the setting of papers A and B, the invigilation, the marking against transparent criteria, the review of results and the five-year archiving — is regulated and transparent, and they assess this organisation positively. The types of examination are specified for each module in the syllabus, and students are informed about the assessment conditions at the beginning of the course. There are transparent rules for make-up examinations, deferral and absence in case of illness, and the programme operates an academic-integrity code together with measures against cheating and plagiarism; the Bachelor’s degree thesis demonstrates the students’ ability to work independently on a task at the intended level, and where a thesis is carried out at an external organisation the institution retains responsibility for its content and supervision. The experts also note that the foreign-language requirement and the thesis-assessment procedure are clearly regulated.

During the audit, the experts reviewed a sample of examination papers, course-level achievement reports and final projects. They note positively that the programme produces course-level achievement reports that report attainment values for the course objectives. In the Chinese engineering-accreditation framework, the examination archive is expected to contain, for each examination, a structured paper-design and approval record (试卷命题审批表) that documents which questions assess which course objective and with which weighting, together with an outcome-attainment analysis (达成度分析); these together form the evidence basis on which the achievement values are subsequently calculated. In the examination archive seen by the experts during the audit, neither the structured paper-design and approval record nor the corresponding outcome-attainment analysis was found, and the examinations record only an overall course grade composed of continuous assessment and the final examination, without a breakdown by course objective. The course-level achievement reports, which do report attainment per objective, are kept separately from the examination archive. As a consequence, the attainment values reported

in the achievement reports cannot be traced back to the individual examination items, and the evidence chain from the examination to the attainment of the course objective — and ultimately to the programme learning outcomes — is not auditable.

The experts wish to make the scope of this finding explicit. They do not question the forms of examination as such: the variety of examination types — written examinations, programming and computer-based tasks, project work, laboratory and internship reports and the Bachelor's thesis — is appropriate for the subject and is in principle suitable for determining whether the intended learning outcomes have been achieved. What is missing is the link between the individual examination and the course objective it is meant to verify: as long as an examination is not designed and documented with reference to the course objectives, the attainment values reported at course level cannot be substantiated, and the achievement of the intended learning outcomes cannot be evidenced. The experts therefore require that teaching and examination be oriented towards the achievement of the intended learning outcomes and that the design of the examinations be improved so that examination results provide structured and traceable evidence of attainment for each course objective, and that this evidence be kept in the examination records. The experts further note that programming- and design-oriented examinations should demonstrably assess the ability to deal with complex engineering problems rather than the recall of theoretical knowledge alone.

With regard to the distribution of final grades, the experts note from the Statistics on Grade Distribution that, of 273 graduates over the last five years, 2.2 % achieved the grade “Excellent” (6 graduates), 21.98 % “Good” (60), 48.35 % “Fair” (132), 26.74 % “Pass” (73) and 0.73 % “Fail” (2). The experts take note of this distribution, which is strongly concentrated in the “Fair” and “Pass” categories, with only a very small proportion reaching “Excellent”, and they encourage the programme to consider, once a structured attainment analysis is in place, whether this distribution reflects the actual achievement of the intended learning outcomes or rather a conservative grading practice.

Finally, the ASIIN criteria require that it be regularly reviewed whether the examinations can adequately determine the achievement of the learning objectives. The experts note that such a review can only become meaningful once the structured, outcome-oriented examination design described above is in place; they therefore expect this review to be established as part of the periodic review of the programme (see criterion 1.3) and to be operated by staff who share a common understanding of how outcome attainment is to be evidenced through examinations.

In summary, the experts consider the organisation of the examination system to be regulated, transparent and appropriate, and the examination forms to be suitable for the subject. They require, however, that the examinations be designed and documented in such a way that they provide verifiable evidence of the achievement of the course objectives and, through these, of the intended learning outcomes of the programme.

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

Exams (criterion 2): The experts acknowledge that the University has introduced a mandatory assessment-evidence chain mapping every examination question, task, project milestone and rubric criterion to a course objective, a mark, a cognitive/engineering level and a PLO indicator, together with a defined course archive (blueprint, mapping, marking scheme, anonymized samples, grade file, attainment calculation, reflection and improvement action), a normal attainment threshold of 0.70, and a revised standard requiring complex, incompletely structured engineering problems in programming, design and project assessments. The experts consider this a well-designed response. Since, as the University itself states, authentic course archives can only be accumulated through subsequent delivery cycles, the traceability of course-objective attainment cannot yet be verified on real examination evidence; the experts therefore welcome the new procedure but maintain their requirement until it is demonstrated on completed course files (see G, A3).

Final assessment: the experts consider criterion 2 to be *partly fulfilled*.

3. Resources

Criterion 3.1 Staff and Staff Development

Evidence:

- Self-Assessment Report, section 3.1
- Academic and professional qualifications of the teaching staff / Staff Handbook
- HR Plan
- Representative academic publications
- Documents on staff development and the Qinglan Project
- Cooperation agreements
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, the College of Information Engineering has 52 full-time teachers, including five professors, one industry professor, sixteen associate professors and twenty staff members holding a doctoral degree (among them six with an overseas doctorate). The Department of Computer Science and Technology itself has sixteen full-time teachers — two professors, four associate professors and ten lecturers — of whom 50 % hold a doctoral degree; the teaching staff covers computer science and technology, software engineering, and information and communication engineering. Including teachers from the wider College of Information Engineering, 46 teachers are involved in the professional courses, and more than twenty teachers from other schools of the university contribute the mathematics, physics, foreign-language and other general courses. Each teacher is expected to deliver a teaching workload of around 330 hours per year for undergraduate teaching, in addition to after-class guidance and the grading of assignments.

For staff development, the university operates a Center for Teaching and Learning Development, organises a one-week induction training for new teachers, and runs a mentorship mechanism pairing each new teacher with an experienced colleague. It supports continuing education, visiting-scholar programmes and participation in domestic and international academic exchanges, implements the “Qinglan Project” for the development of young and mid-career teachers, and actively promotes the development of “dual-qualified” teachers who combine academic qualifications with industry experience; for a senior academic title, candidates must have accumulated relevant enterprise experience or completed a period of professional practice.

The experts see that the teaching staff is adequate in number and qualification to deliver the programme, and they assess positively the dual-qualified teacher policy and the systematic staff-development measures, including the induction training, the mentorship mechanism and the Qinglan Project.

The experts note that the list of representative staff publications contains journal articles only and no conference papers, which is unusual in computer science, where conferences are a primary publication venue. They encourage the institution to support staff in attending and presenting at domestic and international conferences, both financially and through teaching-workload relief, in order to keep the staff in close contact with current developments in the discipline. The experts also take note of the reference to “doctoral supervisors” in the staff documentation and understand from the discussion that the corresponding doctoral supervision takes place in co-operation with partner universities rather than through a doctoral programme of Taizhou University itself.

With regard to the international dimension of the teaching staff, the experts note that the active command of English within the teaching staff is heterogeneous and that, during the audit, the communication largely relied on interpretation. As the intended learning outcomes include communication in cross-cultural and English-language settings, and as the technical courses are taught in Chinese, the experts recommend that the institution support the development of the English proficiency of its teaching staff and the active use of English in teaching, in particular in selected technical courses (see criterion 1.6), thereby strengthening the international orientation of the programme. Since the programme is delivered in Chinese, the experts do not see a need for formal action in this respect.

The experts further note that the currency of the curriculum depends on the contact of the teaching staff with current developments in a rapidly evolving discipline. They recommend that a mechanism be established by which cutting-edge technologies are systematically tracked — through conference participation, industry cooperation and the monitoring of the relevant literature — and are introduced as new content into the curriculum, and that staff be supported in attending and presenting at domestic and international conferences, both financially and through relief from teaching duties.

In summary, the experts consider the composition of the teaching staff and the staff-development measures to be adequate for the delivery of the programme and for the achievement of the intended learning outcomes. They see room for improvement, without a need for formal action, with regard to the English proficiency of the staff and to the systematic tracking of current technological developments and their transfer into the curriculum.

Criterion 3.2 Student Support and Student Services

Evidence:

- Self-Assessment Report, section 3.2
- Documents on student support and counselling
- Cooperation agreements
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, the programme offers a comprehensive student-support system. A Student Affairs Office is responsible for student management and for ideological and political education; a system of full-time counsellors supports students throughout the four years across nine areas of responsibility, including academic-atmosphere building, daily affairs, psychological-health education and career guidance; a system

of head teachers provides class-level guidance and pays particular attention to academically weaker students; and a Career Office combines individual counselling, group coaching and teaching practice, drawing on full-time teachers, part-time career advisers, HR professionals and alumni mentors. Students may also transfer between programmes under defined conditions, and most courses provide online resources on the university's teaching platform, which requires an account for access.

The experts see that students are supported at the different stages of their studies — from admission and orientation, through the study phase, to career guidance and the transition to employment or further study — and that both subject-specific and general counselling as well as the necessary administrative and technical support are available. The support services are appropriate for the size and profile of the programme. The experts confirm that the support and assistance offered to the students is adequate and supports them in achieving the intended learning outcomes and in completing the programme within the scheduled time.

With regard to provisions for students with disabilities or special needs, the experts note that the admission rules refer to the requirement of being "in good physical health". This wording, as the programme clarified during the audit, is the standard formulation prescribed by the Ministry of Education and refers to physical capacities sufficient for the study and the prospective professional activities; it does not constitute a categorical exclusion of disabilities or chronic conditions. The experts furthermore observed during the laboratory tour that accessible sanitary facilities for persons with disabilities are in place. The experts therefore consider the institution's provisions in this respect to be appropriate.

Criterion 3.3 Funds and equipment

Evidence:

- Self-Assessment Report, section 3.3
- Documents on available resources (laboratory lists, inventory, library and database access)
- List of laboratories and research platforms
- Cooperation agreements
- Visit of the Facilities and Laboratories during the audit
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, the expenditure on teaching for the programme has exceeded 14.95 million RMB over the past five years, and the programme has invested

around 1.2 million RMB in books and literature resources. The university library covers some 36,700 square metres and holds more than 1.26 million printed books and over 1.41 million electronic books, with 27 Chinese and foreign databases. The programme operates a range of laboratories — including software-engineering, big-data, embedded-systems, network and electronic laboratories as well as student-innovation laboratories and a Practical Teaching Center of more than 1,200 square metres — equipped with instruments valued at more than 15 million RMB, and around 300 computers with more than 200 sets of teaching and research software (including MATLAB, Multisim, Visual Studio and PyCharm). The university also operates several research platforms and reports planned investment in AI-related infrastructure.

The experts see that the programme has adequate funding, laboratory facilities and teaching equipment to deliver the programme, and that the university has visibly invested in AI-related computing infrastructure, which they assess positively.

The experts note, however, that several core international academic databases that are essential for research in computer science — in particular IEEE Xplore, the ACM Digital Library, Web of Science, Elsevier and Springer — are not currently among the 27 subscribed databases. This affects both the research activities of the staff and the literature work of the students, especially for the Bachelor's thesis. The experts recommend that broader access to such international literature and databases be provided to both staff and students — whether through direct subscription, national licences or institutional sharing — in order to adequately support the research-related activities of the programme.

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

Staff and staff development (3.1): The experts acknowledge the 2026–2028 staff-development plan (academic English, English micro-teaching, international visits, conference presentation) and the semi-annual horizon-scanning process for transferring current developments into the curriculum, and maintain the corresponding recommendations so that they can be evaluated at reaccreditation (see G, E5, E6).

Funds and equipment (3.3): The experts acknowledge the mixed access model for international literature (institutional subscriptions/trials, the Jiangsu library alliance, cooperation with Taizhou Library and interlibrary delivery) with annual usage monitoring, and maintain their recommendation with a view to the coverage of the core computer-science databases (see G, E7).

Student support (3.2): As the criterion was already assessed positively and the University confirmed the existing provision, the experts confirm their previous evaluation.

Final assessment: the experts consider criterion 3 to be *substantially fulfilled*.

4. Transparency and documentation

Criterion 4.1 Module descriptions

Evidence:

- Self-Assessment Report, section 4.1
- Module descriptions, also published in English at https://jsj.tzu.edu.cn/ASIIN/list.htm
- Study plan / Curricular overview
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, module descriptions for all compulsory and elective modules are accessible to students and teaching staff and contain the module title, the person responsible, the teaching methods, the credits and workload, the intended learning outcomes, the module content, the admission and examination requirements, the form of examination and the calculation of the module mark, the recommended literature and the date of the last amendment. The module descriptions are published in English at https://jsj.tzu.edu.cn/ASIIN/list.htm, while the wider information portal of the university is in Chinese.

The experts confirm that module descriptions for the compulsory and elective modules are available, accessible and, in their formal structure, complete, and that their publication in English is positive for the international transparency of the programme.

The experts note, however, that the module descriptions are in part not up to date and not fully consistent. For example, the module description of Mobile Application Development still refers to the Eclipse environment, which has been superseded in current industry and teaching practice (for instance by Android Studio and modern declarative user-interface frameworks); and the formulation of the course objectives in terms of knowledge, skills and competencies is not reconciled with the integrated-competence formulation used in the course-level achievement reports (see criterion 1.3). The experts also note that, for several module descriptions, the date of the last amendment is not clearly indicated, so that the version status is not always apparent. The experts therefore ask the institution to submit, together with its comment on this report, an updated curricular overview and updated module descriptions, containing a consistent formulation of the course objectives, clear version information and a complete description of all curricular components.

Criterion 4.2 Diploma and Diploma Supplement

Evidence:

- Self-Assessment Report, section 4.2
- Sample diploma and academic transcript
- Sample Diploma Supplement
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the ASIIN criteria, shortly after graduation a diploma is to be issued together with a Diploma Supplement provided in English; these documents inform about the graduate's qualification profile and individual performance and about the classification of the programme within the education system, and they present the module marks and the calculation of the final mark together with the statistical data set out in the ECTS Users' Guide that allow a reader to interpret an individual mark. According to the Self-Assessment Report, graduates are awarded a diploma and an academic transcript, and a sample diploma and a sample Diploma Supplement are provided. The experts examined these samples. They confirm that the diploma and the academic transcript are issued to every graduate and that the sample Diploma Supplement follows, in principle, the established structure and contains the essential information on the qualification obtained, on the programme and on the results achieved. The experts note, however, that the sample Diploma Supplement does not contain the statistical contextualisation foreseen by the ECTS Users' Guide — in particular a grade distribution table — which would enable an external reader to interpret an individual mark.

During the discussions, it becomes apparent that the concept, the purpose and the content of the Diploma Supplement are not yet understood at programme level, and that the Diploma Supplement is not issued to the graduates: the document submitted is a sample prepared for the accreditation procedure and does not correspond to an established practice. The experts therefore see that the essential function of the Diploma Supplement — to present, in an internationally transparent way, the qualification obtained and the learning outcomes achieved by the individual graduate, and thereby to facilitate the international recognition of the degree — is currently not fulfilled.

The experts require that a Diploma Supplement in English be issued to every graduate together with the diploma, and that it contain complete information on the qualification profile, on the individual performance and on the classification of the programme within the education system, including the statistical data foreseen by the ECTS Users' Guide. The ex-

perts point out that this requires the corresponding institutional regulation to be established, the issuance to be operated systematically from the next graduating cohort onwards, and the responsible staff to share an understanding of the purpose and the content of the Diploma Supplement, so that the instrument becomes effective in practice and not only on paper.

Criterion 4.3 Relevant rules

Evidence:

- Self-Assessment Report, section 4.3
- Student Handbook
- Quality Management Handbook
- University information-disclosure portal: https://xxgk.tzu.edu.cn/ (in Chinese)
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, each new student receives a student handbook setting out the rights and obligations of students, and the programme head gives an orientation lecture on the first day, presenting the history of the programme, the faculty, the laboratory conditions and the cultivation objectives, learning outcomes and curriculum. Policies and documents relating to teaching quality and student management are published on the university's information-disclosure portal, and staff ethics are governed by dedicated regulations to which new teachers commit in writing during their induction.

The experts confirm that the relevant rules and regulations — concerning the rights and obligations of students, examination regulations, admission regulations and staff ethics — are documented, accessible and binding, and that the students are informed about them at the beginning of their studies. The experts note that the information-disclosure portal and most of the underlying documents are available only in Chinese. They recommend that the key documents be made available in English as well, so that they are accessible to international students and to international partner institutions.

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

Module descriptions (4.1): The experts acknowledge that the module handbook has been fully rebuilt on a common template covering all compulsory, elective and practical components, with objectives, current content, methods, assessment, workload, literature, revi-

sion date and PLO contribution, and that outdated content (e.g. Mobile Application Development) has been updated. The experts regard the additional documents requested as provided; the ongoing alignment of these descriptions with the achievement reports and matrices is secured by requirement A 1 (see G, A1).

Diploma Supplement (4.2): The experts acknowledge the controlled procedure to generate the English Diploma Supplement from the student information system, including the grade-distribution context foreseen by the ECTS Users' Guide. As the University states that systematic issuance to every graduate begins only with the next graduating cohort, the essential function – actual issuance to every graduate – is not yet operational; the experts therefore welcome the procedure but maintain their requirement until systematic issuance is evidenced (see G, A5).

Relevant rules (4.3): The experts acknowledge the prioritized set of key regulations being made available in English and maintain their recommendation until publication and version control are completed (see G, E8).

Final assessment: the experts consider criterion 4 to be *partly fulfilled*.

5. Quality management: quality assessment and development

Criterion 5 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report, section 5
- Quality Management Handbook
- Sample student surveys and results
- Documents on the external evaluation of the programme
- Discussions during the audit

Preliminary assessment and analysis of the experts:

According to the Self-Assessment Report, the programme is embedded in a multi-level teaching-quality-management system comprising the President’s Office, the Academic Affairs Committee, the Teaching Affairs Office, the Teaching Quality Management and Assessment Office, and university- and school-level supervision teams. The system covers the cultivation plan, the curriculum and syllabi, teaching preparation, theoretical and practical teaching, internships, course design, examinations and the Bachelor’s thesis, and operates

routine inspections at the beginning, middle and end of each semester. Feedback is collected through student evaluations conducted each semester, through teaching-supervision teams that observe classes and report regularly, and through multiple channels such as the president's mailbox and online platforms; the programme also underwent and passed a comprehensive provincial evaluation in 2022. Sample analyses and representative survey results are provided to the experts.

The experts see that processes and course-level results are monitored systematically, that a range of feedback channels exists, and that the institution has a genuine culture of teaching-quality monitoring; they assess this positively.

The experts note, however, that the quality-management system does not yet systematically close the loop at the two levels at which closure is required. First, the outcome-based-education cycle can be understood as a chain of four links: the objectives are anchored (criterion 1.1), the curriculum supports their achievement (criterion 1.3), the examinations verify the degree to which they are attained (criterion 2), and the quality-management system feeds the results of this verification back into improvement (criterion 5). As set out under criteria 1.3 and 2, this chain is currently interrupted at the verification link: because the attainment of the learning outcomes cannot be traced from the examinations through to the programme level, the "check" and "act" stages of the quality cycle operate mainly on teaching processes and on overall course grades rather than on the attainment of the intended learning outcomes themselves.

Second, the periodic review of the curriculum (criterion 1.3) — which, as set out there, is also the natural place in which the regular evaluation of teaching and learning methods (criterion 1.6) and of the suitability of examinations for determining the achievement of the learning outcomes (criterion 2) is to be integrated — does not yet feed evaluation results into traceable improvement actions in a systematic way. The actions arising from those findings are consolidated here. The experts also note that, while employer and graduate feedback is collected, the way in which it feeds back into concrete curriculum revisions is not always documented in a traceable manner, that the results and the measures derived from the quality-assurance instruments are not always communicated back to the students, and that the substantive involvement of students in the development of the cultivation plan, beyond standard course-evaluation surveys, could be strengthened.

The experts therefore require that the internal quality-management system be further developed around outcome-based education: by anchoring the relevant procedures in regulation, by operating a documented cycle which systematically monitors and documents the achievement of the intended learning outcomes at both course and programme level and which translates the results of the periodic review — including the integrated review of the

teaching methods (criterion 1.6) and of the suitability of the examinations (criterion 2) — into traceable improvement actions that are communicated back to the students, and by building a shared understanding of outcome-based quality management among the responsible staff, thereby closing the PDCA cycle of the quality-management system.

In summary, the experts see a functioning system of teaching-quality monitoring, a genuine quality culture and a wide range of feedback channels. They require, however, that this system be developed into a closed quality cycle which is based on the achievement of the intended learning outcomes and which demonstrably translates the results of its evaluations into improvement actions.

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

Quality management(criterion 5): The experts acknowledge that the University has established a two-level OBE cycle in which course-level attainment is derived from mapped assessment evidence, programme-level coverage is checked through the qualitative H/M/L Course-PLO support matrix and triangulated with graduate, employer, student and teacher evidence, each PLO indicator is compared with the approved 0.70 threshold, and actions in the OBE improvement register may be closed only on evidence from a subsequent cycle. The experts further acknowledge the Feedback-Decision-Revision Register, the student-facing quality summary after each cycle and the strengthened student participation through the annual curriculum forum. The experts consider this an appropriate design that directly addresses the interrupted verification link identified in the report. Since, as the University itself states, operational evidence necessarily accumulates only through completed cycles, the "check" and "act" stages cannot yet be shown to close on outcome attainment; the experts therefore welcome the newly established system but maintain their requirement until at least one completed cycle demonstrates its effectiveness (see G, A6).

Final assessment: the experts consider criterion 5 to be *partly fulfilled*.

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:

D1. (ASIIN 1.1 / 4.1) A complete and updated cultivation plan (Student Handbook) that maintains internal data consistency, in particular an updated Objective–Module Matrix, a consistent account of the module structure, and a coherent formulation of programme objectives and learning outcomes across all programme documents.

D2. (ASIIN 4.1 / 1.3) An updated curricular overview and updated module descriptions, including a consistent formulation of the course objectives, clear version information, and a complete description of all curricular components.

F. Statement of the Higher Education Institution (15.08.2026)

The Higher Education Institution submitted two original documents, namely (1) the "Comment of the Higher Education Institution (Section E)" and (2) the "Modification and Evidence Matrix" (35 response items), both dated 15 August 2026 and held on file. As their full content is too extensive to be reproduced here, it is summarised in abridged form below.

Taizhou University thanks the peer group for its assessment and accepts the need to strengthen the distinctiveness and internal consistency of the qualification profile, the traceability of outcome-based education, the workload basis of ECTS, the assessment-evidence chain and the closure of the quality-management cycle. A revised Self-Assessment Report, cultivation plan, curricular overview, module handbook, mapping matrices and a supplementary evidence package were submitted on 15 August 2026. The responses are summarised below, criterion by criterion. Measures whose effect necessarily depends on a future delivery, survey, issuance or review cycle are identified as such.

Criterion 1.1 – Objectives and learning outcomes: The profile has been rewritten as four PEOs, eleven PLOs and twenty-two assessable indicators reflecting the University's application-oriented regional mission and the domains of computer systems, biomedical informatics and intelligent manufacturing informatics, supported by a new annual labour-market evidence cycle.

Criterion 1.3 – Curriculum: The curriculum, curricular overview, module handbook and three mapping matrices have been revised as one controlled set with aligned course objectives and qualitative (H/M/L) PLO contributions. The theoretical-computer-science strand is developed through Discrete Mathematics, Design and Analysis of Algorithms and Principles of Compilers; Cybersecurity is now a compulsory Semester 5 module (3 ECTS) plus an elective; and the elective windows and the minimum 18-ECTS elective rule are shown in the overview.

Criterion 1.4 – Admission and recognition: Recognition is now based on achieved learning outcomes, level, verified workload and assessment method rather than course-title similarity, with a pre-departure Learning Agreement for study abroad.

Criterion 1.5 – Workload and credits: A uniform value of 30 hours per ECTS is applied to all components; no compulsory component with genuine workload remains at 0 ECTS; the

programme totals 194 ECTS, with workload monitored through student surveys and a ±10 % recalibration trigger.

Criterion 1.6 – Didactics: A differentiated teaching-method framework links methods to course objectives and assessment evidence by course type, selected technical modules now carry assessed English components, and method effectiveness is included in the periodic course review.

Criterion 2 – Exams: A mandatory assessment-evidence chain maps each task or scoring point to a course objective, mark, cognitive/engineering level and PLO indicator, with a defined course archive and a normal 0.70 attainment threshold; programming, design and project assessments now require complex, incompletely structured engineering problems. Authentic course archives will accumulate through subsequent delivery cycles.

Criterion 3.1 – Staff: A 2026–2028 staff-development plan covers academic English, English micro-teaching, international visits and conference presentation, complemented by a semi-annual horizon-scanning process that transfers current developments into the curriculum.

Criterion 3.3 – Funds and equipment: A mixed access model (institutional subscriptions/trials, the Jiangsu library alliance, cooperation with Taizhou Library and interlibrary delivery) broadens access to international literature, with annual usage monitoring.

Criterion 4.1 – Module descriptions: The module handbook has been fully rebuilt on a common template covering all components, with outdated content updated (e.g. Mobile Application Development now on Android Studio, Kotlin and Jetpack Compose).

Criterion 4.2 – Diploma Supplement: A controlled process generates the English Diploma Supplement from the student information system, including the grade-distribution context foreseen by the ECTS Users' Guide; systematic issuance to every graduate begins with the next graduating cohort.

Criterion 4.3 – Relevant rules: A prioritised set of key regulations is being made available in English, each identifying the approved Chinese source, approving body and version, with the Chinese text prevailing in case of interpretation differences.

Criterion 5 – Quality management: A two-level OBE cycle derives course-level attainment from mapped assessment evidence and checks programme-level coverage through the H/M/L Course-PLO matrix, triangulated with graduate, employer, student and teacher evidence against the 0.70 threshold; actions may be closed only on evidence from a subsequent cycle. A Feedback-Decision-Revision Register, a student-facing quality summary after

each cycle and an annual curriculum forum with student representatives have been introduced.

Additional documents (D1/D2): The complete updated cultivation plan, the semester-by-semester curricular overview and the full module handbook were submitted, together with cross-file consistency audits and the three aligned TC04 matrices.

The University asks the peer group and the responsible ASIIN bodies to take this statement and the submitted documents into account in their final assessment.

G. Summary: Expert recommendations (31.08.2026)

Taking into account the statement and the additional documents submitted by Taizhou University, the experts summarize their analysis and final assessment for the award of the seal as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Computer Science and Technology	With requirements for one year	31.12.2032	–	–

Requirements

A1. (ASIIN 1.1 & 1.3 & 4.1) It is required that all programme documents — module descriptions, course-level achievement reports and the mapping matrices — present the course objectives and the intended learning outcomes consistently, and that the contribution of each course to the intended programme learning outcomes is transparently defined, so that the curriculum demonstrably supports the achievement of the intended learning outcomes.

A2. (ASIIN 1.3) It is required that the curriculum be (re-)designed so that students acquire the foundations of theoretical computer science (formal languages, automata, computability and complexity theory) and competences in the field of cybersecurity, and that the elective components be transparently displayed in the curricular overview.

A3. (ASIIN 2 & 1.6) It is required that the examination formats be module-based and competency-oriented so that the respective course objectives can be adequately assessed, and that the design and the results of the examinations be documented in such a way that the achievement of each course objective is traceable.

A4. (ASIIN 1.5) It is required that a credit system based on the total student workload be implemented, that all curricular components with student workload be awarded credits accordingly — including components currently assigned 0 ECTS — and that the underlying workload reference value be applied consistently across the whole

curriculum. The ECTS-based credit system may run in parallel with the Chinese credit-point system.

A5. (ASIIN 4.2) It is required that every graduate be provided with a Diploma Supplement in English together with the diploma, and that the Diploma Supplement provide the statistical data on the distribution of final grades foreseen by the ECTS Users' Guide.

A6. (ASIIN 5) It is required that the achievement of the intended learning outcomes be systematically monitored and documented at course and at programme level, that the outcomes of the internal evaluations — including the review of the teaching and learning methods and of the suitability of the examinations — be systematically used to improve the quality of the degree programme, that this process be continuously documented, and that the students be informed about the evaluation results.

Recommendations

E1. (ASIIN 1.1) It is recommended that the formulation of the intended programme learning outcomes express the distinctive features of the programme more clearly, and that the formation and periodic revision of the programme objectives be supported by quantitative labour-market data collected on a regular basis.

E2. (ASIIN 1.3) It is recommended that effective measures be taken to broaden the range of student mobility opportunities — in scale, geographic spread and thematic breadth — and to address the practical barriers to outgoing mobility, in particular the recognition of credits acquired abroad, language, cost and the timing of graduation.

E3. (ASIIN 1.4) It is recommended that the procedure for the recognition of externally acquired credits be made more explicit, so that recognition rests on a comparison of the learning outcomes achieved rather than on the similarity of course titles, and that it can also be applied to study achievements acquired abroad.

E4. (ASIIN 1.6) It is recommended that more interactive and student-centred in-class teaching methods be implemented, including a wider use of project-based formats and live demonstration.

E5. (ASIIN 3.1 & 1.6) It is recommended that the English proficiency of the teaching staff and the active use of English in teaching — in particular in selected technical courses — be strengthened, together with the international mobility of the staff.

E6. (ASIIN 3.1 & 1.3) It is recommended that a mechanism be established by which cutting-edge technologies are systematically tracked and introduced as new content into the curriculum, and that the teaching staff be supported in attending and presenting at domestic and international conferences.

E7. (ASIIN 3.3) It is recommended that broader access to major international academic literature and databases (e.g. IEEE Xplore, ACM Digital Library, Web of Science, Elsevier, Springer) be provided to both staff and students, in order to support the research-related activities of the programme, including the Bachelor's thesis.

E8. (ASIIN 4.3) It is recommended that the key rules and regulations of the university be made available in English as well, so that they are accessible to international students and to international partner institutions.

H. Comment of the Technical Committee 04 (10.09.2026)

Technical Committee 04 – Informatics/Computer Science (10.09.2026)

5 *Assessment and analysis for the award of the ASIIN seal:*

The TC discusses the procedure and follows the experts' assessment without any changes.

The Technical Committee 04 – Informatics/Computer Science recommends the award of the seals as follows:

Degree Programme	**ASIIN Seal**	**Maximum duration of accreditation**	**Subject-specific label**	**Maximum duration of accreditation**
Ba Computer Science and Technology	With requirements for one year	30.09.2032	–	–

10

I. Decision of the Accreditation Commission (25.09.2026)

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

The Accreditation Commission agrees with the assessment of the experts and the Technical Committee, but makes the following changes. In requirement A 1, the term “course” is replaced by “module” to align the wording with ASIIN terminology and the module-based structure of the programme documents. In requirement A 2, the list of required foundations of theoretical computer science is limited to formal languages and automata theory, as the AC considers these the core deficits to be remedied within the requirements procedure. In addition, all requirements are reformulated in an action-oriented manner for better understanding, without changing their substance. The recommendations remain unchanged.

The Accreditation Commission decides to award the following seals:

Degree Programme	**ASIIN Seal**	**Maximum duration of accreditation**	**Subject-specific label**	**Maximum duration of accreditation**
Ba Computer Science and Technology	With requirements for one year	30.09.2032	–	–

Requirements

A1. (ASIIN 1.1 & 1.3 & 4.1) Ensure that all programme documents — module descriptions, module-level achievement reports and the mapping matrices — present the module objectives and the intended learning outcomes consistently, and that the contribution of each module to the intended programme learning outcomes is transparently defined, so that the curriculum demonstrably supports the achievement of the intended learning outcomes.

A2. (ASIIN 1.3) (Re-)design the curriculum so that students acquire the foundations of theoretical computer science (formal languages, automata theory) and competences in the field of cybersecurity, and display the elective components transparently in the curricular overview.

A3. (ASIIN 2 & 1.6) Make the examination formats module-based and competency-oriented so that the respective course objectives can be adequately assessed, and document the design and the results of the examinations in such a way that the achievement of each course objective is traceable.

A4. (ASIIN 1.5) Implement a credit system based on the total student workload, award credits accordingly to all curricular components with student workload — including components currently assigned 0 ECTS — and apply the underlying workload reference value consistently across the whole curriculum. The ECTS-based credit system may run in parallel with the Chinese credit-point system.

A5. (ASIIN 4.2) Provide every graduate with a Diploma Supplement in English together with the diploma, and ensure that the Diploma Supplement provides the statistical data on the distribution of final grades foreseen by the ECTS Users' Guide.

A6. (ASIIN 5) Systematically monitor and document the achievement of the intended learning outcomes at course and at programme level, use the outcomes of the internal evaluations — including the review of the teaching and learning methods and of the suitability of the examinations — systematically to improve the quality of the degree programme, document this process continuously, and inform the students about the evaluation results.

Recommendations

E1. (ASIIN 1.1) It is recommended that the formulation of the intended programme learning outcomes express the distinctive features of the programme more clearly, and that the formation and periodic revision of the programme objectives be supported by quantitative labour-market data collected on a regular basis.

E2. (ASIIN 1.3) It is recommended that effective measures be taken to broaden the range of student mobility opportunities — in scale, geographic spread and thematic breadth — and to address the practical barriers to outgoing mobility, in particular the recognition of credits acquired abroad, language, cost and the timing of graduation.

E3. (ASIIN 1.4) It is recommended that the procedure for the recognition of externally acquired credits be made more explicit, so that recognition rests on a comparison of the learning outcomes achieved rather than on the similarity of course titles, and that it can also be applied to study achievements acquired abroad.

E4. (ASIIN 1.6) It is recommended that more interactive and student-centred in-class teaching methods be implemented, including a wider use of project-based formats and live demonstration.

E5. (ASIIN 3.1 & 1.6) It is recommended that the English proficiency of the teaching staff and the active use of English in teaching — in particular in selected technical courses — be strengthened, together with the international mobility of the staff.

E6. (ASIIN 3.1 & 1.3) It is recommended that a mechanism be established by which cutting-edge technologies are systematically tracked and introduced as new content into the curriculum, and that the teaching staff be supported in attending and presenting at domestic and international conferences.

E7. (ASIIN 3.3) It is recommended that broader access to major international academic literature and databases (e.g. IEEE Xplore, ACM Digital Library, Web of Science, Elsevier, Springer) be provided to both staff and students, in order to support the research-related activities of the programme, including the Bachelor's thesis.

E8. (ASIIN 4.3) It is recommended that the key rules and regulations of the university be made available in English as well, so that they are accessible to international students and to international partner institutions.

Appendix: Programme Learning Outcomes and Curricula

Objectives and Learning Outcomes of the Programme, as laid down in the Cultivation Plan of the Bachelor's degree programme Computer Science and Technology and published in English at https://jsj.tzu.edu.cn/ASIIN/list.htm:

I. Training Objectives

This programme is oriented toward meeting the needs of regional economic and social development. It aims to cultivate application-oriented talents who possess firm socialist ideals and beliefs, develop comprehensively in morality, intelligence, physical fitness, aesthetics, and labor, and are equipped with scientific and humanistic literacy, professional ethics, and an international perspective.

Students are expected to have innovative awareness and teamwork spirit, as well as capabilities in system analysis, development, practice, and project organization and management. They should be able to apply fundamental theories and technologies to solve complex engineering problems in the field of computer applications, adapt to technological progress and changes in social needs, and become application-oriented professionals engaged in project design, development, management, and service in IT industries, research institutions, enterprises, and public organizations.

Graduates of this programme are expected to achieve the following objectives about five years after graduation:

- Possess solid theoretical knowledge of mathematics and computer science, as well as professional skills, and be able to solve complex engineering problems in the field of computer applications while considering environmental, safety, and sustainable development factors.
- Possess strong engineering practice ability, teamwork ability, and engineering management ability, as well as good communication skills. They can become technical backbones or project managers engaged in system analysis, design, development, and testing in IT industries, research institutions, enterprises, and public organizations.
- Possess good scientific and cultural literacy as well as moral qualities, be physically and mentally healthy, have good professional ethics and social responsibility, and master knowledge related to economics, management, and law.
- Possess innovative awareness and lifelong learning ability, be able to continuously update and adjust their core knowledge and abilities through multiple learning

channels, have an international perspective and cross-cultural communication, competition, and cooperation abilities, and adapt to technological progress and social development.

II. Graduation Requirements

Students should meet the following requirements upon graduation:

(1) Engineering Knowledge

Be able to apply knowledge of mathematics, natural sciences, computing, engineering fundamentals, and computer science to solve complex engineering problems in the field of computer applications.

- Possess knowledge of natural sciences, mathematics, and computational science required for solving complex engineering problems; be able to select appropriate mathematical models to describe computer application systems and have the ability to analyze, compare, and evaluate these models.
- Possess relevant engineering fundamental knowledge required for the development of computer application systems; be able to apply basic theories of computer science to solve complex engineering problems involved in system design and development.

(2) Problem Analysis

Be able to apply basic principles of mathematics, natural sciences, and engineering sciences to identify, formulate, and analyze complex engineering problems in the field of computer application systems through literature research, while comprehensively considering the requirements of sustainable development, and be able to evaluate their rationality and obtain effective conclusions.

- Be able to identify and formulate complex engineering problems using mathematics, natural sciences, engineering fundamentals, and computer science theories and technical methods.
- Be able to analyze complex computer application systems, processes, or problems through literature research to seek solutions, while comprehensively considering the requirements of sustainable development, so as to meet application needs or achieve improvement.

(3) Design/Development of Solutions

Be able to design specific solutions for complex engineering problems in computer application systems, such as intelligent application systems, big data analysis systems, and mobile application systems, and demonstrate innovation in the design process. The feasibility of solutions should be considered from the perspectives of health and safety, life-cycle cost and net-zero carbon requirements, as well as legal, ethical, social, and cultural factors.

- Be able to determine specific solutions based on system requirements or design objectives and consider feasibility from multiple perspectives including safety, sustainability, law, and society.
- Be able to demonstrate innovation in the design process and solve complex problems in an innovative manner.

(4) Research

Be able to conduct research on complex engineering problems in computer application systems based on scientific theories and methods, including selecting research approaches, designing experiments, analyzing experimental data, and obtaining reasonable and effective conclusions through information synthesis.

- Be able to select research approaches and design feasible experimental schemes.
- Be able to analyze and interpret experimental results scientifically and draw reasonable

conclusions.

(5) Use of Modern Tools

For engineering problems, be able to select and use appropriate modern engineering development tools and information technology tools in the processes of computer hardware and software design, development, and system analysis, to solve complex engineering problems in computer application practice, and understand their limitations.

- Be able to master methods for acquiring professional literature and information and use modern information technologies for literature retrieval and information search.
- Be able to use modeling, design, development, and testing tools to solve complex problems and understand their working principles and limitations.

(6) Engineering and Sustainable Development

When solving complex engineering problems in computer applications, be able to analyze and evaluate the impact of engineering practice on health, safety, environment, law, and

economic and social sustainable development based on engineering background knowledge, and understand corresponding responsibilities.

- Be familiar with technical standards, intellectual property, industrial policies, and laws and regulations in the IT industry.
- Be able to evaluate the impacts of engineering solutions and understand responsibilities.

(7) Engineering Ethics and Professional Conduct

Possess awareness of serving the country through engineering and benefiting society, have humanistic and social science literacy and social responsibility, understand and practice engineering ethics, comply with professional norms and laws, and fulfill responsibilities.

- Possess correct values and continuously improve humanistic literacy, with sound physical and mental health.
- Adhere to engineering ethics and fulfill social responsibilities.

(8) Individual and Teamwork

Possess teamwork spirit and be able to undertake roles as an individual, team member, and leader in multidisciplinary teams.

- Be able to understand roles and responsibilities in teams.
- Be able to communicate and collaborate effectively and make decisions.

(9) Communication

Be able to effectively communicate with peers and the public on complex engineering problems, including writing reports, delivering presentations, clearly expressing ideas, and responding to instructions, and be able to communicate in cross-cultural contexts.

- Be able to express complex problems clearly and systematically.
- Be able to communicate across cultures.

(10) Project Management

Be able to apply management principles and economic decision-making methods related to engineering projects in multidisciplinary environments.

- Master relevant knowledge and methods.
- Apply them in system design, operation, and management.

(11) Lifelong Learning

Possess awareness and ability of self-directed learning, lifelong learning, and critical thinking, understand the impact of technological changes, and adapt to new developments.

- Recognize the need for lifelong learning.
- Understand technological advances and their impact.

5

Template
Support Matrix of Programme Learning Outcomes (PLOs) to Programme Educational Objectives (PEOs)

TC 04

Computer Science and Technology – Bachelor Degree

Programme Learning Outcomes (PLOs)	Programme Educational Objective 1 (PEO 1)	Programme Educational Objective 2 (PEO 2)	Programme Educational Objective 3 (PEO 3)	Programme Educational Objective 4 (PEO 4)
PLO 1	√			
PLO 2	√			
PLO 3	√	√		
PLO 4	√	√		
PLO 5		√		
PLO 6	√	√	√	
PLO 7			√	
PLO 8		√		
PLO 9		√		√
PLO 10		√		
PLO 11				√

Curriculum:

Computer Science and Technology – Bachelor Degree

Course	PLO 1		PLO 2		PLO 3		PLO 4		PLO 5		PLO 6		PLO 7		PLO 8		PLO 9		PLO 10		PLO 11	
	1.1	1.2	2.1	2.2	3.1	3.2	4.1	4.2	5.1	5.2	6.1	6.2	7.1	7.2	8.1	8.2	9.1	9.2	10.1	10.2	11.1	11.2
Advanced Mathematics A	0.18																					
Linear Algebra	0.18																					
College Physics B	0.18																					
Discrete Mathematics	0.18		0.20																			
Probability & Statistics	0.18						0.20															
Design and Analysis of Algorithms	0.10																					
Digital Logic Circuits		0.25																				
Computer Organization		0.25																				
Operating Systems		0.20	0.20		0.15																	

Course	PLO 1		PLO 2		PLO 3		PLO 4		PLO 5		PLO 6		PLO 7		PLO 8		PLO 9		PLO 10		PLO 11	
	1.1	1.2	2.1	2.2	3.1	3.2	4.1	4.2	5.1	5.2	6.1	6.2	7.1	7.2	8.1	8.2	9.1	9.2	10.1	10.2	11.1	11.2
Computer Networks		0.15	0.15																			
Database Systems		0.15		0.18	0.15					0.20												
Data Structure			0.25	0.22	0.20																	
Algorithms			0.20	0.22			0.25															
Machine Learning				0.18		0.20	0.20	0.25														0.25
Data Mining				0.20			0.20	0.20														0.20
Software Engineering					0.25	0.30				0.25									0.30			
Intelligent Application Dev					0.25	0.25																
Mobile App Development						0.15																
HCI						0.10										0.20						
Bachelor Thesis							0.15	0.25														
Algorithms Project								0.15														
Scientific Writing								0.15									0.25					0.20
Python Programming									0.30													
Java Programming									0.25													
Linux OS									0.20	0.20												

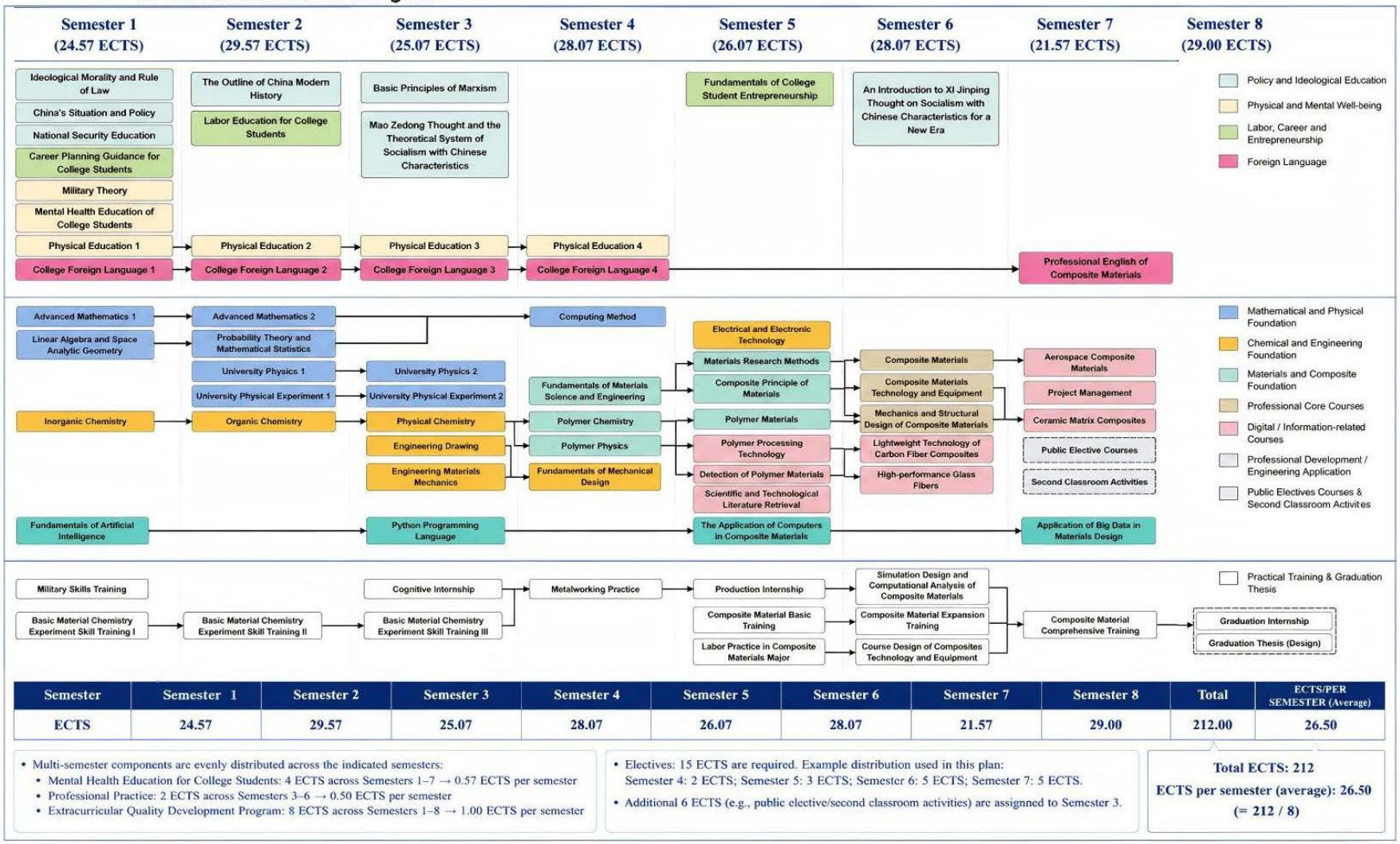
Course	PLO 1		PLO 2		PLO 3		PLO 4		PLO 5		PLO 6		PLO 7		PLO 8		PLO 9		PLO 10		PLO 11	
	1.1	1.2	2.1	2.2	3.1	3.2	4.1	4.2	5.1	5.2	6.1	6.2	7.1	7.2	8.1	8.2	9.1	9.2	10.1	10.2	11.1	11.2
Big Data Tech									0.15	0.20												
Visualization									0.10	0.15												
Engineering Ethics											0.35	0.30		0.40								
Ideological & Law											0.30											
Cybersecurity											0.20	0.20										
National Security											0.15											
Internship												0.25		0.30	0.30	0.30		0.20	0.30	0.30		
Intelligent Healthcare												0.15										
Practice												0.10			0.20							
Ideological Courses													0.40									
Mental Health													0.30									
Military Theory													0.30									
Military Training														0.30								
Software Engineering Project															0.30	0.30				0.30		
Extracurricular															0.20	0.20						
College English																	0.30	0.30				
Professional																	0.25	0.30				

3

Course	PLO 1		PLO 2		PLO 3		PLO 4		PLO 5		PLO 6		PLO 7		PLO 8		PLO 9		PLO 10		PLO 11	
	1.1	1.2	2.1	2.2	3.1	3.2	4.1	4.2	5.1	5.2	6.1	6.2	7.1	7.2	8.1	8.2	9.1	9.2	10.1	10.2	11.1	11.2
English																						
Thesis																	0.20	0.20			0.20	0.35
Software Project Management																			0.40	0.40		
Career Planning																					0.30	
Innovation Training																					0.30	
English																					0.20	

4

X. Curriculum Structure Diagram



Semester	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8	Total	ECTS/PER SEMESTER (Average)
ECTS	24.57	29.57	25.07	28.07	26.07	28.07	21.57	29.00	212.00	26.50

- Multi-semester components are evenly distributed across the indicated semesters:
  - Mental Health Education for College Students: 4 ECTS across Semesters 1–7 → 0.57 ECTS per semester
  - Professional Practice: 2 ECTS across Semesters 3–6 → 0.50 ECTS per semester
  - Extracurricular Quality Development Program: 8 ECTS across Semesters 1–8 → 1.00 ECTS per semester
- Electives: 15 ECTS are required. Example distribution used in this plan: Semester 4: 2 ECTS; Semester 5: 3 ECTS; Semester 6: 5 ECTS; Semester 7: 5 ECTS.
- Additional 6 ECTS (e.g., public elective/second classroom activities) are assignned to Semester 3.

Total ECTS: 212
ECTS per semester (average): 26.50
(= 212 / 8)

Figure 1. Curriculum Structure of the Computer Science and Technology Programme