



# **ASIIN Seal & EUR-ACE<sup>®</sup> Label**

## **Accreditation Report**

**Bachelor's Degree Programmes**

***Electronic & Information Engineering***

***Mechanical Design, Manufacture, and Automation***

Provided by

**Nanchang Institute of Science & Technology**

Version: 27 March 2026

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## A About the Accreditation Process

| Name of the degree programme<br>(in original language)                                                                                                                                                                                                                                       | (Official) English translation of the name     | Labels applied for <sup>1</sup> | Previous accreditation (issuing agency, validity) | Involved Technical Committees (TC) <sup>2</sup> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------|---------------------------------------------------|-------------------------------------------------|
| 电子信息工程                                                                                                                                                                                                                                                                                       | Electronic & Information Engineering           | ASIIN, EUR-ACE® Label           | /                                                 | 02                                              |
| 机械设计制造及其自动化                                                                                                                                                                                                                                                                                  | Mechanical Design, Manufacture, and Automation | ASIIN, EUR-ACE® Label           | /                                                 | 01                                              |
| <b>Date of the contract:</b> 30.05.2024<br><b>Submission of the final version of the self-assessment report:</b> 11.08.2024<br><b>Date of the onsite visit:</b> 26-27.11.2025<br><b>at:</b> Nanchang Institute of Science & Technology                                                       |                                                |                                 |                                                   |                                                 |
| <b>Expert panel:</b><br>Prof. Dr. Anne Schulz-Beenken, South Westphalia University of Applied Sciences<br>Prof. Dr.-Ing Moustafa Nawito, IU International University/Polymath Analog<br>Yuming Song, TE Connectivity<br>Yundi Deng, University of Electronic Science and Technology of China |                                                |                                 |                                                   |                                                 |
| <b>Representatives of the ASIIN headquarter:</b> Paulina Petracenko                                                                                                                                                                                                                          |                                                |                                 |                                                   |                                                 |

<sup>1</sup> ASIIN Seal for degree programmes; EUR-ACE® Label: European Label for Engineering Programmes

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

|                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Responsible decision-making committee:</b> Accreditation Commission for Degree Programmes                                                                                                                                                                                                                                                                                                          |  |
| <b>Criteria used:</b><br><br>European Standards and Guidelines as of May 15, 2015<br><br>ASIIN General Criteria, as of December 7, 2021<br><br>Subject-Specific Criteria of Technical Committee 01 – Mechanical Engineering/Process Engineering as of March 21, 2021<br><br>Subject-Specific Criteria Technical Committee 02 – Electrical Engineering/Information Technology as of September 23, 2022 |  |

## B Accreditation Status

### Result Overview

The most recent decision for the ASIIN Seal was made by the ASIIN Accreditation Commission on 27 March 2026.

| Degree Programmes                                 | ASIIN Seal                   | Validity                | EUR-ACE®                     | Validity                |
|---------------------------------------------------|------------------------------|-------------------------|------------------------------|-------------------------|
| Ba Electronic & Information Engineering           | Accredited with requirements | 27.03.2026 – 22.04.2027 | Accredited with requirements | 27.03.2026 – 22.04.2027 |
| Ba Mechanical Design, Manufacture, and Automation | Accredited with requirements | 27.03.2026 – 22.04.2027 | Accredited with requirements | 27.03.2026 – 22.04.2027 |

### Fulfilment of the Accreditation Criteria

| ASIIN General Criteria / Subject-Specific Criteria                           | Ba Electronic & Information Engineering                 | Ba Mechanical Design, Manufacture, and Automation       |
|------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|
| <b>1 Degree programme: Concept, Content &amp; Implementation</b>             |                                                         |                                                         |
| <i>1.1 Objectives and learning outcomes (intended qualification profile)</i> | Fulfilled                                               | Fulfilled                                               |
| <i>1.2 Title of the degree programme</i>                                     | Fulfilled                                               | Fulfilled                                               |
| <i>1.3 Curriculum</i>                                                        | <b>Not fulfilled</b><br><b>Requirements 1, 5, and 6</b> | <b>Not fulfilled</b><br><b>Requirements 1, 5, and 6</b> |
| <i>1.4 Admission requirements</i>                                            | Fulfilled                                               | Fulfilled                                               |
| <i>1.5 Workload and credits</i>                                              | <b>Not fulfilled</b>                                    | <b>Not fulfilled</b>                                    |

| ASIIN General Criteria / Subject-Specific Criteria              | Ba Electronic & Information Engineering      | Ba Mechanical Design, Manufacture, and Automation |
|-----------------------------------------------------------------|----------------------------------------------|---------------------------------------------------|
|                                                                 | <b>Requirement 2</b>                         | <b>Requirement 2</b>                              |
| <i>1.6 Didactics and teaching methodology</i>                   | Fulfilled                                    | Fulfilled                                         |
| <b>2 Exams: System, Concept and Organisation</b>                |                                              |                                                   |
| <i>2 Exams: System, Concept and Organisation</i>                | <b>Not fulfilled</b><br><b>Requirement 3</b> | <b>Not fulfilled</b><br><b>Requirement 3</b>      |
| <b>3 Resources</b>                                              |                                              |                                                   |
| <i>3.1 Staff and staff development</i>                          | Fulfilled                                    | Fulfilled                                         |
| <i>3.2 Student support and student services</i>                 | Fulfilled                                    | Fulfilled                                         |
| <i>3.2 Funds and equipment</i>                                  | Fulfilled                                    | Fulfilled                                         |
| <b>4 Transparency and Documentation</b>                         |                                              |                                                   |
| <i>4.1 Module descriptions</i>                                  | Fulfilled                                    | Fulfilled                                         |
| <i>4.2 Diploma and Diploma Supplement</i>                       | <b>Not fulfilled</b><br><b>Requirement 4</b> | <b>Not fulfilled</b><br><b>Requirement 4</b>      |
| <i>4.3 Relevant rules</i>                                       | Fulfilled                                    | Fulfilled                                         |
| <b>5 Quality Management: Quality Assessment and Development</b> |                                              |                                                   |
| <i>5 Quality Management: Quality Assessment and Development</i> | Fulfilled                                    | Fulfilled                                         |

## Requirements

### For all programmes

- A 1. (ASIIN 1.3, 1.4) Establish transparent and binding rules on the recognition of external qualifications.

## **B Accreditation Status**

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- A 2. (ASIIN 1.5) Verify and revise the self-study time to reflect the actual workload in the respective modules.
- A 3. (ASIIN 2) Ensure that the thesis adheres to scientific standards, including the sections on the problem statement, methodology, literature review, discussion of results and outlook. Additionally, make sure that the practical work is carried out with sufficient scientific rigour and is supported by adequate theory and data.
- A 4. (ASIIN 4.2) Ensure that the Diploma Supplement includes the graduate's final grade and statistical data, as set out in the ECTS Users' Guide, to allow readers to evaluate individual marks.

### **For the programme Ba Electronic & Information Engineering**

- A 5. (ASIIN 1.3) Increase the amount of content on mathematics and quantum physics.

### **For the programme Ba Mechanical Design, Manufacture, and Automation**

- A 6. (ASIIN 1.3) Establish a course on polymers and polymers manufacturing.

## **Accreditation History**

The programmes have not been previously accredited by ASIIN.

## C Characteristics of the Degree Programmes

| a) Name                                        | Final degree (original/English translation) | b) Areas of Specialization | c) Corresponding level of the EQF <sup>3</sup> | d) Mode of Study | e) Double/Joint Degree | f) Duration | g) Credit points/unit | h) Intake rhythm & First time of offer |
|------------------------------------------------|---------------------------------------------|----------------------------|------------------------------------------------|------------------|------------------------|-------------|-----------------------|----------------------------------------|
| Electronic & Information Engineering           | B.Eng.                                      | /                          | 6                                              | Full time        | /                      | 8 semesters | 224 ECTS              | Sep.2011                               |
| Mechanical Design, Manufacture, and Automation | B.Eng.                                      | /                          | 6                                              | Full time        | /                      | 8 semesters | 231 ECTS              | Sep.2011                               |

### Nanchang Institute of Science & Technology

Nanchang Institute of Science & Technology (NIST) is a private, full-time undergraduate university located in Nanchang, the capital of Jiangxi Province, China. It was established in May 1999 and later gained approval from the Chinese Ministry of Education to operate as a regular undergraduate institution with the authority to grant bachelor's degrees.

Nanchang Institute of Science & Technology places emphasis on practical and applied education and industry collaboration. The university has around 31 000 students and nearly 1,600 full-time teachers. The Institute has developed significantly over the past two decades, expanding its academic offerings to cover a wide range of disciplines including engineering, management, science, liberal arts, economics, art and more. It now comprises multiple schools and departments, and delivers a broad portfolio of undergraduate programs.

### Programme Summaries

For the Bachelor's degree programme Electronic & Information Engineering, the institution has presented the following profile in the self-assessment report:

The Electronic & Information Engineering programme is the first undergraduate programme established at the institute and has been enrolling students since 2011. It is a four-year, full-time programme leading to the award of a Bachelor of Engineering degree. The programme is designed in line with national economic construction and social development objectives, with a particular focus on serving the needs of strategic emerging industries.

<sup>3</sup> EQF = The European Qualifications Framework for lifelong learning

The programme maintains close cooperation with industry partners, including long-term collaboration with Huawei Technologies Co., Ltd., and has established several stable off-campus practice bases to support internships and practical learning. Owing to sustained programme development and quality improvement, the Electronic & Information Engineering programme was approved as a first-class undergraduate programme construction point in Jiangxi Province in 2019 and was later rated as a six-star “Top Applied Programme in China,” reflecting its applied orientation and overall teaching quality.

For the Bachelor’s degree programme Mechanical Design, Manufacture, and Automation, the institution has presented the following profile in the self-assessment report:

“Mechanical Design, Manufacture, and Automation is the core programme of the School of Mechanical and Vehicle Engineering. In 2011, it was approved to be one of the first undergraduate programmes enabling enroll students in our institute. In 2021, it has been selected as the "First-class Undergraduate Programme Construction Point in Jiangxi Province".

The basic duration of this programme is four years, and the bachelor of Engineering degree is awarded. The programme is based in Nanchang, serving local enterprises, radiating to the whole country. It would construct application-oriented talent training system that meets the development needs of "new engineering" through “university-enterprise cooperation, industry-education integration”. It is mainly for automobile industry, auto counterparts manufacturing enterprises, targeting the professions such as mechanical design engineer, and process engineer so as to cultivate application-oriented technical talents who are politically qualified, physically and mentally healthy, have comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor, master solid professional theoretical knowledge of mathematics, natural science and engineering science, have basic knowledge and application ability of mechanical design and manufacturing, have a good sense of social responsibility and professional ethics, and have an international perspective. They also should be able to engage in product design, process development, mechatronics design and other work in the fields of mechanical design, mechanical manufacturing, and mechanical and electrical control, and boast craftsmanship in the new era such as "practical hard work, strong adaptability and innovation". Under the premise of the basic consolidation and continuous improvement of teaching quality, it is aimed to construct an advantageous and specified programme which is of reasonable professional layout and curriculum system, of disciplines to match, and of certain impact in Jiangxi and the surrounding areas.

From the perspective of employment direction and the actual work type of the graduates of this programme in the past ten years, the graduates of this programme have widely

engaged in the manufacturing enterprises, computer information enterprises, scientific research units, and other related industries inside and outside the province.”

### **Summary of the Expert’s Assessment**

The experts’ overall assessment of the Electronic & Information Engineering and the Mechanical Design, Manufacture, and Automation programmes is predominantly positive. They describe both programmes as well structured and practice-oriented, supported by committed and engaged teaching staff and a highly motivated student body. Students are perceived as proactive and actively involved in their studies, while teachers demonstrate a strong commitment to teaching and student support. The experts particularly commend the strong practical orientation of the programmes and the close cooperation with industry. Measures to reduce teaching workload and provide general support for teaching staff pursuing PhD studies are also acknowledged.

Alongside these strengths, the expert panel identifies several requirements that must be addressed to ensure full compliance with ASIIN standards. Thus, transparent and binding regulations for the recognition of external qualifications need to be established. Furthermore, the calculation of self-study time and workload requires verification and revision, as inconsistencies were identified in several module descriptions. The experts also require that bachelor theses consistently meet scientific standards and demonstrate enhanced scientific depth. In addition, formal documentation must be improved by ensuring that the Diploma Supplement includes the final grade and statistical grading information in line with the ECTS Users’ Guide, and that the Transcript of Records lists module titles rather than only course codes.

For the Electronic & Information Engineering programme, the experts require a strengthening of mathematical and quantum physics content. For the Mechanical Design, Manufacture, and Automation programme, a dedicated course on polymers and polymer manufacturing should be introduced.

Beyond these requirements, the experts suggest expanding the theoretical content of the Electronic & Information Engineering programme to include areas such as artificial intelligence, neural networks, microelectronics, and chip design, as well as upgrading the laboratory equipment, particularly for microelectronics and simulation-based design. For the Mechanical Design, Manufacture and Automation programme, the experts recommend making greater use of industrial cooperation to compensate for limitations in in-house laboratory equipment, enabling students to work with advanced industrial facilities.

More broadly, they recommend promoting student and academic mobility, both nationally and internationally, through expanded cooperation, improved information provision and enhanced support measures. They also recommend strengthening training in scientific writing, diversifying examination methods, and ensuring a more consistent level of assessment across modules.

Overall, the expert panel concludes that both programmes provide a profound education at EQF level 6 in areas that are in demand in industry. However, there is room for improvement in certain areas. The experts believe that resolving these issues would further enhance the programme's academic coherence, international compatibility, and forward-looking profile.

## D Expert Report for the ASIIN Seal<sup>4</sup>

### 1. The Degree Programme: Concept, Content & Implementation

|                                                                                                               |
|---------------------------------------------------------------------------------------------------------------|
| <b>Criterion 1.1 Objectives and Learning Outcomes of a Degree Programme (Intended Qualifications Profile)</b> |
|---------------------------------------------------------------------------------------------------------------|

**Evidence:**

- Self-Assessment Report
- Study plans of the degree programmes
- Module descriptions
- Websites of the study programmes
- Objective-module-matrices
- Discussion during the audit

**Preliminary assessment and analysis of the experts:**

The experts refer to the Subject-Specific Criteria (SSC) of the Technical Committees 01 Mechanical Engineering/Process Engineering and 02 Electrical Engineering/Information Technology as a basis for judging whether the intended learning outcomes of the two programmes correspond with the competences as outlined by the SSCs.

The experts note that the programme learning outcomes can be found on the website, in the Programme Handbooks, the Diploma Supplements and in the Self-Assessment Report. Furthermore, SQU provides a module-objective-matrix per programme, which illustrates the alignment between course content and the expected outcomes as well as the SSC of the TCs 01 and 02.

The following descriptions of the programme objectives of the two programmes are taken from the Self-Assessment report. The detailed intended learning outcomes can be found in the appendix of this report.

**Ba Electronic & Information Engineering**

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<sup>4</sup> 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.

“The programme aims to cultivate politically qualified, physically and mentally healthy individuals who are well-rounded in morality, intelligence, physical fitness, aesthetics, and labor skills. Students will master theoretical knowledge in mathematics and natural sciences, electronic circuits, computer science, signals and systems, necessary for engaging in circuit systems and information systems-related work. They will possess the ability to apply electronic technology, embedded system development technology, and information processing technology to solve complex engineering problems. Graduates will be capable of working in electronic information industry and related areas, engaging in various fields such as hardware circuits, embedded systems, information processing, and transmission systems design, development, maintenance, and management, thus being cultivated to high-quality application-oriented talents demonstrating innovative consciousness, professional ethics, and craftsmanship.”

#### Ba Mechanical Design, Manufacture, and Automation

“The programme cultivates politically qualified, and physically and mentally healthy individuals who are well-rounded in morality, intelligence, physical fitness, aesthetics, and labor. Students will acquire a solid foundation in mathematics, natural sciences, and engineering science, along with basic knowledge and application skills in Mechanical Design, Manufacture, and Automation Programme. Graduates will possess a strong sense of social responsibility and professional ethics, a certain international perspective, and the capability to engage in product design, process development, and mechatronic design within the fields of mechanical design, manufacturing, and electromechanical control. They will be practical, adaptable, and innovative technical professionals, embodying craftsmanship in a new era.”

The experts confirm that the intended learning outcomes and programme objectives are transparently anchored and published and thus are available to students, lecturers and interested third parties. They also agree that the learning outcomes are described in a clear and concise manner. Furthermore, they find that the level of the objectives and intended learning outcomes of the programme adequately reflect EQF level 6 and correspond to the ASIIN Subject Specific Criteria (SSC) of the Technical Committees for Mechanical Engineering/Process Engineering and Electrical Engineering/Information Technology.

As NIST has also applied for the EUR-ACE® label for both programmes, the experts check whether the learning outcomes align with the EUR-ACE® Framework Standards and Guidelines (EAFSG) for engineering programmes. The EUR-ACE® Framework Standards and Guidelines requires that engineering programs cover the following seven competence areas: Knowledge and Understanding, Engineering Analysis, Engineering Design, Investigations, Engineering Practice, Making Judgements Communication and Team-working, and

Lifelong Learning. The self-assessment report and the module descriptions illustrate that the degree programmes under review cover all the required competence areas such as engineering analysis, design, and practice as well as communication and team-working skills. The experts are convinced that the mentioned competences are conveyed in the respective courses. They conclude that the intended learning outcomes of all programs are aligned with the EUR-ACE® Framework Standards and Guidelines (EAFSG).

The experts conclude that the two programmes will equip students with sought-after skills and enable graduates to pursue careers in one of the designated areas. This is confirmed by the industry partners in the audit. They report that they have long-standing collaborations with the university and regularly take on interns or recruit graduates for engineering positions. They are highly satisfied with the qualification profiles of graduates from the two programmes, particularly appreciating their soft skills.

The experts also acknowledge that the programme objectives and intended learning outcomes of the two programmes are reviewed on a regular and structured basis in line with internal regulations. A comprehensive revision of the programme is carried out every four years, while annual reviews are used to make smaller adjustments where necessary. These reviews are based on labour market analyses, graduate employment data, national and regional reports, and feedback from teaching and learning activities. The review process involves all relevant stakeholders, including programme coordinators, teaching staff, institutional management, industry representatives, students, and alumni. Proposed changes are discussed by academic staff, reviewed by the responsible committees, and published after approval to ensure transparency and relevance to current professional and societal needs. This procedure and the involvement of the stakeholders is verified in the audit. The experts are glad that NIST has a comprehensive review policy in place which considers stakeholder feedback. They conclude that the targeted skill profiles of the two programmes will enable graduates to find suitable employment, as set out in the programmes' objectives.

|                                                   |
|---------------------------------------------------|
| <b>Criterion 1.2 Name of the Degree Programme</b> |
|---------------------------------------------------|

**Evidence:**

- Self-Assessment Report
- Diploma Certificates
- Diploma Supplements

**Preliminary assessment and analysis of the experts:**

The experts confirm that the English translations and the original Chinese names of the two degree programmes correspond with the intended learning outcomes as well as the

content of the programmes. They also note that the programmes' names in both languages are used consistently in all relevant documents.

|                                 |
|---------------------------------|
| <b>Criterion 1.3 Curriculum</b> |
|---------------------------------|

**Evidence:**

- Self-Assessment Report
- Study plans
- Module descriptions
- Graduation Internship Management Regulations of Nanchang Institute of Science & Technology
- Discussions during the audit

**Preliminary assessment and analysis of the experts:**

*Content and Structure of the Programmes*

Each of the two bachelor's programmes lasts eight semesters. The Electronic & Information Engineering programme comprises 224 ECTS credits, while the Mechanical Design, Manufacture and Automation programme comprises 231 ECTS credits. The courses are categorised into seven subject areas or modules:

- G1. Self-Improvement Module
- G2. Discipline Basis Module
- G3. Computer Technology Module
- G4. Basic Electronic Information Module
- G5. Intelligent Terminal Hardware Development Technology Module
- G6. Interdisciplinary Module
- G7. Engineering Practice Module

Both degree programmes follow a largely structured curriculum in which compulsory courses ensure the achievement of the defined programme objectives and learning outcomes. Elective courses are selected from a guided pool of university-wide and programme-related offerings. At university level, around 200 elective modules are available, from which the individual schools pre-select a smaller number of electives recommended for each programme. In both programmes, elective courses are embedded within several curriculum modules rather than organised as a single elective block. Overall, electives are grouped into two main areas: interdisciplinary content and advanced professional subject areas. In the Mechanical Design, Manufacture, and Automation programme, the school preselects approximately 30 elective courses with a total volume of 79 ECTS. From this pool,

students choose elective courses amounting to 38 ECTS credits. In the Electronic & Information Engineering programme, the school currently preselects 21 elective courses. The exact number of electives taken by students and the corresponding credit volume are determined within the framework of the programme's regular curriculum review and update process.

The experts learn that there is a precise correlation between the CLOs (Course Learning Outcomes) and the intended learning outcomes of the programme, ensuring that students achieve the programme's learning outcomes.

Both programmes incorporate several practical projects, some of which are carried out in groups, strengthening students' problem-solving and teamwork skills. The programmes are concluded with a graduation thesis in the eighth semester, in which students must independently design and implement a project and write a thesis report.

The experts review the curricula and conclude that the programmes provide solid fundamental training in the two respective academic fields at EQF level 6. They also confirm that the programme is designed in such a way that students can achieve the programme learning outcomes and go on to work in one of the designated areas. Furthermore, they note that the programme is well organised, with each module representing a coherent unit of teaching and learning.

However, the experts are struck by the high number of non-technical courses in the two programmes. Thus, only around half of the courses in each programme consist of technical, subject-specific modules, while the remainder is allocated to general education modules mandated by the Chinese Ministry of Education (including Marxism, Chinese history, etc.) and interdisciplinary modules. In terms of workload, this equates to approximately 35% of the Electronic and Information Engineering programme and 40% of the Mechanical Design, Manufacture and Automation programme being taken up by non-technical courses.

While the experts understand the integration of both elements, they emphasise the importance of ensuring that these do not come at the expense of the actual subject-specific courses and competencies to be achieved in the programme. They therefore recommend reducing the number of non-technical courses and increasing the number of technical courses instead.

Regarding the Electronic and Information Engineering programme, the experts are generally satisfied with the curriculum, but note a few shortcomings. For instance, they find that the amount of mathematics and quantum physics content is too low for a Bachelor's degree in that field. There are maths courses totalling 14 ECTS credits, but the module descriptions indicate that the range and depth of topics covered is insufficient for a Bachelor's degree.

In that context, the experts also note that the module descriptions for the “Advanced Mathematics” modules do not provide sufficient detail about the modules' content, as was revealed during the audit discussions. Therefore, the module descriptions of “Advanced Mathematics” should provide more precise and detailed information about the modules' content. Apart from that, the experts also observe that, despite there being several physics classes, none of them cover quantum physics. As an understanding of semiconductors and electronics requires knowledge of quantum physics, it is essential that this subject is incorporated into the curriculum.

Furthermore, while the experts welcome the inclusion of the "Introduction to Artificial Intelligence Technology" module in the EIE programme, they feel that it lacks adequate AI theory. Therefore, they recommend incorporating more AI theory (e.g. neural networks) into the programme. Similarly, they recommend adding content on microelectronic circuits to the programme. This is an essential part of any electronics study program microelectronic chips are driver behind a large number of advances in fields such as mobility, consumer electronics, smart health care and of course Artificial Intelligence.

Finally, the experts are surprised that SPICE is not used for simulation in EDA technology. As SPICE is the industry standard for simulation, the experts suggest introducing a SPICE-based chip design course to the EIE programme.

With regard to the Mechanical Design, Manufacture and Automation Programme, the experts also find that the curriculum adequately enables students to acquire the intended learning outcomes. However, they feel that the programme lacks integration of polymers and polymer manufacturing. As knowledge of these materials is vital for the field of mechanical design and manufacturing, the experts require a course on polymers and their manufacture to be added to the programme. This is also supported by industry partners, who state in the audit that, for the time being, the focus on polymer applications is sufficient, but they estimate that more research will be required in this area in the future.

As will be discussed in more detail in Chapter 1.6 and 2 of this report, the experts find that the sample thesis papers provided for review suggest that students have relatively poor scientific writing skills. The experts therefore recommend enhancing training in academic writing in both programmes, including teaching correct referencing and overall academic standards. This aspect will be addressed in more detail in Chapter 1.6.

#### *Graduation Internship*

In both programmes, students are required to complete a graduation internship in the seventh semester. The internship carries 10 ECTS credits, corresponding to a total workload of 300 hours, and is normally completed over a period of 12 weeks in an enterprise. The

organisation, supervision, and assessment of the internship are regulated by the *Graduation Internship Management Regulations of Nanchang Institute of Science & Technology*. During the internship, students document their attendance and learning progress using a designated digital platform, where they record time spent in the enterprise and submit weekly reflective reports summarising their internship activities and learning outcomes. These entries are reviewed by the enterprise-based internship instructor, who monitors students' progress, professional development, and learning achievements. Upon completion of the internship, students are required to submit a Graduation Internship Handbook, which forms the main basis for assessment. The final internship grade is jointly determined by three evaluators: the enterprise instructor (40%), the ideological and political instructor (30%), and the academic instructor from the university (30%). This information is also included in the respective module description.

The experts welcome the inclusion of a mandatory industrial internship in both programmes. They agree that it is well integrated into the curriculum, and that the legal framework is clearly defined in the Internship Regulations, ensuring adequate supervision of students during their practical training. They also agree that the internship complements the practical nature of the two programmes well. However, considering the applied-science profile of Insutte and its programmes, they recommend enhancing the industry linkages. They particularly recommend giving students more exposure to industry throughout their studies, so they can learn early on how the theory they have learnt is applied in practice. This would also help students to understand the fields better and learn more about current technological developments and industry demands. They suggest, for instance, incorporating field trips into the programmes or offering more internships at different stages of the course.

### *Student Mobility*

The International Cooperation and Exchange Office is responsible for planning and implementing international mobility programmes and providing student support. The Institute promotes internationalization across three dimensions: management internationalization, faculty internationalization, and student internationalization. Key measures include study visits for administrative staff to learn advanced management systems abroad, expansion of inter-university cooperation projects, and hiring faculty with international experience. These initiatives aim to strengthen the university's management, teaching, and research capabilities in an international context.

Student mobility is primarily implemented through short-term internships, study trips, and academic camps abroad. In 2024, the Institute organised two notable programmes: a Summer Paid Internship Program in the United States, in which 12 students participated—

including one student from the Mechanical Design, Manufacture and Automation (MDMA) programme and five students from the Electronic & Information Engineering (EIE) programme—and a Summer Camp at the University of Bolton, UK, attended by two EIE students. Additionally, in October 2025, two students participated in short-term visits to Japan and Australia for academic or conference purposes. However, the overall number of students participating in international mobility remains very low, with only a few per programme per year.

The International Cooperation and Exchange Office plans to expand mobility further, targeting an annual increase in international exchange participation of 10–20%. Long-term objectives include developing credit recognition, dual-degree programmes, and joint training with partner institutions such as the University of Bolton and the University of Wales Trinity Saint David. The Institute also aims to support graduates pursuing master’s degrees abroad, facilitating approximately 30 applications per year.

Student support includes guidance and coordination for summer internships, academic camps, and international conferences, as well as access to foreign-language and preparatory training. Students can discuss with the Office possibilities for financial assistance when available, although current funding is limited. During the audit, experts note that information about mobility opportunities is currently distributed primarily through faculty announcements and the university website. Students may also obtain guidance from programme coordinators.

Currently, student exchanges and practical internships abroad are categorized under the “social practice” component of the programmes, with each programme including 3 ECTS credits for social practice. Apart from this, there is no formal mechanism for awarding credits for study abroad outside the social practice framework.

In the audit, the students report that they are partly familiar with the mobility options and would like to participate, but the biggest barrier is financial funding, as funding from NIST is limited and only a few students can afford to participate in international exchanges with additional financial support from the Institute.

The experts recognise the Institute’s initiatives, the established framework, and the availability of mobility options. However, they point out that mobility is currently only rudimentarily established, given the low number of participating students and the limited availability of short-term options. Therefore, they urge the Institute to promote and foster student and teaching staff mobility more actively. Specifically, they recommend expanding international partnerships with universities and companies abroad to increase the range of mobility options. They also suggest increasing financial support to make international opportunities accessible to a broader student population, as currently only a few students can

afford to participate in international exchanges. They also emphasise the importance of NIST enhancing the promotion and visibility of mobility programmes through events, presentations and webinars, as there is currently no active promotion of mobility offers from the International Cooperation and Exchange Office. In this context, the office should also provide additional guidance and preparatory support for students interested in international exchanges.

Furthermore, the experts note that there is no formal mechanism for recognising qualifications obtained externally. Since this is an essential part of mobility and ensures that academic achievements gained abroad are recognised at NIST, the experts require that NIST establishes formal and clear rules for the recognition of qualifications achieved externally.

In conclusion, while mobility activities exist and are functional, the experts emphasise the need for a strategic, proactive approach to increase participation and integrate internationalization fully into student development. The establishment of formal recognition procedures for external qualifications is a critical requirement to support this process.

#### *Periodic Review of the Curriculum*

The curriculum is reviewed as part of a continuous improvement process that supports the achievement of the programme objectives and learning outcomes. In addition to the four-year programme revision cycle, the curriculum is reviewed annually. These minor reviews may lead to adjustments such as changes in course content, the addition or removal of courses, credit adjustments, or changes in course status. The review process is led by course coordinators and programme teams and is examined and approved by the Programme Development Committee and the Curriculum Development Committee. Feedback from teachers, students, and external partners is collected through surveys, expert reviews, and formal feedback channels such as the Dean's and President's mailboxes. Approved changes are documented and published in a timely manner, ensuring that the curriculum remains coherent, up to date, and aligned with the intended learning outcomes.

In 2024, the university conducted a comprehensive review of the two programmes, including an in-depth SWOT analysis. The following summarises the changes implemented in 2025, shortly before the on-site visit, based on the review:

For the Electronic & Information Engineering programme, the total number of courses was adjusted from 86 to 85, with five new courses introduced and six courses removed. Several former compulsory professional courses were reorganised into two structured elective tracks—Circuit System Maintenance and HarmonyOS Device Development—to better reflect emerging industry demands and allow targeted specialisation. The revised programme

handbook was developed with active involvement of industry and employer representatives, whose feedback was incorporated into the final curriculum design.

In the Mechanical Design, Manufacture and Automation programme, the revision was more extensive. The total number of courses was reduced from 99 to 95, accompanied by the addition of 22 new courses and the removal of 7 existing ones. Core professional content was restructured into two clearly defined elective tracks: an Outstanding Engineer Track and a “1+X” Certificate Integration Track, the latter supporting vocational qualification and degree integration. In addition, interdisciplinary electives were standardised and consolidated into clearly defined elective categories. The programme also strengthened its applied orientation through the introduction of industry–academia co-developed courses and real-world project cases, directly addressing weaknesses identified in the SWOT analysis related to practical relevance and industry alignment.

The experts welcome the revision and the changes implemented based. In conclusion, they find that there is a systematic process in place for the regular review and improvement of programmes. They are pleased to hear that NIST considers the feedback of various stakeholders in the programme review process and maintains a close relationship with industry.

#### **Criterion 1.4 Admission Requirements**

##### **Evidence:**

- Self-Assessment Report
- Website of the University for Admissions
- Admission Brochure including regulations
- Discussions during the audit

##### **Preliminary assessment and analysis of the experts:**

Admission to undergraduate programmes at Nanchang Institute of Science & Technology is governed by China’s national higher education admission system and relevant regulations issued by education authorities. All admitted students must participate in the National College Entrance Examination (Gaokao) and reach or exceed the annually defined undergraduate admission score line. This threshold ensures that admitted students’ academic performance ranks within the top 40% of all candidates eligible for regular undergraduate education.

The annual enrollment quota for each programme is determined in advance by the respective higher education authorities. Admission decisions are made through a standardized and transparent procedure based on Gaokao results, subject selection at upper secondary level, and students’ programme preferences.

The admission requirements for the Electronic & Information Engineering and Mechanical Design, Manufacture, and Automation programmes follow the national regulations and do not differ from the general admission framework. In addition to reaching the undergraduate admission score line, applicants must have followed a science-oriented track in upper secondary education. Physics is a mandatory subject requirement, while students typically also select Chemistry and Biology. According to NIST, this subject profile ensures that incoming students possess a solid foundation in mathematics and natural sciences, which is essential for successful progression in engineering studies. Furthermore, applicants must clearly indicate the relevant engineering programmes in their university and programme preferences during the application process. Only students who meet both the academic threshold and the subject requirements are eligible for admission to the two programmes.

Admission requirements for international students are formulated by the recruiting universities within the framework of national regulations. At present, though, NIST does not enroll international students in the two programmes under review. However, the Institute has already issued formal Regulations on the Management of International Students, demonstrating in preparation for future international enrollment.

The admission requirements and procedures are formally documented and publicly available. Detailed information can be found in the Admission Brochure and the Overview of 2024 Entrance Scores of Each Programme in Jiangxi Province. These documents define enrollment plans, admission criteria, and score thresholds, ensuring transparency and consistency in the admission process.

According to the statistics, the actual enrolment in the Electronic & Information Engineering programme has often been higher than the planned enrolment over the last 5 years, with an enrolment rate between 104% and 156%. However, in 2023, there was a decrease in enrolment, with only 60% of the planned number of students enrolling. In the Mechanical Design, Manufacturing and Automation programme, the actual enrolment rate varied greatly, from 40% to 170%, although the 40% figure was recorded during the period of the pandemic. Experts do not consider the fluctuation in enrolment to be critical, since the overall numbers show that there is high demand for both programmes, with a particular increase in recent years.

The experts review the admission requirements and procedures, finding them appropriate for supporting students in achieving the intended learning outcomes of the study programmes. The admission ratios also confirm the demand for the programme.

However, as mentioned in Chapter 1.3, the experts note that there are currently no rules in place to recognise qualifications obtained externally, for example at other higher education institutions or outside the higher education sector. They therefore require NIST to

establish such rules in order to facilitate transitions between higher education institutions and non-university learning establishments without compromising the achievement of desired learning outcomes.

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| <b>Criterion 1.5 Workload and Credits</b> |
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**Evidence:**

- “Management Measures for Monitoring the Self-Study Workload of Students in ASIIN Accredited Programmes at Nanchang Institute of Science & Technology”
- Self-Assessment Report
- Study plan
- Module descriptions
- Programme-specific ECTS credit tables
- Discussions during the audit
- Student surveys
- Statistical data

**Preliminary assessment and analysis of the experts:**

Nanchang Institute of Science & Technology applies a credit system that is traditionally based on contact hours, in line with common practice in Chinese higher education. In preparation for ASIIN accreditation, the Institute has taken steps though to modify its system of workload calculation and credit allocation and to align it with the principles of the European Credit Transfer and Accumulation System (ECTS). In this context, NIST has started monitoring students' total workload, taking into account both contact hours and self-study time, in order to calculate course credits. To support this process, the Institute has established formal “Management Measures for Monitoring the Self-Study Workload of Students in ASIIN Accredited Programmes,” which apply to the two programmes under review and define procedures for estimating, monitoring, and adjusting student workload.

Both programmes are designed over eight semesters and allocate credits to all compulsory components, including theoretical courses, laboratory work, practical training, and off-campus elements such as internships. The Bachelor’s programme in Electronic & Information Engineering comprises 224 ECTS credits. The Bachelor’s programme in Mechanical Design, Manufacture, and Automation comprises 231 ECTS credits distributed. Detailed credit allocations for individual courses are documented in the programme-specific ECTS credit tables and the module descriptions.

Student workload is defined as the sum of in-class teaching time and self-study activities, with a target of 25–30 hours per ECTS credit in accordance with ECTS guidelines. Self-study workload includes preparation and review of course content, completion of assignments and exercises, participation in practical activities, and preparation for examinations. At the curriculum planning stage, self-study workload is estimated by course instructors based on teaching experience and course requirements and documented in the module descriptions.

To assess the alignment between allocated credits and actual workload, the Institute has introduced a systematic monitoring process based on student self-reports, surveys, and teacher observations collected at the end of each semester. As this system has only recently been implemented, comprehensive empirical workload data are not yet available. Collected data are analysed against defined deviation thresholds, with an initial reference range of  $\pm 5\%$ . Depending on the extent and persistence of deviations, adjustment measures may include modifications to teaching content, teaching methods, assignments, or the balance between guided instruction and self-study. In cases of sustained significant deviation, adjustments to the ECTS credit allocation of individual courses may be considered.

The experts welcome the fact that NIST has established a structured credit system that considers both contact hours and self-study time. They also acknowledge the new, comprehensive monitoring system that assesses the adequacy of the workload and credits awarded before, during and after each course, taking student feedback into account.

At the same time, the experts identify several inconsistencies and implausibilities in the estimation and documentation of self-study workload in individual modules. In several cases, the estimated self-study time appears to be too low in relation to the scope and level of the course content as stipulated by the module descriptions. For example, they refer to the following modules: “College Computer Fundamentals”, “Higher Mathematics”, “C Language Programming”, “Intelligent Electronic Product Design Debugging” and “Computer Networks”. The experts acknowledge that this may partly be explained by the fact that, at the time of submitting the Self-Assessment Report, the Institute had only recently introduced its system for monitoring self-study workload and had not yet collected empirical data, as explicitly stated in the SAR. Against this background, the experts expect the Institute to systematically compare estimated workloads with student feedback data once available and to revise workload calculations and credit allocations where discrepancies are identified.

In addition, while the experts find the overall approach to credit calculation to be largely consistent and aligned with ECTS principles, they identified concrete calculation errors in individual module descriptions. For example, in the module “Mechanics of Materials” in

the Mechanical Design, Manufacture, and Automation programme, the total workload is indicated as 60 hours, corresponding to 2 ECTS credits based on the stated conversion of 30 hours per ECTS credit. However, the module is currently assigned 3 ECTS credits, which does not correspond to the documented workload.

Furthermore, the experts observe unclear and inconsistent descriptions of self-study time distribution in several modules. In some cases, self-study time is calculated over a (significantly) shorter time span than the contact hours of the course, without a clear justification. For instance, in the module “College Computer Fundamentals” in the Electronic & Information Engineering programme, contact hours are distributed over 16 weeks, whereas self-study time is indicated as being completed over only two weeks. Similarly, in the module “Principle of Pattern Recognition”, teaching is spread over 16 weeks, while self-study time is calculated over 12 weeks, without an explanation for this discrepancy. The experts emphasize that self-study workload should reflect the total learning effort across the full duration of the course, unless a well-founded rationale is provided.

During discussions with students, it is stated that the workload is generally in line with that indicated in the documents, that there are no exceptional peaks in workload and that the programme can be completed within the intended timeframe. They also confirm that they are regularly asked whether the workload is adequate. The experts are glad that the students report an overall alignment between the indicated and actual workloads. However, the aforementioned discrepancies and uncertainties still need to be resolved.

In conclusion, the experts request that the Institute systematically review all module descriptions, verify the correctness of credit calculations, and correct any identified errors. In addition, the documentation of self-study workload should be revised to ensure that it accurately represents the total self-study effort across the entire semester or course duration. While student feedback confirms a general alignment between documented and actual workload, the identified inconsistencies must be resolved to ensure transparency, accuracy, and full compliance with ECTS principles.

According to the statistics, around 97% of students on the Mechanical Design, Manufacture and Automation programme graduate on time, as do 95% of students on the Electronic and Information Engineering programme. The dropout rate for each programme is around 1%. The experts are impressed by the data, which they believe reflects the programmes' adequate structure and the absence of internal obstacles to students graduating on time.

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| <b>Criterion 1.6 Didactic and Teaching Methodology</b> |
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**Evidence:**

- Self-Assessment Report

- Study plans
- Module descriptions
- Discussions during the audit

**Preliminary assessment and analysis of the experts:**

According to the self-assessment report, teaching and learning in both programmes are guided by a student-centred approach, in which teachers and students are both actively involved in the learning process. Teaching strategies and methods are selected to support the achievement of the intended learning outcomes. Teaching and assessment are closely linked, and students' learning progress is continuously monitored through a combination of formative and summative assessment methods.

The Institute encourages the use of diverse teaching methods, following a structured classification system based on the form of interaction and learning activity. Teaching methods are broadly categorised into teacher-led methods (such as lectures, questioning, and demonstrations), interactive methods (including class discussions, group work, peer teaching, and collaborative design tasks), individualised methods (such as independent study, computer-assisted learning, and project work), and practical methods (including laboratory work, simulations, on-site training, exercises, and experiments). The teaching methods applied in each course are documented in the respective module descriptions and curriculum handbooks.

In the Electronic & Information Engineering programme, practical components play a significant role in the programme, accounting for approximately 105 ECTS credits, corresponding to nearly half of the total programme credits and contact hours. Practical courses are implemented either as theory–practice integrated courses or as full-practice courses.

In the Mechanical Design, Manufacture, and Automation programme, practical components also form a substantial part of both compulsory and elective courses. Practical courses are differentiated into theory–practice integrated courses and full-practice courses, with assessment formats adapted to reflect the respective balance between theoretical instruction and practical application. This approach aims to support the development of analytical, problem-solving, and application-oriented competencies.

Teaching tools and methods in both programmes are aligned with outcome-based education principles. Teaching content, learning activities, and assessment methods are selected to ensure that students clearly understand learning objectives, learning processes, and expected outcomes. Modern teaching tools, including digital platforms, multimedia classrooms, and, where applicable, virtual laboratories, are used to support learning. Case-based teaching, project-oriented learning, and problem-driven approaches are employed

to strengthen students' ability to apply theoretical knowledge to practical and engineering-related problems.

The organisation and implementation of teaching are supported institutionally. Prior to each semester, the Academic Affairs Office coordinates course scheduling, classrooms, laboratories, and teaching resources. Teaching staff select appropriate teaching tools and venues in line with course objectives and student needs. The Institute continuously upgrades teaching infrastructure, including laboratories, multimedia equipment, library resources, and digital systems, and provides opportunities for blended and online teaching formats where appropriate. Cooperation with industry partners and off-campus practice bases further supports practice-oriented teaching.

Students' independent scientific work is primarily reflected in graduation projects (theses), internships, and social practice components. This is supported through structured supervision, access to academic and technical resources, and a defined management and quality assurance framework. Formal regulations govern the organisation, supervision, and assessment of graduation projects and internships, ensuring consistency and quality.

Students report in the audit that they are very satisfied with the different forms and methods of teaching. They confirm that the teaching methods are student-centred and that the teachers are very supportive when students have difficulties in learning the subject matter.

The expert group considers the teaching methods and tools to be appropriate for supporting students in achieving the intended learning outcomes of the programme of study. They conclude that these methods are well-adapted to the specific subject, culture, and study format. Furthermore, they confirm that the programmes incorporate a variety of teaching and learning methods and recognise the importance of providing students with the opportunity to apply their knowledge in a practical setting, thereby developing their scientific skills.

However, as previously mentioned, the experts believe that academic training in working and writing should be significantly increased, since the sample thesis papers provided for review suggest that students have relatively poor scientific writing skills. Thus, the experts find that the theses are more like project reports, i.e. summaries of technical projects, rather than scientific papers. Furthermore, the experts have noted a lack of skills in applying academic writing standards, including correct referencing. The experts acknowledge that there is a course on scientific writing, but it only comprises 1 ECTS credit, which is evidently insufficient to adequately equip students with academic working competencies. The experts therefore strongly recommend enhancing training in academic standards and writing in both programmes. As part of this training, students should learn the structure of a thesis as an example of a scientific paper. This should include the following components: deriving

a specific research or development problem/hypothesis from a literature review; explaining and describing the chosen methodology for solving the problem; presenting the experiments and results in detail; analysing the results; contextualising the results within the scientific discourse; and finally verifying/validating the problem/hypothesis. In addition, increased training must focus on correct referencing. The experts suggest referring to IEEE as academic standards in their teaching.

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

The experts have taken note of the university's response and the measures outlined for the further development of the programmes. The university reports that the curriculum has been revised and approved by the University Program Development Committee, with implementation planned for the Spring semester 2026. The planned revisions include, among other aspects, an expansion of the technical course content (e.g. additional courses and content in microelectronics, quantum physics, solid-state physics, and semiconductor physics), the integration of cutting-edge topics such as artificial intelligence, and the introduction of special lectures by academic and industry experts. Furthermore, the university outlines measures to strengthen scientific writing competences, to further develop workload calculations, and to expand internship opportunities and industry cooperation. In addition, the university presents plans to strengthen internationalisation through exchange programmes, international internships, dedicated funding schemes, and the establishment of formal regulations for the recognition of external qualifications.

The experts appreciate the university's comprehensive response and consider the outlined measures to be meaningful and suitable steps towards further strengthening the programmes. However, the experts also note that most of the described measures are currently still at the planning stage and are scheduled for implementation only from Spring 2026 onwards. As these measures have not yet been implemented, the experts decide to uphold their original assessment and to maintain the respective requirements and recommendations. An exception is made though with regard to the requirement concerning the revision of the module description for "Advanced Mathematics". The experts acknowledge that the university has submitted a revised module description that now contains clearer and more transparent information on the course content. As the issue has therefore been satisfactorily addressed, this requirement can be considered fulfilled and is no longer maintained.

Criterion is partly fulfilled.

## 2. Exams: System, Concept and Organisation

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| <b>Criterion 2 Exams: System, Concept and Organisation</b> |
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**Evidence:**

- Self-Assessment Report
- Module descriptions
- Examination Regulations
- Management Measures for Graduation Thesis (Design) at Nanchang Institute of Science & Technology
- Samples Exams & Theses
- Discussions during the audit

**Preliminary assessment and analysis of the experts:**

According to the self-assessment report, the Institution operates a comprehensive examination system designed to assess student achievement in line with course objectives, teaching methods, and intended learning outcomes of the two programmes. Examination forms are selected by the responsible teaching and research teams based on the nature of the course content, the balance between theory and practice, available teaching resources, and the competencies to be assessed. The system is intended to ensure that assessment methods are appropriate, fair, and capable of accurately reflecting students' learning outcomes.

Different examination forms are applied across the curricula. Closed-book written examinations are commonly used in theoretical courses and theory–practice courses. Open-book written examinations are used selectively, primarily in a limited number of elective courses. Practical examinations, including computer-based practices and hands-on operational assessments, are employed in practice-oriented and integrated courses to evaluate students' technical skills, problem-solving abilities, and application of knowledge in simulated or real scenarios. Programme assignments and short papers are used particularly in interdisciplinary and application-oriented courses to assess students' analytical abilities, independent thinking, and written communication skills. Outcome-based assessments are applied in selected courses where learning outcomes are best demonstrated through tangible outputs or performances. For courses not suited to these formats, flexible assessment approaches are used, such as evaluations linked to graduation internships or extracurricular practice activities. The specific examination form applied to each course is documented in the respective module handbook.

The Institution has established clear regulations concerning deferred examinations and remedial measures in cases where students are unable to participate in scheduled examinations due to justified reasons. Applications for deferred examinations must be submitted within defined timelines and supported by appropriate documentation, and approval is required from both the teaching unit and the Academic Affairs Office. Deferred examinations are generally organized together with make-up examinations.

Teaching activities are normally completed within the first sixteen weeks of the semester, followed by a designated preparation period and a separate examination phase. This structure is intended to provide students with sufficient time for review without disrupting regular instruction. Students with special needs and disabilities receive additional support in accordance with institutional regulations.

Transparency of evaluation standards is ensured through multiple mechanisms. At the beginning of each semester, the composition of course grades, including the weighting of continuous assessment and final examinations, is communicated to the students. Prior to examinations, instructors inform students about examination content, formats, and grading criteria. Students have the right to request a review of their grades within a specified period, and formal appeal procedures are in place to protect students' rights. In addition, the Academic Affairs Office conducts regular inspections of examination materials and assessment practices to ensure compliance with institutional standards, with outcomes feeding into quality assurance and teaching evaluation processes.

Off-campus assessments, primarily related to graduation internships, are subject to structured supervision and evaluation. Internship objectives and expectations are clarified in advance, and students are required to comply with the regulations of the host organizations. Throughout the internship period, students' progress is monitored jointly by academic supervisors and enterprise mentors. Upon completion, students submit comprehensive internship reports, and their performance is evaluated by both academic and external supervisors.

Academic integrity is addressed through clearly defined institutional policies covering examination misconduct, plagiarism, and broader academic ethics. Violations by students or staff are handled in accordance with established regulations, and formal procedures are in place to investigate and sanction breaches. Students completing graduation theses or designs are required to submit integrity declarations, and the Institution applies academic integrity checks to ensure originality and independence of submitted work.

Assessment results are also used to evaluate the achievement of course objectives and graduation requirements within an outcome-based education framework. Course grades are converted into achievement indices using a standardized scale, and these indices are

aggregated across courses and credits to monitor students' progress toward programme-level learning outcomes.

In the audit, students report to be satisfied with the overall examination system. They confirm that they receive all relevant information such as examination dates and assessment criteria at the beginning of the semester. The examination policy, including the compensation policy, is made transparent to all concerned. When asked about the workload and the difficulty of the examinations, students say that both are appropriate and manageable.

The experts agree that a comprehensive examination system is in place to ensure transparent and fair grading. They also observe that different assessment methods are used to evaluate the achievement of the learning outcomes of the respective programmes and courses. However, they find that too many assessments in both programmes rely on the traditional written examination format. While the students report satisfaction, the experts recommend that the two programmes could benefit from a more diverse range of assessment methods, particularly projects, presentations and oral exams.

Having reviewed various examination samples, the experts agree that they demonstrate an overall correspondence to EQF level 6. However, they also observe significant variations in the level of assessments within each programme. While the level of competences assessed in fundamental courses is rather low, it rises significantly throughout the studies and is appropriate for advanced classes. The experts therefore urge the Institute to revise the overall assessments per programme to make them more consistent across all courses and stages of study.

#### *Graduation Thesis*

In the last semester, students must first write a graduation design thesis. If the design involves a specific product, this should be presented. During the oral defence, students should be able to clearly explain their design ideas, methods, results and conclusions, and answer the examiners' questions.

During the audit, the experts learn that 80% of topics are proposed by the industry and the rest by teachers, and that the topics usually derive from internships conducted before the thesis project. Thus, students typically gain results during their internship that can be used as the basis for their thesis. If the thesis is conducted at a company, each student has an academic supervisor and a company supervisor. The programme coordinators added that Electronic & Information Engineering students have to carry out the entire process, i.e. from design to simulation and coding. In Mechanical Design, Manufacture and Automation, students usually focus on design and simulation, omitting the fabrication stage.

The experts consider the procedure for the final thesis in the two Bachelor's programmes to be well-founded and convincing. They also welcome the transparent regulation of conducting the thesis outside the university, which ensures that suitable conditions for adequate supervision and grading are provided by the university on both the academic and industrial sides. However, as previously mentioned, the experts are rather disappointed by the quality of the provided graduation thesis samples. While they conclude that the level of the theses is roughly acceptable for EQF level 6, they emphasise that the theses must demonstrate greater scientific depth. They find that the thesis samples resemble project reports more than scientific papers, and demonstrate poor referencing skills. Therefore, they require NIST to ensure that theses adhere to scientific standards. This means, among other things, that theses must demonstrate that students are able to adequately state a problem or pose a research question, select and apply the correct methods, review literature, discuss results, and provide an outlook, all while adhering to international scientific standards. This involves applying the correct referencing method. To this end, as previously mentioned, the experts recommend increasing training in scientific work and writing within the study programme. The experts also insist that the practical work conducted in preparation for the thesis is carried out with sufficient rigour and supported by adequate theory and data.

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

The experts have taken note of the university's response regarding the assessment methods and the quality assurance of the final thesis. The university explains that, the range of assessment methods is planned to be expanded. In particular, the university intends that by the academic year 2025–2026 more than 80% of the core professional courses will apply diversified assessment methods.

With regard to the graduation projects and theses, the university acknowledges existing shortcomings in students' theoretical foundations and academic writing abilities. To address this issue, the university reports that it intends to strengthen the review mechanism for thesis topics, introduce elective courses on scientific research methods, and further develop a quality standard system for graduation theses. This system foresees detailed requirements for different stages of the thesis process, including proposal, mid-term review, and final evaluation, with particular attention to literature review, research methods, and the analysis and interpretation of results.

The experts appreciate the university's response and consider the outlined ideas and intended reforms to be appropriate measures for improving the diversity of assessment methods and strengthening the academic quality of graduation theses. However, the

experts also note that the measures described remain rather general in nature and are mainly presented as plans for future implementation. Therefore, the experts decide to uphold their original assessment for this criterion and maintain the respective requirements and recommendations.

Criterion is not fulfilled.

### 3. Resources

#### Criterion 3.1 Staff and Development

**Evidence:**

- Self-Assessment Report
- Staff Handbooks for both programmes
- Discussions during the Audit

**Preliminary assessment and analysis of the experts:**

In the Electronic & Information Engineering programme, 79 full-time and part-time teachers are involved in teaching, resulting in a staff–student ratio of approximately 1:7. The academic composition includes professors and associate professors, who together account for nearly half of the full-time teaching staff holding senior academic titles. Approximately 13% of the faculty members hold doctoral degrees. In addition to the permanent teaching staff, the programme employs part-time teachers from other higher education institutions in the region. This allows the programme to draw on external academic expertise for selected specialised courses and to broaden the disciplinary perspectives available to students.

The Mechanical Design, Manufacture, and Automation programme is supported by 68 full-time teachers, corresponding to a staff–student ratio of approximately 1:7.6. The teaching staff includes professors, associate professors, senior engineers, and senior technicians, with a substantial proportion holding senior professional titles. Around 9% of the faculty members possess doctoral degrees. The teaching team also includes staff members who have received recognition at provincial level for their academic achievements or professional expertise.

All teaching staff involved in both programmes hold the required teaching qualification certificates in accordance with national regulations. Recruitment and appointment procedures follow institutional employment regulations and are designed to ensure that academic qualifications, teaching competence, and professional experience are appropriate for the

respective programme requirements. Structured management mechanisms are applied to optimise staff deployment and faculty composition in line with institutional development objectives.

Continuing education forms an integral component of faculty development. Teaching staff are encouraged and supported to pursue further academic qualifications, including master's and doctoral degrees, as well as non-degree professional training. Opportunities for visiting scholarships, postdoctoral research, and short-term training programmes at domestic and international institutions are provided through established cooperation agreements.

Students report being satisfied with the qualifications and competence of the staff and particularly praise their continuous support and availability whenever assistance is needed.

The experts remark on the relatively low number of PhD holders in both programmes and ask the Institute's management about their recruitment strategy in the audit. Management leaders responded that it is difficult to hire highly qualified staff with industrial experience, as this is a recruitment requirement. They also state that they actively support the further promotion of their teaching staff, offering incentives to continue PhD studies in the form of financial support and reduced teaching workloads. The experts welcome the mechanisms in place at the Institute to increase the qualifications of the teaching staff. While the proportion of PhD holders is rather low, they find that the overall composition, professional orientation and qualifications of the teaching staff are satisfactory for delivering the EQF Level 6 degree programmes successfully. They encourage the Institute, though, to continue their efforts and recruit more teachers with a PhD.

### *Staff Development*

Responsibility for teacher development is centrally coordinated by the Human Resources Department in cooperation with the Academic Affairs Office. Furthermore, professional development activities are organised at institutional, secondary college, and individual levels. At institutional level, centrally organised training includes induction programmes for newly appointed teachers, professional ethics education, pedagogical training, and training in the use of modern educational technologies. Dedicated financial resources are allocated annually to support these activities, and institution-wide teaching forums and academic lectures are held regularly with contributions from external experts. At secondary college level, discipline-specific training plans are developed in accordance with programme characteristics and development priorities, with a focus on teaching innovation, curriculum development, and professional exchange. At individual level, teachers are encouraged to pursue development pathways aligned with their personal career planning and the strategic objectives of the Institute.

To support the development of early-career academics, the Institute operates a structured mentorship system in which experienced faculty members provide guidance to younger teachers over a defined period. This mentoring focuses on teaching practice, research skills, and career development. In addition, the Institute promotes temporary deployments to enterprises and external institutions to strengthen practical experience and industry engagement.

The adequacy of academic and didactic qualifications is monitored through recruitment standards, regular performance evaluations, and continuous quality assurance mechanisms. Teaching performance is reviewed using multiple sources of evidence, including student feedback, peer review, teaching supervision, and course evaluations. Academic performance is assessed on the basis of research outputs, participation in research projects, and engagement in academic exchange activities. The results of these evaluations inform individual development planning and institutional training measures.

Research and development activities undertaken by teaching staff are closely linked to programme development. The results of research projects are incorporated into teaching and contribute to the continuous updating of curricula. Institutional research management systems provide a structured framework for project application, funding, implementation, and evaluation. The transfer of research outcomes into applied results, including patents and technology transfer, is encouraged.

Professional development needs are identified through regular communication between faculty members and academic leadership, teaching evaluations, structured feedback mechanisms, and performance reviews. When challenges or bottlenecks are identified, programme leadership initiates targeted measures such as additional training, curriculum adjustments, pedagogical innovation, or resource reallocation. Through these procedures, the Institute seeks to ensure that the qualifications and ongoing development of teaching staff remain aligned with programme objectives and institutional development goals.

During the audit, the teachers confirm that the Institute's management actively supports the teaching staff by providing them with adequate conditions to carry out their teaching and research activities, and by furthering their professional and pedagogical development.

The experts acknowledge the supportive environment at the Institute, as well as the mechanisms in place to encourage continuous improvement among its teaching staff. They also welcome the involvement of teachers in research activities and the incorporation of research results into teaching. However, they note that the level of international academic exchange is rather low. This is reflected in the audit discussions with teachers, who communicate their desire for more opportunities for international exchange. Therefore, the

experts recommend fostering greater academic mobility, in terms of both domestic and international exchange for short- and long-term research and teaching stays.

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| <b>Criterion 3.2 Student Support and Student Services</b> |
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**Evidence:**

- Self-Assessment Report
- Discussions during the Audit

**Preliminary assessment and analysis of the experts:**

According to the self-assessment report, Nanchang Institute of Science & Technology provides a comprehensive student support system designed to assist students throughout their studies and to support their academic progress, personal well-being, and career development.

Academic support is primarily provided through the Academic Affairs Office and the Library. The Academic Affairs Office is responsible for the management of student records, course scheduling, examination organisation, and the maintenance of teaching order and quality. They ensure that students receive clear information on academic regulations, course requirements, and progression pathways.

Student life and personal support are coordinated mainly by the Student Affairs Office, which is responsible for students' daily management, political education, psychological health education, and counselling services. Financial support measures, including scholarships, grants, and financial aid, are administered to ensure that students from economically disadvantaged backgrounds are able to complete their studies. Psychological counselling and mental health education are provided to support students in managing academic pressure and personal challenges.

Career development and employability support are delivered through the Employment and Admissions Office, in cooperation with academic units and external partners. Students receive guidance on career planning and employment preparation, including access to recruitment information, employment lectures, and campus recruitment activities. Career guidance services aim to support students in clarifying their career objectives and in making informed decisions regarding course selection, internships, and employment pathways.

In general, student support is provided throughout all stages of studies. At the admission stage, orientation activities and induction programmes are organised to help new students adapt to university life, understand academic regulations, and become familiar with campus facilities and support services. During the study phase, students have access to academic guidance, learning resources, psychological counselling, financial support, and

practical training opportunities. As students approach graduation, career planning, employment guidance, and internship support become more prominent, facilitating the transition from higher education to employment or further study. The effectiveness of student support services is regularly reviewed through feedback from students, academic units, and administrative departments.

Student participation and representation are supported through the Student Union, which represents student interests, facilitates communication between students and the Institute, and organises cultural, social, and extracurricular activities.

The experts consider that there are sufficient resources to provide individual guidance, counselling and support to all students. The support system helps students adapt to university life, achieve the intended learning outcomes, complete their studies successfully and transition to working life. Students report being well informed about and satisfied with the services available to them.

### Criterion 3.3 Funds and equipment

#### **Evidence:**

- Self-Assessment Report
- Discussions during the audit

#### **Preliminary assessment and analysis of the experts:**

##### *Funding*

Nanchang Institute of Science & Technology finances its educational activities primarily through tuition income, which accounts for approximately 90% of the overall budget. Additional financial resources are obtained through external sponsorships, research-related income, and other supplementary channels. According to institutional management, the financial situation of the Institute is stable, and a moderate and continuous increase in available funds is expected in the coming years. Financial planning is carried out through annual budgeting and medium- to long-term development planning, with the aim of ensuring the sustainable provision of teaching, learning, and research activities.

The allocation of funds and investment in teaching and research infrastructure comply with the requirements set by the relevant supervisory authorities for undergraduate education. The Institute meets the national indicators for teaching-related operating expenditures, including per capita annual daily teaching operating expenses, the proportion of teaching operating expenses relative to regular education income, and the annual growth rate of teaching and research equipment investment.

The experts review the funding and budgeting documents and conclude that there is secure funding and reliable financial planning in place to ensure the sustainable delivery of the two study programmes.

#### *Equipment and Infrastructure*

Teaching and research activities are supported by a substantial infrastructure base. The total value of teaching and research instruments and equipment amounts to approximately RMB 212 million. These resources are used across classrooms, laboratories, training centres, and research platforms to support both theoretical instruction and practice-oriented learning. The Institute operates nearly 30 provincial- and municipal-level scientific research and engineering platforms, including specialised laboratories in digital manufacturing, intelligent building networks, and optoelectronic engineering. These platforms support applied research, staff development, and the integration of research outcomes into teaching.

The Institute's library holds more than 2.36 million printed volumes and provides access to approximately 7.72 million digital resources. With a total floor area of about 45,000 square metres distributed over 24 floors, the library offers various reading rooms, study spaces, smart classrooms, seminar rooms, lecture halls, and digital resource experience areas.

The Institute has established cooperative relationships with more than 100 enterprises and local government entities. These partnerships support practical training, internships, joint laboratories, and applied research projects, and contribute to aligning teaching content with industry needs and regional development priorities. University–enterprise and university–local government cooperation plays a significant role in providing students with opportunities for practice-oriented learning and exposure to professional environments.

The management, maintenance, and upgrading of teaching facilities and equipment are organised through centralised administrative procedures. Regular inspections and maintenance plans are implemented to support the continuous and reliable operation of laboratories and teaching spaces.

In addition, the Institute operates feedback mechanisms to monitor the adequacy and utilisation of infrastructure. Satisfaction surveys among students and staff are conducted periodically to assess the suitability of facilities and equipment. The results of these surveys are used to inform planning decisions and to guide adjustments in infrastructure configuration and investment priorities.

Both students and teachers express satisfaction with the Institute's facilities and equipment. Students report that all the necessary resources are available, including software licences. Teachers also confirm that there is sufficient equipment and funding for teaching and research purposes.

During the audit visit, the experts inspect the campus facilities and laboratories. They conclude that the infrastructure and technical equipment in the laboratories are adequate for delivering the two programmes and achieving the intended learning outcomes. Nevertheless, they identify a few areas for improvement particularly regarding the advanced equipment.

In the Electronic & Information Engineering programme, experts find that the Electronics lab's current equipment is somewhat outdated, suggesting that newer equipment should be added to the lab. They also note that the current equipment for chip design and microelectronics is limited to basic experiments and should be supplemented with more advanced equipment for chip measurements and characterization, in addition to chip design and simulation software such as SPICE. This focus on microelectronic circuits and chips goes beyond board design and is needed to teach the students the necessary skills to excel in the workforce.

In the Mechanical Design, Manufacture and Automation programme, experts find the basic equipment entirely adequate, but the advanced equipment rather limited. Since the equipment is costly and the institute has a variety of industry partnerships, the experts suggest using these partnerships to carry out advanced experiments at companies, enabling teachers and students to carry out advanced tasks using state-of-the-art equipment.

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

The experts have taken note of the university's response regarding the development of the teaching staff and the improvement of the lab equipment. The university outlines several measures aimed at further strengthening the academic profile of the teaching staff. These include, among others, the continued recruitment of teachers with doctoral degrees and the promotion of international exchange for faculty members through the establishment of a dedicated exchange fund. In addition, the university reports increased investment in teaching infrastructure and laboratory facilities. In particular, an equipment renewal plan for 2026–2027 has been formulated, including the planned establishment of an advanced chip design and microelectronics laboratory with a total investment of approximately 8 million yuan. The university also intends to deepen cooperation with industry partners through joint laboratories, shared equipment, and collaborative research and teaching activities with neighbouring universities and research institutes.

The experts appreciate the university's comprehensive response and consider the outlined initiatives to be appropriate and promising measures for further strengthening the academic qualifications of the faculty and the research and teaching infrastructure. However,

the experts also note that most of the described measures are currently still at the planning stage and have not yet been implemented. Therefore, the experts decide to uphold their original assessment and maintain the respective requirements and recommendations for this criterion.

Criterion is fulfilled with recommendations.

## 4. Transparency and Documentation

### Criterion 4.1 Module Descriptions

**Evidence:**

- Self-Assessment Report
- Module descriptions
- Websites of the study programmes

**Preliminary assessment and analysis of the experts:**

The experts confirm that the module descriptions for the two programmes contain all of the necessary information, including the course name and code, the person responsible, the intended learning outcomes, module content, recommended reading, examination methods and requirements, student workload, credit points awarded, prerequisites, information on the grade calculation, and the date of last amendment made.

As mentioned in Chapter 1.3, however, the experts require the module description for “Advanced Mathematics” to provide more detailed information about the module's content. Furthermore, they observe that different terms are used for the prerequisites section in both module handbooks; they therefore recommend using one term and applying it consistently to all module descriptions.

Students confirm during discussions that information about courses is available online, and that details concerning examinations and course content are provided at the beginning of each course by teaching staff.

### Criterion 4.2 Diploma and Diploma Supplement

**Evidence:**

- Exemplary diploma certificate per study programme
- Exemplary Diploma Supplement per study programme
- Exemplary transcript per study programme

**Preliminary assessment and analysis of the experts:**

The experts confirm that all graduates will be awarded a diploma certificate and a Diploma Supplement in English upon graduation. In addition, every graduate receives a transcript of records listing all the courses completed and the grades achieved. However, the experts note that, instead of listing the course titles, the transcript only lists the course codes, rendering it incomprehensible to external parties which courses the students have completed. Therefore, they require the Transcript of Records to also include the titles of the courses. With regard to the Diploma Supplement, the experts observe that, while it contains almost all the required information about the degree programmes, it lacks the graduate's final grade and a classification of the grade. This classification should include statistical data on the final grades of other students in the cohort, enabling the graduate's performance to be compared with that of their peers.

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| <b>Criterion 4.3 Relevant Rules</b> |
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**Evidence:**

- Self-Assessment Report
- All relevant regulations as published on NIST's webpage
- Discussions during the audit

**Preliminary assessment and analysis of the experts:**

The auditors confirm that the rights and obligations of both the Institute and the students are clearly defined and binding. All rules and regulations are published on the Institute's website and students receive course materials at the beginning of each semester. In addition, all relevant information about the programmes is available on the website of the university.

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

The experts have noted the university's response to the revision of documentation relating to module descriptions, transcripts and the Diploma Supplement. They acknowledge the revised module descriptions, considering them sufficiently detailed and transparent. They also positively note that the transcript of records has been improved by indicating the course names instead of only the course codes. However, with regard to the Diploma Supplement, the experts note that the provided samples still do not align with ASIIN criteria. In particular, the Diploma Supplement still does not include the final overall grade of the graduate, nor does it provide the relevant statistical information that would enable readers to interpret and evaluate individual marks in context. As these issues remain unresolved,

the experts have decided to maintain the respective requirements concerning the Diploma Supplement and transcript.

Criterion predominantly fulfilled.

## 5. Quality management: quality assessment and development

### Criterion 5 Quality management: quality assessment and development

#### Evidence:

- Self-Assessment Report
- Survey Samples
- Evaluation Regulations
- Discussions during the audit

#### Preliminary assessment and analysis of the experts:

Quality management for the Electronic & Information Engineering and the Mechanical Design, Manufacture, and Automation programmes is embedded in the institution-wide internal quality assurance system of Nanchang Institute of Science & Technology. The system follows a continuous improvement approach and is coordinated centrally by the Academic Affairs Office in cooperation with the Teaching Supervision and Evaluation Office, while implementation responsibilities are shared with the hosting faculties and programme coordinators.

At the institutional level, the Academic Affairs Office is responsible for the overall organisation and governance of teaching quality assurance. Its responsibilities include managing teaching regulations, programme documentation, student records and examinations, and coordinating the collection and analysis of quality-related data. The Teaching Supervision and Evaluation Office operates as a permanent unit responsible for teaching supervision and quality monitoring. It conducts regular classroom observations, reviews course documentation and assessment materials, and monitors the implementation of curricula and teaching regulations. The results of these activities are documented and communicated to faculties and programme coordinators.

Internal quality assurance follows a structured annual cycle on a minor scale and a four-year cycle on a larger scale. All undergraduate programmes undergo a formal self-assessment once per year, guided by institutional regulations and aligned with provincial evaluation frameworks. The self-assessment combines quantitative indicators, such as staffing,

teaching workload, learning outcomes, and resource provision, with qualitative analyses of programme objectives, curriculum structure, teaching methods, and assessment practices. The process is coordinated by the dean and the programme coordinator, who are responsible for preparing the self-assessment report and identifying strengths and areas for improvement.

The self-assessment phase is followed by an internal expert review organised by the Institute. Expert panels examine the documentation, review teaching conditions, and assess the alignment between programme objectives, curriculum design, and achieved learning outcomes. Structured written feedback is provided to the faculties. Based on this feedback, programme teams are required to define improvement measures and implementation timelines and to report on progress in subsequent quality assurance cycles.

Teaching quality is monitored continuously through complementary instruments. Student course evaluations are conducted regularly and provide feedback on teaching effectiveness, course organisation, workload, and learning support. Peer review and teaching supervision focus on academic standards, didactic quality, and compliance with teaching regulations. Evaluation results are analysed by the Teaching Supervision and Evaluation Office and the Academic Affairs Office and serve as a basis for targeted follow-up actions, including curriculum revision, teaching reform initiatives, and staff development measures.

Students are involved in quality assurance processes through course evaluations, surveys, and consultation formats at programme and faculty levels. Their feedback is considered in the review of course content, teaching methods, and practical training arrangements. Teaching staff contribute to self-assessments, expert reviews, and the implementation of improvement measures, while academic leadership at faculty and institutional levels monitors outcomes and initiates corrective actions where necessary.

External perspectives are incorporated through feedback from alumni and industry partners. Graduate employment data, alumni surveys, and input from cooperating enterprises involved in internships and practical training are used to assess curriculum relevance and practical orientation and to support alignment with labour market and technological developments.

In the audit, students report being satisfied with the quality assurance at NIST. They confirm that surveys are carried out every semester and that feedback is provided to them during class sessions. They add that feedback can also be communicated directly to teachers and other staff members at any time, and that it is welcomed and taken seriously.

Overall, the experts find that NIST has a comprehensive quality management system in place, ensuring the regular review of all programmes and consideration of feedback from

all relevant stakeholders. They conclude that this system effectively ensures that the quality of the programmes is upheld and continuously improved.

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

As the experts have not raised any concerns in this section, the assessment remains unchanged.

Criterion is fulfilled.

## **E Additional Documents**

No additional documents needed.

## F Comment of the Higher Education Institution (03.03.2026)

The institution provided an extensive statement as well as the following additional documents:

- Attachment#1 List of Selective Courses
- Attachment#2 Mathematics Module Course Handbook
- Attachment#3 Course Handbook for “Polymer Materials Processing Technology”
- Attachment#4 “Interim Rules for the Recognition of External Qualifications at Nanchang Institute of Science & Technology”
- Attachment#5 Programme Module and Curriculum Handbook of MDMA (V2024.0)
- Attachment#6 Rectification Measures to Enhance Graduation Project Quality (MDMA)
- Attachment#7 OBE-EIE2021-Achievement\_of\_Graduation\_Requirements
- Attachment#8 Diploma Supplements for MDMA (Folder)

“Nanchang Institute of Science & Technology (NIST) sincerely appreciates the professional and meticulous evaluation comments provided by the ASIIN accreditation expert panel during the on-site review and in the accreditation report. NIST places high importance on all requirements and suggestions raised by the experts. A dedicated task force comprising relevant functional departments, secondary colleges, and professional teams has been established. This task force has thoroughly analyzed each issue and will continue to develop targeted corrective measures, clearly defining responsible parties and completion deadlines. The following responses address each comment and issue raised by the experts in the accreditation report.

### **Note:**

Regarding Section C1.3, the exact number of selective courses taken by students and the corresponding credit volume, see attachment #1.

### **Summary on Section C1**

The program curriculum has been revised and approved by the University Program Development Committee, with implementation scheduled for the Spring 2026 semester.

Technical courses have been expanded: building upon existing foundational courses like Circuit Analysis, Analog Electronics, and Digital Electronics, we have added microelectronic circuit content, introduced Quantum Physics, Solid-State Physics, and Semiconductor Physics, and established a SPICE-based chip design course alongside Polymer Materials Processing Technology. The course manual for Advanced Mathematics has undergone comprehensive revision, incorporating specific teaching content to enhance the depth and breadth of instruction. Cutting-edge topics have been added to the major curriculum, with a focus on core AI theories such as neural networks and deep learning. Special lectures on quantum physics, artificial intelligence theory, advanced manufacturing technologies, and intelligent manufacturing will be delivered by university professors and industry experts. Academic workload calculations have been re-calibrated, and the calculation cycle for self-study time has been standardized. During the curriculum revision process, scientific writing proficiency has been incorporated as a core competency objective. Plans are underway to increase credits for science and technology writing courses in the next round of curriculum revisions, expanding instruction on core topics like academic paper structure, citation standards, and literature review writing. Deepening industry-academia collaboration, internship opportunities have been added at various stages of the curriculum, alongside organized company visits and field research activities to provide early exposure to industry technological trends and talent demand standards. The International Exchange and Cooperation Center is progressively advancing international exchange initiatives. A dedicated international exchange fund has been established to support student and faculty participation in global exchange activities. Regulations for credit recognition and grade conversion for overseas study have been implemented. Plans include expanding student exchange and joint training programs, deepening collaborations with overseas branches of companies like Huawei, and developing multinational internship positions. The Interim Rules for Recognition of External Qualifications at Nanchang Institute of Science & Technology have been formulated, establishing a comprehensive mechanism for validating external academic credentials. These rules are now officially implemented, with ongoing efforts to enhance awareness through training and outreach. NIST has also promulgated the International Student Management Measures, preparing for future international recruitment.

### **I. Insufficient Mathematics and Quantum Physics Content in the Electronic Information Engineering Program (Section C1.3)**

As for Section C1.3, the number of tech courses and amount of mathematics and quantum physics content, our university has revised the professional curriculum system to strengthen teaching content related to mathematics and quantum physics. To meet the talent development needs of electronic information disciplines, foundational theory courses such as Quantum Physics, Solid-State Physics, and Semiconductor Physics have

been added to the curriculum framework, ensuring content depth meets bachelor's degree requirements. Concurrently, the depth and breadth of advanced mathematics instruction have been expanded. Professors from renowned domestic universities have been invited to deliver specialized lectures on quantum physics and advanced mathematics to enhance teaching quality. The revised curriculum framework has been approved by the university's Professional Development Committee and will be formally implemented in the Spring 2026 semester.

## **II. Module Description of the Advanced Mathematics Course (Section C 1.3)**

As for Section C 1.3, the module descriptions of "Advanced Mathematics", our university has organized the mathematics teaching team to conduct a comprehensive revision of the Advanced Mathematics course handbook. We have supplemented specific teaching content, core knowledge points, knowledge objectives and assessment requirements, and refined the corresponding relationship between teaching content and professional training objectives. This ensures that the module description accurately reflects the essence of the course, enabling students, teachers and third parties to clearly understand the course content. Please refer to Attachment #2.

## **III. Content of Artificial Intelligence Theory in the Electronic Information Engineering Major (Section C 1.3)**

As for Section C 1.3, artificial intelligence theory, our university will add cutting-edge knowledge points to the courses of the Electronic Information Engineering major, with a focus on supplementing core AI theoretical content such as neural networks and deep learning, so as to realize the in-depth integration of AI theory and the Electronic Information Engineering major. Meanwhile, we will invite professors from renowned universities and industry experts to deliver special lectures on artificial intelligence theory to broaden students' academic horizons; optimize the content of the Introduction to Artificial Intelligence Technology course and strengthen theoretical teaching links to ensure that students master the core AI theories and application methods.

## **IV. Requirement to Add Microelectronic Circuit-related Content to the Electronic Information Engineering Major (Section C 1.3)**

As for Section C 1.3, microelectronics and chip design, our university has currently offered professional basic courses such as Circuit Analysis, Analog Electronic Technology and Digital Electronic Technology. On this basis, we will further add teaching content related to microelectronic circuits and optimize the curriculum system to ensure that students master the principles and design methods of microelectronic components and integrated circuits. At the same time, in light of the development needs of the industry, we will introduce practical

teaching content of microelectronic circuits, update supporting laboratory equipment, and provide students with hands-on training opportunities. This helps students master core skills in the microelectronics field and adapt to the development needs of industries such as chip design.

**V. Failure to Use SPICE Software for Simulation in the Teaching of Electronic Design Automation (EDA) Technology (Section C 1.3)**

As for Section C 1.3, SPICE for simulation in EDA technology, to align with international certification standards and actual industry needs, our university will add a dedicated chip design course based on SPICE in the subsequent talent training program, introduce SPICE simulation software (including OrCAD and PSpice) into the teaching of EDA technology, revise the teaching syllabus, and clarify the key teaching and assessment requirements for SPICE simulation. Meanwhile, we will organize teachers to participate in specialized training on SPICE software to improve their teaching capabilities; build a special laboratory for EDA technology and equip it with SPICE simulation workstations to provide students with sufficient practical operation opportunities, ensuring that they master the use of industry-standard simulation tools.

**VI. Requirement to Add a Special Course on Polymer Materials and Their Manufacturing Technology to the Mechanical Design, Manufacture and Automation Major (Section C 1.3)**

As for Section C 1.3, for the Mechanical Design, Manufacture, and Automation programme, a dedicated course on polymers and polymer manufacturing should be introduced, to meet international certification standards and actual industry needs, our university will add the course Polymer Material Processing Technology in the subsequent talent training program, enabling students to understand the properties of polymer materials and their related manufacturing processes. The compilation of the course handbook for this course has been completed, which can be found in Attachment #3: Polymer Material Processing Technology Course Handbook.

**VII. Students' Scientific Writing Skills and the Academic Depth of Graduation Theses (Section C 1.3)**

As for Section C 1.3, scientific writing skills, in response to this issue, during the revision of the 2024-level talent training program, we have incorporated the cultivation of scientific writing skills into core competency objectives and clearly required the strengthening of relevant teaching content. We have also collected opinions from industry enterprises and university experts, and confirmed the IEEE academic standards as the teaching reference basis, providing a direction for the optimization of course content. We plan to increase the credit

hours of courses related to scientific writing in the next round of talent training program revision, add teaching of core content such as academic paper structure, citation norms and literature review writing, and establish a special evaluation mechanism for academic writing of Graduation Design (Thesis), incorporating the level of scientific writing into the core indicators of thesis evaluation. In specific teaching, we will introduce samples of excellent academic papers and those with typical problems for comparative analysis; carry out group practical training to enable students to master academic writing skills through practice. We will organize teachers to participate in training on academic writing teaching, and invite university professors and industry experts to deliver special lectures to improve teachers' teaching capabilities.

#### **VIII. Adding Phased Internship Opportunities for University-Enterprise Cooperation (Section C 1.3)**

As for Section C 1.3 (enhancing industry linkages), to deepen university-enterprise cooperation and enable students to gain more exposure to industry practices during their studies, our university will promote rectification efforts in three aspects: first, deepen cooperation with existing partner enterprises, establish a number of new off-campus practice bases, invite enterprise mentors to participate in curriculum teaching and deliver industry lectures; second, add internship opportunities at various stages of the curriculum system, organize enterprise visits and field research activities, and offer project-based courses that conduct teaching through real enterprise projects as carriers; third, link enterprise practice content with curriculum assessment to ensure that students transform theoretical knowledge into practical capabilities, and gain an early understanding of industry technological development trends and talent demand standards.

#### **IX. Low Student Participation in International Exchanges (Section C 1.3)**

As for Section C 1.3 (student international mobility), the university's International Exchange and Cooperation Center is gradually advancing matters related to international exchanges and has established a special fund for student international exchanges to subsidize students' participation in international exchange activities. It is planned to establish a regular information release system (at least twice per semester) to clarify partner institutions, application deadlines, scholarship policies, and credit recognition methods. Short-term exchange programs, summer/winter schools, online international courses, joint laboratories, and remote research projects are also planned to be added.

#### **X. Formal Mechanism for Awarding Credits for Study Abroad (Section C 1.3)**

As for Section C 1.3 (formal mechanism for awarding credits for study abroad), the university has always attached great importance to the in-depth integration of international

exchanges and talent training. It has previously issued the *Interim Measures for the Recognition of Credits and Conversion of Academic Records for Students' Overseas (Hong Kong, Macao, and Taiwan) Exchange Programs* (see Attachment V8: Relevant Systems of the International Cooperation and Exchange Office (June 2024)-Excerpt), which has built a standardized and comprehensive academic support system for students interested in participating in overseas (Hong Kong, Macao, and Taiwan) exchanges. This system addresses institutional concerns such as credit recognition and academic record conversion during students' exchanges. Currently, the number of students participating in overseas (Hong Kong, Macao, and Taiwan) exchange programs at our university is relatively small. This is a phased situation formed during the advancement of international cooperation and exchange work, considering the university's actual development stage, the overall planning of students' further education and employment, and the docking and adaptation rhythm of high-quality overseas exchange resources. In the future, the university will continue to strengthen international cooperation and exchange efforts, further expand overseas (Hong Kong, Macao, and Taiwan) inter-university cooperation resources, enrich the types of exchange and study programs, and at the same time strengthen the promotion and guidance of exchange programs. This will provide more high-quality options and convenient conditions for students willing to study abroad, and gradually enhance their enthusiasm and participation in overseas (Hong Kong, Macao, and Taiwan) exchange programs.

#### **XI. International Exchanges for Students and Financial Support (Section C 1.3)**

As for Section C 1.3 (financial funding), combined with the relevant management systems issued by the International Cooperation and Exchange Office of Nanchang Institute of Technology and the internal arrangements for study-abroad-related work, to address the funding issues of students studying abroad, the university has established a core funding support system mainly through special fund subsidies, supplemented by cost guidance at the study-abroad planning level. The specific supporting measures are as follows:

1. Issuing measures for special funding subsidies for government-sponsored study abroad. The university has formulated the *Measures for the Administration of Special Funding Subsidies for Government-Sponsored Study Abroad at Nanchang Institute of Technology* (see Attachment V8: Relevant Systems of the International Cooperation and Exchange Office (June 2024)-Excerpt), which serves as the basis for special funding support for students of our university participating in government-sponsored study abroad (overseas, Hong Kong, Macao, and Taiwan). It provides financial subsidies for students who meet the government-sponsored conditions, and is a core measure to solve the funding problems of students' government-sponsored study abroad. It provides institutional guarantees for expenses such as tuition fees and travel costs for students' government-sponsored study abroad, reducing their financial burden of studying abroad.

2. Providing planning guidance related to study-abroad costs. When carrying out activities such as overseas further education policy promotion and study-abroad program recommendation, the university will conduct a detailed analysis of cost structures and expenses in study destinations for different study-abroad programs, helping students make advance study-abroad funding plans and arrange their study-abroad expenses reasonably.

Currently, the university's scholarship system is mainly oriented towards international students coming to China to study. The university plans to set up special scholarships for students of our university who study abroad independently in the future, and is currently exploring and drafting relevant management measures.

## **XII. Teacher Mobility and Exchange Mechanisms and International Academic Exchange (Section C 1.3)**

As for Section C 1.3, teaching staff mobility, to improve satisfaction among students and teachers, expand program offerings, and strengthen publicity and guidance, the university will focus on the following four core tasks:

1. Expand international cooperation by partnering with high-quality universities along the "Belt and Road" and in Europe and the United States, launching new programs such as semester exchanges and joint education, deepening cooperation with overseas branches of enterprises including Huawei, and developing cross-border practical training positions.
2. Strengthen financial support by expanding the coverage of public funding, establishing inclusive subsidies and incentive scholarships, and lowering the threshold for participation.
3. Optimize publicity and guidance through multiple channels including the official website, new media and information sessions, set up a full-time consultation desk, and provide training in foreign languages and cross-cultural communication.
4. Clarify division of responsibilities: the Office of International Cooperation and Exchanges takes the lead in overall coordination; secondary schools adapt to major-specific needs; the Academic Affairs Office handles credit recognition; and the Finance Office ensures funds are used for designated purposes. A closed-loop implementation mechanism will be formed to steadily increase participation in mobility programs.

## **XIII. Lack of Formal and Explicit Rules for External Academic Credential Recognition (Section C 1.3)**

As for Section C 1.3, to establishes formal and clear rules for the recognition of qualifications achieved externally. The university has formulated the Interim Measures for the Recognition of External Qualifications at Nanchang Institute of Science and Technology (Attachment #4) and established a sound qualification recognition system:

1. Clarify the scope of application, covering current students, exchange students, transfer students and faculty, and recognizing both academic and vocational qualifications.
2. Adopt four principles: relevance, legitimacy, equivalence, and openness and transparency, to ensure high alignment between qualifications and program objectives and standardized procedures.
3. Standardize the application and review process with a closed-loop management system: “submission → multi-level review → result publication → filing and archiving”.
4. Specify the application of recognition results: students may use recognized qualifications for credit transfer; faculty may use them as evidence for professional title evaluation and appointment.
5. Establish a dynamic management mechanism: update the recommended list of recognized qualifications annually and revise the measures every four years to adapt to disciplinary development and accreditation requirements.

The measures have been officially implemented. The university will further strengthen publicity and training to ensure full awareness among teachers and students.

#### **XIV. No Enrollment of International Students (Section C 1.4)**

As for Section C 1.4, international students enrollment, in accordance with national regulations, the university currently does not recruit international students for the two aforementioned majors. The college has issued the Administrative Measures for International Students and is preparing for future international student recruitment.

#### **XV. Development of Comprehensive Data on Students' Actual Academic Workload (Section C 1.5)**

As for Section C 1.5, workload data, our university has formulated special rectification measures for the calculation of student academic workload:

1. Carry out targeted rectification of problematic course modules, unify the calculation cycle of self-study time (bound with the face-to-face teaching cycle), recalculate self-study hours, supplement calculation basis, and update the course module descriptions accordingly.
2. Formulate Guidelines for Estimating Course Self-Study Workload, and set classified self-study ratios for theoretical, practical and interdisciplinary courses to ensure scientific and reasonable estimation.

3. Improve the data collection and deviation handling mechanism, conduct special surveys on student academic workload, establish a workload database, adopt an initial deviation threshold of  $\pm 5\%$ , handle deviations by category, and gradually optimize to classified thresholds.

4. Improve the review and supervision mechanism, include the rationality of self-study workload in the course manual review, strengthen teacher training and data verification, and iteratively optimize the guidelines and thresholds every academic year to ensure that workload calculation complies with the ECTS principles.

The first batch of data collection has been launched, and empirical data will continue to be accumulated to optimize the calculation standards in the follow-up.

#### **XVI. Estimation and Documentation of Self-Directed Learning Workload for Selected Courses (Section C 1.5)**

As for Section C 1.5, the estimation and documentation of self-study workload in individual modules, Our university acknowledges that some courses such as University Computer Fundamentals and Advanced Mathematics have problems of unreasonable self-study workload estimation, with insufficient estimation in some modules. The main reason is that the self-study workload monitoring system has just been implemented, and the initial estimation relied on teachers' experience without sufficient empirical data. To address this issue, our university has launched rectification:

1. To complete the first batch of special data collection by July 2026 to cross-validate students' actual self-study hours and teachers' evaluation results.
2. To establish a closed-loop mechanism of "estimation–data–revision", and adjust the self-study workload and credit allocation of relevant courses in accordance with the ECTS standard of 25–30 hours per credit.
3. To strengthen teachers' data application ability through special training, sample and verify the rationality of self-study workload estimation every semester, and update the adjustments to course module descriptions synchronously to ensure compliance with ASIIN accreditation requirements.

#### **XVII. Specific Calculations in the Course Module Description (Section C 1.5)**

As for Section C 1.5, calculation in individual module descriptions, the inconsistency in the ECTS credits for the course "Mechanics of Materials" is due to revisions in the talent cultivation program. In version V2021.3, "Mechanics of Materials" was assigned 2 credits, so the actual workload for students in the 2021, 2022, and 2023 cohorts was 60 class hours. The course manual can be found in Appendix C2, "Programme Module and Curriculum

Handbook of Mechanical Design, Manufacture, and Automation.” However, based on feedback from students and teachers collected after teaching practice, we found that 12 self-study hours were insufficient to meet the learning requirements of the course. Therefore, in the revised V2024.0 version of the talent cultivation program, the credits for “Mechanics of Materials” were adjusted to 3 ECTS, with in-class hours remaining at 48 and self-study hours increased to 42. The course manual was also updated (see Appendix C2-2, “Programme Module and Curriculum Handbook of Mechanical Design, Manufacture, and Automation”), and this change will be implemented starting with the 2024 cohort.

In addition, during the self-inspection process, we discovered some errors in the descriptions of certain course modules. As a result, we have revised the course handbook for the Mechanism major. The updated course handbook can be found in Attachment #5 Programme Module and Curriculum Handbook of MDMA (V2024.0).

#### **XVIII. Explanation of Self-study Time Allocation for the Course (Section C 1.5)**

As for Section C 1.5, descriptions of self-study time distribution in several modules, our university has implemented special rectification measures for this issue: First, we standardized the calculation period for self-study time, clarifying that the self-study period for all courses aligns with the face-to-face teaching period (16 weeks). For courses such as “Fundamentals of University Computer Science” and “Principles of Pattern Recognition”, where there were mismatches in the periods, we recalculated the self-study duration and supplemented the estimation basis and allocation explanations. Second, we formulated the “Detailed Rules for Estimating Course Self-Study Workload”, specifying the principles for self-study time allocation by course type to ensure clear descriptions and unified standards. Third, we incorporated the reasonableness of self-study time allocation into the course module description review process, strengthened teacher training, and established a dynamic optimization mechanism. Each semester, adjustments are made to self-study time allocation based on student feedback to ensure compliance with certification requirements.

#### **XIX. Addressing the insufficient academic writing training for students (Section C 1.6)**

As for Section C 1.6, scientific writing skills, our university has strengthened students’ academic writing training by increasing the credits for scientific writing courses, supplementing core teaching content, establishing specialized review mechanisms, conducting practical training and lectures, and providing mentor guidance. The focus is on enhancing students’ abilities in structuring papers, writing literature reviews, and applying IEEE citation standards, while also improving faculty’s academic writing teaching capabilities to ensure students master essential academic writing skills.

## Summary on Section C 2

During the revision of the talent cultivation program in 2024, the application scope of diversified examination and assessment methods has been expanded. It is planned that in the 2025-2026 academic year, over 80% of the core professional courses will adopt diversified assessment methods, with practical courses fully incorporating hands-on operations, computer-based operations, and other forms. Additionally, an effectiveness tracking mechanism for assessment methods will be established, collecting feedback from teachers and students each semester to continuously optimize the assessment plan. As an application-oriented university, our institution has long focused on cultivating students' practical abilities but also recognizes the importance of scientific writing. We will continue to refine the review mechanism for graduation project (thesis) topics, increasing academic and research requirements, and adding elective courses related to scientific research methods to help students master core skills such as literature retrieval, experimental design, and data processing. A quality standard system for graduation projects (theses) will be further developed, specifying detailed requirements for each stage, including the application of scientific research methods, literature review, result analysis, and conclusion derivation.

## XX. Proportion of Traditional Written Examination Methods for the Two Majors (Section C 2)

As for Section C 2, assessments in both programs rely on the traditional written examination format. Regarding course evaluation, traditional closed-book exams are the main method, while some practical courses employ hands-on assessments and major assignments. However, there is an overall lack of diversity in assessment methods. In the 2024 revision of the talent cultivation plan, the application scope of diversified assessment methods has been expanded. It is planned that by the 2025-2026 academic year, over 80% of professional core courses will adopt diversified assessment methods. For practical courses, hands-on and computer-based operations will be fully introduced. Additionally, a tracking mechanism for the effectiveness of assessment methods will be established, with feedback from teachers and students collected each semester to continuously optimize the assessment plan.

The college will implement the following reforms in line with the spirit of the university's curriculum assessment reform:

### (1) Categorized assessment scheme design

For theoretical courses, a combined assessment of "closed-book examination + course paper + class performance" shall be adopted.

For practical courses, an assessment model of “practical operation + project report + achievement defense” shall be implemented.

For interdisciplinary courses, assessment methods including case analysis and group debate shall be introduced.

(2) Strengthening process-based assessment

The weight of process-based assessment indicators, such as regular assignments, class participation, laboratory reports and project progress, shall be increased to fully track students’ learning process.

(3) Introduction of industrial evaluation standards

Practical course assessment standards shall be formulated jointly with university- enterprise cooperation partners. Actual industrial demands shall be integrated into the assessment system to enhance its practicality and pertinence.

**XXI. Graduation Thesis Samples (Section C 2)**

As an application-oriented university, the university has long focused on the cultivation of students’ practical abilities, while facing up to the deficiencies in students’ basic theoretical competence and academic writing ability. Some students have limited theoretical foundation and written expression skills, and are not proficient in the basic methods of academic research and the norms of thesis writing, which results in insufficient academic depth in graduation projects (theses). In recent years, with the increasing number of students pursuing further studies, the university has optimized and will continue to improve the review mechanism for graduation project (thesis) topics, strengthen academic and research requirements, and offer elective courses on scientific research methods to help students master core skills including literature retrieval, experimental design and data processing. A quality standard system for graduation projects (theses) has been established and improved, specifying detailed requirements for each link such as the application of scientific research methods, literature review, result analysis and conclusion deduction. At present, strict process management and control are carried out in three stages: proposal, mid-term review and finalization. The proposal stage focuses on examining the scientificity of the research scheme; the mid-term stage inspects research progress and data collection; the finalization stage strengthens the academic review of the thesis.

Given the wide application fields of the Mechanical Engineering program, graduation projects cover various types of projects with certain differences in evaluation criteria. To better guarantee the quality of graduation projects, we have formulated rectification measures

for improving graduation quality, as shown in **Attachment #6: Rectification Measures for Improving the Quality of Graduation Projects (MDMA)**.

### **Summary on Section C 3**

Experts have approved the mechanisms adopted by the university to improve the academic qualifications of its faculty. They hold that the overall structure, professional orientation and competence of the faculty team can meet the teaching requirements of Level 6 undergraduate programs under the European Qualifications Framework. Currently, the two programs are actively recruiting teachers with doctoral degrees. In recent years, the university has implemented a support program for in-service teachers to pursue doctoral degrees, established partnerships with many domestic and foreign universities, introduced part-time doctoral teachers, invited international visiting professors, set up research incentives for doctoral teachers, and established special research funds to support doctoral teachers in conducting research projects related to their majors. The University International Exchange and Cooperation Center is gradually promoting international exchange affairs. A special fund for faculty international exchange has been established to support teachers in participating in international exchange activities, strengthen cooperative relations with foreign universities, sign joint training agreements, and provide teachers with opportunities for long-term academic visits and cooperative research. The university will build an exchange platform and establish an information database for faculty international exchange to release timely information on international conferences, visits and seminars. It will cooperate with international academic organizations to strive for more exchange quotas and resources. International academic exchange experience will be included as an important indicator in faculty performance assessment and professional title evaluation. The funding standards for international exchange will be raised. The university has increased investment in teaching equipment and promoted the upgrading and renovation of laboratories. An equipment renewal plan for 2026-2027 has been formulated, with a planned investment of **8 million yuan** for the construction of an advanced chip design and microelectronics laboratory. The university will further deepen university-enterprise cooperation, share advanced enterprise equipment through joint laboratory construction and joint research and development, and establish a laboratory resource sharing mechanism with neighboring universities and research institutes to carry out joint teaching and research.

### **XXII. Number of PhD Holders (Section C 3.1)**

As for Section C 3.1, full-time teachers with PhDs account for approximately 13% in our university's Electronic Information Engineering programme. The Mechanical Design, Manufacturing and Automation programme has 102 full-time teachers, with the proportion of

PhD holders also around 13% (see Attachment U4-2 Faculty Structure Breakdown for the Mechanical Design, Manufacture and Automation Programme for details). The experts acknowledged the mechanisms implemented by the university to enhance the academic qualifications of the faculty. They noted that although the proportion of teachers with PhDs is relatively low, the overall structure, professional orientation, and competence of the faculty meet the teaching requirements of the EQF Level 6 undergraduate programme. Currently, both programmes are actively recruiting teachers with PhDs. In recent years, the university has implemented a support plan for in-service teachers to pursue PhD degrees and has established partnerships with multiple domestic and international universities to introduce part-time PhD teachers and invite international visiting professors. Additionally, the university has set up research incentives for PhD teachers and established special research funds to support them in conducting programme-related scientific research projects. By 2026, the scope of support for in-service teachers pursuing PhD degrees will be expanded. From 2025 to 2027, the university plans to recruit no fewer than four PhD teachers annually, aiming to increase the proportion of PhD holders to over 20% by 2027, ensuring the continuous optimization of the faculty's academic qualification structure.

### **XXIII. International Academic Exchange (Section C 3.1)**

As for Section C 3.1, the university's International Exchange and Cooperation Center is progressively advancing international exchange initiatives. A special fund for faculty international exchanges has been established to support teachers in participating in international exchange activities, with 23 teachers already funded. Efforts are being intensified to establish teacher exchange partnerships with foreign universities and sign joint training agreements, providing teachers with opportunities for long-term visits and collaborative research. From 2025 to 2027, the university plans to select no fewer than 15 teachers annually to participate in international academic exchange activities. At least two international academic lectures will be held each semester, inviting foreign experts to deliver lectures online or in person to broaden teachers' international perspectives. The university will build an exchange platform, establish an information database for faculty international exchanges, and promptly release information on international conferences, visits, and training programs. Collaborations with international academic organizations will be strengthened to secure more exchange opportunities and resources. Participation in international academic exchanges will be incorporated as a key indicator in faculty assessment and promotion, with outstanding performers receiving recognition and rewards. Funding standards for international exchanges will be increased. Teachers will be encouraged to engage in joint research projects with foreign experts, focusing on cutting-edge areas in their fields, thereby enhancing their level of international academic exchange through collaboration.

### **XXIV. Equipment Update (Section C 3.3)**

As for Section C 3.3, Our university has increased investment in teaching equipment and promoted the upgrading of laboratories. First, in 2024, over 3 million RMB was invested to update laboratory equipment, adding 20 sets of embedded system development platforms and 15 sets of circuit simulation software to improve basic experimental conditions. Second, a partnership with Huawei Technologies Co., Ltd. was established to co-build the “HarmonyOS Training Platform” and “IoT Training Platform”, introducing advanced enterprise equipment and technologies. Third, an equipment update plan for 2026-2027 has been developed, with a planned investment of 8 million RMB to build advanced chip design and microelectronics laboratories. High-end equipment such as chip measuring instruments, characterization equipment, and SPICE simulation software will be procured to meet the needs of complex experimental teaching. Fourth, school-enterprise cooperation will be deepened by co-building laboratories and engaging in joint research and development, sharing advanced enterprise equipment to reduce procurement and maintenance costs. Fifth, a laboratory resource-sharing mechanism will be established with neighboring universities and research institutes to facilitate joint teaching and research.

#### **XXV. Limited Advanced Equipment (Section C 3.3)**

As for Section C 3.3, since December 2025, our university has continuously carried out a series of activities, including enterprise visits and professional research, to address the development needs of the Mechanical Design and Automation programme. Stable and in-depth school-enterprise partnerships have been established with multiple high-quality enterprises in the region, laying a solid foundation for expanding practical teaching resources.

Next, our university will take this accreditation as an opportunity to further deepen the school-enterprise collaborative education mechanism. By fully leveraging existing cooperative enterprise platforms, cutting-edge experiments and practical tasks will be introduced to enterprise sites, allowing teachers and students to use advanced enterprise equipment for teaching and research tasks. At the same time, the mechanism for school-enterprise co-building and resource sharing will be continuously improved to address the shortage of advanced equipment, strengthen practical education, and comprehensively enhance the quality of professional talent cultivation and the overall level of programme operation.

#### **Summary on Section C 4**

Our university has organized and agreed to revise the course module manual to ensure the consistency of terminology used in the module manual. Our school has completed the modification of the transcript, and the revised transcript marks both the course code and the Chinese and English course names to ensure that external institutions can clearly understand the courses taken by students. At same time, our school has updated the transcript management system to ensure that course information is accurate and standardized, in

accordance with ASIIN certification requirements. The graduation standard for graduates of school is to complete the required credits for the major and meet the qualification requirements, so the transcript only marks the grades of each course, without marking the final personal grades. Taking into account the graduation review norms and the internationally accepted standards, the transcript display format will continue to be optimized in the future to meet the relevant requirements of ASIIN certification.

**XXVI. Inconsistencies in Prerequisite Requirements for Module Manuals (Section C 4.1)**

As for Section C 4.1, different terms are used for the prerequisites section in both module handbooks. We have conducted a comprehensive review unified revision of the course module handbooks, standardizing the relevant statements of prerequisites, to ensure consistency in terminology, format, and content elements across all module handbooks within the major.

**XXVII. The Course Name and Course Code on the Transcript (Section C 4.2)**

As for Section C 4.2, our school has completed the reform of the transcript, and the revised transcript now includes the code, Chinese course name, and English course name, ensuring that external institutions have a clear understanding of the courses taken by students. The revised transcripts (EIE) and diploma supplements (MDMA) for the 2021 academic year have been provided as supplementary material ((Attachment #7 OBE-EIE2021-Achieve\_of\_Graduation\_Requirements and Attachment #8 Diploma Supplements for MDMA (Folder))). All subsequent transcripts for graduates will adopt this format. At the time, our school has updated the transcript management system to ensure that course information is accurate, standardized, and complies with ASIIN certification requirements.

**XXVIII. The Graduate's Final Grade and Grade Level on the Transcript (Section C 4.2)**

As for Section C4.2, the graduate's final grade and a classification of the grade, our school's graduation standard is to complete the credits required by the major and meet the qualification to graduate, so the transcript only marks the grades of each course. At the same time, students' grades belong to personal sensitive information, and in order to strictly protect students' privacy, our school does not disclose any specific grades and grade information of individual students, but only shows whether the credits have been completed and whether the graduation credit requirements can be met, into account the graduation audit norms and student privacy protection. The subsequent will continue to optimize the form of transcript presentation, in line with the requirements of ASIIN certification.

Nanchang Institute of Science & Technology (NIST) would like to express its heartfelt gratitude to the ASIIN certification expert panel for their affirm and encouragement of our achievements during the on-site review process and in the certification report, as well as

for the comments and suggestions they have put forward. The two undergraduate programs of IT, namely, Electronic Information Engineering and Mechanical Design, Manufacturing and Automation, have been highly recognized by the expert panel in the ASIIN certification. The overall level of education the EQF level 6 standard and the requirements of the European Engineering Education Framework. The curriculum system of the two programs is perfect and their positioning is clear. They are both the batch of undergraduate programs in the school and have been rated as first-class undergraduate programs in Jiangxi Province. The curriculum setting and graduation requirements are highly consistent, the proportion practical courses is high, the compulsory enterprise internship system is standardized, and there is deep integration of school-enterprise cooperation. Practice bases are co-built with enterprises such as Huawei and graduates are highly recognized by enterprises. The faculty is well-structured with a student-teacher ratio of about 1:7, nearly half of the teachers hold senior titles, and school encourages teachers to further their education through financial support and reduced workloads. Teachers are highly committed to teaching, and their research achievements are effectively integrated into teaching. Students express high with the faculty. The school has established a systematic curriculum review mechanism, which is comprehensively revised every four years and dynamically adjusted every year, fully taking into account feedback from teachers, industry, and alumni. In 2025, the school also optimized the curriculum system based on industry needs. The school has sufficient resources for its operations, a rich, a stable financial situation, and a scientific plan. A comprehensive student support system is in place, with academic, psychological, and employment guidance throughout the entire period of study. The-time graduation rate exceeds 95%, and the dropout rate is only 1%. Moreover, the school has a well-developed quality assurance system, with a combined and four-year assessment mechanism, and multiple feedback channels are unobstructed, effectively promoting the continuous improvement of the major. NIST has already started the evaluation and improvement based on the suggestions of the expert group during the on-site review, and will continue take this certification as an opportunity to optimize the professional construction according to the certification report, strictly implement various rectification measures, and improve the quality of talent training.”

## G Summary: Expert recommendations (09.03.2026)

Taking into account the additional information and the comments given by Nanchang Institute of Science and Technology the peers summarize their analysis and **final assessment** for the award of the seals as follows:

| Degree Programme                                  | ASIIN Seal                     | Maximum duration of accreditation | Subject-specific label | Maximum duration of accreditation |
|---------------------------------------------------|--------------------------------|-----------------------------------|------------------------|-----------------------------------|
| Ba Electronic & Information Engineering           | With requirements for one year | 30.09.2031                        | EUR-ACE®               | 30.09.2031                        |
| Ba Mechanical Design, Manufacture, and Automation | With requirements for one year | 30.09.2031                        | EUR-ACE®               | 30.09.2031                        |

### Requirements

#### For all degree programmes

- A 7. (ASIIN 1.3, 1.3) Establish transparent and binding rules on the recognition of external qualifications.
- A 8. (ASIIN 1.5) Verify and revise the self-study time to reflect the actual workload in the respective modules.
- A 9. (ASIIN 2) Ensure that the thesis adheres to scientific standards, including the sections on the problem statement, methodology, literature review, discussion of results and outlook. Additionally, make sure that the practical work is carried out with sufficient scientific rigour and is supported by adequate theory and data.
- A 10. (ASIIN 4.2) Ensure that the Diploma Supplement includes the graduate's final grade and statistical data, as set out in the ECTS Users' Guide, to allow readers to evaluate individual marks.

#### For the Bachelor's programme Electronic & Information Engineering

- A 11. (ASIIN 1.3) Increase the amount of content on mathematics and quantum physics.

#### For the Bachelor's programme Mechanical Design, Manufacture, and Automation

A 12. (ASIIN 1.3) Establish a course on polymers and polymers manufacturing.

### **Recommendations**

#### **For all programmes**

- E 1. (ASIIN 1.3) It is recommended that the number of technical courses is increased in relation to the number of non-technical courses.
- E 2. (ASIIN 1.3) It is recommended that students are given more opportunities to engage with the industry, for example through more internships.
- E 3. (ASIIN 1.3, 3.1) It is recommended that student and academic mobility is fostered both nationally and internationally, and that support for students is enhanced.
- E 4. (ASIIN 1.6) It is recommended that training in scientific writing is strengthened.
- E 5. (ASIIN 2) It is recommended to increase the diversity of examination methods.
- E 6. (ASIIN 2) It is recommended that the level of the exams is made more homogeneous.

#### **For the Bachelor's programme Electronic & Information Engineering**

- E 7. (ASIIN 1.3) It is recommended that the curriculum incorporates more theory on AI (e.g. neural networks) and microelectronic circuits.
- E 8. (ASIIN 1.3) It is recommended that a course on chip design in SPICE is introduced.
- E 9. (ASIIN 3.3) It is recommended that newer equipment is acquired for the existing electronics lab, as well as more advanced equipment for chip design and microelectronics.

#### **For the Bachelor's programme Mechanical Design, Manufacture, and Automation**

- E 10. (ASIIN 3.3) It is recommended that cooperation with industry be utilised to carry out advanced tasks using advanced equipment from enterprises.

## H Comment of the Technical Committees (10.03.2026)

### Technical Committee 01 – Mechanical Engineering/Process Engineering (05.03.2026)

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

The TC discusses the procedure and follows the vote of the experts without changes.

*Assessment and analysis for the award of the EUR-ACE® Label:*

The Technical Committee deems that the intended learning outcomes of the degree programme do comply with the engineering specific parts of Subject-Specific Criteria of the Technical Committee 01 – Mechanical Engineering/Process Engineering.

The Technical Committee 01 – Mechanical Engineering/Process Engineering recommends the award of the seals as follows:

| Degree Programme                                  | ASIIN Seal                     | Accredited by German Engineers | Maximum duration of accreditation | Subject-specific label | Maximum duration of accreditation |
|---------------------------------------------------|--------------------------------|--------------------------------|-----------------------------------|------------------------|-----------------------------------|
| Ba Mechanical Design, Manufacture, and Automation | With requirements for one year | With requirements for one year | 30.09.2031                        | EUR-ACE®               | 30.09.2031                        |

### Technical Committee 02 – Electrical Engineering/Information Technology (10.03.2026)

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

The Technical Committee discussed the procedure and noted that Recommendation E8 does not seem logical, since SPICE is generally used for circuit simulation rather than chip design. They therefore suggest reformulating the recommendation so that it explicitly

refers to the inclusion of a course on circuit simulation using SPICE, rather than a course on chip design using SPICE.

*Assessment and analysis for the award of the EUR-ACE® Label:*

The Technical Committee deems that the intended learning outcomes of the degree programmes do comply with the engineering specific parts of Subject-Specific Criteria of the Technical Committee 02 – Electrical Engineering/Information Technology.

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

| <b>Degree Programme</b>                 | <b>ASIIN Seal</b>              | <b>Accredited by German Engineers</b> | <b>Maximum duration of accreditation</b> | <b>Subject-specific label</b> | <b>Maximum duration of accreditation</b> |
|-----------------------------------------|--------------------------------|---------------------------------------|------------------------------------------|-------------------------------|------------------------------------------|
| Ba Electronic & Information Engineering | With requirements for one year | With requirements for one year        | 30.09.2031                               | EUR-ACE®                      | 30.09.2031                               |

# I Decision of the Accreditation Commission (27.03.2026)

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

The commission discusses the procedure and follows the vote of the experts without changes.

*Assessment and analysis for the award of the EUR-ACE® Label:*

The Accreditation Commission deems that the intended learning outcomes of the degree programmes do comply with the engineering specific parts of Subject-Specific Criteria of the Technical Committees 1 and 2.

The Accreditation Commission decides to award the following seals:

| Degree Programme                                  | ASIIN Seal                     | Accredited by German Engineers | Maximum duration of accreditation | Subject-specific label | Maximum duration of accreditation* |
|---------------------------------------------------|--------------------------------|--------------------------------|-----------------------------------|------------------------|------------------------------------|
| Ba Electronic & Information Engineering           | With requirements for one year | With requirements for one year | 30.09.2031                        | EUR-ACE®               | 30.09.2031                         |
| Ba Mechanical Design, Manufacture, and Automation | With requirements for one year | With requirements for one year | 30.09.2031                        | EUR-ACE®               | 30.09.2031                         |

\* Subject to the approval of the ENAEE Administrative Council

## Requirements

### For all programmes

- A 1. (ASIIN 1.3, 1.4) Establish transparent and binding rules on the recognition of external qualifications.
- A 2. (ASIIN 1.5) Verify and revise the self-study time to reflect the actual workload in the respective modules.
- A 3. (ASIIN 2) Ensure that the thesis adheres to scientific standards, including the sections on the problem statement, methodology, literature review, discussion of results and

outlook. Additionally, make sure that the practical work is carried out with sufficient scientific rigour and is supported by adequate theory and data.

- A 4. (ASIIN 4.2) Ensure that the Diploma Supplement includes the graduate's final grade and statistical data, as set out in the ECTS Users' Guide, to allow readers to evaluate individual marks.

**For the programme Ba Electronic & Information Engineering**

- A 5. (ASIIN 1.3) Increase the amount of content on mathematics and quantum physics.

**For the programme Ba Mechanical Design, Manufacture, and Automation**

- A 6. (ASIIN 1.3) Establish a course on polymers and polymers manufacturing.

**Recommendations**

**For all programmes**

- E 1. (ASIIN 1.3) It is recommended that the number of technical courses is increased in relation to the number of non-technical courses.
- E 2. (ASIIN 1.3) It is recommended that students are given more opportunities to engage with the industry, for example through more internships.
- E 3. (ASIIN 1.3, 3.1) It is recommended that student and academic mobility is fostered both nationally and internationally, and that support for students is enhanced.
- E 4. (ASIIN 1.6) It is recommended that training in scientific writing is strengthened.
- E 5. (ASIIN 2) It is recommended to increase the diversity of examination methods.
- E 6. (ASIIN 2) It is recommended that the level of the exams is made more homogeneous.

**For the programme Ba Electronic & Information Engineering**

- E 7. (ASIIN 1.3) It is recommended that the curriculum incorporates more theory on AI (e.g. neural networks) and microelectronic circuits.
- E 8. (ASIIN 1.3) It is recommended that a course on circuit simulation with SPICE is introduced.
- E 9. (ASIIN 3.3) It is recommended that newer equipment is acquired for the existing electronics lab, as well as more advanced equipment for chip design and microelectronics.

**For the programme Ba Mechanical Design, Manufacture, and Automation**

E 10. (ASIIIN 3.3) It is recommended that cooperation with industry be utilised to carry out advanced tasks using advanced equipment from enterprises.

## Appendix: Programme Learning Outcomes and Curricula

According to the Programme Handbook, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Electronic & Information Engineering:

### **“Programme Objectives:**

This programme aims to cultivate politically qualified, physically and mentally healthy individuals who are well-rounded in morality, intelligence, physical fitness, aesthetics, and labor skills. Students will master theoretical knowledge in mathematics and natural sciences, electronic circuits, computer science, signals and systems, necessary for engaging in circuit systems and information systems-related work. They will possess the ability to apply electronic technology, embedded system development technology, and information processing technology to solve complex engineering problems. Graduates will be capable of working in electronic information industry and related areas, engaging in various fields such as hardware circuits, embedded systems, information processing, and transmission systems design, development, maintenance, and management, thus being cultivated to high-quality application-oriented talents demonstrating innovative consciousness, professional ethics, and craftsmanship.

### **Intended learning outcomes:**

R1. Engineering Knowledge Application: Mastery of the fundamentals of mathematics, physics, and foreign languages; proficiency in basic knowledge of computer software and hardware; familiarity with various theoretical analysis methods of signals and systems; the ability to apply professional theoretical knowledge and practical knowledge in electronic information engineering to solve basic technical problems in the field.

R2. Problem Analysis: The ability to comprehensively apply professional theoretical knowledge to identify, express, and analyze general engineering problems, as well as participate in the analysis of complex engineering problems through literature research.

R3. Design/Development of Solutions: The ability to lead the design of solutions to general engineering problems and participate in the design of solutions to complex engineering problems, designing circuit systems, unit circuits, or process flows that meet

specific requirements, and demonstrating innovative consciousness in the design process, considering factors such as social, health, safety, legal, cultural, and environmental aspects.

R4. Research Capabilities: The ability to participate in the researches on complex engineering problems by using scientific method based on scientific principles, and to design experiments, analyze and interpret data, and obtain reasonable and effective conclusions through information synthesis.

R5. Use of Modern Tools: The ability to develop, select, and use appropriate technologies, resources, software and hardware tools, and system development platforms for complex engineering problems, to predict and simulate complex engineering problems, and to understand their limitations.

R6. Engineering and Society: The ability to conduct rational analysis based on engineering-related background knowledge, evaluate the impact of professional engineering practices and solutions to complex engineering problems on society, health, safety, law, culture, and environment, and understand their responsibilities.

R7. Environment and Sustainable Development: The ability to understand and evaluate the impact of professional engineering practices on the environment and social sustainable development in response to complex engineering problems.

R8. Professional Standards: Possessing humanities and social science literacy, social responsibility, understanding and complying with engineering professional ethics and norms, and fulfilling responsibilities.

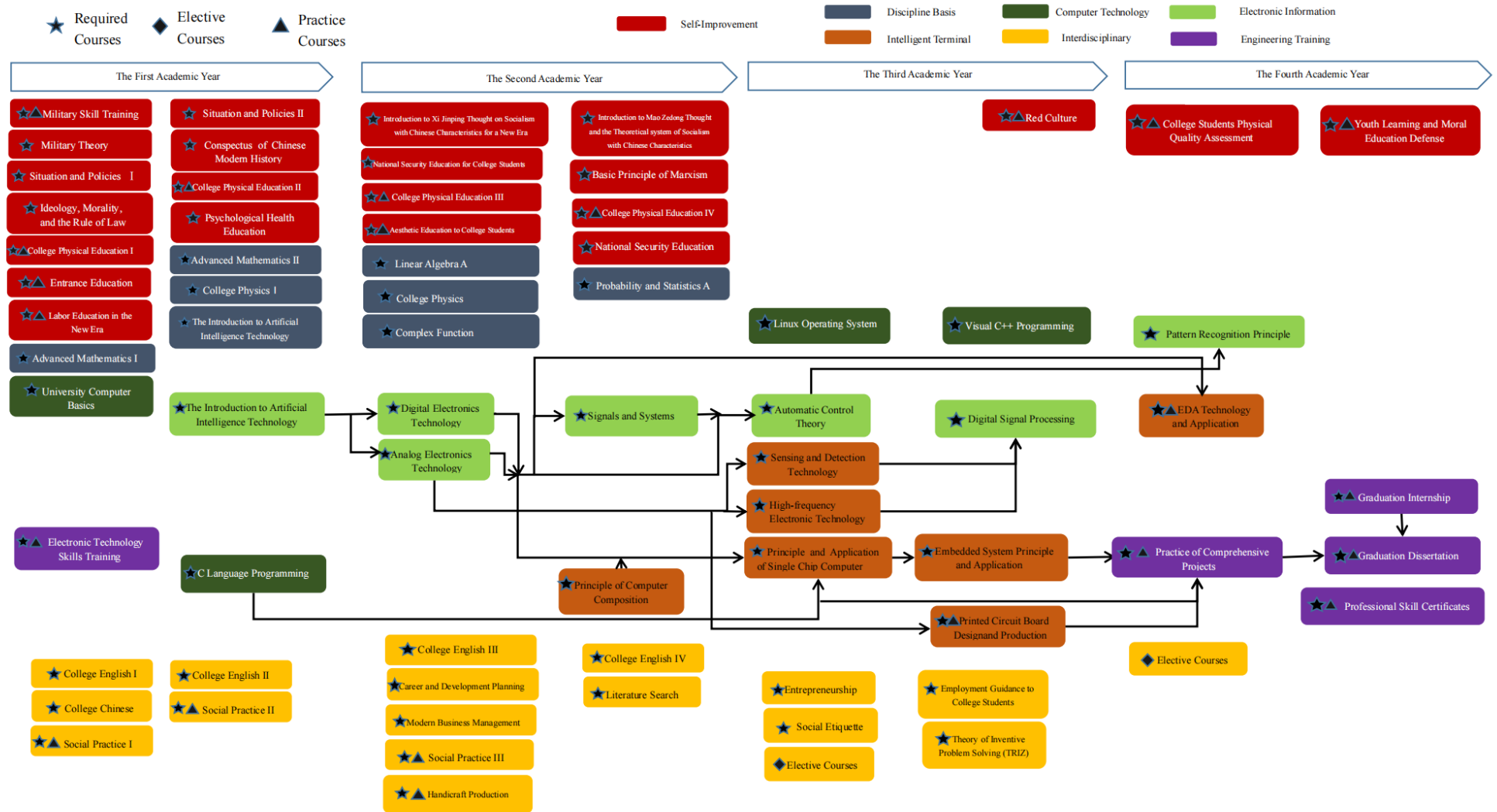
R9. Teamwork: The ability to assume the roles of individuals, team members, and leaders in a multidisciplinary team.

R10. Communication: The ability to effectively communicate and interact with peers in the industry and the public on complex engineering problems, including writing reports and design documents, making presentations, and clearly expressing or responding to instructions, with a certain international perspective, capable of communicating and interacting in a cross-cultural context.

R11. Project Management: Understanding and mastering the principles of engineering management and economic decision-making methods, and applying them in a multidisciplinary environment.

R12. Lifelong Learning: Possessing the awareness and habits of self-directed learning and lifelong learning, and the ability to continuously learn and adapt to career development.”

The following curriculum is presented:



According to the Programme Handbook, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Mechanical Design, Manufacture, and Automation:

**“Programme Objectives:**

This programme cultivates politically qualified, and physically and mentally healthy individuals who are well-rounded in morality, intelligence, physical fitness, aesthetics, and labor. Students will acquire a solid foundation in mathematics, natural sciences, and engineering science, along with basic knowledge and application skills in mechanical design and manufacturing. Graduates will possess a strong sense of social responsibility and professional ethics, a certain international perspective, and the capability to engage in product design, process development, and mechatronic design within the fields of mechanical design, manufacturing, and electromechanical control. They will be practical, adaptable, and innovative technical professionals, embodying craftsmanship in a new era.

**Intended learning outcomes:**

R1. Engineering Knowledge Application: Be able to master knowledge of mathematics, natural science, computer science, engineering, with multidisciplinary knowledge involved in mechanical engineering, be able to analyze and solve specific problems in the field of mechanical engineering.

R2. Problem Analysis: Be able to apply the basic principles of mathematics, natural science and mechanical engineering to identify, express and analyze special problems in the field of mechanical engineering, and finally work out effective conclusions such as the causes, influencing factors and solutions of problems.

R3. Design/Development of Solutions: Be able to lead the design of solutions to general engineering problems and participate in the design of solutions to complex engineering problems so as to develop mechanical products, manufacturing processes, electromechanical control systems. Be able to demonstrate innovation in the designing process while taking into account factors of society, health, safety, legality, culture as well as environment.

R4. Research Capabilities: Be able to conduct research on complex engineering problems in the mechanical field based on scientific principles and methods, including designing experiments, analyzing data and synthesizing experimental results to get reasonable and effective conclusions.

R5. Use of Modern Tools : Be able to master the basic methods of literature retrieval and material search; be able to use modern technology to obtain relevant information and to

effectively apply modern tools in the field of mechanical engineering to solve relevant problems, while also understanding the limitations of those tools and methods.

R6. Engineering and Society: Be able to conduct rational analysis to evaluate the impact exerted by engineering practice on the society, health, safety, security and culture so as to assume corresponding responsibilities.

R7. Environment and Sustainable Development: Be able to understand and assess the impact exerted by complex mechanical engineering projects on the sustainable development of environment and society.

R8. Professional Standards: Be able to acquire qualified literacy of humanities and social science, sense of social responsibilities, professional ethics and engineer identification. To be familiar with the laws and regulations of the profession and industry, and be able to understand and abide by the code of ethics of the engineering profession and fulfill the responsibility in engineering practice.

R9. Teamwork: Be able to possess outstanding professional quality, humanistic quality and team spirit to handle the relationship between individuals and teams and to appropriately assume the role of individual, team member or leader in a multidisciplinary team.

R10. Communication: Be able to communicate effectively with the peers of engineering community and the public on complex engineering issues in the field of mechanical engineering, including writing reports and design documents, making speeches, and clearly expressing or responding to instructions. Be capable of communicating and interacting in a cross-cultural context with a certain international perspective.

R11. Project Management: Be able to understand and master the principles of engineering management and economic decision-making methods, and apply them in a multidisciplinary environment.

R12. Lifelong Learning: Be able to correctly understand the importance of independent learning and lifelong learning, and have the ability to continuously study and adapt to career development.”

## 0 Appendix: Programme Learning Outcomes and Curricula

The following curriculum is presented:

The following figure shows the logical relationship of all courses

