

# Evaluation and Benchmarking of the Diploma in EMU Maintenance Technology from Tangshan Polytechnic College

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## Context and scope

Tangshan Polytechnic College commissioned Ecctis for an independent evaluation and benchmarking of its Diploma in Electric Multiple Units (EMU) Maintenance Technology which was completed in March 2023.

The Diploma in EMU Maintenance Technology is one of 46 programmes delivered by the College, alongside Ceramic Design and Technology, Mechanical Manufacturing and Automation, and Mechatronics Technology.

The main aims of the benchmarking were to:

- Establish comparability in the context of the UK through reference to the Regulated Qualifications Framework (RQF), and by extension, the European Qualifications Framework (EQF)<sup>1</sup>
- Assess the extent to which the College's underpinning quality assurance meets a set of international standards.

## Key findings

The Diploma in EMU Maintenance Technology seeks to develop students' knowledge in the manufacture, application, and maintenance of EMU. In line with national requirements, the Diploma also encompasses "public basic courses" which include topics from arts, social sciences and science domains.

The general entry requirement for the programme is the National College Entrance Examination (NCEE, popularly known as the *gaokao* 高考) – comparable to GCE A Level / RQF Level 3 in the UK – or suitable marks in one of the College's own tests.

The Diploma is a three-year full-time programme equating to approximately 2924 hours' guided learning time. Reflecting its vocational focus, the Diploma combines classroom-based study with practical-based simulated learning and students develop their practical skills in an internship environment that mirrors the real-life workplace, preparing them for employment.

Upon completion, many students enter the workforce; however, some students will be

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<sup>1</sup> To date, a total of 36 countries have now referenced their national education systems to the EQF.

eligible to apply for top-up Benke (本科) / Bachelor degree programmes. These require a minimum of two years of further study, which shows that the Diploma has similar academic progression routes to that of HND, Diploma of Higher Education and other UK Level 5 awards.

The study revealed several strengths of the Diploma in EMU Maintenance Technology, namely that it demonstrated:

- Teaching staff that are well qualified, experienced and maintain their technical knowledge through regular industry placements.
- Links with and input into the programme by industry that ensure the Diploma maintains its currency and relevance and can quickly adapt to changes in the industry.
- Student progression into industry is well structured.
- Modern facilities which support the needs of a practical-focused qualification.
- A clearly defined, well-structured and transparent admissions policy.
- Quality assurance processes and procedures around teaching and learning that are well structured and organised.
- That the practical nature of the professional stages of the Diploma allow the College to deliver a learning and teaching experience which is aligned with equivalent benchmarked programmes.

**In terms of international comparability, the Diploma in EMU Maintenance Technology has been found comparable to Level 5 of the RQF and EQF. It has also met international quality standards in the following five areas:**

- **Admission**  
There is a pre-defined and published admissions policy ensuring transparency in the admissions policy and supporting consistency in admissions decisions
- **Programme development, approval, monitoring and review**  
There is a clear, process in place for the design, approval and monitoring of programmes
- **Teaching and learning**  
There is a formalised process for monitoring the quality and effectiveness of delivery, relevant to the modes of study employed
- **Assessment**  
Assessment provides a sufficiently fair, valid and reliable evaluation of the intended knowledge, skills and competencies

- **Information**

The information available to prospective students, current students and other interested stakeholders is accurate, transparent and clear for the intended audience.

## Engagement

Tangshan Polytechnic College has committed to further development and engagement encompassing:

- Rewriting the learning outcomes at programme and modular level to make them more specific and measurable and to establish the critical thinking skills that students are expected to demonstrate in the programme, thereby ensuring the learning outcomes link appropriately to the assessment methods of the programme.
- Undertaking a review of assessment – both the overall assessment framework and the existing assessments. Specifically: Current assessments and approaches to marking should be reviewed in order to assess higher cognitive skills expected at Level 4 and 5, Assessment methods for specific modules should be more clearly outlined in the TTP.
- Revision of guidelines for programme design, development and approval to ensure that learning outcomes reflect the knowledge and skills descriptors of Level 5 of the RQF. This revision should be demonstrated through a mapping of all programme level and module level learning outcomes, in order to show that these outcomes have been secured.
- Designing programme specifications (Teaching Plans) that detail the assessment strategies to be used and their link to module learning outcomes. To strengthen learning outcome mapping, clear learning, teaching and assessment strategies must be assigned to module learning outcomes.
- Develop a unified internal quality assurance handbook which would help to consolidate all existing written policies and processes, as well as documenting any unwritten policies or processes.

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Ecctis is a gold-standard provider of services in international education, training, and skills, and in the development and recognition of globally portable qualifications. We are an internationally trusted and respected reference point for qualifications and skills standards.

We are UK-based and operate worldwide, with a global network and client base spanning 62 countries and 5 continents. We have a 20-year track record in international consultancy and development.

Ecctis provides official UK national agency services on behalf of the UK Government in qualifications, skills, and migration – including UK ENIC, formerly UK NARIC.

UK ENIC is the UK National Information Centre for global qualifications and skills. Following the UK's leaving the EU, the former UK NARIC recognition agency function changes from a NARIC (which is an EU-only title) to an ENIC (the wider European title for national recognition agencies) in order to meet the UK's continuing treaty obligations under the [Lisbon Recognition Convention](#).

Since 2019, through our China representatives and Beijing office Nalike, and our UK China Council and UK NARIC China Council projects, we have conducted qualification benchmarking in China and fostered educational links between China and other countries, to support the internationalisation efforts of China's higher vocational colleges.