مجلس ضمان جودة مسار بولونيا

QAC

ANNUAL QUALITY ASSURANCE AND ENHANCEMENT REPORT

التقرير السنوي لضمان وتعزيز الجودة

Date 3/3/2026 Report version

University Northern Technical University / Technical Engineering College-Mosul

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Academic Year 2024-2025

Number of Colleges with BP 1 Number of Departments with BP 7

Number of Academic Staff 169 Number of Female Academic Staff 65

Number of Teaching Staff 169 Number of Research Staff

Number of B.Sc. Students 2853 Number of Female B.Sc. Students 907

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Number of Levels with BP	3	Number of Total Modules with BP	363
Name of LMS Platform	Bologna platform		

University website URL	https://ntu.edu.iq/ar/tec-ar/
Quality Assurance URL	
5-year Strategic planning URL	https://ntu.edu.iq/wp-content/uploads/2025/12/%D9%86%D8%B3%D8%AE%D8%A9-%D9%85%D9%86-%D8%A7%D9%84%D8%AE%D8%B7%D8%A9-%D8%A7%D9%84%D8%A7%D8%B3%D8%AA%D8%B1%D8%A7%D8%AA%D9%8A%D8%AC%D9%8A%D8%A9-%D8%A7%D9%84%D9%86%D9%87%D8%A7%D8%A6%D9%8A%D8%A9-10-Copy.pdf

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1. PREFACE

- Technical Engineering College – Mosul affirms its commitment to implementing the Bologna Process through the development of its academic programs in alignment with recognized European standards, the adoption of the European Credit Transfer and Accumulation System (ECTS), and the formulation of course descriptions based on clearly defined learning outcomes. This report outlines the key efforts and measures undertaken to enhance the quality of education and advance academic performance in line with accreditation requirements and labor market needs.

2.Report Summary

2.1 ESG-2015 Standards

2.1.1 Standard 1

POLICY FOR QUALITY ASSURANCE

Achievement and Progress
Quality Assurance Policy – Technical Engineering College ● Commitment to an integrated quality management system that ensures continuous improvement and enhances institutional excellence. ● Development of academic programs and learning outcomes in line with the highest national and international standards and labor market requirements. ● Empowerment of academic and administrative staff, and promotion of scientific research and innovation to serve the community and sustainable development. ● Establishment of a comprehensive quality culture, transparency, accountability, and achievement of student and stakeholder satisfaction at the highest level of efficiency.

2.1.2 Standard 2

DESIGN AND APPROVAL OF PROGRAMMES

Achievement and Progress

- Achievement and Progress

The institution follows a structured, evidence-based approach in the design and approval of academic programmes to ensure alignment with its mission, strategic objectives, and international quality assurance frameworks.

- Alignment with Institutional Strategy and Learning Outcomes

All programmes are developed with clearly defined Program Educational Objectives (PEOs) and Learning Outcomes (LOs). These outcomes are measurable and aligned with the institutional strategic plan, graduate attributes, and the National Qualifications Framework. Curriculum mapping ensures that each course contributes progressively to the achievement of programme learning outcomes. The structure follows a coherent academic progression model that supports knowledge development from foundational to advanced levels.

- Stakeholder Engagement and External Reference

Programme design is participatory and consultative. Faculty members, students, alumni, employers, and external academic experts are systematically involved in programme development and periodic review. Feedback collected through surveys, focus groups, and advisory meetings is analyzed and formally documented. Programmes are also benchmarked against reputable national and international institutions to ensure academic rigor and competitiveness. External reviewers provide structured feedback prior to approval or major revisions.

- Reflection of ESG 2015 Principles

The programmes reflect the four key purposes of higher education as outlined in ESG 2015 by preparing students for employment, active citizenship, personal development, and the advancement of knowledge. This is achieved through integration of transferable skills, ethical awareness, research-based learning, and applied projects such as internships and capstone experiences.

- Student Progression and Workload

Programme structures are carefully sequenced to ensure smooth student progression. Academic advising, and student support mechanisms are clearly defined. Student workload is calculated in accordance with ECTS standards, with transparent allocation of contact hours, independent study, and assessment activities. Periodic review of workload through student feedback ensures realistic and balanced academic demands.

- Placement and Experiential Learning

Where relevant, programmes include structured internship or field training components. These are governed by defined learning outcomes, supervision plans, and assessment rubrics. Employer evaluations and student reflections are incorporated into programme assessment and continuous improvement processes.

- Formal Approval and Bologna Compliance

All new programmes and major revisions undergo a formal institutional approval process that includes departmental review, college-level evaluation, and final institutional authorization. Needs analysis, market studies, and resource feasibility assessments are required prior to approval. Programme structures comply with Bologna Process guidelines in terms of credit distribution, modular organization, and classification of core and elective courses.

- Business and Industrial Council Consultation

The institution maintains an active Business and Industrial Council composed of industry representatives and employers. The Council provides advisory input on programme learning outcomes, emerging market trends, and graduate competencies. Recommendations from the Council are formally reviewed and integrated into curriculum updates where appropriate, ensuring responsiveness to labor market needs.

2.1.3 Standard 3

STUDENT-CENTERED LEARNING, TEACHING AND ASSESSMENT

Achievement and Progress

- The College actively recognizes and responds to the diversity of its student population, encompassing differences in academic background, learning styles, and personal circumstances. The following measures are in place across all departments:

1. Diagnostic assessments are administered at the start of each semester to identify students' actual proficiency levels and tailor academic support accordingly.
2. Flexible learning pathways are offered to students with special needs and to high-achieving students through structured support programmers and enrichment tracks.
3. All academic staff maintain regular office hours to provide individualized guidance to students experiencing academic difficulties.

- The College adopts a multi-modal approach to knowledge delivery, recognizing that no single method serves all learners equally. The following delivery modes are employed across departments:

1. Face-to-Face Lectures: The primary delivery mode enabling direct interaction between instructor and students.
2. Laboratory and Workshop Sessions: Reinforce the applied dimension of engineering education and bridge theory with practical application.
3. Blended Learning: Combines classroom instruction with digital platforms (e.g., Google Classroom, Microsoft Teams) to extend learning beyond scheduled contact hours.
4. Project-Based Learning (PBL): Students engage with real-world engineering problems in collaborative team settings.
5. Field Visits and: Expose students to authentic engineering work environments and industry practices.

The College employing a broad range of teaching strategies to achieve the desired learning outcomes more effectively. Key methods include:

1. Cooperative Learning: Students are assigned collaborative tasks that develop teamwork and communication skills essential for professional engineering practice.
2. Inquiry-Based Learning: Students are encouraged to formulate questions, conduct investigations, and construct knowledge independently.

3. Problem-Based Learning (PBL): Engineering scenarios are presented for students to analyse, discuss, and resolve in structured team settings.
4. Interactive Technologies: Smart boards, interactive presentations, and live polling tools are used to enhance engagement during lectures.

Flipped Classroom: Pre-recorded content is shared ahead of class sessions, allowing contact time to be devoted to discussion, problem-solving, and application.

- The College treats teaching effectiveness as a continuous improvement process requiring regular review and evidence-based adjustment. The following mechanisms are in place:

1. Teaching Evaluation Surveys: Distributed to students at mid-semester and end-of-semester, with results analyzed at both departmental and college levels.
2. Curriculum Review Meetings: Departments hold periodic meetings to review course content and delivery methods in light of student performance and feedback.
3. Examination Result Analysis: Comparative analysis of examination outcomes is conducted to identify patterns linked to specific delivery approaches.

- The College seeks to strike the right balance between fostering independent learning and ensuring that adequate guidance and academic support remain available to all students. This balance is achieved through:

1. Students are given freedom to select topics for graduation projects and applied research within defined academic parameters, promoting ownership of the learning process.
2. Academic Advising System: Each student is assigned a dedicated academic advisor from the teaching staff who monitors their academic progress and provides personalized guidance throughout the programme.

- The College recognizes that a positive and productive educational environment is built upon a foundation of mutual respect and trust between students and academic staff. The following measures are embedded in institutional practice:

1. A Code of Academic Conduct is in place, clearly defining the rights and responsibilities of both students and academic staff, and governing the nature of their professional relationship.
2. Orientation programmes at the start of each academic year raise awareness among students and staff of the importance of a respectful learning environment.
3. An open-door communication policy is maintained across all departments and at the Dean's Office level, ensuring that any interpersonal concerns are addressed

- The College operates a formal, transparent, and accessible student complaints procedure, grounded in the belief that student feedback including complaints is a vital source of insight for improving academic quality.

2.1.4 Standard 4

STUDENT ADMISSION, PROGRESSION, RECOGNITION AND CERTIFICATION

Achievement and Progress
1. Student Admission: Students are admitted in accordance with the Central Admission regulations and the official instructions issued by the Ministry of Higher Education. 2. Documentation of Student Records: All student data and academic grades are systematically documented in line with the Bologna Process framework and its academic requirements. 3. Graduation Requirements: Graduation requires the successful completion of all academic requirements. It is noted that, to date, the college has not yet produced graduates under the Bologna Process system.

2.1.5 Standard 5

TEACHING STAFF

Achievement and Progress
The Academic Performance Indicator Program for faculty members, implemented in accordance with the Bologna Process framework, aims to evaluate teaching, research, and overall academic performance based on clear quantitative and qualitative criteria. These include teaching workload, the quality of learning outcomes, publication of research in reputable peer-reviewed journals, participation in scientific conferences, and compliance with academic documentation standards. The results of the assessment have highlighted the need to strengthen research productivity, with a recommendation to conduct periodic reviews and updates of the performance indicators and to align them with continuous improvement plans in accordance with quality assurance and academic accreditation requirements.

2.1.6 Standard 6

LEARNING RESOURCES AND STUDENT SUPPORT

Achievement and Progress

- Funding of Teaching and Learning Activities

1. The Technical College allocates financial resources to support teaching and learning activities.
2. Funding is directed toward purchasing laboratory equipment and upgrading technical devices.
3. Financial support is provided for equipping classrooms with modern instructional technologies.
4. Regular maintenance and replacement of outdated equipment are included in the allocated budget.
5. Budget planning is aligned with academic program requirements and institutional development plans.

- Library and Learning Resources

The College has a well library that provides an academic resources to support all programs.

- Laboratories and Workshops

1. Specialized laboratories are available according to each academic program.
2. Computer labs are equipped with modern hardware and licensed software.
3. Engineering and technical workshops support practical and hands-on training.
4. Equipment is subject to periodic maintenance and safety inspections.

- Career and Professional Support

1. The College offers career guidance and employability support.
2. Workshops are organized on professional ethics and workplace safety.
3. Students are encouraged to participate in internships and field training.
4. Collaboration with industry enhances practical exposure and skill development.

2.1.7 Standard 7

INFORMATION MANAGEMENT

Achievement and Progress
• Key performance indicators. The college defines key performance indicators (KPIs) in line with its strategic plan and academic objectives through the Bologna Process (BIS) system. These KPIs include student enrollment, student graduation, faculty research output, course completion rate, faculty-to-student ratio, graduate employment rate, and student satisfaction surveys. • Profile of the student population. The college collects demographic and academic data during admissions, such as age, gender, nationality, ethnicity, socioeconomic background, and admission type, to develop comprehensive policies, support programs, and financial aid allocation. • Student progression, success, and drop-out rates. The college monitors student success and failure rates from one stage to another, reopens courses, records graduation rates, student attendance, and withdrawal rates to implement academic guidance and counseling programs, and review curricula when high failure rates are detected. • Students' satisfaction with their programs. The college collects student satisfaction data through end-of-semester assessments, annual student experience questionnaires, graduation questionnaires for graduating students, and complaint records to develop faculty members, improve teaching methods, and update educational resources. • Learning resources and student support availability. The college collects data related to library usage statistics, electronic resource access analytics, laboratory usage, and academic advising appointments to expand digital resources when demand increases, hire additional support staff when workload thresholds are exceeded, upgrade infrastructure, and extend working hours during peak periods. • Career paths of graduates. The college monitors graduate outcomes through graduate surveys, employer feedback, and employment data in training programs to align curricula with labor market needs and introduce new specializations.

2.1.8 Standard 8

PUBLIC INFORMATION

Achievement and Progress
https://ntu.edu.iq/ar/ntu-workshops-3/ https://ntu.edu.iq/ar/category/%d8%a3%d9%87%d9%85-%d8%a7%d9%84%d8%a7%d8%ae%d8%a8%d8%a7%d8%b1-tecm-ar-ar/ https://ntu.edu.iq/ar/%d9%85%d8%b4%d8%a7%d8%b1%d9%8a%d8%b9-%d8%aa%d8%ae%d8%b1%d8%ac-%d8%a7%d9%84%d8%b7%d9%84%d8%a8%d8%a9-tecm/ https://ntu.edu.iq/bologna-track-tecm https://ntu.edu.iq/ar/%d9%85%d8%b4%d8%a7%d8%b1%d9%8a%d8%b9-%d8%aa%d8%ae%d8%b1%d8%ac-%d8%a7%d9%84%d8%b7%d9%84%d8%a8%d8%a9-tecm/

2.1.9 Standard 9

ON-GOING MONITORING AND PERIODIC REVIEW OF PROGRAMMES

Achievement and Progress

The following sections detail how the institution meets the specific criteria for program excellence:

- Meeting the Changing Needs of Society

1. Industry Liaison Committees: We hold bi-annual meetings with industry experts to ensure learning outcomes align with current market trends and technological shifts.
2. Curriculum Mapping: Courses are updated annually to include emerging topics (e.g., sustainability, digital literacy) to ensure graduates are socially and professionally relevant.

- Monitoring Student Workload, Progression, and Completion

1. Data Analytics: The institution tracks credit-hour distribution and completion rates per module.
2. Adjustments: If data shows a specific semester has a disproportionately high workload, curriculum committees redistribute assignments or adjust credit weightings to support healthy student progression.

- Effectiveness of Assessment Procedures

1. Internal & External Moderation: Assessment tools are reviewed by external examiners to ensure they accurately measure the intended learning outcomes.
2. Diversification: We have moved toward more "authentic assessments" (projects, simulations) rather than relying solely on traditional exams to better evaluate practical competence.

- Student Expectations, Needs, and Satisfaction

1. Feedback Loops: End-of-semester surveys and "Student-Staff Consultative Committees" provide direct insight into the student experience.
2. Action Plans: Following feedback, program leads must publish an "Action Taken" report to show students exactly how their input has triggered curriculum or delivery changes.

- Fitness of Learning Environment and Support Services

1. Resource Auditing: An annual review of physical and digital infrastructure (libraries, labs, VLE platforms) is conducted.
2. Service Integration: We ensure that support services—such as academic writing centers and mental health support—are integrated into the program delivery to enhance the overall learning environment.

2.1.10Standard 10

CYCLICAL EXTERNAL QUALITY ASSURANCE

Achievement and Progress
Northern Technical University / Technical Engineering College – Mosul Demonstrates a good level of readiness for the cyclical external quality assurance assessment through the preparation of key documents, reports, supporting evidence, and the institutional infrastructure required for the assessment process. Work has been completed / is in progress on the following: ● Preparing and compiling quality assurance, academic, and administrative Performance reports. ● Organizing supporting evidence and statistical data related to academic Programs, faculty members, students, and performance indicators. ● Preparing the required infrastructure for the external review team (meeting Rooms, presentation facilities, internet access, and interview spaces). ● Coordinating among academic and administrative units to ensure timely Availability of required information. ● Supporting the assessment process through follow-up committees/teams to Facilitate access to evidence and documentation. **Comments:** A good level of institutional preparedness is evident, with clear efforts in documentation and inter-departmental coordination. However, the effectiveness of the external assessment can be further enhanced by unifying data sources, regularly updating evidence files, and ensuring consistency between reported information and supporting documents. **Recommendations:** 1. Establish/complete a centralized electronic repository for external assessment documents and evidence. 2. Standardize reporting and statistical templates across departments to reduce data inconsistency. 3. Conduct a final internal mock review before the external visit to verify readiness.

2.2 General statistics on Student achievement, marks and grade

Achievement and Progress

1. Students' male and female distribution.1946 male,907 female.
2. Students' marks distribution. 40 Formative,10 Mid, 50 Final.
3. Students' fail and pass rate in one program. Enclosed herewith in the Bologna program
4. Students' fail and pass rate among programs. . Enclosed herewith in the Bologna program

2.3 General statistics on research

- Total number of published research during the current academic year. **119**
- Number of published papers that belong to journal indexed by SCOPUS. **119**
- Number of published papers that belong to journal indexed by WoS Clarivate analytics. **53**
- Number of published papers in science **10**
- number of published papers in engineering. **109**

2.4 General Recommendations and notes

- Establish and publish documented quality policies through electronic platforms.
- Promote and strengthen student-centered learning approaches.
- Ensure the active involvement of stakeholders in the periodic review of academic programs.
- Expand and further develop digital learning resources.

2.5 List of programs (Departments) that follow Bologna Process

Engineering

Building and Construction Engineering Technology
Medical Instrumentation Engineering Technology
Power Mechanics Engineering Technology
Applied Mechanics Engineering Technology
Geomantics Engineering Technology
Chemical and Petroleum Industries Engineering Technology
Electrical Engineering Technology

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Date	3/3/2026	Date	3/3/2026

APPENDIX: ACADEMIC PERFORMANCE INDICATOR REPORT



Republic of Iraq
Ministry of Higher Education
and Scientific Research
Northern Technical University
Technical Engineering College / Mosul

جمهورية العراق
وزارة التعليم العالي و البحث العلمي
الجامعة التقنية الشمالية
الكلية التقنية الهندسية / الموصل
شعبة ضمان الجودة والأداء الجامعي

العدد: ٧/ ٢٧/ ٢٧٦٦/ ٢
Ref: \ \

التاريخ: ٤/ ٢/ ٢٠٢٦
Date: \ \

" الجامعة التقنية الشمالية نحو التحول الرقمي والتنمية المستدامة "

إلى / رئاسة الجامعة /قسم ضمان الجودة والأداء الجامعي

م / تقرير مسار بولونيا

تحية طيبة....

إشارة الى كتابكم ذي العدد 2736/27/7 في 2026/2/22 والمتضمن ضرورة كتابة تقرير ضمان الجودة السنوي لمسار بولونيا شاملاً ومستنداً للمعايير العشرة الخاصة بتوجيهات ومعايير الجودة لمنطقة التعليم العالي الاوربية وتنفيذ المعيار الخامس من خلال الدليل والإجراءات نرافق لكم ربطاً التقرير وبصيغة QR – CODE .

للتفضل بالاستلام والاطلاع ... مع التقدير

المرافقات:
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