

UMALUSI



Council for Quality Assurance in
General and Further Education and Training

Report on the Quality Assurance of the
August 2024 NATED
Report 190/191 N2–N3
Engineering Studies
Examinations



REPORT ON THE QUALITY ASSURANCE OF THE AUGUST 2024 NATED REPORT 190/191 N2–N3 ENGINEERING STUDIES EXAMINATIONS

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INTRODUCTION AND BACKGROUND

The Report 190/191 Engineering Studies N2–N3 examinations are routinely conducted, administered and managed by the Department of Higher Education and Training (DHET) on a trimester basis in April, August and November of each year. Programmes for these examinations are offered by public Technical and Vocational Education and Training (TVET) colleges, private Further Education and Training (FET) colleges, some correctional services centres and a few schools, as well as some centres outside the borders of the Republic of South Africa.

As a Quality Council for General and Further Education and Training, Umalusi is mandated by the National Qualifications Framework (NQF) Act 67 of 2008, as amended and the General and Further Education and Training Quality Assurance (GENFETQA) Act 58 of 2001, as amended, to develop and implement policy and criteria for assessment of the qualifications on its sub-framework. The NATED Report 190/191 Engineering Studies N1–N3 is registered by the South African Qualifications Authority (SAQA) as a programme on the General and Further Education and Training Qualifications Sub-framework (GFETQSF).

As the Quality Council for General and Further Education and Training, Umalusi:

- a. Must perform the external moderation of assessment of the various assessment bodies and education institutions;
- b. May adjust raw marks during the standardisation process;
- c. Must, with the concurrence of the Director-General and after consultation with the relevant assessment body or education institution, approve the publication of learners' results if the Council is satisfied that the assessment body or education institution has:
 - i. conducted the assessment free from any irregularity that could jeopardise the integrity of the assessment or its outcomes;
 - ii. complied with the requirements prescribed by the Council for conducting assessments;
 - iii. applied the standards prescribed by the Council, with which a learner is required to comply to obtain a certificate; and
 - iv. complied with every other condition determined by the Council.

The mandate of Umalusi is to ensure that the NATED Report 190/191 Engineering Studies N2–N3 examinations conducted each trimester are fair, valid and reliable. As such, Umalusi must ensure that the quality and standard of all the assessment practices associated with these examinations are in place and are sustained.

All 55 question papers for the August 2024 examinations were nationally set and internally moderated by the Department of Higher Education and Training (DHET); Umalusi externally moderated a sample of 51 question papers. The DHET distributed question papers via courier to nodal points. The surrounding colleges/campuses were required to collect and return answer scripts within 60 minutes of the stipulated end time of the examination session. Drawing subjects were written during the first week of the examination period. All the August 2024 question papers were written in morning sessions, starting at 09:00.

The DHET did not make formal appointments of marking staff for this examination; instead, management staff of the national and provincial marking centres were mandated to use individuals who had marked the April 2024 examinations.

The marking model was centralised (provincial) marking for all N2 and N3 subjects. Eight marking centres, situated in seven provinces, were used for the marking process.

The NATED Report 190/191 Engineering Studies N1-N3 programmes is in a phase-out period. The Minister of Higher Education, Science and Innovation promulgated the phase-out of NATED N1-N3 programmes through Government Gazette 49518 of 20 October 2023; therefore, the last date of enrolment for the N1-N3 programmes was 31 December 2023.

The NATED Report 190/191 Engineering Studies programmes and examinations present several challenges. The challenges identified include, but not limited to:

- a. Outdated syllabi;
- b. No requirement for a practical component to develop skills;
- c. Lack of capacity for effective tuition; and
- d. High absenteeism during the writing of examinations.

The purpose of this report is to provide feedback on the processes followed by Umalusi in its quality assurance of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations. The report includes findings on areas of improvement in the conduct, administration and management of these examinations, areas of non-compliance and directives for compliance and improvement. These findings are based on information obtained from Umalusi's moderation, monitoring, verification and standardisation processes, as well as from reports received from the DHET.

This report covers the following quality assurance processes implemented by Umalusi:

- a. Moderation of question papers from a sample of N2 and N3 subjects;
- b. Moderation of the conduct of internal continuous assessment;
- c. Monitoring of the writing of examinations;
- d. Standardisation of marking guidelines;
- e. Monitoring of the marking of examinations;
- f. Verification of marking; and
- g. Standardisation and resulting.

ACCRONYMS AND ABBREVIATIONS

DHET	Department of Higher Education and Training
EA	Examination Assistants
FET	Further Education and Training
FS	Free State
GP	Gauteng Province
GFETQSF	General and Further Education and Training Qualifications Sub-framework
GENFETQA	General and Further Education and Training Quality Assurance
ICASS	Internal Continuous Assessment
IM	Internal Moderator
KZN	KwaZulu-Natal
LP	Limpopo
MP	Mpumalanga
NQF	National Qualifications Framework
NW	North West
PoA	Portfolio of Assessment (lecturer portfolio)
PoE	Portfolio of Evidence (learner portfolio)
SAQA	South African Qualifications Authority
TVET	Technical and Vocational Education and Training

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Chapter 1

MODERATION OF QUESTION PAPERS

1.1 INTRODUCTION

Umalusi conducts the external moderation of question papers that are set and internally moderated by the Department of Higher Education and Training (DHET) for the NATED Report 190/191 Engineering Studies N2–N3 examination. External moderation aims to ensure that question papers are of an acceptable standard and comparable across examination cycles.

The moderation of question papers is fundamental to the quality assurance of assessment processes. External moderation seeks to confirm that question papers have been developed with due diligence and comply with Umalusi's criteria and with the assessment body's curriculum and policy documents.

Furthermore, question papers should be seen as conforming to the principles of good assessment by being:

- a. Fair;
- b. Valid;
- c. Reliable;
- d. Representative of an adequate sample of the curriculum;
- e. Representative of relevant conceptual domains; and
- f. Representative of relevant levels of cognitive demand.

1.2 SCOPE AND APPROACH

Umalusi moderated and approved a total of 51 question papers and marking guidelines for 51 instructional offerings for the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations. Moderation was done off-site, where the question papers, marking guidelines, assessment frameworks and internal moderators' reports were forwarded electronically to external moderators. Upon receipt of the documents, the external moderators prepared assessment frameworks, against which to assess the cognitive demand and weighting of syllabus topics. They then evaluated the question papers and marking guidelines according to specific criteria as set out in the Umalusi monitoring instrument.

One question paper for Engineering Drawing N3 was compromised before the examination commenced. A second question paper was externally moderated and included in the findings below. The second question paper is referred to as the "replacement question paper," while the initial question paper is referred to as the "original question paper."

Table 1A indicates the instructional offerings moderated per level:

Table 1A: Instructional offerings included in the moderated sample of question papers

Instructional offerings	Level
Aircraft Maintenance Theory	N3
Building and Civil Technology	N3
Building Drawing	N2 and N3
Bricklaying and Plastering Theory	N2
Building Science	N2 and N3
Carpentry and Roofing Theory	N2

Instructional offerings	Level
Diesel Trade Theory	N2 and N3
Electrical Trade Theory	N2 and N3
Electrotechnology	N3
Engineering Drawing	N2 and N3 * plus replacement paper
Engineering Science	N2 and N3
Fitting and Machining Theory	N2
Industrial Electronics	N2 and N3
Industrial Organisation and Planning	N3
Industrial Orientation	N2 and N3
Instrument Trade Theory	N2 and N3
Logic Systems	N2 and N3
Mathematics	N2 and N3
Mechanotechnology	N3
Motor Electrical Theory	N2
Motor Trade Theory	N2 and N3
Plant Operation Theory	N2 and N3
Platers' Theory	N2
Plating and Structural Steel Drawing	N2 and N3
Plumbing Theory	N2
Radio Theory	N2 and N3
Radio and Television Theory	N2 and N3
Refrigeration Trade Theory	N2 and N3
Supervision in Industry	N3
Waste-water Treatment Practice	N3
Water and Waste-Water Treatment Practice	N2
Water Treatment Practice	N3
Welders' Theory	N2

*replacement paper

The DHET administered a total of fifty-five instructional offerings for the N2 and N3 August 2024 examinations, fifty-one of which Umalusi sampled for moderation. The table below indicates the number and percentage of instructional offerings per level moderated by Umalusi.

Table 1B: Instructional offerings included in the sample of question papers

Level	Number of Instructional Offerings	Number of Instructional Offerings Moderated	Percentage of Instructional Offerings Moderated
N2	30*	25	83.3%
N3	25*	25 +*1	104%
Total	55*	51	92.7%

* according to the DHET 2024 examination timetable

*replacement question paper

The question papers and marking guidelines were moderated according to ten criteria set by Umalusi, each criterion having detailed quality indicators. These are outlined below:

- Technical aspects related to the presentation of question papers and marking guidelines;
- Effectiveness of internal moderation in improving the quality of question papers;
- Adherence to the syllabus with respect to content coverage;
- Types of questions, their formulation and clarity to achieve the desired response;
- Distribution of marks across cognitive levels;
- Consistency and appropriateness of mark allocation;
- Relevance and correctness of the marking guidelines;
- Appropriateness of language register, correct use of grammar in question papers and marking guidelines, and content that is free from bias;
- Degree of predictability and innovation in question papers; and
- An overall evaluation of question papers in terms of their suitability for the levels assessed.

1.3 SUMMARY OF FINDINGS

The initial moderation of the sampled question papers resulted in the following findings:

Table 1C: Approval status of question papers and marking guidelines after initial moderation

August 2024 Examinations								
Report 190/191 Engineering Studies N2–N3	Question Papers Moderated by Umalusi		Question Papers Approved		Question Papers Conditionally Approved		Question Papers Rejected	
	No.	%	No.	%	No.	%	No.	%
N2	25	100%	9	36%	15	60%	1	4%
N3	26	100%	9	35%	16	62%	1	3.8%

The graph below (Figure 1A) summarises the findings after the initial moderation of the question papers and marking guidelines, as indicated in external moderators' reports.

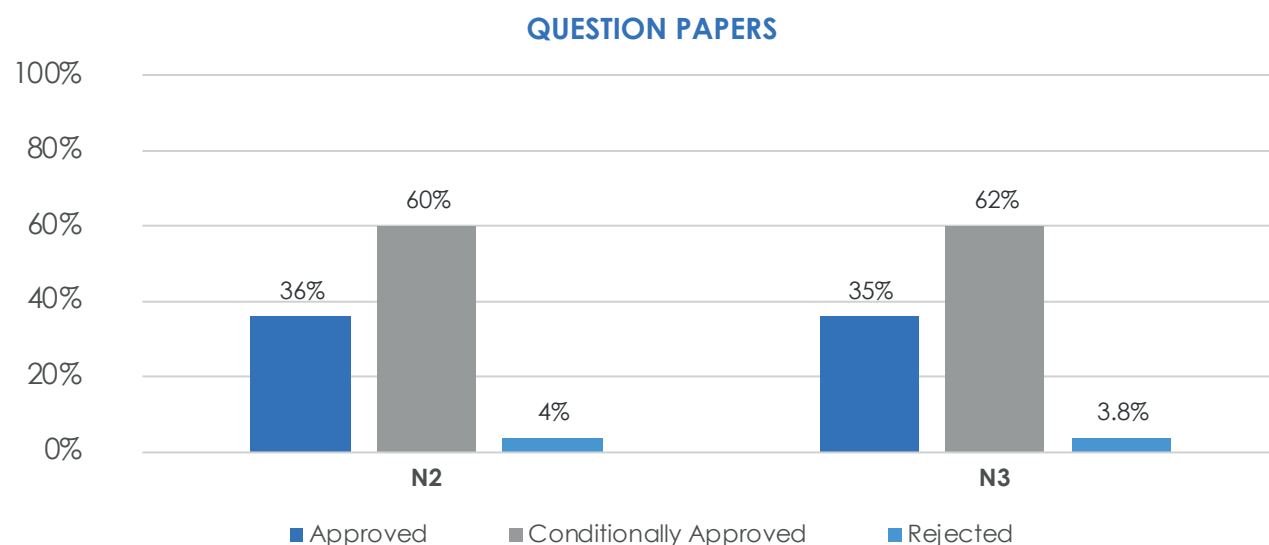


Figure 1A: Approval status of the NATED Report 190/191 Engineering Studies question papers and marking guidelines after initial moderation

Table 1D provides a summary of the moderation findings for the August 2024 NATED Report 190/191 Engineering Studies N2-N3 examination question papers and marking guidelines. All the findings are discussed in terms of the sample of 51 instructional offerings that were moderated.

Table 1D: Summary of findings of the initial moderation of question papers

Criteria	Findings	Instructional offerings concerned
Technical criteria		
Submission of supporting documents to the external moderator	Umalusi did not receive the internal moderation report for 2% of the question papers, a 14% decrease compared to the August 2023 examinations. No internal moderator was appointed for this instructional offering.	Industrial Organisation and Planning N3
Layout of the question paper	The cover pages for 6% of the question papers did not contain all the relevant details such as subject code, date of examination and consistent layout. This is the same as that of the August 2023 examinations.	Aircraft Maintenance Theory N3 Fitting and Machining Theory N2 Motor Electrical Theory N2
Instructions to candidates	In 2% of the question papers, the instructions to candidates were not clear in terms of choice questions. This comprises 4% fewer than the 6% of the August 2023 examinations.	Fitting and Machining Theory N2
Numbering of questions	Ten percent of the question papers were not correctly numbered, representing a 6% increase compared to the August 2023 examinations.	Engineering Drawing N2 and N3 Fitting and Machining Theory N2 Mathematics N3 Plating and Structural Steel Drawing N3
Numbering of pages	Pages in the question paper were not correctly numbered. This is the same as in the August 2023 examinations. (One question paper)	Motor Electrical Theory N3
Header and footer	Six percent of the question papers had incorrect headers and failed to adhere to the DHET style guide, a 4% increase from the August 2023 examinations.	Aircraft Maintenance N3 Fitting and Machining Theory N2 Motor Electrical Theory N2
Font type and size	Inconsistent use of fonts in 4% of the question papers. This is 2% higher than in the August 2023 examinations.	Mathematics N3 Motor Electrical Theory N2
Mark and time allocation	Six percent of the question papers had mark allocation errors and 2% displayed an incorrect total. This represents a 2% decrease from the August 2023 examinations.	Aircraft Maintenance Theory N3 Industrial Orientation N3 Motor Electrical Theory N2

Criteria	Findings	Instructional offerings concerned
Mark and time allocation	In 4% of the question papers, the mark allocation on the papers did not correspond with the allocation in the marking guidelines. This is the same as the August 2023 examinations.	Motor Electrical Theory N2 Motor Trade Theory N3
Quality of graphics and illustrations	In 24% of question papers, drawings, illustrations, graphs, labelling and tables were of poor quality and not print-ready. This is double the 12% noted in the August 2023 examinations.	Aircraft Maintenance Theory N3 Building Science N3 Carpentry and Roofing Theory N2 Engineering Drawing N2 Engineering Drawing N3 (original and replacement papers) Fitting and Machining Theory N2 Industrial Electronics N2 Instrument Trade Theory N2 Mathematics N3 Motor Trade Theory N2 Water and Waste-Water Treatment Practice N2
Format requirements for the syllabus	Two percent of the question papers did not adhere to the syllabus's format requirements, a 2% drop compared to 4% in the August 2023 examinations.	Fitting and Machining Theory N2
Internal Moderation		
Internal moderator reports	The internal moderator reports did not match with 4% of the question papers, reflecting a 6% decrease from the August 2023 examinations.	Engineering Drawing N3 (original paper) Radio and Television Theory N2
	There is no internal moderator appointed by DHET for one instructional offering.	Industrial Organisation and Planning N3
Quality and standard of internal moderation report	The internal moderators' reports for 12% of the question papers were incomplete (did not include contact details of the examiner or internal moderator, the analysis grid did not match the question paper, the report was incomplete in respect of specified criteria, incorrect subject name(s) and the approval status was incomplete). This was an increase of 4% from the 8% of the August 2023 examinations.	Carpentry and Roofing Theory N3 Diesel Trade N3 Electrotechnology N3 Mathematics N3 Plating and Structural Steel Drawing N3 Waste-Water Treatment Practice N3
	The internal moderation reports for 14% of the question papers were not of an acceptable standard regarding the failure to identify errors, questions outside the syllabus, incorrect answers and contradictions in respect of comments. This was a 2% increase from the August 2023 examinations.	Aircraft Maintenance Theory N3 Engineering Drawing N3 (original and replacement papers) Fitting and Machining Theory N2 Industrial Electronics N2 Radio and Television Theory N3 Waste-Water Treatment Practice N3

Criteria	Findings	Instructional offerings concerned
Quality and standard of internal moderation report	The internal moderation reports for 6% of the question papers were not relevant because questions did not correspond to the report, an analysis grid failed to match the question paper, and a report failed to match the question paper. This demonstrates a decrease of 6% from the August 2023 examinations.	Diesel Trade Theory N2 Radio and Television Theory N2 Radio Theory N3
Content Coverage		
Coverage of the syllabus	Two percent of the question papers did not adequately cover the syllabus, a 6% improvement from the August 2023 examinations.	Logic Systems N2
	In 10% of the question papers, the questions were not set according to the prescribed topic weightings and the confines of the learning outcomes and subject outcomes. This represents an increase of 4% compared to the August 2023 examinations.	Electrotechnology N3 Fitting and Machining Theory N2 Mathematics N3 Mechanotechnology N3 Radio and Television Theory N2
	Two percent of the question papers included questions outside the broad scope of the syllabus, an improvement of 4% compared to the August 2023 examinations.	Fitting and Machining Theory N2
	The topics were not evenly distributed throughout the question paper in 2% of the papers, a decrease of 4% from the August 2023 examinations.	Mathematics N3
	In 6% of the question papers, the questions were not representative of the latest developments in the field. This was the same as that of the August 2023 examinations.	Electrotechnology N3 Engineering Drawing N3 (original paper) Fitting and Machining Theory N2
Types and Quality of Question Papers		
Types of questions	Six percent of the question papers did not have a range of types of questions, such as multiple-choice, paragraph, data/source-based response, essay, real-life scenario, and real-life problem-solving questions. This was the same as in the August 2023 examinations.	Carpentry and Roofing Theory N2 Logic Systems N2 Radio and Television Theory N2
	There was a lack of correlation between marks allocation and level of difficulty, together with time allocation in 10% of the question papers, compared to 12% in the August 2023 examinations.	Fitting and Machining Theory N2 Mathematics N3 Radio and Television Theory N2 and N3 Waste-Water Treatment Practice N3

Criteria	Findings	Instructional offerings concerned
Quality of questions	Four percent of the question papers did not reflect what was pertinent to the instructional offerings. These included unsolvable problems and irrelevant questions, the same as in the August 2023 examinations.	Mathematics N3 Water and Waste-Water Treatment Practice N2
	Questions contained vaguely defined problems, ambiguous wording, extraneous or irrelevant information, trivia or unintentional clues to the correct answers in 18% of the question papers. This constitutes an increase of 6%, compared to the 12% recorded in the August 2023 examinations.	Engineering Drawing N3 (original paper) Mathematics N3 Radio and Television Theory N2 and N3 Waste-water Treatment Practice N3 Water and Waste-Water Treatment Practice N2 Water Treatment Practice N3 Motor Trade Theory N2 and N3
	Ten percent of the question papers did not include clear instructional keywords/verbs, which is 6% more than the 4% recorded in the August 2023 examinations.	Carpentry and Roofing Theory N2 Fitting and Machining Theory N2 Mathematics N3 Waste-Water Treatment Practice N3 Water Treatment Practice N3
	Fourteen percent of the question papers did not contain sufficient information to elicit appropriate responses, compared to 4% in the August 2023 examinations, an increase of 10%.	Carpentry and Roofing Theory N2 Engineering Drawing N2 Engineering Science N2 Instrument Trade Theory N3 Logic Systems N3 Mathematics N3 Water and Waste-Water Treatment Practice N2
	Questions contained factual errors or misleading information in 4% of the question papers, this is 2% lower than that of the August 2023 examinations.	Engineering Science N2 Logic Systems N3
Cognitive Skills		
Analysis grid	The analysis grid for 16% of the question papers did not show the cognitive level of each question/ sub-question, was incomplete and failed to match the question paper. This signifies an increase of 12% from the 4% registered in the August 2023 examinations.	Diesel Trade Theory N3 Electrotechnology N3 Engineering Drawing N3 (original and replacement papers) Mechanotechnology N3 Radio and Television Theory N2 Radio Theory N2 and N3
	In 16% of the question papers, cognitive levels were not appropriately distributed according to the prescribed taxonomy. This was an increase of 2% from the 14% noted in the August 2023 examinations.	Building and Civil Technology N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N3 Fitting and Machining Theory N2 Logic Systems N2 Mathematics N3 Mechanotechnology N3 Waste-Water Treatment Practice N3

Criteria	Findings	Instructional offerings concerned
Analysis grid	In 2% of the question papers, the choice questions were not equivalent with respect to the level of difficulty/standard when compared to compulsory questions, which is 2% fewer than the August 2023 examinations.	Fitting and Machining Theory N2
	In 8% of question papers, the questions did not match the cognitive level instruction e.g., if the question stated analyse, the answer, in fact, must show analysis. This shows a decrease of 2% from the 10% recorded in the August 2023 examinations.	Bricklaying and Plastering Theory N2 Radio and Television Theory N2 Water and Waste-Water Treatment Practice N2 Water Treatment Practice N3
Assessment of latest developments	Questions in 4% of question papers were not representative of the latest developments in teaching the knowledge field. This was a decrease of 10% compared to the August 2023 examinations.	Carpentry and Roofing Theory N2 Motor Electrical Theory N2
Marking Guidelines		
Accuracy of marking guidelines	Sixteen percent of the marking guidelines did not correspond to the questions in the question papers, compared to 6% percent in the August 2023 examinations. This represents a 10% increase.	Building Science N3 Carpentry and Roofing Theory N2 Industrial Orientation N3 Motor Trade Theory N3 Refrigeration Trade Theory N3 Waste-Water Treatment Practice N3 Water and Waste-Water Treatment Practice N2 Water Treatment Practice N3
	Some of the answers in 24% of the marking guidelines were incorrect, 4% fewer than the August 2023 examinations.	Building Science N2 Electrical Trade Theory N2 Engineering Drawing N2 Engineering Drawing N3 (original and replacement papers) Fitting and Machining Theory N2 Industrial Electronics N2 Logic Systems N3 Mathematics N3 Radio and Television Theory N2 Waste-Water Treatment Practice N3 Water Treatment Practice N3
Accuracy of marking guidelines	Six percent of the marking guidelines did not allow for alternative responses, where applicable, a decrease of 6% compared to the 12% recorded in the August 2023 examinations.	Aircraft Maintenance Theory N3 Bricklaying and Plastering Theory N2 Logic Systems N2

Criteria	Findings	Instructional offerings concerned
Mark allocation	In 2% of papers, the mark allocations in the marking guidelines did not correspond with the mark allocations in the question papers. This signifies a decrease of 4% compared to the August 2023 examinations, which demonstrated 6%.	Building Science N3
	Four percent of the marking guidelines were incomplete regarding mark allocation and mark distribution within questions, which was 4% less than the August 2023 examinations.	Aircraft Maintenance Theory N3 Mathematics N3
Macros	The marking guidelines for 8% of the question papers were not laid out according to the prescribed macros.	Aircraft Maintenance Theory N3 Building Science N3 Logic Systems N3 Motor Electrical Theory N2
Language and bias		
Grammar	Subject terminology/data were used incorrectly in 2% of the question papers, 6% fewer than in the August 2023 examinations.	Bricklaying and Plastering Theory N2
	In 8% of the question papers, the language register/level and complexity of vocabulary were inappropriate for the level of candidates.	Bricklaying and Plastering Theory N2 Fitting and Machining Theory N2 Plumbing Theory N2 Water and Waste-Water Treatment Practice N2
	The language contained subtleties that could have confused candidates in 10% of the question papers, 2% fewer than in the August 2023 examinations.	Building Science N3 Motor Trade Theory N3 Plumbing Theory N2 Waste-Water Treatment Practice N3 Water Treatment Practice N3
Grammar	There were some grammatical errors in 10% of the question papers, a decrease of 4% compared to the 14% noted in the August 2023 examinations.	Motor Trade Theory N3 Plumbing Theory N2 Radio and Television Theory N2 Waste-Water Treatment Practice N3 Water Treatment Practice N3
	There were some grammatical errors in 6% of the marking guidelines, an increase of 2% from the August 2023 examinations.	Building Drawing N3 Instrument Trade Theory N3 Logic Systems N3
Predictability		
Use of questions from previous examinations	Eighteen percent of the question papers contained questions that could have been easily predicted, 4% more than the 14% recorded in the August 2023 examinations.	Building and Civil Technology N3 Building Science N3 Industrial Orientation N2 and N3 Logic Systems N2 Mathematics N3 Motor Trade Theory N3 Radio and Television Theory N2 Waste-Water Treatment Practice N3

Criteria	Findings	Instructional offerings concerned
Use of questions from previous examinations	Twelve of the question papers contained questions from the past three years' examinations, 8% higher than the 4% registered in the August 2023 examination.	Electrical Trade Theory N2 Industrial Orientation N2 and N3 Logic Systems N2 Radio and Television Theory N2 Motor Trade Theory N3
Innovation	Eight percent of the question papers lacked an appropriate degree of originality, compared to the 2% recorded in the August 2023 examination. This represents a 6% increase.	Industrial Orientation N2 and N3 Mathematics N3 Radio and Television Theory N2
Overall Impression		
Standard of question papers	Four percent of the question papers were not aligned to the current syllabus, this was 4% less than the August 2023 examination.	Fitting and Machining Theory N2 Mathematics N3
	All question papers assessed the outcomes of the curriculum/ syllabus. This signifies a 12% decrease compared to the August 2023 examination.	
	Twenty percent of the question papers were not of the appropriate standard, compared to 14% in the August 2023 examination, an increase of 6%.	Aircraft Maintenance Theory N3 Carpentry and Roofing Theory N2 Engineering Drawing N3(original and replacement papers) Fitting and Machining Theory N2 Industrial Orientation N2 and N3 Mathematics N3 Radio and Television Theory N2 and N3
	In respect of questions comparing favourably with those of the previous year's examinations, 14% of papers did not conform. This was 2% more than the August 2023 examination.	Aircraft Maintenance Theory N3 Building Science N2 Carpentry and Roofing Theory N2 Fitting and Machining Theory N2 Industrial Orientation N2 Mathematics N3 Radio and Television Theory N2
	In 6% of the question papers, there was no balance in the assessment of skills, knowledge, attitudes, values, and reasoning, which is on par with the August 2023 examination.	Electrotechnology N3 Logic Systems N2 Mathematics N3

1.4 AREA OF IMPROVEMENT

The following area of improvement were noted during the initial moderation of question papers from the sampled instructional offerings:

- a. The assessment of the syllabus/curriculum outcomes was noted in 100% of the question papers. This marks a considerable improvement of 12% from the 88% in the August 2023 examination.

1.5 AREAS OF NON-COMPLIANCE

Umalusi moderators' reports revealed the following areas of non-compliance:

- a. Drawings, illustrations and graphs were of poor quality in 22% of the question papers;
- b. In 12% of the question papers the internal moderators' reports were incomplete with respect to specified criteria;
- c. Failure to set questions aligned to prescribed weightings were noted in 10% of the question papers;
- d. Questions that were ambiguous, irrelevant, and provided unintentional clues to answers constituted 18% of the question papers;
- e. Questions that lacked adequate information to elicit appropriate responses were noted in 14% of the question papers;
- f. In 16% of the question papers, the analysis grid failed to capture the cognitive level per question, and sometimes also failed to match the question paper;
- g. There was an inadequate cognitive level distribution as per taxonomy prescripts in 16% of the question papers;
- h. In respect to the marking guidelines, 16% of the guidelines failed to respond to the questions in the question paper;
- i. Questions that could easily be predicted were noted in 18% of the question papers;
- j. Questions from past-year examination question papers were found in 12% of the question papers;
- k. The overall standard was inappropriate in 20% of the question papers; and
- l. In respect of a comparison between the current question papers with those of past examinations, 14% did not compare favourably.

1.6 DIRECTIVES FOR COMPLIANCE AND IMPROVEMENT

Based on findings in the external moderators' reports, the following directives for compliance and improvement are provided.

The DHET must ensure that:

- a. Question papers comply with all the quality indicators set out in the moderation instrument;
- b. All internal moderation reports are complete with respect to all criteria;
- c. Question papers are aligned to the prescribed weightings and outcomes, the prescripts of the taxonomy are given due cognisance, and papers are free from questions from past-year examinations;
- d. All question papers compare favourably with previous examination cycles' question papers;
- e. Training of examiners and internal moderators to minimise errors in question papers;
- f. Ensuring that the moderators for all instructional offerings are appointed; and
- g. Adherence to the prescribed syllabus.

1.7 CONCLUSION

The DHET administered 55 instructional offerings for the N2 and N3 August 2024 examinations, 51 of which Umalusi sampled for moderation, twenty-five on each level.

Umalusi thoroughly conducted the moderation process for the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations. The moderation findings highlighted areas of improvement, such as assessment of the syllabus/curriculum outcomes and areas of non-compliance, including poor-quality graphics, incomplete internal moderation reports, and the misalignment of questions with syllabus weightings. Directives were issued to address these issues, ensuring continued enhancement of question paper standards for future assessments.

The moderation of question papers for the August 2024 examination, was successfully completed.



UMALUSI

Chapter 2

**MODERATION OF THE CONDUCT OF
INTERNAL CONTINUOUS ASSESSMENT**

2.1 INTRODUCTION

The moderation of internal continuous assessment (ICASS) is one of the key quality assurance processes used by Umalusi to ensure uniform application of standards to strengthen the credibility of the examinations. In the NATED Report 190/191 Engineering Studies N2-N3 programme, the ICASS (term mark) contributes 40% towards the final mark for each instructional offering. Umalusi moderated the student' portfolio of evidence (PoE) and the lecturers' portfolios of assessment (PoA) in selected instructional offerings of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations. The external moderation is thus conducted to verify the quality and standard of ICASS conducted and administered by the Department of Higher Education and Training (DHET).

The main objectives of moderating the internal continuous assessment (ICASS) are to:

- a. Verify that the lecturers' PoA adheres to the ICASS guidelines;
- b. Ensure that appropriate ICASS evidence is collected and documented;
- c. Ascertain the appropriateness and standard of the assessment tasks;
- d. Ensure that assessments are consistently delivered across different sites and that standards are maintained; and
- e. Ensure that the quality assurance of the NATED Report 190/191 Engineering Studies N2–N3 ICASS is effectively maintained.

The purpose of this section of the report is to:

- a. Outline the scope and approach followed in the moderation of ICASS;
- b. Provide an overview of critical findings related to the quality and standard of the ICASS;
- c. Highlight areas of improvement and those requiring improvement; and
- d. Issue directives and recommendations for improvement to enhance the quality of internal assessment.

2.2 SCOPE AND APPROACH

Umalusi external moderators were deployed to nine provinces from 29 July to 15 August 2024 to moderate the N2 and N3 ICASS from 26 NATED Report 190/191 instructional offerings. The external moderators drafted reports on their findings from the sampled sites. Twenty-six instructional offerings were sampled in August 2024, compared to 20 instructional offerings that were sampled in August 2023. External moderation was conducted at 25 sites (20 in August 2023), of which eight (11 in August 2023) were at public Technical and Vocational Education and Training (TVET) colleges, 16 (nine in August 2023) at private Further Education and Training (FET) colleges and one correctional services centre.

Two instructional offerings, namely, Industrial Electronics N2 and Motor Trade Theory N2 were moderated at one site. Hence, the following criteria were relevant to both instructional offerings, namely, physical and human resources, internal policies and systems, and lecturer files. Moderation for Mathematics N3 at the Tshwane North TVET College; Temba Campus, was focused on the task only. No reporting is included on the physical and human resources, internal policies and systems and lecturer files.

External moderators were also requested to conduct a compliance check on documents pertaining to three additional instructional offerings at the sites visited. The instructional offerings sampled and findings on criteria are discussed in heading 2.3.1 “Compliance check of additional instructional offerings”.

Table 2A provides information on the sampled instructional offerings, sites and provinces involved in the external moderation of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations.

Table 2A: Instructional offerings sampled for the August 2024 ICASS moderation

No.	Instructional offering	College	Campus/site	Province
1.	Bricklaying and Plastering Theory N2	Esayidi TVET	Kokstad	KZN
2.	Building and Civil Technology N3	Sekhukhune TVET	C.S. Barlow	LP
3.	Building Drawing N2	Bhekubanzi Business Enterprise	Richards Bay	KZN
4.	Building Science N2	Taletso TVET	Mmabatho	NW
5.	Building Science N3	CTU Training Solutions	Pretoria	GP
6.	Carpentry and Roof Work N2	Denver Technical College of SA	Pretoria	GP
7.	Diesel Trade Theory N2	Centrum Technical College	Pretoria	GP
8.	Diesel Trade Theory N3	Moloto Educational Holdings	Burgersfort	LP
9.	Electrical Trade Theory N2	Tswelopele Correctional Centre	Kimberley	NC
10.	Electrical Trade Theory N3	Innovation Technology Campus	Emalahleni	MP
11.	Electrotechnology N3	Havard Engineering and Business College	Bela-Bela	LP
12.	Engineering Drawing N2	Esayidi TVET	Port Shepstone	KZN
13.	Engineering Science N2	Secunda FET College	Secunda	MP
14.	Engineering Science N3	Kingdom Varsity College	Nongoma	KZN
15.	Industrial Electronics N2	Academic Institute of Excellence	Cape Town	WC
16.	Industrial Electronics N3	Eastcape Midlands TVET	Park Avenue	EC
17.	Industrial Orientation N2	Central Technical College	Durban	KZN
18.	Mathematics N2	Global Figer (PTY) LTD	Phalaborwa	LP
19.	Mathematics N3	Princefield Private College	Ventersdorp	NW
20.	Mathematics N3	Tshwane North TVET	Temba	GP
21.	Mechanotechnology N3	Pretoria Vocational College	Secunda	MP
22.	Motor Trade Theory N2	Academic Institute of Excellence	Cape Town	WC
23.	Motor Trade Theory N3	Motheo TVET	Hillside View	FS

No.	Instructional offering	College	Campus/site	Province
24.	Plant Operation Theory N2	Langeni City College	Brits	NW
25.	Water and Waste-Water Treatment Practice N2	Rostec Technical FET College	Vereeniging	GP
26.	Welder's Theory N2	Ekurhuleni Artisans and Skills Training	Kempton Park	GP

2.3 SUMMARY OF FINDINGS

Table 2B indicates the findings reported by the external moderators on the implementation of ICASS of the engineering studies instructional offerings.

Table 2B: Findings observed in the August 2024 moderation of the ICASS

Criterion	Findings	College/Site
Administration	The college provided support at 32% (65% in August 2023) of the sites before enrolment in the form of competency /aptitude / placement tests.	Bhekubanzi Business Enterprise Central Technical College CTU Training Solutions Global Figer (PTY) LTD Kokstad Campus Park Avenue Campus Port Shepstone Campus Rostec Technical FET College
Physical resources	The available facilities at 92% (95% in August 2023) of the sites were sufficient for the number of enrolled students.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Physical resources	The textbooks/teaching material at 72% of the sites, were available when the classes commenced at the beginning of the trimester, compared to 95% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Hillside View Campus Innovation Technology Campus Kokstad Campus Langeni City College Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre
	The students at 20% of the sites were exposed to practical implementation of the theory component of the subject at the site of learning, compared to 50% in August 2023.	Bhekubanzi Business Enterprise C.S. Barlow Campus CTU Training Solutions Ekurhuleni Artisans and Skills Training Rostec Technical FET College
	At 68% of the sites, students had computers and printers to complete assignments/case studies and do research. This was a 17% decrease from 85% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise Central Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Moloto Educational Holdings Park Avenue Campus Princefield Private College Rostec Technical FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Human Resources	The college had a process in place for identifying the training needs of the staff members at 64% of the sites visited, a 6% decrease from the 70% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Park Avenue Campus Port Shepstone Campus Princefield Private College Rostec Technical FET College
	The college had a staff training plan at 64% of the sites visited, a decrease of 6% from 70% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Havard Engineering and Business College Hillside View Campus Kokstad Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Princefield Private College Rostec Technical FET College Secunda FET College
	Evidence showed that the training plan was implemented at 48% of the sites visited, a decrease of 2% from the 50% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Hillside View Campus Park Avenue Campus Port Shepstone Campus Princefield Private College Rostec Technical FET College Secunda FET College

Criterion	Findings	College/Site
Human Resources	There were areas where the lecturers felt that they needed further training at 68% of the sites, a decrease of 7% from 75% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kokstad Campus Langeni City College Park Avenue Campus Port Shepstone Campus Princefield Private College Tswelopele Correctional Centre
	The educators were exposed to the workplace environment/ relevant industry at 36% of the sites visited, a 9% decrease from 45% in August 2023.	Bhekubanzi Business Enterprise Denver Technical College of SA Ekurhuleni Artisans and Skills Training Havard Engineering and Business College Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College
Internal Assessment Policies and Systems	There was an up-to-date college assessment policy at 76% of the sites visited, a decrease of 14% from the 90% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Park Avenue Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College

Criterion	Findings	College/Site
Internal Assessment Policies and Systems	There was evidence of a plan for monitoring assessment at the learning site at 52% of the sites visited, 18% less than the 70% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Hillside View Campus Kokstad Campus Langeni City College Park Avenue Campus Princefield Private College Rostec Technical FET College Secunda FET College
	There was evidence of an instructional offering monitoring report per lecturer at 64% of the sites visited, an increase of 9% from 55% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kokstad Campus Langeni City College Park Avenue Campus Princefield Private College Rostec Technical FET College Secunda FET College
	A plan was in place for developing the assessment tasks at 92% of the sites, a 7% increase from 85% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Internal Assessment Policies and Systems	The tasks were developed according to the assessment plan at 92% of the sites, an increase of 17% from 75% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre
	At 88% of the sites (70% in August 2023), there were systems in place to ensure that tasks were of an acceptable standard.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Internal Assessment Policies and Systems	The college had an irregularity register at 60% of the sites visited, an increase of 5% from 55% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College CTU Training Solutions Denver Technical College of SA Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Kingdom Varsity College Langeni City College Park Avenue Campus Princefield Private College Rostec Technical FET College Secunda FET College
	Internal assessment irregularities were recorded in the register at 44% of the sites visited, an increase of 14% from the 30% recorded in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Denver Technical College of SA Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Park Avenue Campus Rostec Technical FET College Secunda FET College
Lecturer files	<p>Eighty-four percent of the sites visited had lecturer files that contained all the following documents:</p> <ol style="list-style-type: none"> Name; Certified copies of qualifications; SACE registration; Teaching/lecturing experience; and Workplace experience. <p>This was an increase of 49% from the 35% in August 2023</p>	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Hillside View Campus Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Lecturer files	The lecturer file contained the instructional offering syllabus at 92% of the sites visited compared to 85% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre
	The subject file contained lesson plans at 92% of the sites visited, an increase of 2% compared to 90% in August 2023.	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Lecturer files	<p>The assessment file contained all relevant documents at 92% (60% in August 2023) of the sites visited namely:</p> <ul style="list-style-type: none"> a. Assessment schedules; b. Assessment instruments and tools; c. Evidence of pre-assessment moderation; d. Evidence of post-assessment moderation; and e. Mark sheets of all groups. 	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre
	<p>Assessment scores were recorded accurately on the mark sheet at 100% of the sites visited, an increase of 10% compared to the 90% of August 2023.</p>	Academic Institute of Excellence Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Content coverage	Eighty-eight percent of sites (85% in August 2023) ensured that a substantial amount of content was covered in both tests.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Temba Campus
	The weighting and spread of content of the topic(s) in both tests were appropriate at 85%, (which is the same as the 85% in August 2023) of the sites.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Princefield Private College Rostec Technical FET College Secunda FET College

Criterion	Findings	College/Site
Content coverage	The type of questions was in line with the stipulated content at 96% of the sites, an increase of 6% from the 90% in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Temba Campus Tswelopele Correctional Centre
Cognitive demand and difficulty levels	The two tasks varied in difficulty, were pitched at the right level, and assessed a variety of knowledge and skills at 96% of the sites, a significant increase of 26% from the 70% of August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Temba Campus Tswelopele Correctional Centre

Criterion	Findings	College/Site
Internal moderation of task	One hundred percent of the sites (85% in August 2023) had evidence of the moderation of marking in both tests of a minimum sample of 10% of the scripts.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Temba Campus Tswelopele Correctional Centre
	The sample of both tests that were internally moderated included the full range of performances i.e., high, average, and low scoring students at 88% of sites, compared to 70% of sites in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Technical aspects	<p>Eighty-five percent of the sites compared to 45% of sites in August 2023 contained all relevant information including:</p> <p>a. The name of the subject; b. The level of a subject; c. Time allocation; d. Content covered; e. Number of tests; and f. Date.</p>	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Langeni City College Mmabatho Campus Park Avenue Campus Pretoria Vocational College Rostec Technical FET College Secunda FET College Temba Campus Tswelopele Correctional Centre
	<p>Students were clearly instructed on both tasks at 96% of the sites visited, a 16% increase from the 80% of August 2023 findings.</p>	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Temba Campus Tswelopele Correctional Centre

Criterion	Findings	College/Site
Technical aspects	The language and terminology used were appropriate and relevant in both tests at 100% of the sites, compared to 95% in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Temba Campus Tswelopele Correctional Centre

Criterion	Findings	College/Site
Technical aspects	The mark allocation was clearly indicated for each question in both tests at 100% of the sites, compared to 85% in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Temba Campus Tswelopele Correctional Centre
	The mark allocation on the test was the same as that on the marking guideline for both tests at 92% of the sites, compared to 90% in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Secunda FET College Temba Campus Tswelopele Correctional Centre

Criterion	Findings	College/Site
Technical aspects	The numbering of the test was correct at 100% of the sites, an increase of 13% to 87% in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Temba Campus Tswelopele Correctional Centre
	The time allocation was realistic for the administration of the tests at 88% of the sites, a decrease of 7% when compared to the 95% attained in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kokstad Campus Langeni City College Mmabatho Campus Park Avenue Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Temba Campus Tswelopele Correctional Centre

Criterion	Findings	College/Site
Marking guidelines	The marking guidelines facilitated marking and were easy to use in both tests at 88% of sites, an increase of 8% compared to 80% in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Pretoria Vocational College Rostec Technical FET College Secunda FET College Temba Campus
Student performance	The students interpreted questions correctly and were able to answer all or most of the questions in the tests at 85% of sites, a 15% decrease from 100% of the sites in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Quality of marking	Marking was consistent with the marking guidelines at 88% of the sites, compared to the 80% of sites visited in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre
	The mark allocation accurately reflected the student's performance in both tests at 88% of the sites, compared to 75% in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Quality of marking	The totalling of marks and transfer of marks to the mark sheet was accurate at 88% of the sites, an increase of 3% compared to the 85% of sites visited in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Port Shepstone Campus Pretoria Vocational College Rostec Technical FET College Secunda FET College Temba Campus
	The quality and standard of marking were acceptable at 81% of the sites, an increase of 6% when compared to the 75% of sites visited in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Pretoria Vocational College Rostec Technical FET College Secunda FET College Tswelopele Correctional Centre

Criterion	Findings	College/Site
Internal moderation of marking	There was evidence that the student's work had been moderated internally at 88% of the sites, compared to 90% in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Denver Technical College of SA Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Innovation Technology Campus Kingdom Varsity College Kokstad Campus Langeni City College Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Pretoria Vocational College Princefield Private College Rostec Technical FET College Secunda FET College
	The quality and standard of internal moderation were acceptable at 62% of sites, compared to 55% in August 2023.	Academic Institute of Excellence (Industrial Electronics N2) Academic Institute of Excellence (Motor Trade Theory N2) Bhekubanzi Business Enterprise C.S. Barlow Campus Central Technical College Centrum Technical College CTU Training Solutions Ekurhuleni Artisans and Skills Training Global Figer (PTY) LTD Havard Engineering and Business College Hillside View Campus Mmabatho Campus Moloto Educational Holdings Park Avenue Campus Rostec Technical FET College Secunda FET College

2.3.1 Compliance check of additional instructional offerings

External moderators were also requested to conduct compliance checks on documents pertaining to three additional instructional offerings at the sites visited. These additional offerings (a total of 78 additional instructional offerings) were selected from the enrolments received from DHET for each site. The sites were not informed of the monitoring of these additional instructional offerings. The purpose of the unannounced request for evidence of the additional instructional offerings was to prevent any suspected window-dressing of the tasks and any accompanying documents.

The sites were requested to provide evidence of the marked tests and mark sheets of the additional instructional offerings. Table 2C lists the sites' statuses on compliance with the ICASS requirements, as stated in the 2024 DHET ICASS Instructions.

Table 2C: Evidence of one or both tests accompanied by the marksheet

No.	College	Campus / Site	Additional Instructional offerings	Test 1	Test 2	Correct conversion
1.	Academic Institute of Excellence	Cape Town	Mathematics N3	✓	✓	✓
			Engineering Science N2	✓	✓	✓
			Electrotechnology N3	✓	✓	✓
2.	Academic Institute of Excellence	Midrand	Mathematics N2	✓	✓	✓
			Industrial Electronics N3	✓	✓	✓
			Electrical Trade Theory N2	✓	✓	✓
3.	Bhekubanzi Business Enterprise	Richards Bay	Mathematics N2	✓	✓	✓
			Industrial Electronics N2	✓	✓	✓
4.	Central Technical College	Durban	Engineering Science N2	✓	✓	✓
			Engineering Drawing N3	✓	✓	✓
			Mathematics N3	✓	✓	✓
5.	Centrum Technical College	Pretoria	Engineering Science N2	✓	✓	✓
			Mechanotechnology N3	✓	✓	✓
			Mathematics N2	✓	✓	✓
6.	CTU Training Solutions	Pretoria	Mechanotechnology N3	✓	✓	✓
			Engineering Science N3	✓	✓	✓
			Mathematics N3	✓	✓	✓
7.	Denver Technical College of SA	Pretoria	Industrial Electronics N3	✓	✓	✓
			Mathematics N3	✓	✓	✓
			Building Science N3	✓	✓	✓
8.	Eastcape Midlands TVET	Park Avenue	Mathematics N3	✓	✓	✓
			Electrical Trade Theory N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓
9.	Ekurhuleni Artisans and Skills Training	Kempton Park	Industrial Electronics N2	✓	✓	✓
			Mathematics N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓

No.	College	Campus / Site	Additional Instructional offerings	Test 1	Test 2	Correct conversion
10.	Esayidi TVET	Kokstad	Building Science N3	x	x	x
			Mathematics N2	x	x	x
			Mathematics N3	x	x	x
11.	Esayidi TVET	Port Shepstone	Mathematics N2	✓	✓	✓
			Electrical Trade Theory N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓
12.	Global Figer (PTY) LTD	Phalaborwa	Electrical Trade Theory N3	✓	✓	✓
			Industrial Electronics N3	✓	✓	✓
			Engineering Science N3	✓	✓	✓
13.	Havard Engineering and Business College	Bela-Bela	Mathematics N2	✓	✓	✓
			Engineering Science N2	✓	✓	✓
14.	Innovation Technology Campus	Emalahleni	Industrial Electronics N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓
			Mathematics N2	✓	✓	✓
15.	Kingdom Varsity College	Nongoma	Engineering Drawing N3	x	x	x
			Mathematics N3	x	x	x
			Mechanotechnology N3	x	x	x
16.	Langeni City College	Brits	Mathematics N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓
			Mathematics N3	✓	✓	✓
17.	Moloto Educational Holdings	Burgersfort	Mathematics N2	✓	✓	✓
			Industrial Electronics N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓
18.	Motheo TVET	Hillside View	Industrial Electronics N2	✓	✓	✓
			Building Science N3	✓	✓	✓
			Diesel Trade Theory N2	✓	✓	✓
19.	Pretoria Vocational College	Secunda	Industrial Electronics N2	✓	✓	✓
			Mathematics N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓
20.	Princefield Private College	Ventersdorp	Industrial Electronics N3	✓	✓	✓
			Engineering Science N2	✓	✓	✓
			Engineering Drawing N2	✓	✓	✓
21.	Rostec Technical FET College	Vereeniging	Mathematics N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓
			Electrical Trade Theory N2	✓	✓	✓
22.	Secunda FET College	Secunda	Mathematics N2	✓	✓	✓
			Electrical Trade Theory N2	✓	✓	✓
			Mathematics N3	✓	✓	✓

No.	College	Campus / Site	Additional Instructional offerings	Test 1	Test 2	Correct conversion
23.	Sekhukhune TVET	C.S. Barlow	Mathematics N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓
			Engineering Science N2	✓	✓	✓
24.	Taletso TVET	Mmabatho	Engineering Science N3	✓	✓	✓
			Motor Trade Theory N2	✓	✓	✓
			Engineering Science N2	✓	✓	✓
25.	Tshwane North TVET	Temba	Diesel Trade Theory N3	✓	✓	✓
			Engineering Science N3	✓	✓	✓
			Mathematics N2	✓	✓	✓
			Mathematics N3	✓	✓	✓
			Mechanotechnology N3	✓	✓	✓
26.	Tswelopele Correctional Centre	Kimberley	Industrial Electronics N2	✓	✓	✓
			Engineering Science N2	✓	✓	✓
			Engineering Science N3	✓	✓	✓

With the sampled instructional offerings, two of the sites experienced challenges in terms of non-compliance with marked tests and mark sheets. The sites that experienced challenges in terms of compliance with the ICASS requirements, as per the 2024 DHET ICASS Instructions, are listed in Table 2D.

Table 2D: Sites that experienced challenges in terms of ICASS compliance

Evidence of additional Instructional Offerings	College and Campus	Instructional Offering
No student PoE. The students were registered for examinations only and no tests were available.	Esayidi TVET College (Kokstad)	Building Science N3
		Mathematics N2
		Mathematics N3
No information was available for additional instructional offerings.	Kingdom Varsity College (Nongoma)	Engineering Drawing N3
		Mathematics N3
		Mechanotechnology N3

2.4 AREAS OF IMPROVEMENT

The following improvements were observed:

- a. There was evidence of an instructional offering monitoring report per lecturer at 64% of the sites visited, an increase of 9% from 55% in August 2023;
- b. There was a plan in place for the development of the assessment tasks at 92% of the sites, a 7% increase from the 85% of August 2023;
- c. The tasks were developed according to the assessment plan at 92% of the sites, an increase of 17% from the 75% in August 2023;
- d. At 88% of the sites (70% in August 2023), there were systems in place to ensure that tasks were of an acceptable standard;
- e. Eighty-four percent of the sites visited had lecturer files that contained all the relevant documents, this was an increase of 49% from the 35% in August 2023;
- f. The lecturer file contained the instructional offering syllabus at 92% of the sites visited compared to 85% in August 2023;
- g. The assessment file contained all relevant documents at 92% (60% in August 2023) of the sites visited;
- h. Assessment scores were recorded accurately on the mark sheet at 100% of the sites visited, an increase of 10% compared to the 90% of August 2023;
- i. The two tasks varied in the level of difficulty, were pitched at the right level, and assessed a variety of knowledge and skills at 96% of the sites, a significant increase of 26% from the 70% of August 2023;
- j. A hundred percent of the sites (85% in August 2023) had evidence of moderation of marking in both tests of a minimum sample of 10% of the scripts;
- k. The sample of both tests that were internally moderated included the full range of performance i.e., high, average, and low scoring students at 88% of sites, compared to 70% of sites in August 2023;
- l. There were clear instructions to students on both tasks at 96% of sites visited, a 16% increase from the 80% of August 2023 findings; and
- m. The mark allocation was clearly indicated for each question in both tests at 100% of the sites, compared to 85% in August 2023.

2.5 AREAS OF NON-COMPLIANCE

A number of concerns were noted, these included:

- a. The college provided support at 32% (65% in August 2023) of the sites before enrolment e.g., competency test/aptitude test/placement test;
- b. The textbooks/teaching material at 72% of the sites, were available when the classes commenced at the beginning of the trimester, compared to 95% in August 2023;
- c. The students at 20% of the sites were exposed to the practical implementation of the theory component of the subject at the site of learning, compared to 50% in August 2023;
- d. There were computers and printers for the students at 68% of the sites to complete assignments/ case studies to conduct research. This was a 17% decrease from 85% in August 2023;
- e. The educators were exposed to the workplace environment/ relevant industry at 36% of the sites visited, a 9% decrease from 45% in August 2023;

- f. There was an up-to-date college assessment policy at 76% of the sites visited, a decrease of 14% from the 90% in August 2023;
- g. There was evidence of a strategy/plan for the monitoring of assessment at the site of learning at 52% of the sites visited, 18% less than the 70% in August 2023; and
- h. The students interpreted questions correctly and were able to answer all or most of the questions in the tests at 85% of sites, a decrease of 15% compared to 100% of the sites in August 2023.

2.6 DIRECTIVES FOR COMPLIANCE AND IMPROVEMENT

The DHET must address the following directives for compliance and improvement to ensure effective teaching, learning and assessment of the Engineering Studies' instructional offerings at the colleges by ensuring that:

- a. Colleges provide support to students before enrolment by means of competency tests/ aptitude tests/placement tests, etc.;
- b. The textbooks/teaching materials are available before the commencement of classes;
- c. The students are exposed to the practical implementation of the theory component of the subject at the site of learning;
- d. The required policies as stipulated in the DHET ICASS guidelines be made available at the sites of learning;
- e. The educators are exposed to the workplace environment/ relevant industry; and
- f. There is evidence of a strategy/plan for the monitoring of assessment at the site of learning.

2.7 CONCLUSION

Although the NATED Report 190/191 Engineering Studies N2–N3 programmes are being phased out, they remain a popular choice amongst students at the private FET and public TVET colleges. Shortcomings could hamper the effective delivery of the NATED Report 190/191 N2 – N3 programmes. There must be a concerted effort on the part of the DHET to support and monitor the implementation of ICASS. It is also important to note that the practical application of the theoretical components is required to prepare students for the industry. The ICASS serves a pivotal role in preparing students for the final examination. Therefore, the DHET must continuously monitor the implementation of ICASS at the sites of teaching and learning to ensure the holistic development of students for the workplace and/or further studies.



UMALUSI

Chapter 3

**MONITORING OF THE WRITING
OF EXAMINATIONS**

3.1 INTRODUCTION

Umalusi monitors the writing of examinations to determine whether the Department of Higher Education and Training (DHET) conducts, administers, and manages the examinations in accordance with examination guidelines and policies. Monitoring ensures the credibility of examinations for the Technical and Vocational Education and Training (TVET) qualifications registered on the General and Further Education and Training Qualifications Sub-framework (GFETQSF).

This chapter reports on the findings from the monitoring of a sample of 34 examination centres nationally. It also acknowledges areas of improvement, areas of non-compliance and provides directives for improvement and compliance.

3.2 SCOPE AND APPROACH

Umalusi selected 34 examination centres from seven of the nine provinces for monitoring the writing of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations. The sample included 13 public, 17 private and four correctional services examination centres. Umalusi collected data from the selected sites through verification, observation, and interview methods. Reports were generated from the data collected at the selected examination centres.

The details of the examination centres monitored are provided in Table 3A.

Table 3A: Examination centres monitored by Umalusi

No.	Name of college and type	Site/campus	Province	Subject	Date visited
1	Advisor Progressive College (Private)	Emalahleni	MP	Industrial Electronics N2	25/07/2024
2	African Institute of Technology (Private)	Pretoria	GP	Mathematics N2	26/07/2024
3	Better Best Education Projects (Private)	Mokopane	LP	Mathematics N2	26/07/2024
4	Brighton College (Private)	Rustenburg	NW	Engineering Drawing N2	14/08/2024
5	Coastal TVET College (Public)	Durban	KZN	Mathematics N3	31/07/2024
6	College of Cape Town (Public)	Pinelands	WC	Refrigeration Trade Theory N2	13/08/2024
7	Crane International Academy (Private)	Emalahleni	MP	Diesel Trade Theory N3	12/08/2024
8	Eastview TVET College (Private)	Pretoria	GP	Mathematics N3	31/07/2024
9	Ekurhuleni Artisans and Skills Training Centre (Private)	Kempton Park	GP	Plater's Theory N2	07/08/2024
10	False Bay TVET College (Public)	Westlake	WC	Mathematics N3	31/07/2024
11	Goldfields TVET College (Public)	Meloding	FS	Engineering Science N2	31/07/2024
12	Groenpunt Maximum Correctional Centre	Deneysville	FS	Engineering Science N2	31/07/2024

No.	Name of college and type	Site/campus	Province	Subject	Date visited
13	Kent Technical College (Private)	Springs	GP	Engineering Drawing N3	07/08/2024
14	Losperfontein Correctional Centre	Brits	NW	Electrical Trade Theory N2	08/08/2024
15	Majuba TVET College (Public)	Dundee	KZN	Mathematics N2	26/07/2024
16	Maluti TVET College (Public)	Itemoheleng	FS	Mathematics N2	26/07/2024
17	Mosieleng Technical College (Private)	Vereeniging	GP	Mathematics N2	26/07/2024
18	Motheo TVET College (Public)	Hillside View	FS	Industrial Electronics N2	25/07/2024
19	Ncome Prison Correctional Services	Vryheid	KZN	Mathematics N3	31/07/2024
20	Nkangala TVET College (Public)	CN Mahlangu	MP	Mathematics N2	26/07/2024
21	Northlink TVET College (Public)	Goodwood	WC	Electrical Trade Theory N2	08/08/2024
22	Northlink TVET College (Public)	Wingfield	WC	Logic Systems N3 Engineering Drawing N3	07/08/2024
23	Nylstroom Correctional Service	Modimolle	LP	Engineering Science N2	31/07/2024
24	Polokwane Technology Institute (Private)	Polokwane	LP	Mathematics N2	26/07/2024
25	Rock of Springs College (Private)	Brits	NW	Engineering Science N2	31/07/2024
26	Rostec Technical FET College (Private)	Rustenburg	NW	Mathematics N2	26/07/2024
27	Salitig Training College (Private)	Polokwane	LP	Engineering Science N3	30/07/2024
28	Springville Varsity College (Private)	Pinetown	KZN	Engineering Drawing N3	07/08/2024
29	Technicon South Africa (Private)	Erasmus	GP	Mathematics N2	26/07/2024
30	Thibela Technical College (Private)	Emalahleni	MP	Mathematics N2	26/07/2024
31	Tshwane North TVET College (Public)	Rosslyn	GP	Electro-Technology N3	14/08/2024
32	Vaal Technical Institute (Private)	Vereeniging	GP	Plating and Structural Steel Drawing N2	13/08/2024
33	West Coast TVET College (Public)	Atlantis	WC	Mathematics N2	26/07/2024
34	Western TVET College (Public)	Krugersdorp West	GP	Industrial Electronics N2	25/07/2024

3.3 SUMMARY OF FINDINGS

The findings on the monitoring of the writing of the examinations are indicated below, by criteria, according to the Umalusi Monitoring of the Writing of the Examinations Instrument.

Table 3B lists the detailed findings by Umalusi at monitored examination centres.

Table 3B: Detailed Findings at monitored examination centres

Criteria	Findings	Examination centres
Preparations for the examination	Umalusi noted evidence that the DHET had verified the state of readiness and availability of facilities at 32 (94%) of the examination centres visited. This was a 14% increase in comparison to 80% in the August 2023 examinations.	Ekurhuleni Artisans and Skills Training Centre Technicon South Africa
	Two (6%) of the examination centres had not been verified by DHET.	
	There was an official timetable for the current examinations at 32 (94%) examination centres monitored, a decrease of 6% when compared to 100% in the August 2023 examinations.	Springville Varsity College Technicon South Africa
	There was no official timetable for the current examinations at two (6%) examination centres monitored.	
	Thirty-four (100%) examination centres had enough examination rooms to accommodate all the registered candidates, which is on par with the 100% in the August 2023 examinations.	
	The examination rooms at 31 (91%) examination centres had sufficient space to accommodate all candidates. This allowed candidates to be seated at one metre distance apart (in all directions). This was 9% lower than the 100% recorded in the August 2023 examinations.	Crane International Academy Krugersdorp West Campus Thibela Technical College
	At three (9%) examination centres, candidates were seated at less than one metre apart (in all directions) from each other.	
	Sufficient and suitable furniture was provided at 32 (94%) of the centres monitored, 19% more than the 75% of the August 2023 examinations.	Brighton College Vaal Technical Institute
	At two (6%) examination centres, the furniture was not suitable for the subject. However, the candidates were seated more than one metre apart.	
	There was suitable lighting in the examination rooms at all the examination centres monitored, which was on par with the 100% in the August 2023 examinations.	
Thirty-four (100%) examination centres had water and sanitation; on par with the 100% in the August 2023 examinations.		

Criteria	Findings	Examination centres
Preparations for the examination	Thirty-three (97%) of examination centres had a safe/strong room where examination material was stored, a 3% decrease from the 100% in the August 2023 examinations.	Springville Varsity College
	At one (3%) examination centre, examination material was not stored in a safe/strong room.	
	The environment was conducive for the writing of examinations at 30 (88%) examination centres. This was a 7% decrease compared to the 95% in the August 2023 examinations.	Groenpunt Maximum Correctional Centre Losperfontein Correctional Centre Mosieng Technical College
	At four (12%) examination centres, the environment was not conducive for the writing of examinations.	Nylstroom Correctional Service
	At four (12%) examination centres, there was no backup generator on site.	Brighton College Durban Campus Eastview TVET College Vaal Technical Institute
	Chief invigilators from all examination centres collected/received question papers from the nodal point. This was on a par with the 100% in the August 2023 examinations.	
	At all examination centres monitored, the chief invigilator or authorised personnel received the examination materials from the assessment body.	
	The chief invigilators verified that the correct question papers were delivered/collected at all examination centres. This was consistent with the 100% compliance in the August 2023 examinations.	
	An updated stock control register was kept at 33 (97%) examination centres; a slight increase of 2% when compared to 95% in the August 2023 examinations.	Losperfontein Correctional Centre
The stock control register was not available at one (3%) of the sites monitored.		
Invigilators and their training	Campus managers were appointed as chief invigilators at 31(91%) examination centres monitored; this was a 5% improvement compared to 86% in the August 2023 examinations.	Losperfontein Correctional Centre Mosieng Technical College Salitig Training College
	Three (9%) examination centres did not comply, as there was no evidence of an appointment letter.	
Preparations for writing and examination rooms/venues	The DHET trained chief invigilators at 30 (88%) examination centres, a 13% increase from 75% in the August 2023 examinations.	Crane International Academy Losperfontein Correctional Centre Springville Varsity College
	There was no evidence that the assessment body had trained the chief invigilator at four (12%) examination centres.	Technicon South Africa

Criteria	Findings	Examination centres
Preparations for writing and examination rooms/venues	Invigilators were appointed in writing at 34 (100%) examination centres, a 5% improvement from 95% in the August 2023 examinations.	
	Invigilators at 33 (97%) examination centres had received training for the current examination; an increase of 2% when compared to 95% in the August 2023 examinations.	Vaal Technical Institute
	At one (3%) examination centre, invigilators were not trained for the current examination.	
	At twenty-nine (85%) of the examination centres, candidates were seated at 08:30 am, 30 minutes before the examination commenced; an increase of 5% when compared with 80% in the August 2023 examinations.	CN Mahlangu Campus Losperfontein Correctional Centre Krugersdorp West Campus Technicon South Africa Thibela Technical College
	At five (15%) examination centres, candidates were not seated 30 minutes before the examination began.	
	The total number of examination centres where invigilators verified candidates' admission letters/identity documents before they were allowed into the examination venue was 31 (91%) of the total sample. This was a decrease of 4% in comparison to the findings of 95% in the August 2023 examinations.	Brighton College Mosieleng Technical College Vaal Technical Institute
	At three (9%) examination centres, invigilators did not verify candidates' admission letters or identity documents before they were allowed into the examination venue.	
	At 34 (100%) of the examination centres monitored, there was an appropriate number of invigilators. This was a 5% increase when compared to the 95% in the August 2023 examinations.	
	There was an invigilation timetable at 31 (91%) examination centres; a slight increase of 1% when compared to the 90% in the August 2023 examinations.	Kent Technical College Losperfontein Correctional Centre Technicon South Africa
	At three (9%) examination centres, there was no invigilation timetable.	
Thirty (88%) examination centres had relief timetables; an increase of 8% when compared to 80% in the August 2023 examinations.	Kent Technical College Losperfontein Correctional Centre Springville Varsity College	
At four (12%) examination centres, there was no relief timetable.	Technicon South Africa	

Criteria	Findings	Examination centres
Preparations for writing and examination rooms/venues	Invigilators at 32 (94%) examination centres signed an attendance register; which is a slight decrease of 1% when compared with the 95% in the August 2023 examinations.	Mosieleng Technical College Technicon South Africa
	At two (6%) examination centres, the attendance register of invigilators was not signed.	
	At 31 (91%) examination centres, candidates were seated according to a seating plan; a slight improvement of 1% as compared to 90% in the August 2023 examinations.	Groenpunt Maximum Correctional Centre Springville Varsity College Vaal Technical Institute
	At three (9%) examination centres, candidates were not seated according to a seating plan.	
	A clock or another device displaying the time was clearly displayed at 32 (94%) of the examination centres monitored; a 1% decrease when compared to 95% in the August 2023 examinations.	Losperfontein Correctional Centre Vaal Technical Institute
	At two (6%) examination centres, a clock or another device displaying the time was not clearly displayed.	
	An information board was visible at 34 (100%) examination centres; a 10% improvement on the findings of 90% in the August 2023 examinations.	
	The examination venue/s at 34 (100%) monitored examination centres/sites where examinations were written were free of any material/writing/drawings that could aid candidates in writing the examination, which is on par with the 100% in the August 2023 examinations.	
	At one (3%) examination centre, there was a candidate who was not registered to write the examination.	Mosieleng Technical College
	Invigilators at 31(91%) examination centres ensured that candidates were not in possession of cell phones or any material/ equipment that was not required for the examination; a decrease of 4% when compared to the 95% in the August 2023 examinations.	Brighton College Thibela Technical College Vaal Technical Institute
	At three (9%) examination centres, the invigilators did not ensure that the candidates were not in possession of cell phones or any other material/ equipment that was not required for writing.	
	Invigilators at 29 (85%) examination centres checked calculators for compliance, where applicable. A decrease of 15% when compared to 95% in the August 2023 examinations.	Brighton College Crane International Academy Goodwood Campus Thibela Technical College Vaal Technical Institute
	At five (15%) examination centres calculators were not checked for compliance.	
The examination file was available in the examination room at 34 (100%) examination centres, an increase of 5% compared to 95% in the August 2023 examinations.		

Criteria	Findings	Examination centres
Time management	Invigilators arrived on time at 33 (97%) examination centres; an increase of 7% when compared to 90% in August 2023.	Losperfontein Correctional Centre (08:40 AM)
	At one (3%) examination centre, invigilators did not arrive on time at the examination venue.	
	Candidates signed attendance registers at all examination centres, which is on par with 100% in the August 2023 examinations.	
	Invigilators issued the official answer book to all candidates taking the examination, which is the same as the 100% in the August 2023 examinations.	
	Invigilators at 29 (85%) examination centres verified that the information on the cover page of answer books was correct. This rating was 5% lesser than the 90% in the August 2023 examinations.	Crane International Academy Nylstroom Correctional Service Thibela Technical College
	Invigilators at five (15%) examination centres did not verify information on the cover page of answer books.	Rostec Technical FET College Rosslyn Campus
	The sealed question papers were opened in the presence of candidates at 34 (100%) examination centres, which was on par with the 100% in the August 2023 examinations.	
	Question papers were distributed to candidates on time at 33 (97%) examination centres, an increase of 7% compared to the 90% in the August 2023 examinations.	Kent Technical College (08:50 AM)
	At one (3%) examination centre, question papers were not distributed to candidates on time.	
	Invigilators at 32 (94%) of the examination centres checked question papers for technical accuracy, a decrease of 1% compared to the 95% in the August 2023 examinations.	Advisor Progressive College Rostec Technical FET College
	Invigilators at two (6%) examination centres did not check question papers for technical accuracy.	
	Candidates were given the required reading time at 29 (85%) examination centres; an improvement of 10% when compared to 75% in August 2023 examinations.	Crane International Academy Kent Technical College Krugersdorp West Campus
	At five (15%) of the examination centres students had to start writing the examination without being given the required mandated reading time to read the question papers.	Rock of Springs College Thibela Technical College
Examination rules were read to candidates at 32 (94%) examination centres; a decrease of 6% in compliance compared to the 100% in August 2023 examinations.	Advisor Progressive College Nylstroom Correctional Service	
At two (6%) examination centres the invigilators did not read the examination rules.		

Criteria	Findings	Examination centres
Time management	The examination started at the time indicated on the timetable at 33 (97%) examination centres; an increase of 7% when compared to 90% in August 2023 examinations. At one (3%) examination centre, the examination did not start at the time indicated on the timetable.	Mosieleng Technical College (09:04 AM)
	Candidates at 33 (97%) examination centre arrived within the stipulated time and were admitted to the examination rooms. A 3% decrease when compared to the 100% attained in the August 2023 examinations. At one (3%) examination centre, candidates did not arrive within the stipulated time.	Technicon South Africa
	Invigilators stamped the answer books at 33 (97%) examination centres. This was a decrease of 3% when compared to the 100% in the August 2023 examinations. At one (3%) examination centre, answer books were not stamped.	Mosieleng Technical College
	The examination ended at the stipulated time at 32 (94%) examination centres, which was 4% higher than the 90% in the August 2023 examinations. At two (6%) examination centres, the candidates finished the examination early, so it ended before the stipulated time.	Crane International Academy Goodwood Campus
Activities during writing	There were no instances of invigilators answering any questions to clarify any aspect of the question paper in any of the examination sessions. This was consistent with the findings of 100% in the August 2023 examinations.	
	At 33 (97%) examination centres, no candidates left the examination room temporarily without an escort during the examination sessions. This is a 3% decrease compared to the 100% attained in the August 2023 examinations. At one (3%) examination centre a candidate left the examination room temporarily without an escort during the examination session.	Advisor Progressive College
	There were no unauthorised personnel in any of the examination rooms at 33 (97%) examination centres, a decrease of 3% compared to 100% in the August 2023 examinations. At one (3%) examination centre, there was unauthorised personnel in the examination venue.	Groenpunt Maximum Correctional Centre

Criteria	Findings	Examination centres
Activities during writing	There were no irregularities reported during the examination session at 28 (82%) examination centres: a decrease of 18% compared to 100% in the August 2023 examinations. At six (18%) examination centres, there were irregularities that were reported.	Crane International Academy Losperfontein Correctional Centre Pinelands Campus Rostec Technical FET College Springville Varsity College Westlake Campus
	Invigilators at 33 (97%) examination centres were active, mobile and vigilant throughout the examination. This was a 3% decrease when compared to 100% in the August 2023 examinations. At one (3%) examination centre an invigilator remained seated and engaged with other activities.	Hillside View Campus
	There were no official errata at 34 (100%) of the examination centres, which is on par with the 100% attained in the August 2023 examinations.	
Packaging and transport of answer scripts	Scripts were counted and packed in a secured area at 34 (100%) examination centres, an increase of 5% compared to 95% in the August 2023 examinations.	
	Absentee forms were inserted at all examination centres where examinations were conducted, which is on par with the 100% attained in the August 2023 examinations.	
	Only authorised personnel were present during the packing of scripts at all the examination centres, an increase of 5% compared to 95% in the August 2023 examinations.	
	The scripts were packaged in the sequence on the mark sheet at all examination centres, which is on par with the 100% in the August 2023 examinations.	
	The number of scripts corresponded to the number on the wrapping at 34 (100%) examination centres, which is on par with the 100% in the August 2023 examinations.	
	Examination officials at 34 (100%) examination centres sealed the scripts in the satchel provided, which is on par with the 100% in the August 2023 examinations.	
Packaging and transport of answer scripts	The scripts were sealed in the presence of the monitor at 33 (97%) of the examination centres, a 2% increase from 95% in the August 2023 examinations. At one (3%) examination centre the scripts were not sealed in the presence of the monitor.	Groenpunt Maximum Correctional Centre

Criteria	Findings	Examination centres
Packaging and transport of answer scripts	The chief invigilators at 29 (85%) of the examination centres completed a daily situational report, a 10% decrease from 95% in the August 2023 examinations. Monitors did not observe evidence that the chief invigilator completed a daily situational report at five (15%) examination centres.	Durban Campus Losperfontein Correctional Centre Springville Varsity College Technicon South Africa Thibela Technical College
	Authorised personnel either locked scripts away or transported them to a nodal point at 34 (100%) examination centres.	
Monitoring by the DHET	Thirty-two (94%) examination centres could provide evidence of monitoring by the DHET. This was a 34% improvement when compared to the 60% in the August 2023 examinations. At two (6%) examination centres there was no evidence that the assessment body had monitored the examination centre's state of readiness for the examination.	Better Best Education Projects Durban Campus

3.3.1 Irregularities and Incidents Identified by Umalusi

The Umalusi monitors and staff noted irregularities and incidents at examination centres, as follows:

- a. Advisor Progressive College (Emalahleni):
 - i. A candidate was not escorted to the bathrooms during the taking of the examinations; and
 - ii. The technical accuracy of the question paper was not checked with the candidates.
- b. College of Cape Town (Pinelands):
 - i. Two question papers were not received from the nodal point. These question papers were later collected from the nodal point, and this affected the starting time (09:50 AM) of some candidates.
- c. Crane International Academy (Emalahleni):
 - i. Candidates were provided with 17 minutes of reading time instead of ten minutes.
 - ii. The candidate did not produce an identity document to verify himself, and he was requested to provide an affidavit at the police station after writing; and
 - iii. One candidate wrote two subjects without a concession letter.
- d. False Bay TVET College (Westlake):
 - i. A candidate's cell phone rang during the writing of the examination.

- e. Groenpunt Maximum Correctional Centre (Deneysville):
 - i. The examination venue was not conducive, the noise level from other inmates was high and distracting;
 - ii. Candidates were not seated according to the seating plan;
 - iii. Unauthorised persons passed through the examination venue to gain access to other parts of the examination centre and offices; and
 - iv. The examination officer took the packed scripts to another office for sealing, and the examination officer sealed the scripts without the Umalusi Monitor and the invigilator present.

- f. Losperfontein Correctional Centre (Brits):
 - i. The venue was unconducive for the writing of examinations because it was not cleaned;
 - ii. The examination venue was opened at 08:40 AM; and
 - iii. All the examination officials did not have their identification cards.

- g. Mosieleng Technical College (Vereeniging):
 - i. One candidate's identity number did not match the permit that was issued; and
 - ii. The examination started at 09:04 AM.

- h. Motheo TVET College (Hillside View):
 - i. The invigilators did not adhere to the policy and regulations on vigilance during the invigilation of the examination. Invigilators constantly communicated and initially, they did not move around;
 - ii. During the reading time candidates were noted making notes and using calculators while invigilators were not monitoring ; and
 - iii. During the first hour of invigilation, invigilators frequently moved to the outside of the examination room, opening and closing the doors.

- i. Rock of Springs College (Brits):
 - i. The question papers were distributed to the candidates before the commencement of the examination (08:50 AM). This was not fair for the other candidates as they did not receive enough reading time as they were given only 5 minutes instead of 10 minutes of regulated reading time.

- j. Springville Varsity College (Pinetown):
 - i. The examination centre administered examinations at a new address or venue without permission from DHET. The centre was not accredited; and
 - ii. One invigilator did not have a name tag.

- k. Technicon South Africa (Erasmus):
 - i. The last candidate arrived at 09:05 AM and was admitted into the examination venue.

- l. Thibela Technical College (Emalahleni):
 - i. Candidates were given 5 minutes of reading time.

- m. Rostec Technical FET College (Rustenburg):
 - i. Impersonation - someone wrote for the student and was caught by the invigilator.

3.4 AREAS OF IMPROVEMENT

The following areas of improvement were observed:

- a. The DHET had verified the state of readiness and availability of facilities at 32 (94%) of the examination centres visited. This was a 14% increase in comparison to 80% in the August 2023 examinations;
- b. Sufficient and suitable furniture was provided at 32 (94%) of the centres monitored. This was 19% more than the 75% of August 2023 examinations;
- c. The DHET trained chief invigilators at 30 (88%) examination centres; a 13% increase when compared to 75% in August 2023 examinations;
- d. Thirty (88%) examination centres had relief timetables; an increase of 8% when compared to 80% in the August 2023 examinations;
- e. An information board was visible at 34 (100%) examination centres; a 10% improvement on the findings of 90% in August 2023 examinations;
- f. Question papers were distributed to candidates on time at 33 (97%) examination centres; an increase of 7%, when compared to 90% in the August 2023 examinations;
- g. Candidates were given the required reading time at 29 (85%) examination centres; an improvement of 10% when compared to 75% in the August 2023 examinations;
- h. The examination started at the time indicated on the timetable at 33 (97%) examination centres; an increase of 7% when compared to 90% in the August 2023 examinations; and
- i. Thirty-two (94%) examination centres could provide evidence of monitoring by the DHET. This was a 34% improvement when compared to the 60% in the August 2023 examinations.

3.5 AREAS OF NON-COMPLIANCE

The following areas of non-compliance were observed:

- a. For the preparations of the examination, at some examination centres it was found that:
 - i. There was no official timetable for the current examinations;
 - ii. Candidates were seated less than one metre apart (in all directions) from each other; and
 - iii. The environment was not conducive for the writing of examinations.
- b. For preparations for writing and examination rooms/venues, it was found that:
 - i. At some examination centres, calculators were not checked for compliance.
- c. For time management, it was found that:
 - i. At some examination centres, the invigilators did not read the examination rules.
- d. For activities during writing, it was found that:
 - i. At some examination centres, there was irregularities that were reported.
- e. For packaging and transport of answer scripts, it was found that:
 - i. At some centres there was no evidence that the chief invigilator had completed a daily situational report.

3.6 DIRECTIVES FOR COMPLIANCE AND IMPROVEMENT

The DHET is required to ensure that:

- a. Examination centres comply with the national policy on the conduct, administration, and management of the examination; and
- b. Examination centres strengthen invigilation processes by ensuring that:
 - i. Calculators are checked for compliance;
 - ii. Invigilators read the examination rules before the commencement of the writing of examinations;
 - iii. Attend to and resolve the irregularities which were reported; and
 - iv. Ensure that the chief invigilators complete the daily situational report.

3.7 CONCLUSION

The conduct, administration and management of the August 2024 examinations were of an acceptable standard and most examination centres monitored, complied. Although some challenges were observed at some examination centres, these did not compromise the overall integrity and credibility of the examination.



UMALUSI

Chapter 4

**STANDARDISATION OF
MARKING GUIDELINES**

4.1 INTRODUCTION

The process of standardising marking guidelines creates a platform for the Department of Higher Education and Training (DHET) to facilitate discussion among markers, examiners, internal moderators, and Umalusi external moderators. Through these discussions, consensus is reached on responses per question before Umalusi approves or signs off the final marking guidelines.

The purpose of conducting marking guideline standardisation discussions is to ensure that the personnel involved in the marking process share a common understanding and interpretation of the marking guidelines. Furthermore, this process provides a platform for the inclusion of a range of alternative responses in the final marking guidelines, before they are implemented. Umalusi participates in the finalisation of the marking guidelines to lend credibility to the process, verify that fairness prevails, and report on the:

- a. Preparedness of markers, chief markers and internal moderators for the marking guideline discussions;
- b. Thoroughness of marking guideline discussions;
- c. Standard and quality of the marking guidelines; and
- d. Consistency in the application of the marking guidelines across the marking centres.

The standardisation of the marking guideline meeting was chaired by the respective examiner or the internal moderator responsible for setting the question paper. In eight instructional offerings, the chief markers chaired the meetings. In general, the appointed chief markers, internal moderators, and markers were required to participate in the marking guideline discussions. There were some exceptions where only the chief marker/the internal moderator and the Umalusi moderator constituted the meeting.

4.2 SCOPE AND APPROACH

Umalusi deployed thirteen external moderators to attend the marking guideline discussion meetings for fifteen instructional offerings as listed in Tables 4A and 4B below. All the meetings for all instructional offerings were conducted on the online platform.

Umalusi officials attended the online marking guideline standardisation meetings hosted by the DHET on the Microsoft Teams platform between 31 July - 17 August 2024.

Umalusi moderators used the instrument for the standardisation of marking guidelines to record the findings. This instrument for NATED Report 190/191 Engineering Studies N2-N3 required external moderators to report the findings based on the following criteria:

- a. Attendance by internal moderators, chief markers and markers;
- b. Punctuality of attendees;
- c. Duration of discussions;
- d. Validity of the presented marking guideline;
- e. Chairperson of the meeting;
- f. Standardisation of the marking guideline process;
- g. Participation of role players;
- h. Adjustments and justification;
- i. Umalusi's role;
- j. Challenges during the meeting; and
- k. Approval of the final marking guidelines.

During the standardisation of the marking guideline meetings, Umalusi moderators provided guidance, monitored proceedings, endorsed final decisions, and approved marking guidelines for use during the marking process.

A list of the N2 and N3 instructional offerings, together with the dates of the standardisation of marking guideline meetings, attended by Umalusi, is recorded in Tables 4A and 4B.

Table 4A: N2 marking guideline discussion meetings conducted

No.	Instructional Offerings	Date
1.	Engineering Science N2	5 August 2024
2.	Fitting and Machining Theory N2	5 August 2024
3.	Diesel Trade Theory N2	5 August 2024
4.	Instrument Trade Theory N2	12 August 2024
5.	Motor Electrical Trade Theory N2	13 August 2024
6.	Engineering Drawing N2	15 August 2024

Table 4B: N3 marking guideline discussion meetings conducted

No.	Instructional offerings	Date
1.	Industrial Electronics N3	31 July 2024
2.	Mathematics N3	1 August 2024
3.	Building Science N3	1 August 2024
4.	Building Drawing N3	7 August 2024
5.	Engineering Drawing N3	8 August 2024
6.	Diesel Trade Theory N3	13 August 2024
7.	Building and Civil Technology N3	14 August 2024
8.	Electrotechnology N3	15 August 2024
9.	Aircraft Maintenance Theory N3	17 August 2024

4.3 SUMMARY OF FINDINGS

According to the external moderators, the participants were generally well-prepared for the meetings, which facilitated thorough discussions and the finalisation of marking guidelines. The participants reached consensus on the changes made to the guidelines, as evidenced in Table 4C where the findings from the standardisation process are presented.

Table 4C: Findings from the standardisation of marking guidelines of NATED N2 and N3 instructional offerings

Evaluation criteria	Findings and challenges	Sampled instructional offerings involved
Attendance by marking staff	Chief markers, internal moderators and markers attended the marking guideline discussion for 87% of the instructional offerings, compared to 88% in the August 2023 meetings.	Diesel Trade Theory N2 Engineering Drawing N2 Engineering Science N2 Fitting and Machining Theory N2 Instrument Trade Theory N2 Motor Electrical Theory N2 Building and Civil Technology N3 Building Drawing N3 Building Science N3 Electrotechnology N3 Engineering Drawing N3 Industrial Electronics N3 Mathematics N3
	In the absence of both the examiner and internal moderator at one instructional offering, a marker chaired the meeting.	Diesel Trade Theory N3
	In one instructional offering, the chief marker and the Umalusi moderator standardised the marking guideline.	Aircraft Maintenance Theory N3
Chairperson of meeting	The chief markers/internal moderators of 53% of instructional offerings chaired the meetings, compared to 50% in the August 2023 meetings.	Engineering Drawing N2 Instrument Trade Theory N2 Motor Electrical Trade Theory N2 Aircraft Maintenance Theory N3 Building and Civil Technology N3 Building Science N3 Engineering Drawing N3 Mathematics N3
	In 40% of the instructional offerings, the examiners chaired the meetings, compared to the 50% registered in the August 2023 meetings.	Fitting and Machining Theory N2 Diesel Trade Theory N2 Engineering Science N2 Building Drawing N3 Electrotechnology N3 Industrial Electronics N3
	The meeting in 7% of the instructional offerings, was chaired by a marker, in the absence of both the examiner and the internal moderator.	Diesel Trade Theory N3

Evaluation criteria	Findings and challenges	Sampled instructional offerings involved
The question paper and marking guidelines is the same as those approved by Umalusi	The question paper and marking guidelines presented in 100% of the instructional offerings were the same as those approved by Umalusi.	
Adjustments to the marking guidelines during the marking guideline discussions	Adjustments were made during the marking guideline discussions to 87% of the instructional offerings, compared to 75% in the August 2023 meetings.	Engineering Science N2 Fitting and Machining Theory N2 Diesel Trade Theory N2 Engineering Drawing N2 Aircraft Maintenance Theory N3 Building and Civil Technology N3 Building Drawing N3 Diesel Trade Theory N3 Electrotechnology N3 Engineering Drawing N3 Industrial Electronics N3 Mathematics N3 Building Science N3
	No adjustments were made to the marking guidelines in 13% of the instructional offerings, compared to the 12% recorded in the August 2023 meetings.	Instrument Trade Theory N2 Motor Electrical Trade Theory N2
Justification for changes to the marking guidelines	Umalusi deemed 87% of the changes to marking guidelines to be justified because they would improve fairness and ensure consistency in the marking process. The justification for changes was recorded as 75% in the August 2023 meetings.	Engineering Science N2 Fitting and Machining Theory N2 Diesel Trade Theory N2 Engineering Drawing N2 Aircraft Maintenance Theory N3 Building and Civil Technology N3 Building Drawing N3 Diesel Trade Theory N3 Electrotechnology N3 Engineering Drawing N3 Industrial Electronics N3 Mathematics N3 Building Science N3

Evaluation criteria	Findings and challenges	Sampled instructional offerings involved
Effect of changes to marking guidelines on the cognitive level of answers/responses	In 87% of the instructional offerings in which changes were made to the marking guidelines, there was no effect on the cognitive level of the answers, when compared to 63% in the August 2023 meetings.	Engineering Science N2 Fitting and Machining Theory N2 Diesel Trade Theory N2 Engineering Drawing N2 Aircraft Maintenance Theory N3 Building and Civil Technology N3 Building Drawing N3 Diesel Trade Theory N3 Electrotechnology N3 Engineering Drawing N3 Industrial Electronics N3 Mathematics N3 Building Science N3
Role of Umalusi moderator in marking guideline discussion meetings	Umalusi assumed varying roles, which included that of observer, mediator, advisor, decision-maker, and final approver of amendments to the marking guidelines.	
Signing off on the marking guidelines	All the external moderators endorsed the marking guidelines for all sampled instructional offerings (100%). Due to the nature of the online meeting, the signing-off procedure was a verbal agreement rather than a physical signature of approval.	
Comments and recommendations from Umalusi moderators	<ul style="list-style-type: none"> It is critical that the marking guideline discussions are open and inclusive since these discussions play a vital role in ensuring accuracy and fairness during the marking. In Engineering Drawing N3, the chairperson indicated that the marking guideline should suffice and consequently concluded the meeting in fifteen minutes, without enabling discussion. There were concerns raised by the external moderators that not all officials from all the marking centres, were present. It was recommended that all appointed markers should be compelled to attend the sessions. The issue of participants not being on time continues to be a concern. Some participants joined during the discussion in some instructional offerings, and in Mathematics N3, some participants logged on almost at the end of the discussion. A significant number of participants fail to register themselves upon joining the meeting, despite constant reminders to do so. 	

4.4 AREA OF IMPROVEMENT

The following area of improvement was noted:

- a. The marking guidelines for Instrument Trade Theory N2 and Motor Electrical Theory N2 were not adjusted because they were comprehensive and required minimal explanation. This demonstrates that both the exam setting team and the external moderator were fastidious in their engagement with the process of setting and moderation.

4.5 AREAS OF NON-COMPLIANCE

The following areas of non-compliance were noted:

- a. Both the examiner and the internal moderator of Diesel Trade Theory N3 were absent, resulting in a marker chairing the marking guideline discussion; and
- b. In Engineering Drawing N3, the chairperson indicated that the marking guideline should suffice and consequently concluded the meeting in fifteen minutes, without enabling discussion.

4.6 DIRECTIVES FOR COMPLIANCE AND IMPROVEMENT

To improve the quality and standard of the marking guideline discussion meetings, the DHET must ensure that:

- a. Examiners and internal moderators chair the standardisation of the marking guideline meetings since this will lend credibility to the discussions and ultimately ensure that the marking guidelines are fair and valid;
- b. Ensure that the chairpersons for the standardisation of marking guideline meetings allow sufficient time for a thorough discussion. The chairperson must facilitate an inclusive environment where all participants have the opportunity to raise concerns or suggestions before concluding; and
- c. All the relevant marking personnel are present, punctual, committed for the duration of the discussions and register themselves at the commencement of the meeting.

4.7 CONCLUSION

The standardisation of the marking guideline discussions for the August 2024 NATED Report 190/191 Engineering Studies N2-N3 examinations were successfully completed. To maintain the integrity and effectiveness of future discussions, it is imperative that examiners and internal moderators take an active role in chairing these meetings, ensuring that all relevant personnel are present and fully engaged throughout the process. By adhering to these directives, the quality and fairness of the marking guidelines can be upheld, thereby enhancing the overall standard of the examination process.



UMALUSI

Chapter 5

MONITORING OF MARKING CENTRES

5.1 INTRODUCTION

Umalusi monitored the marking centres of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations, as part of its quality assurance of the assessment mandate. The purpose of this monitoring was to verify whether the Department of Higher Education and Training (DHET) had implemented the necessary systems and procedures to ensure the integrity and credibility of the marking procedures, in accordance with approved guidelines and policies.

The DHET provided Umalusi with the following:

- a. Enrolment information, reflecting the count of candidates registered for different subjects in the August 2024 examinations;
- b. Subjects to be marked at various marking centres;
- c. The location of the various marking centres, including the physical addresses; and
- d. The dates for the marking of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examination scripts.

This chapter reports on the findings from the monitoring of eight DHET marking centres. It also acknowledges areas of improvement, highlights areas of non-compliance and provides directives for compliance and improvement.

5.2 SCOPE AND APPROACH

The marking of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations was conducted at eight marking centres established by the DHET across seven provinces. Umalusi deployed staff members to monitor marking centres used by the DHET. The data used to compile this report was collected through on-site monitoring of the marking centres, along with interviews and observations carried out by Umalusi staff who used a specifically designed instrument for this purpose. The details of the monitored marking centres are provided in Table 5A.

Table 5A: Marking centres monitored by Umalusi

No.	Centre	Province	Date
1.	Centurion Campus	Gauteng	21 August 2024
2.	Hillside View Campus	Free State	20 August 2024
3.	Mpondozankomo Campus	Mpumalanga	19 August 2024
4.	Northdale Campus	KwaZulu-Natal	22 August 2024
5.	Pretoria West Campus	Gauteng	20 August 2024
6.	Seshego Campus	Limpopo	23 August 2024
7.	Struandale Campus	Eastern Cape	21 August 2024
8.	Thornton Campus	Western Cape	22 August 2024

5.3 SUMMARY OF FINDINGS

5.3.1 Findings from the monitoring of marking centres

The findings in Table 5B are presented according to the criteria prescribed by Umalusi for monitoring marking centres.

Table 5B: Findings at marking centres monitored by Umalusi

Criteria	Findings	Marking centre (campus)
Preparation and planning for marking	At all marking centres monitored the preparation and planning for marking was in order.	
Marking centre resources	Seven marking centres with all the necessary resources were found to be suitable for marking. The one marking centre listed below was found to be lacking in some areas:	
	<ul style="list-style-type: none"> a. The hall used as a marking centre was overcrowded with a lot of movement (marking personnel) and it was noisy. b. The marking claims were also conducted in the hall, which disturbed the marking process. 	Seshego
Security measures provided	<p>The security measures provided at all the visited marking centres were appropriate. These included:</p> <ul style="list-style-type: none"> a. Access control to the marking centre; b. Managing unauthorised personnel; Transporting of scripts from the control room to marking venues; and c. Transportation of scripts in and out of the marking centre. <p>In addition to the security measures, the following was observed:</p> <p>There were CCTV cameras, security personnel at designated areas, and regular visits by the South African Police Services.</p> <p>They requested the police to undertake a patrol every three hours. The security conducted a body and a car boot search for every person entering the marking centre.</p>	Mpondozankomo Hillside View
Handling of irregularities	All marking centres monitored observed the processes and procedures for handling irregularities set out by the DHET.	
Monitoring by the assessment body	There was evidence of monitoring by the assessment body at seven marking centres.	
	At five marking centres, as listed, monitors from the assessment body left reports detailing their findings and suggestions.	Centurion Hillside View Pretoria West Struandale Thornton

Criteria	Findings	Marking centre (campus)
Monitoring by the assessment body	The monitors from the assessment body did not leave a report at two of the monitored marking centres.	Northdale Seshego
	At the time of the Umalusi visit, there was no evidence of monitoring by the assessment body at one marking centre.	Mpondozankomo
Quality assurance procedures and capturing of marks	At all marking centres visited by Umalusi: <ul style="list-style-type: none"> a. Examination assistants checked that marks were correctly totalled and transferred to the front pages of scripts and the mark sheets; b. The system for capturing marks at the marking centres was quality assured using a double-entry system, where one official captured and another verified; c. The capturing coordinator rechecked the captured data after the capturers had rechecked each other's work; and d. A separate room/area equipped with computers was used for capturing the mark. 	
Reports	At all the visited marking centres: <ul style="list-style-type: none"> a. The markers made notes to augment the qualitative report; b. The chief markers completed a qualitative report after the marking process; c. The internal moderators completed qualitative reports; d. There was a system in place to control the receipt of qualitative reports; and e. The deputy marking centre manager: academic, quality assured all submitted reports. 	

5.3.2 Marking Concessions

Umalusi received two marking concession requests from the DHET for the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations. During the examinations marking monitoring, Umalusi staff found that all centres strictly followed the decisions and the verdicts of marking concessions for the relevant subjects.

Table 5C indicates the subjects with marking concessions.

Table 5C: List of the August 2024 marking concessions

No.	Qualification/subject	Level
	NATED Report 190/191 Engineering Studies	
1.	Engineering Science	N3
2.	Diesel Trade Theory	N3

5.4 AREAS OF IMPROVEMENT

Some initiatives by marking centres to enhance efficacy during the marking process were noted:

- a. At Mpondozankomo, there were CCTV cameras, security personnel at designated areas, and regular visits by the South African Police Services; and
- b. At Hillside View, they have requested the police to undertake patrol every three hours.

5.5 AREAS OF NON-COMPLIANCE

Some areas of non-compliance were observed during the monitoring of marking centres:

- a. At the Seshego marking centre, the hall used as a marking centre was overcrowded with a lot of movement (marking personnel) and it was noisy; and
- b. The marking claims were also done in the hall, which disturbed the marking process.

5.6 DIRECTIVES FOR IMPROVEMENT AND COMPLIANCE

The DHET must ensure that:

- a. Marking centres strictly adhere to the rules and regulations in accordance with DHET guidelines/policy;
- b. There is a conducive environment for the marking process; and
- c. The marking claims are submitted/processed at a different venue away from the marking venue.

5.7 CONCLUSION

All the monitored marking centres were adequately prepared for the marking processes. Each marking centre demonstrated the ability to address irregularities effectively, by following the protocols established by the assessment body for the irregularity processes and procedures.

Furthermore, the quality assurance processes, and reporting proved to be successful across all marking centres. Consequently, it can be affirmed that the marking of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations were conducted in a manner that safeguarded the credibility and integrity of the assessments.



UMALUSI

Chapter 6

VERIFICATION OF MARKING

6.1 INTRODUCTION

Umalusi quality assures the conduct of the marking process to confirm the consistency and accuracy of marking and to establish whether both marking and internal moderation are executed according to the agreed and established standards and practices. It is through this quality assurance process that the standard and quality of marking are verified.

Umalusi quality assured the marking processes for the August 2024 NATED Report 190/191 Engineering Studies examination by verifying the marking of samples of instructional offerings.

The verification of marking was conducted to:

- a) Determine whether the approved marking guidelines are adhered to by the markers and applied consistently across the instructional offerings and marking centres;
- b) Establish if changes are made to the marking guidelines at the marking centres and whether due process was followed;
- c) Determine if mark allocation and calculations are done accurately and consistently;
- d) Determine the level of accuracy in the transfer and recording of marks from scripts to mark sheets;
- e) Ascertain if internal moderation of the required percentage of scripts is conducted during marking; and
- f) Confirm if marking is fair, reliable, and valid.

The marking verification was conducted in eight marking centres at Thornton, Pretoria West, Mpondozankomo, Hillside View, Centurion, Northdale, Struandale and Seshego Campuses.

This chapter reports on:

- i. The reliability and viability of the systems, processes and procedures that were planned and implemented during the marking of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations;
- ii. The quality and standard of marking and internal moderation;
- iii. The performance of candidates;
- iv. Identification of areas of compliance and non-compliance; and
- v. Directives for compliance.

6.2 SCOPE AND APPROACH

Umalusi quality assured the marking processes for the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations by verifying the marking of a sample of 25 instructional offerings. This verification of marking evaluated the adherence of the marking to the approved standardised marking guidelines.

Umalusi sampled 25 instructional offerings from eight marking centres by on-site monitoring and verification of marking. The sample consisted of fourteen N2 and eleven N3 instructional offerings. The instructional offerings are listed in Table 6B below.

Umalusi deployed 23 external moderators to eight marking centres to verify the standard and quality of marking as part of the verification process to ensure that the marking is fair, reliable and valid.

Table 6A lists the distribution of verified instructional offerings across marking centres.

Table 6A: Distribution of verified instructional offerings across marking centres

No.	Marking Centre	Number of Instructional Offerings
1.	Centurion	4
2.	Hillside View	3
3.	Mpondozankomo	3
4.	Northdale	3
5.	Pretoria West	5
6.	Seshego	2
7.	Struandale	3
8.	Thornton	2
	TOTAL	25

Table 6B below lists the fourteen sampled N2 instructional offerings, the dates and the marking centres at which on-site verification of marking was conducted.

Table 6B: Sampled N2 Instructional Offerings

No.	Instructional Offering	Date	Marking Centre
1.	Bricklaying and Plastering Theory N2	22 August 2024	Pretoria West
2.	Building Drawing N2	24 August 2024	Mpondozankomo
3.	Building Science N2	22 August 2024	Struandale
4.	Carpentry and Roofing Theory N2	23 August 2024	Thornton
5.	Diesel Trade Theory N2	22 August 2024	Mpondozankomo
6.	Electrical Trade Theory N2	24 August 2024	Pretoria West
7.	Fitting and Machining Theory N2	20 August 2024	Hillside View
8.	Instrument Trade Theory N2	23 August 2024	Pretoria West
9.	Logic Systems N2	23 August 2024	Centurion
10.	Mathematics N2	24 August 2024	Hillside View
11.	Plant Operation Theory N2	23 August 2024	Northdale
12.	Platers' Theory N2	23 August 2024	Northdale
13.	Refrigeration Trade Theory N2	23 August 2024	Seshego
14.	Welder's Theory N2	22 August 2024	Northdale

Table 6C lists the eleven sampled N3 instructional offerings, the dates and the marking centres at which on-site verification of marking was conducted.

Table 6C: Sampled N3 Instructional Offerings

No.	Instructional Offering	Date	Marking Centre
1.	Building and Civil Technology N3	24 August 2024	Pretoria West
2.	Building Science N3	23 August 2024	Struandale
3.	Electrotechnology N3	23 August 2024	Mpondozankomo
4.	Industrial Organisational and Planning N3	23-24 August 2024	Centurion
5.	Industrial Orientation N3	23 August 2024	Centurion
6.	Logic Systems N3	23 August 2024	Thornton
7.	Mathematics N3	22 August 2024	Struandale

No.	Instructional Offering	Date	Marking Centre
8.	Mechanotechnology N3	24 August 2024	Hillside View
9.	Motor Trade Theory N3	24 August 2024	Pretoria West
10.	Radio Theory N3	21 August 2024	Centurion
11.	Waste-Water Treatment Practice N3	22 August 2024	Seshego

During the August 2023 examinations, Umalusi sampled 12 instructional offerings for the verification of the marking process. The sample size for the August 2024 examination increased to 25 instructional offerings. Although this is a small statistical sample it is within the accepted range when compared to the sampling of instructional offerings in previous verification of marking processes.

Tables 6D and 6E reflect the number of provinces and examination centres per the respective N2 and N3 moderated instructional offerings.

Table 6D: Verification of marking N2: instructional offerings, number of provinces, and number of examination centres per province

Instructional Offering	Number of Provinces	Western Cape	Northern Cape	Free State	Eastern Cape	KwaZulu-Natal	Mpumalanga	Limpopo	Gauteng	North West	Province 10*
Bricklaying and Plastering Theory N2	3	0	0	0	0	0	0	0	10	8	2
Building Drawing N2	1	0	0	0	0	0	17	0	0	0	0
Building Science N2	1	0	0	0	20	0	0	0	0	0	0
Carpentry and Roofing Theory N2	7	0	0	3	7	2	1	3	2	0	2
Diesel Trade Theory N2	1	0	0	0	0	0	20	0	0	0	0
Electrical Trade Theory N2	3	0	0	0	0	0	0	0	8	7	5
Fitting and Machining Theory N2	2	0	9	11	0	0	0	0	0	0	0
Instrument Trade Theory N2	9	2	1	2	0	2	2	3	3	2	3
Logic Systems N2	5	0	4	0	0	1	1	2	16	0	0
Mathematics N2	2	0	0	8	7	0	0	0	0	0	0
Plant Operation Theory N2	5	0	0	0	2	5	1	5	3	0	0
Platers' Theory N2	1	10	0	0	0	4	0	0	4	0	2
Refrigeration Trade Theory N2	4	1	0	0	0	3	0	0	2	0	1
Welder's Theory N2	7	0	2	4	3	2	4	3	2	0	0

Province 10* represents examination centres from outside the borders of South Africa

Table 6E: Verification of marking N3: instructional offerings, number of provinces, and number of examination centres per province

Instructional Offering	Number of Provinces	Western Cape	Northern Cape	Free State	Eastern Cape	KwaZulu-Natal	Mpumalanga	Limpopo	Gauteng	North West	Province 10*
Building and Civil Technology N3	7	0	1	2	4	0	3	0	6	2	2
Building Science N3	4	0	0	2	8	0	6	4	0	0	0
Electrotechnology N3	2	0	0	0	0	0	19	1	0	0	0
Industrial Organisational and Planning N3	5	0	0	0	0	1	6	5	5	3	0
Industrial Orientation N3	5	0	0	0	0	3	3	3	10	1	0
Logic Systems N3	3	3	0	0	0	6	0	0	11	0	0
Mathematics N3	1	0	0	0	20	0	0	0	0	0	0
Mechanotechnology N3	2	0	5	15	0	0	0	0	0	0	0
Motor Trade Theory N3	6	0	0	2	3	1	2	1	1	0	0
Radio Theory N3	2	0	0	0	0	0	0	0	1	1	0
Waste-Water Treatment Practice N3	5	0	0	8	4	0	2	4	2	0	0

Province 10* represents examination centres from outside the borders of South Africa

Each external moderator purposively sampled and verified a maximum of 20 marked scripts evaluating the performance of students ranging from low, average, and high. The sample of marked scripts included scripts from the provinces and examination centres that were available at the marking centre.

6.3 SUMMARY OF FINDINGS

This section presents the most important results and discusses, interprets, and compares the findings for the verification of marking for the August 2024 N2–N3 examination to those of the August 2023 N2–N3 examinations.

Table 6F summarises the findings of the verification of the marking process of the 25 N2–N3 instructional offerings.

Table 6F: Findings of the verification of marking of N2–N3 instructional offerings

Criteria	Findings	Instructional Offerings
Availability of scripts	<p>Thirty-six percent of scripts of the instructional offerings sampled had been received at the time of moderation. This represents a decrease of 22% from the August 2023 examinations.</p> <p>Mechanotechnology N3 scripts were redirected from Seshego to Pretoria West without notifying Umalusi although the subject was sampled for marking verification. The external moderator was redeployed to conduct verification of marking at Pretoria West.</p>	<p>Building Drawing N2 Carpentry and Roofing Theory N2 Fitting and Machining Theory N2 Industrial Orientation N3 Mathematics N3 Mechanotechnology N3 Platers' Theory N2 Radio Theory N3 Welder's Theory N2</p>
Training for marking	<p>Training for markers was conducted for 24 (96%) of the sampled instructional offerings, an increase of 4% from the August 2023 examination.</p> <p>Training mostly comprises procedural marking training, marking guidelines and sample marking discussions.</p>	<p>Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2</p>

Criteria	Findings	Instructional Offerings
Sample marking: Same copy marking	<p>After training for marking, each marker marked a copy of the same script to establish consistency in marking. The same copy was marked for twenty-two (88%) instructional offerings, a decline of 4% from the August 2023 examinations.</p> <p>For Mathematics N3, different samples were marked among markers.</p> <p>Two offerings (Radio Theory N3 and Welder's Theory N2) were indicated as not required due to the number of scripts and the appointment of only one marker.</p>	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3
Sample marking: Sampling from different centres	<p>For 92% of the instructional offerings, a sample of scripts from a range of centres were selected for marking, an increase of 17% from the August 2023 examinations.</p>	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3

Criteria	Findings	Instructional Offerings						
Sample marking: Adhering to marking guidelines	During sample marking, there was adherence to the marking guidelines for twenty-three (88%) of the sampled instructional offerings. This represents an improvement of 13% from the August 2023 examinations.	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3						
Marking: Adherence to the marking guideline	<p>Markers' adherence to the marking guidelines was considered good for twenty-two (88%) instructional offerings, an increase of 5% compared to the August 2023 examinations.</p> <p>The table below reflects a breakdown of the different adherence categories.</p> <table border="1"> <thead> <tr> <th>Good</th> <th>Average</th> <th>Poor</th> </tr> </thead> <tbody> <tr> <td>22</td> <td>2</td> <td>1*</td> </tr> </tbody> </table> <p>* Mathematics N3</p>	Good	Average	Poor	22	2	1*	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N3 Mathematics N2 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2
Good	Average	Poor						
22	2	1*						

Criteria	Findings	Instructional Offerings						
Standard of marking	<p>The standard of marking was rated as good for twenty (80%) instructional offerings - a decrease of 3% compared to the August 2023 examinations.</p> <p>The table below reflects a breakdown of the different marking standard ratings.</p> <table border="1"> <thead> <tr> <th>Good</th> <th>Average</th> <th>Poor</th> </tr> </thead> <tbody> <tr> <td>20</td> <td>4</td> <td>1*</td> </tr> </tbody> </table> <p>* Mathematics N3</p>	Good	Average	Poor	20	4	1*	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Science N2 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N3 Mathematics N2 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2
Good	Average	Poor						
20	4	1*						
Administration: Recording of marks	<p>The prescribed procedure for the recording of marks on the front page of the script was followed by all (100%) instructional offerings as in the August 2023 examinations.</p>	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2						

Criteria	Findings	Instructional Offerings
Administration: Indicating mark per question	Marks were indicated per question in all (100%) scripts from the sampled instructional offerings as in the August 2023 examinations.	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2

Criteria	Findings	Instructional Offerings
Administration: Indicating errors made	Mistakes/ errors identified by moderators and/or examination assistants were indicated in twenty-two (88%) of the sampled instructional offerings. This is an improvement of 5% from the August 2023 examinations.	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2
Administration: Transfer of marks to cover page	Marks were transferred accurately to the cover page in twenty-four (96%) of the sampled instructional offerings. This is an increase of 13% from the August 2023 examinations.	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2

Criteria	Findings	Instructional Offerings
Administration: Correct completion of mark sheets	<p>Mark sheets were completed correctly for twenty-four (96%) of the sampled instructional offerings, an increase of 13% from the August 2023 examinations. A common non-compliance issue is not recording the marks as three digits.</p>	<ul style="list-style-type: none"> Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2

Criteria	Findings	Instructional Offerings
Administration: Keeping notes	Notes were kept by markers throughout the marking process for twenty-four (96%) of the instructional offerings. This was a significant improvement of 13% on the August 2023 examinations.	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2

Criteria	Findings	Instructional Offerings
Control: Marker identification	Markers for all instructional offerings sampled indicated their code/name in red ink on the cover page of the scripts as in the August 2023 examinations. This indicates 100% compliance.	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2

Criteria	Findings	Instructional Offerings
Control: Chief marker identification	The chief markers for twenty-four (96%) of the instructional offerings recorded their names clearly on the moderated scripts - an improvement of 4% from the August 2023 examinations.	Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2
Control: Examination assistant identification	The examination assistants for twenty (80%) of the instructional offerings sampled recorded their initials/signatures clearly on checked scripts. This represents a decline of 3% from the August 2023 examinations.	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Logic Systems N2 Logic Systems N3 Mathematics N2 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2

Criteria	Findings	Instructional Offerings
Internal moderation: Centres moderated	<p>Internal moderation of scripts throughout the marking process was evident for seventeen (68%) of the instructional offerings. This is a significant decline of 32% compared to the August 2023 examinations.</p> <p>Two instructional offerings (Refrigeration Trade Theory N2 and Welder's Theory N2) were only internally moderated as the subject numbers were small and only one marker was appointed.</p>	<p>Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2</p>
Internal moderation: Sampling of scripts	<p>Twenty (80%) instructional offerings were internally moderated by randomly selecting scripts from high, average, and underperforming candidates. This represents a decrease of 3% from the August 2023 examinations.</p> <p>Three instructional offerings (Building Science N3, Radio Theory N3 and Logic System N2) did not comply with the sampling procedures.</p> <p>Two instructional offerings (Refrigeration Trade Theory N2 and Welder's Theory N2) were not internally moderated.</p>	<p>Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Waste-Water Treatment Practice N3</p>

Criteria	Findings	Instructional Offerings						
Internal moderation: Approach	<p>A whole script moderation approach was adopted for seventeen (68%) of the 23 instructional offerings internally moderated compared to 100% in the August 2023 examinations.</p> <p>The table below reflects a breakdown of the different moderation approaches.</p> <table border="1"> <thead> <tr> <th>Question wise</th> <th>Whole script</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>17</td> </tr> </tbody> </table>	Question wise	Whole script	6	17	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N3 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Industrial Organisational and Planning N3 Instrument Trade Theory N2 Logic Systems N2 Mathematics N2 Mathematics N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Waste-Water Treatment Practice N3		
Question wise	Whole script							
6	17							
Internal moderation: Standard	<p>The standard of internal moderation in fifteen (65%) of the 23 moderated instructional offerings was rated as good - a significant decline of 18% compared to the August 2023 examinations. Internal moderation of one (Mathematics N3) instructional offering was rated poor.</p> <p>The table below reflects a breakdown of the different moderation ratings.</p> <table border="1"> <thead> <tr> <th>Good</th> <th>Average</th> <th>Poor</th> </tr> </thead> <tbody> <tr> <td>15</td> <td>7</td> <td>1</td> </tr> </tbody> </table>	Good	Average	Poor	15	7	1	Building and Civil Technology N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Mathematics N2 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Waste-Water Treatment Practice N3
Good	Average	Poor						
15	7	1						

Criteria	Findings	Instructional Offerings												
Candidates' performance	<p>Candidates for two (8%) instructional offerings found the papers difficult – a drop of 1% from the August 2023 examinations.</p> <p>The table below reflects a breakdown of the different question paper ratings.</p> <table border="1"> <thead> <tr> <th>Difficult</th> <th>Fair</th> <th>Easy</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>23</td> <td>0</td> </tr> </tbody> </table> <p>In two instructional offerings (8%) candidate's performance was good.</p> <p>The performance of candidates on 17 (68%) instructional offerings was rated as average.</p> <p>For six (24%) of the instructional offerings, the candidate's performance was rated below average.</p> <p>The table below reflects a breakdown of the student's performance.</p> <table border="1"> <thead> <tr> <th>Good</th> <th>Average</th> <th>Below average</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>17</td> <td>6</td> </tr> </tbody> </table>	Difficult	Fair	Easy	2	23	0	Good	Average	Below average	2	17	6	<p>Difficult: Building Science N3 Radio Theory N3</p> <p>Good performance: Industrial Orientation N3 Mechanotechnology N3</p> <p>Average Performance: Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mathematics N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Refrigeration Trade Theory N2 Welder's Theory N2</p> <p>Below Average Performance: Building Science N3 Carpentry and Roofing Theory N2 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Radio Theory N3 Waste-Water Treatment Practice N3)</p>
Difficult	Fair	Easy												
2	23	0												
Good	Average	Below average												
2	17	6												

Criteria	Findings	Instructional Offerings
Rating of question paper	<p>Twenty-four (96%) instructional offerings' question papers did not include any unfair questions, an improvement of 4% from the August 2023 examinations.</p> <p>Challenging questions were found in the question paper for 1 instructional offering (Industrial Orientation N3).</p>	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mathematics N3 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2
Prevention and management of irregularities	<p>Ten (40%) of the sampled instructional offerings demonstrated irregularities, a 23% increase from the August 2023 examinations.</p>	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Science N3 Electrical Trade Theory N2 Electrotechnology N3 Industrial Orientation N3 Instrument Trade Theory N2 Mathematics N3 Mechanotechnology N3 Refrigeration Trade Theory N2

Criteria	Findings	Instructional Offerings
General standard of marking	<p>Marking was declared to be consistent and fair in twenty-four (96%) instructional offerings – an improvement of 13% compared to the August 2023 examinations.</p> <p>Marking was rated unfair and poor for one instructional offering (Mathematics N3).</p>	Bricklaying and Plastering Theory N2 Building and Civil Technology N3 Building Drawing N2 Building Science N2 Building Science N3 Carpentry and Roofing Theory N2 Diesel Trade Theory N2 Electrical Trade Theory N2 Electrotechnology N3 Fitting and Machining Theory N2 Industrial Organisational and Planning N3 Industrial Orientation N3 Instrument Trade Theory N2 Logic Systems N2 Logic Systems N3 Mathematics N2 Mechanotechnology N3 Motor Trade Theory N3 Plant Operation Theory N2 Platers' Theory N2 Radio Theory N3 Refrigeration Trade Theory N2 Waste-Water Treatment Practice N3 Welder's Theory N2

6.4 AREAS OF IMPROVEMENT

The findings of the August 2024 NATED Report 190/191 Engineering Studies N2–N3 examinations verification of marking revealed the following areas of improvement:

- a. Adherence to the marking guidelines improved during sample script marking for twenty-three (88%) of the sampled instructional offerings. This represents an improvement of 13% from the August 2023 examinations.
- b. During script marking, markers adhered to the marking guidelines in twenty-two (88%) instructional offerings, an increase of 5% compared to the August 2023 examinations;
- c. Compliance and performance on the indication of errors, transfer of marks to the cover page, correct completion of mark sheets and note-keeping improved;
- d. Irregularities were reported in 40% of the sampled instructional offerings - a significant increase of 23% from what was reported in the August 2023 examinations; and
- e. Marking was declared to be consistent and fair in 96% of the instructional offerings, an improvement of 13%.

6.5 AREAS OF NON-COMPLIANCE

The findings of the verification of marking revealed the following instances of non-compliance that could affect marking processes in the future.

- a. Only 36% of scripts of the instructional offerings sampled had been received at the time of moderation. This represents a decrease of 22% from the August 2023 examinations;
- b. In the sample of markings, the same copy was marked in twenty-two (88%) instructional offerings compared to 100% in the August 2023 examinations;
- c. Internal moderation of scripts throughout the marking process was evident in 68% of the instructional offerings. This is a significant decline of 32% compared to the August 2023 examinations;
- d. Eighty percent of the instructional offerings were internally moderated by randomly selecting scripts from high, average, and low-performing candidates. This represents a decrease of 3% from the performance in the August 2023 examinations; and
- e. The standard of internal moderation in 65% of the 23 moderated instructional offerings was rated as good, a significant decline of 18% when compared to the August 2023 examinations.

6.6 DIRECTIVES FOR COMPLIANCE AND IMPROVEMENT

To improve the standard and quality of marking, the DHET is required to:

- a. Review models for the distribution of scripts to ensure that all scripts are received in time by marking centres;
- b. Ensure that all instructional offerings sampled by Umalusi for verification of marking are available at the allocated marking centre. Any changes should be communicated to Umalusi;
- c. Ensure that markers engage in the sample marking process to enhance the quality of the marking;
- d. Ensure that all subjects are moderated regardless of the number of the scripts;
- e. Improve training for the administrative duties for markers, moderators, and examination assistants to avoid administrative omissions and ensure that the documents are completed correctly; and
- f. Improve training to ensure that all moderators and markers maintain high marking and moderation standards.

6.7 CONCLUSION

The marking and moderation of scripts for the August 2024 NATED Report 190/191 Engineering studies N2–N3 examination was consistent and accurate. There are still administrative compliance matters, that impact the integrity of the marking process, to be addressed. Internal moderation is found to be a challenge and requires improvement. Question papers were generally rated as fair. The cognitive balance in the question papers improved although candidates' performance was rated as average with few distinctions. Comments from the external moderators included reference to poor examination preparation by students, and candidates not being exposed to practical or experiential learning opportunities or prospective workplace experiences. Overall, the quality of the marking process improved.



UMALUSI

Chapter 7

**STANDARDISATION AND
VERIFICATION OF RESULTS**

7.1 INTRODUCTION

Standardisation is a process informed by the evidence presented in the form of qualitative and quantitative reports. The primary aim of standardisation is to achieve an optimum degree of uniformity, in each context, by considering possible sources of variability other than the student's ability and knowledge. In general, variability may occur because of the standard of question papers, quality of marking and many other related factors. It is for this reason that examination results are standardised to control their variability from one examination sitting to the next.

In broad terms, standardisation involves the verification of subject structures, mark capturing, and the computer system used by an assessment body. It also involves developing and verifying norms and producing and verifying standardisation booklets in preparation for the standardisation meetings. Standardisation decisions are informed by Umalusi principles of standardisation, qualitative inputs compiled by internal and external moderators, examination monitors and intervention reports presented by assessment bodies. The process is concluded with the approval of mark adjustments, per subject, statistical moderation, and the resulting process.

7.2 SCOPE AND APPROACH

In preparation for the August 2024 NATED Report 190/191 N2 – N3 Engineering studies standardisation and resulting processes, Umalusi had to develop the historical averages (norms), verify the standardisation datasets and the e-booklet. During the pre-standardisation meeting, the Assessment Standards Committee (ASC) considers quantitative data and qualitative inputs, to reach standardisation decisions per subject. After the standardisation meeting, the Department of Higher Education Training (DHET) must submit the final adjustments and candidates' files with results for verification and eventual approval.

7.3 SUMMARY OF FINDINGS

The following section presents the most important results and decisions reached prior to, during, and post the standardisation meetings.

7.3.1 Development of Historical Averages (Norms)

The norms for the NATED Report 190/191 Engineering Studies N2 - N3 examinations were developed from the previous six examination sittings for the August 2024 standardisation process. Once that was done, in accordance with policy requirements, the DHET submitted the norms to Umalusi, for verification, and approval purposes. Analysis of the historical datasets showed that there were five subjects with outlier years for the August 2024 NATED Report 190/191 Engineering Studies N2 - N3 examinations. Therefore, based on the principle of exclusion, the outlier years came to be excluded from the norm calculation. The following Table 7A shows subjects with outliers from the August 2024 examinations:

Table 7A: Subject with outlier years for the August 2024 NATED N2 – N3 examinations

Level	Code	Subjects	Outlier year
NQF 2	8080262	Logic systems	202211
	11040572	Motor bodywork theory	202404 202208
	11040862	Radio theory	202404
NQF 3	11040873	Radio Theory	202211
	11041583	Refrigeration Trade Theory	202208

7.3.2 Electronic Datasets and Standardisation Booklets

The standardisation datasets and electronic booklets for the NATED Report 190/191 Engineering Studies N2 – N3 examinations submitted by the DHET adhered to the requirements as articulated in the Requirements and Specification for Standardisation, Statistical Moderation and Resulting Guideline document. The standardisation datasets and the electronic booklet were verified and approved upon the first submission.

7.3.3 Pre-Standardisation and Standardisation

The pre-standardisation and standardisation meetings for the NATED Report 190/191 Engineering Studies N2 – N3 examinations were held on 03 September 2024. Many factors, including qualitative and quantitative data, guided the ASC decision-making process. The qualitative input included issues emanating from the moderation of question papers, marking guideline discussions, and the marking process focusing on issues that might unfairly advantage or disadvantage candidates. Quantitative inputs included guiding norms, and pairs analysis. All evidence was considered based on the standardisation principles. The August 2024 NATED Report 190/191 Engineering Studies N2 – N3 examinations standardisation decisions are listed in Table 5B below:

Table 7B: List of standardisation decisions for the August 2024 NATED N2 – N3 examinations

Description	Total
Number of subjects presented	55
Raw marks	32
Adjusted (mainly upwards)	20
Adjusted (downwards)	3
Unstandardised	0
Number of subjects standardised:	55

Once Umalusi was satisfied with the reliability of the information presented, the fifty-five subjects were standardised. Umalusi accepted the raw marks for thirty-two of the fifty-five subjects, while three subjects were adjusted mainly downwards, and twenty subjects were adjusted mainly upwards.

7.3.4 Post-Standardisation

The approval of the adjustments process was conducted after the standardisation meeting. The DHET captured the approved adjustments and submitted the adjusted datasets to Umalusi for approval. Subsequently, the datasets were verified and approved. The DHET then submitted the statistical moderation and resulting datasets to Umalusi for verification. Umalusi duly approved the datasets.

7.4 AREAS OF IMPROVEMENT

The following improvements were observed:

- a) The DHET submitted the standardisation datasets within the agreed timeframes; and
- b) The standardisation datasets were error free.

7.5 AREAS OF NON-COMPLIANCE

There were no areas of non-compliance identified.

7.6 DIRECTIVES FOR COMPLIANCE AND IMPROVEMENT

None

7.7 CONCLUSION

The standardisation decisions taken were based on sound educational reasoning. Therefore, Umalusi can conclude that the standardisation process was conducted in a fair, transparent and reliable manner.



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