هيئة جودة التعليم والتدريب

**Education & Training Quality Authority**

Kingdom of Bahrain - مملكة البحرين

# Directorate of Vocational Reviews
## Review Report

# National Institute of Technology
# Manama
# Kingdom of Bahrain

# Date Reviewed: 4-7 November 2019
VO021-C4-R016

# Introduction

The Directorate of Vocational Reviews (DVR) of the Education & Training Quality Authority (BQA), conducted this review over four days by a team of four reviewers. For this review, reviewers observed training sessions and other related activities, analysed data about the courses and qualifications learners achieve, examined learners' written and other work, examined documents and materials provided by the National Institute of Technology and collected feedback from learners, employers, trainers, management and support staff.

This Report summarises the review team's findings and their recommendations about what the provider should do to improve.

| Summary of review judgements | | |
|---|---|:---:|
| **Aspect** | | **Judgement** |
| Outcomes | Learners' achievement | 3 |
| Programmes and processes | Effectiveness of teaching/training and assessment | 3 |
| | Quality of courses/programmes | 3 |
| | Learners' support and guidance | 3 |
| Management and governance | Effectiveness of leadership, management and governance | 3 |
| **Capacity to improve** | | 3 |
| **Overall effectiveness** | | 3 |

## Provider's overall effectiveness throughout the last three reviews
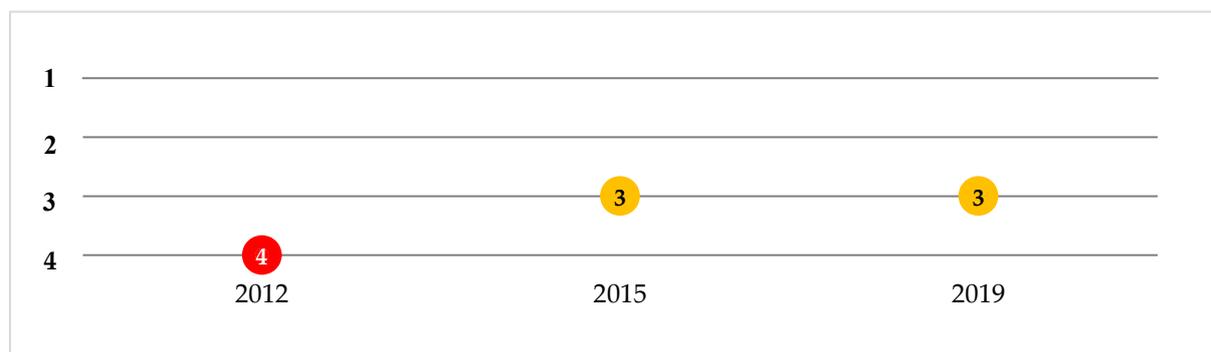


| Outstanding | 1 | Good | 2 | Satisfactory | 3 | Inadequate | 4 |
|---|---|---|---|---|---|---|---|

# Overall effectiveness 'Satisfactory'

## Judgement justifications

- The performance of the National Institute of Technology (NIT) was judged 'Satisfactory' in all the review aspects.

- The Institute has clear vision and mission statements, which focus on improving learners' achievement and meeting local market needs in the area of Information Technology (IT). NIT has developed a suitable Strategic Plan (SP) for the period 2017-2020, which is translated to operational plans with relevant indicators. However, actions to address areas for further improvement are not always acted upon in a timely manner.

- The Institute's arrangements to monitor learners' achievement is sufficient, reliable records about learners' performance are maintained. However, moderation and verification practices of assessments are not effective in ensuring the rigor of the assessment tools implemented.

- The Institute offers a range of externally-accredited courses in IT these include Oracle, Microsoft, Information Technology Infrastructure Library (ITIL) and Blockchain. However, a formal approach to interpret the needs and requirements of the local labour market is not developed.

- Since the last review, the Institute has enrolled learners in Oracle and Microsoft courses only. Most of learners develop fit for purpose knowledge and skills that are utilised at their workplace. Approximately half of the enrolled learners sit the awarding body's online examination and achieve the externally accredited qualification they aim for in a timely manner. Those who choose not to sit the examination are awarded local achievement certificates. These are achieving the course objectives appropriately.

- Considering the prior attainment of learners at entry level and their background in IT, learners' progress adequately throughout their courses; however, a few learners show minimal progress.

- In the majority of cases, trainers utilise appropriate teaching methods and activities that engage and motive the majority of learners. Trainers utilise mostly computer laboratories with software resources and projectors to deliver their sessions.

- A suitable range of formative and summative assessment tools are used to evaluate learners' level of attainment and understanding. Summative assessments are corrected accurately as per the key-answers. Nevertheless, in the summative practical assessments, the pre-defined rubric used is generic and is not tailored to the specific assignment requirements in order to better assess learners progress.

- Formative assessments such as 'experience laboratories' are conducted and corrected with the supervision of the trainer and grades are awarded

accordingly. Recently, the Institute has developed and implemented a detailed rubric to better mark activities and experience laboratories.

- Learners at NIT are provided with adequate support and guidance to help them achieve their learning objectives. The administrative staff are supportive, and trainers are approachable. Learners are provided with extra sessions and mock examination preparations to better prepare them for their summative assessments.

- Although the Institute has a general support and guidance policy, there is no procedure in place to identify learners at risk of failure and those with Special Educational Needs and/or Disabilities (SEND).

# Capacity to improve 'Satisfactory'

## Judgement justifications

- Since the last BQA review conducted in 2015, the Institute's overall effectiveness has remained at 'Satisfactory' level. In addition, although there are actions taken towards addressing a significant number of recommendations, these are not sufficiently effective in ensuring the consistency of the learning experiences provided to learners.

- The Self-Evaluation Form (SEF) submitted for the purpose of this review includes sufficient information. However, grades stated overestimate the Institute's performance by one point in most of the review aspects.

- A useful range of recently developed policies and procedures has been introduced as a part of the internal quality assurance system; however, their deployment are not monitored adequately by the management team.

- Considering the size of the Institute's operations and number of enrolments, the Institute has sufficient human and physical resources to execute its main functions.

- Trainers' performance is regularly monitored, and records are maintained. The form used for the purpose of evaluating the effectiveness of training sessions has been improved lately to cover a wider range of criteria relevant to teaching and learning.

- Although the Institute does not have a detailed formal approach to evaluate the labour market needs and requirements, new training courses were added to the offerings such as ITIL and Blockchain.

# The provider's key strengths

- Most of the learners who choose to sit the awarding body's online examination achieve the qualification they aim for in a timely manner.
- The range of the externally- accredited IT courses with clearly defined progression routes and learning pathways.

# Recommendations

**In order to improve, the National Institute of Technology should:**

- improve the level of learners' achievement of course objectives and further improve their progress rate

- enhance the training strategies used to effectively engage and motivate learners, and accommodate their varying needs

- formalise the approach used to explore labour market needs and requirements to better inform the Institute's offerings

- improve the effectiveness of the internal quality assurance system by:

    - ensuring the effectiveness of the arrangements related to assessment verification and moderation

    - ensuring the systematic implementation of the internal quality assurance procedures across all the Institute's functions and monitoring the execution of the action plans developed to addresses all identified areas for improvement.

# Learners' achievement 'Satisfactory'

## Judgement justifications

- Most learners at NIT acquire and develop fit for purpose knowledge and skills that are relevant to the field of IT. Learners indicated their satisfaction with the acquired skills, which are utilised at the workplace. However, upon course completion, a minority of learners are not able to competently complete the assigned tasks or master the required skills.

- Learners' performance, knowledge acquisition and skills development are measured using a suitable range of formative and summative assessments. In addition, relevant pre- and post-course assessments are conducted to evaluate learners' prior attainment at entry levels, and the progress they make towards the end of a course. Nonetheless, the practices used for moderation and verification of internal assessments used are superficial and do not ensure the rigor of the assessment tools used.

- From the observed sessions, analysis of pre- and post-course assessments, scrutiny of learners' assessed work and considering the starting point of learners on entry and the level of intake, learners' progress adequately throughout the course with a few learners showing minimal progress.

- The Institute's retention rate for the last four years is 100%. Moreover, learners Performance Data (LPD) submitted for the purpose of this review shows that 63% of the learners are enrolled in the Microsoft courses and 37% in the Oracle courses; 51% of the total enrolment sit the awarding body's online examinations and most of them achieve the qualification they aim for in a timely manner. The remaining 49% of the total enrolment are awarded with local achievement certificate, despite the level of their achievement.

- From the observed sessions and scrutiny of learners' assessed work, most learners are able to work independently during the practical exercises and a few of them are able to reflect critically on what they have learned.

- Generally, learners are attentive, committed and show positive attitude towards their learning experience. Attendance records show that most learners attend regularly; however, punctuality is an issue in a few cases.

## Areas for improvement
- Learners' mastering of the intended IT skills.
- The added value for learners to be further improved.
- Moderation and verification of internal assessment tools used in the courses.

# Effectiveness of teaching/training and assessment 'Satisfactory'

## Judgement justifications

- In the majority of cases, trainers use appropriate teaching methods such as instructions, problem solving and demonstration that engage and motive the majority of learners. Nevertheless, in the better sessions, where teaching is learner-centred, learners are more engaged in the learning process. Trainers utilise mostly computers with software resources and projectors to deliver their sessions.

- NIT trainers use a range of formative and summative assessment tools that are suitably linked to the course objectives. In both Oracle and Microsoft training sessions, trainers use a number of suitable assessment methods such as 'experience laboratories', virtual machines and different activities to evaluate learners' attainment level of the required skills, as per the module objectives and level.

- Pre-, mid-, and post-course assessments and quizzes are completed by most learners and are marked by trainers. Nevertheless, scheduling of mid-course assessments is not always timely with cases of the assessment being conducted towards the end of the course, and as a result the feedback provided by the trainer loses its main objective.

- Summative assessments are corrected accurately as per the key-answers. These are also moderated; however, moderation is not effective in identifying issues within the assessment as the forms used are not always suitable for the type of assessment tools used.

- Although, there is a pre-defined rubric that is used for grading the practical assessments, the rubric used is too general and is not tailored to the tasks given and, hence, does not properly measure learners' progress. A revised rubric has been developed recently, with more details to better assess leaners progress in the practical component of the course.

- Lessons are planned appropriately in a progressive way to cover the course objectives. The plan specifies timing, assessments, and resources to be used. Trainers share the lesson objectives and time is managed appropriately. In a number of cases, lesson plans include learner's specific needs that were highlighted during the pre-training screening, such as adding work related examples or more activities. However, they are not updated in response to the outcomes of the assessments conducted throughout the course.

- Trainers suitably address learners varying needs during sessions by simplifying concepts, conducting extra-activities and answering learnings inquires. In a few cases, more competent learners are requested to engage in self-learning and work on more activities.

- During the observed sessions, learners were working on a number of activities that require different levels of critical thinking and problem-solving

techniques. However, these activities were not effectively utilised to inform learners about their strengths and areas of improvement. Furthermore, although trainers provided learners with work related scenarios and assisted them with issues related to their work projects, they did not always encourage learners to take responsibility for their own learning.

- NIT trainers monitor and record learners' attendance and punctuality throughout the course. Learners' performance records are maintained, regularly updated and shared with learners.
- Usually, trainers provide timely and constructive verbal feedback. In cases, adequate written feedback is provided to amend learners' mistakes.

**Areas for improvement**
- Teaching strategies to better engage learners and meet their individual needs.
- The timing of the mid-course assessment.
- Learners' responsibility towards their own learning.

# Quality of courses/programmes 'Satisfactory'

## Judgement justifications

- The Institute offers a range of externally-accredited courses that lead to professional qualifications. These include courses in Oracle, Microsoft, Information Technology Infrastructure Library (ITIL) and Blockchain. Nevertheless, the selection of these courses is based on the trainers and management professional network and experiences in the field of IT and not on a formal mechanism that is implemented systematically to gage the local labour market needs and requirements.

- NIT ensures that courses on offer are current and updated according to the international partners' requirements and standards. Moreover, a brief course design policy has been implemented recently; however, this is not yet utilised as the Institute does not offer any local courses.

- Courses are suitably resourced with the required software and other aids such as computers, and PowerPoint presentations. The Institute also ensures that courses are supported with up-to-date and authentic training materials and books.

- Course outlines are sufficiently detailed and indicate the course objectives, topics to be covered, and pre-requests. However, the courses do not have pre-defined set of intended learning outcomes. In the vast majority of times, the Institute delivers the course as per the hours allocated by the external awarding body. Nevertheless, there are a few cases where extra hours were provided to learners to improve their achievement and better prepare them for the awarding body's online examination.

- Courses on offer are designed to support practical and theoretical learning; course modules and components are planned in a sequence that facilitates a progressive acquisition of knowledge, skills and competences, and course activities and assessments are mapped to the course objectives.

- The Institute administers appropriate arrangements to ensure learners enrolled in the right course/module. These requirements are mainly driven from the funding body. Pre-training screening policy has been developed recently and is yet to be implemented.

**Areas for improvement**
- The formalisation of the approach used to evaluate market needs and requirements and select the courses to be offered.

# Learners' support and guidance 'Satisfactory'

## Judgement justifications

- Although the Institute has a general support and guidance policy, the procedures to access the available support opportunities or to identify learners at risk are not defined well.
- Trainers are approachable and provide learners with extra sessions and mock examinations in preparation for the awarding body's online examination. Learners utilise a useful simulator program that makes use of a question bank and generates random questions that enable learners to practice their course specific examination.
- Cases of support provided to learners are recorded using the 'Support Form'. However, this form is not utilised consistently. For example, there are cases where the logged description of the support provided is general and the effectiveness section is not always completed.
- Learners are provided with opportunities to enhance their personal abilities through the in-class activities and they are made aware of opportunities for progression through their trainers and the awarding body's progression roadmaps. However,

courses are not enriched with a range of extra- curricular activities.
- Learners and stakeholders have access to useful information and guidance about courses on offer upon registration. Course outlines, objectives and leaflets are shared with learners and they are provided with an appropriate induction on the first day of the course. NIT's website is updated and informative.
- NIT has flexible arrangements for the delivery of courses to suit the needs of learners and employers. These include flexibility in scheduling and venue selection. The Institute shares with learners reports about their performance on a regular basis. However, the provided reports are not always critical, and do not provide detailed information about learners' performance and achievement.
- Although NIT keeps a general policy with regard to support learners with special needs, this policy is not translated to a formal mechanism to identify and actually support learners with Special Educational Needs and/or Disabilities (SEND).

**Areas for improvement**
- The formalisation of a mechanism to identify learners in need of support and guidance; including learners of Special Educational Needs and/or Disabilities (SEND).
- Extra-curricular activities to enrich the learning experience.

# Effectiveness of leadership, management and governance 'Satisfactory'

## Judgement justifications

- NIT has clear vision and mission statements that guide its strategic direction with a focus on improving learners' achievements and meeting local market needs for IT education solutions.
- A 3-year SP was developed in 2017 based on input from a useful SWOT analysis and a number of internal self-evaluation reviews, taking into consideration the outcomes of the last BQA review. The management, although it periodically monitors the progress of the SP through the implementation of suitable operation plans with relevant indicators, actions to address areas for further improvement are not always acted upon in a timely manner.
- The Institute maintains reliable records on learners' performance, these include organised course files, attendance and achievement data for each conducted course that are monitored by the quality team for various courses and groups. Suitable periodic reports are produced at the end of each course and although discussed during management meetings, follow-ups on the outcomes of these analysis are limited.
- Trainers' performance is monitored through useful lesson observation visits, using a fit for purpose form that has been revised lately to cover lesson planning, teaching and learning practices, learners' proficiencies and

differentiation, though, follow-up actions on areas that are identified for further improvement are not fully explicit. Only recently a workshop was provided to trainers on how to improve effectiveness of training and learning.

- Considering the nature of NIT's business and the current enrolment, the Institute has sufficient qualified staff and physical resources that suit its operation needs and meet its aims. Job roles and responsibilities are in place for each function; however, due to the size of the organisation some staff are over stretched by multiple responsibilities.
- Trainers with suitable vocational experience and knowledge are recruited and deployed according to their specialisations. Staff, once recruited, are provided with a formal and detailed induction program that comprises of the Institute's offerings and their roles and responsibilities.
- A useful range of recently developed policies and procedures are in place as part of the Institute's quality assurance system, aimed at ensuring consistency of the quality of its provision; however, their deployment is not monitored adequately by the management team.
- The internal assessment arrangements although reasonably reliable and valid, they do not cascade consistently across the courses. These practices are recent; thus, their impact cannot be measured yet. Currently, an external consultant

body carries out post-course moderation of assessments. Nevertheless, these are not done across the provision and do not cover all aspects of the course and its delivery.

- The Institute's learning environment is fit for purpose, safe and free from hazards. There are clear health and safety policies, which are effectively communicated to learners and staff. The learning environment is pleasant with suitable facilities. Risk assessment is carried out periodically and records

are maintained. However, the Institute does not have a certified First Aider.
- NIT maintains effective links with international awarding bodies and governmental agencies. On regular basis, the Institute collects, aggregates and analyses learners' feedback, but there is no clear evidence that improvement actions are triggered by these views.

**Areas for improvement**
- Actions to address identified areas for improvement.
- The consistent implementation of the quality assurance procedures across the provision.

# Appendix (1): Provider information

| | |
|---|---|
| **Name of the provider (English)** | **National Institute of Technology** |
| **Name of the provider (Arabic)** | المعهد الوطني للتكنولوجيا |
| **Licensing body** | Ministry of Labour and Social Development |
| **Year of establishment** | 1997 |
| **Age range of learners** | +18 |

| **Number of learners (January 2016-March 2019)** | **Male** | 172 | **Female** | 114 | **Total** | 286 |
|---|---|---|---|---|---|---|

| **Learning areas** | **Externally accredited** | Information Technology (IT)<br><br>- Microsoft<br>- Oracle<br>- Information Technology Infrastructure Library (ITIL).<br>- Block chain |
|---|---|---|
| | **Local achievement** | None |
| | **Local attendance** | None |
| **Institution's listing status** | **Not yet listed on the National Qualification Framework (NQF)** | |