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ENGINEERS BOARD OF KENYA
Enhancing Professionalism

EAC KENYA | Engineering Accreditation Committee, Kenya

GUIDELINES FOR EVALUATORS

EAC/POL/01

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FOREWORD

The Engineering Accreditation Committee (EAC) plays a pivotal role in ensuring that engineering programs meet the highest standards of quality and relevance. The success of this mission is largely dependent on the integrity, objectivity, and expertise of the evaluators who assess the programmes seeking accreditation. As such, it is critical that all Evaluation Panel members possess a clear understanding of their roles, responsibilities, and ethical obligations throughout the accreditation process.

This document, *Guidelines for Evaluators*, serves as a comprehensive guide for all individuals appointed to Evaluation Panels. It aims to provide clarity on the expectations, procedures, and best practices that should be followed during the accreditation exercise. These guidelines are designed to support the evaluators in carrying out their tasks effectively, ensuring that the decisions made are both fair and consistent with the Engineering Accreditation Standard 2024.

It is essential that evaluators remain impartial, uphold the highest ethical standards, and respect the confidentiality of the information provided during the evaluation. This document highlights the importance of these principles, as well as the need for a thorough and systematic approach to the evaluation process.

By adhering to the guidelines outlined hereby, evaluators will contribute significantly to maintaining the quality and excellence of engineering education. Their efforts are fundamental to the continuous improvement and credibility of accredited engineering programmes.

We trust that this guide will assist evaluators in fulfilling their important role with professionalism and integrity, ensuring that the accreditation process remains a reliable benchmark for the quality of engineering education.

Eng. Erastus K. Mwongera, CE, FIEK, CBS
Chairman,
Engineers Board of Kenya

PREFACE

The accreditation of engineering programs is a critical process that ensures academic standards are met, fostering the development of competent engineers who can contribute to the advancement of society. The Engineering Accreditation Committee (EAC) is entrusted with the responsibility of overseeing this process, and its success relies heavily on the expertise, professionalism, and impartiality of the Evaluation Panel members.

The accreditation process involves rigorous assessments of engineering programmes, and evaluators play a vital role in ensuring that only programs that meet the highest standards are accredited. This document is intended to be a practical reference, offering clarity on the various stages of the evaluation process, from the initial review of program documentation to the final recommendations made to the EAC.

By following these guidelines, evaluators will contribute to maintaining the credibility and integrity of the accreditation system, helping to ensure that engineering graduates are equipped with the knowledge, skills, and competencies necessary to meet the demands of the global engineering profession.

We hope that this guide will assist all Evaluation Panel members in carrying out their responsibilities effectively and with confidence, while upholding the standards and values that underpin the engineering accreditation process.

Eng. Margaret N. Ogai, CE
Registrar/Chief Executive Officer
Engineers Board of Kenya

ABBREVIATIONS AND ACRONYMS

EAC - Engineering Accreditation Committee "Committee"

EBK - Engineers Board of Kenya

CQI - Continual Quality Improvement

HOP - Head of Evaluation Panel

IAP - Industry Advisory Panel

IHL - Institutions of Higher Learning (includes public or private universities)

OBE - Outcome Based Education

PEO - Programme Educational Objectives

PO - Programme Objective

QMS - Quality Management System

DEFINITIONS

Evaluation Panel - A panel of evaluators appointed by EAC to evaluate an engineering programme for compliance with accreditation criteria.

Evaluator - A person appointed by EAC

- to evaluate application(s) for approval to conduct a new engineering degree programme or
- to evaluate a programme(s) for accreditation or
- to evaluate a continuing/interim accreditation.

1.0 INTRODUCTION

This Document serves as a guide to all Evaluation Panel members who are appointed by the Engineering Accreditation Committee (EAC), on their responsibilities and conduct during the accreditation exercise. It must be adhered to strictly in order to ensure consistency between one Evaluation Panel and another in terms of evaluation and final recommendation.

2.0 PREPARATION FOR ACCREDITATION VISIT

The Evaluation Panel needs to be aware of the EAC policies on accreditation as detailed in the Engineering Accreditation Standards 2024. The Evaluation Panel members shall read the programme documentation carefully, with a view to ensuring that it provides the necessary information sought by the EAC in the prescribed format.

The Evaluation Panel will carry out an evaluation based on all the accreditation criteria set forth in Section 3.2 of the Engineering Accreditation Standards 2024. The assessment includes the auditing and confirmation of documents submitted by the IHL. If the documents submitted are not complete, the Evaluation Panel shall request for the additional information through the EAC.

The purpose of these Guidelines for Programme Evaluators is to ensure that every criterion for accrediting an engineering degree programme and its delivery are assessed and reported. However, it is worthy to note that the aim of accreditation is to determine whether or not a degree programme meets the basic Outcome-Based Education (OBE) requirements as specified by EAC.

The Evaluation Team Leader and Team Members, either together or separately, should prepare a list of questions for each section of the criteria so as to ensure that all aspects are

properly addressed. If the institution/programme does not provide sufficient information, EAC should be notified and asked to request for additional information from the institution/programme. When the information is received, it should be forwarded to the Programme Evaluation Team.

It is highly desirable for the Evaluation Panel to meet face to face and/or communicate by phone and/or on-line (pre-accreditation visit meeting) regarding issues associated with the evaluation before the final Day (1) meeting. Issues related to curriculum should have been cleared before the Day (1) meeting.

3.0 ACTIVITIES DURING ACCREDITATION VISIT

The success and credibility of an accreditation visit depend mostly on: -

i) The professionalism and prior preparation of the Evaluation Panel and
ii) The rigour and objectivity of on-site enquiries and the report;
iii) The quality of feedback provided to the IHL by the Evaluation Panel; and
iv) Timeliness of report to the EAC.

The visit schedule should allow time for group discussion among all Evaluation Panel members for preliminary feedback and discussion of issues with the Dean and/or Head/Chair of Department alongside staff of the faculty/School/Department/Programme.

Typical Schedule Accreditation

A day before the accreditation visit, the Head of Evaluation panel (HOP) and Evaluation Panel members should hold a further meeting to finalise their findings and other issues related to the institutional programme to be evaluated. It is also important to review the questions and concerns that they have raised.

At this meeting, the HOP and Evaluation Panel members should discuss the EAC evaluation criteria and how they apply to the programme being evaluated. The discussion should include, but not limited to the following:

i) Solving of complex engineering problems is demonstrated.
ii) Programme objectives and outcomes
iii) The development, review and attainment of programme outcomes are shared with the relevant stakeholders
iv) The outcome specification drives a top-down educational design process
v) The academic curricular reflects a professional engineering programme, and whether it satisfies the criteria completely
vi) The learning outcomes and assessment measures within courses systematically track delivery of the targeted graduate outcomes
vii) The mathematics and natural sciences, courses are at appropriate levels
viii) The content of each course is appropriate
ix) The level of course materials is appropriate
x) The courses are built on previous course work
xi) The teaching-learning process includes appropriate assessment
xii) The industrial training and project work are at a sufficient level
xiii) Students' standing in terms of their admission standards, academic performance, and industrial internship
xiv) The academic and support staff in terms of their credentials and qualifications, range of competencies, advanced degrees, industrial experience, teaching loads, and their involvement and accountability as an Evaluation Panel member for educational design,

review and improvement, etc.

xv) The facilities are appropriate for the programme and operational; whether there is sufficient laboratory space for the programme, and whether safety is a theme conveyed in the laboratories, etc.

xvi) The quality management system is adequate for the programme

xvii) The external assessment is appropriate, consistent and fair

xviii) Networking with the relevant industries is available and sufficient

xix) The quality loop is properly closed at both programme and individual course levels

These matters should be discussed by the Evaluation Panel to ensure that they are all in agreement with the issues to be investigated during the accreditation visit and that they are used as a basis for finalising proposed questions or themes for questioning during the various visit sessions. A proposed schedule for the evaluation visit is provided below. It should be noted that the objective is to be efficient with the time available, and to ensure that all of the questions and issues are addressed.

Accreditation Visit: Day 1

8.30am – 9.00am	Courtesy call on Vice Chancellor accompanied by Dean
9.00am – 10.00am	Opening meeting with the Vice Chancellor, Deputy Vice Chancellors, Dean and/or Head/Chair of Department
10.00am -10.30am	Tea Break
10.30am – 1.00pm	Discipline Specific Faculty Meeting with Dean and/or

	Head/Chair of Department alongside staff of the faculty/School/Department/Programme
1.00pm – 2.00pm	Lunch
2.00pm -3.00pm	Visits to common facilities used by the faculty e.g. Library, Workshops, Laboratories, Design studios, General Environment, etc.
3.00pm – 4.00pm	Meeting with Students
4.00pm - 4.30pm	Tea Break and Departure

Accreditation Visit: Day 2

8.30am – 9.00am	Arrival
9.00am – 10.00am	Meeting with external stakeholders (employers, alumni, industry advisors/programme advisors)
10.00am -10.30am	Tea Break
10.30am – 1.00pm	Evaluation Panel review of examinations, course materials and student work. (Any other clarification, additional documentation can be provided during this time) Review of quality assurance system and outcome-based

	assessment processes
1.00pm – 2.00pm	Lunch
2.00pm -4.00pm	Evaluation Panel Meeting (Private Session) Preparation of draft reports
4.00pm – 5.00pm	Closing Meeting with the Vice Chancellor, Deputy Vice Chancellors, Dean and/or Head/Chair of Department alongside staff of the faculty/School/Department/Programme
5.00pm - 5.30pm	Tea Break and Departure

Throughout the discussions with the administrators, academic staff, students, and support staff, the Evaluation Panel should confirm that an outcome-based approach to education is progressively being implemented by the IHL. Meetings with alumni, employers, and other stakeholders are important, as this would give an indication of their involvement in ensuring that programme is keeping abreast with stakeholders' requirement.

4.0 EVALUATION PANEL REPORT

It is expected that all IHLs will strive to achieve and maintain the highest standards. Thus, the quality control aspect has to be audited by the Evaluation Panel.

The Evaluation Panel is to evaluate the submitted documents and check on the relevant sections of Appendix B (Checklist of Documents for Accreditation and Relevant Information) of the Engineering Accreditation Standard.

The Evaluation Panel is to prepare a report as per Appendix C (Evaluation Panel Report) of the Engineering Accreditation Standard. Appropriate comments and remarks shall be made based on the assessment, which includes checking and confirmation of the documents submitted by the IHL.

The Evaluation panel report shall:

i) State whether the programme meets EAC requirements.
ii) Where appropriate, provide constructive feedback in the report, which may include strengths, concerns and even weaknesses. Suggestion for opportunities for improvement should be given in the report.
iii) In the event of adverse comments, provide a judgement as to the seriousness, any remedial action proposed or required, the time frame for the remedial action, and whether accreditation should be recommended, deferred or declined.
iv) Make clear and unequivocal recommendations to EAC.
v) The Evaluation Panel report should be forwarded to EAC no later than 4 weeks after the visit.

For full accreditation, there should not be any weakness for any criterion (Section 3.2 of the Engineering Accreditation Standard) Before proceeding with the thorough evaluation of the criteria, the Evaluation Panel must ensure that the following qualifying requirements have been met by the programme:

i) Outcome-based Education (OBE) implementation.

ii) A minimum of 3400Aus of which 840 Aus are required for Mathematics and Basic Sciences, 2100Aus are attributed to Engineering Sciences and Design (including final year project and industrial attachments) and at least 450AUs Complimentary Studies. The

programme covers 5 academic years. Industrial training must cover minimum of eight (8) weeks

iii) Integrated Design Project.

iv) Final year project.

v) Industrial training

vi) Full-time academic staff (minimum of eight (8) with at least three (3) Professional Engineers registered with the EBK.

vii) Teaching Staff: student ratio of 1:25 or better.

viii) External examiner/advisor report. (one in every one academic year)

If any of the requirements above are not complied with, the application for accreditation shall be rejected.

5.0 ASSESSMENT AND EVALUATION

The following guide shall be used by the Evaluation Panel to assess Criteria 1 – 6:

Criterion 1 – Programme Design	
Engineering Accreditation Standard Reference	**Guide for Evaluation**
Section 3.2.1.1 Programme Educational Objectives	An engineering programme seeking accreditation shall have published Programme Educational Objectives (PEOs) that are consistent with the mission and vision of the IHL, and are responsive to the expressed interest of various groups of programme stakeholders. The PEOs with appropriate performance indicators must be considered in the design and review of curriculum in a top-down approach. The following are examples of performance indicators expected for Programme Educational Objectives: • Defined, measurable and achievable • Linked to Programme Outcomes • Have own niche • Published and publicized • Consistent and linked to mission & vision of IHLs and stakeholder needs • Linked to curriculum design • Reviewed and updated • Established process for assessing and evaluating achievement of PEOs • Evaluation results are used in CQI of the programme • Stakeholder involvement The process of establishing the educational objectives should be evaluated by the Evaluation Panel by examining the evidence provided by the programme. The following Standards are recommended for evaluation: Performance Level Indicative Guide • **Unsatisfactory:** Fails to address the performance indicators • **Satisfactory:** Addresses most of the performance indicators

Section 3.2.1.2 Programme Outcomes	An engineering programme seeking accreditation must have published Programme Outcomes that have been given in Section 3.2 of the Standard, and/or any added outcomes by the programme that can contribute to the achievement of its stated Programme Objectives. The Programme Outcomes must be shown to be linked to the Programme Objectives. The following performance indicators are expected for Programme Outcomes: i) Covers Section 3.2 of the Engineering Accreditation Standard ii) Linked to Programme Objectives iii) Defined, measurable and achievable iv) Detailed out and documented v) Published vi) Consistent and tied to Programme Objectives vii) Outcomes in line with national needs viii) Reviewed and updated Evaluation shall be based on the following: Performance Level Indicative Guide • **Unsatisfactory:** Fails to address the performance indicators • **Satisfactory:** Addresses most of the performance indicators
Processes and Results	The programme shall also establish a process of measuring, assessing and evaluating the degree of achievement of Programme Outcomes. The results of this assessment process shall be applied for continual improvement of the programme. The following performance indicators are expected for Processes and Results: i) Processes for all elements of criteria are quantitatively/qualitatively understood and controlled ii) Processes are clearly linked to mission, Programme Objectives, and stakeholder needs iii) Systematic evaluation and process improvement in place iv) CQI involved support areas v) Processes are deployed throughout the programme, faculty, and

	IHLs vi) Sound and highly integrated system vii) Common sources of problems understood and eliminated viii) Sustained results ix) Results clearly caused by systematic approach Evaluation shall be based on the following: Performance Level Indicative Guide • **Unsatisfactory:** Fails to address the performance indicators • **Satisfactory:** Addresses most of the performance indicators
Stakeholder Involvement	The IHL shall produce evidence of stakeholder involvement in the programme. The following performance indicators are expected for relevant Stakeholders Involvement: i) In defining Programme Outcomes statements ii) In assessing the achievement of Programme Outcomes iii) In assessing improvement cycles (CQI) iv) Involved in strategic partnership The involvement of stakeholders should be of prime importance for the programme. The Evaluation Panel shall examine the relationship established between the programme and the intended stakeholders. Evaluation shall be based on the following: Performance Level Indicative Guide • **Unsatisfactory:** Fails to address the performance indicators • **Satisfactory:** Addresses most of the performance indicators

Criterion 2: Programme Curriculum Content	
Aspects	**Guide for Evaluation**
Unless stated otherwise, the evaluation should follow this scale: • **Unsatisfactory:** Not at all • **Satisfactory:** Yes	
Programme Structure and Course Contents and Balanced Curriculum	The academic curriculum and curricular design shall strongly reflect the philosophy and approach adopted in the programme structure. The programme structure shall be appropriate to, consistent with, and shall support the attainment or achievement of the Programme Outcomes. Emphasis on the curriculum shall be placed on the understanding and acquisition of basic principles and skills of a discipline, rather than memorisation of facts and details. The curriculum shall also provide students with ample opportunities for analytical, critical, constructive, and creative thinking, and evidence-based decision making. The curriculum shall include sufficient elements for training students in rational thinking and research methods and other Programme Outcomes listed by the programme. Co-curriculum activities must be designed to enrich student experiences, foster personal development and prepare them for responsible leadership. For each course, the title shall be suitable, and the pre-requisites shall be mentioned and appropriate in terms of content. The course content and core materials etc. shall cover each component specified in Appendix B of the Engineering Accreditation Standards to an appropriate breadth and depth, and shall be adequate and relevant to the Programme Outcomes. The curriculum shall encompass the complex problem solving, complex engineering activities and knowledge profile as

	summarised in the same appendix. Adequate time shall be allocated for each component of the content/course, including the elective courses. The sequence of contents shall be appropriate and updated to keep up with the scientific, technological and knowledge development in the field, and to meet the needs of society. There shall be mechanisms for regularly identifying topics of contemporary importance at local, national and global levels and topics that may not be adequately addressed in the curriculum. The curriculum content shall cover: 1. Mathematics and basic sciences; engineering sciences and engineering design; complementary studies; co-curriculum subjects and technical communication subjects; 2. technical proficiency in a major field of engineering, including the ability to tackle a wide variety of practical problems; 3. a professional attitude towards matters such as design reliability and maintenance, product quality and value, marketing and safety; 4. skills in oral and written communication; and 5. appropriate exposure to professionalism, codes of ethics, safety and environmental considerations. The curriculum shall be balanced and includes all technical and non-technical attributes listed in the Programme Outcomes. Electives are encouraged, monitored, and appraised. The proportion of electives shall not exceed the core subjects and shall preferably offer wide options. The curriculum integrates theory with practice through adequate exposure to laboratory work and professional engineering practice.
Programme Delivery and Assessment Methods	The programme delivery and assessment methods shall be appropriate to, consistent with, and shall support the attainment or achievement of the

	Programme Outcomes. Alongside traditional methods, other varieties of teaching-learning (delivery) modes, assessment and evaluation methods shall be designed, planned and incorporated within the curriculum to enable students to effectively develop the range of intellectual and practical skills, as well as positive attitudes as required in the Programme Outcomes. The assessment to evaluate the degree of the achievement of the Programme outcomes by the students shall be done both at the programme as well as at course levels. The teaching-learning methods shall enable students to take full responsibility for their own learning and prepare them for life-long learning. The Evaluation Panel is to find out from staff members and students the opportunities provided for interaction and group learning. Tutorials must be supervised, and attendance made compulsory. Sufficient contact hours must be allocated for consultation and interaction between staff members and students. Staff members can be full time academic staff members at the remote campuses, or qualified engineers from the industry. Tutorials, group learning, interaction and innovative educational experience are designed to complement lectures. Tutorial and all other delivery approaches are part and parcel of the programme so as to complement the lectures. A tutorial session should preferably not exceed 30 students at any one time. The Evaluation Panel shall ascertain if the continuous assessment components demonstrate the depth of knowledge that satisfies the condition for passing courses.
Laboratory	Laboratory reports shall be checked by the Evaluation Panel.

	The assessment of laboratory reports shall have been done through a systematic manner. There must be proper laboratory supervision by academic staff members or qualified engineers from the industry. Students shall receive sufficient laboratory work to complement engineering theory that is learnt through lectures. The laboratory should help students develop competence in executing experimental work. Students need to work in groups, not exceeding five (5) in a group. The laboratory works shall also involve open-ended exercises. Laboratory exercises shall be relevant and adequate, illustrative, and promote development of instrumentation skills. Inspection of reports needs to show that the required outcomes have been achieved.
Final Year Project	The final year project report shall be checked by the Evaluation Panel. The assessment shall have been done through a systematic manner. The appropriateness of the project topics in relation to the degree programme is to be monitored. It is proposed that at least 9 reports are to be examined by the Evaluation Panel (3 from the best group, 3 from the middle group and 3 from the poor group). The supervisors of the Projects must be academic staff members or qualified Engineers from the industry. The place where the projects are conducted should have the facilities to support the projects. The final year project is compulsory for all students and demands individual analysis and judgement, and shall be assessed independently. The student is shown to have developed techniques in literature review and information prospecting. It provides opportunities to utilise appropriate modern tools in some aspect of the work, emphasizing the need for engineers to make use of computers and multimedia technology in everyday practice.
Integrated Design Project	The assessment shall have been done through a systematic manner. The appropriateness of the project topics in relation to the degree programme is

	to be ascertained. It is proposed that at least 9 reports are to be examined by the Evaluation Panel (3 from the best group, 3 from the middle group and 3 from the poor group). The facilitator/coordinator of the Projects must be qualified academic staff with relevant experience. The projects must be supported with relevant resources and facilities. Integrated Design Projects Projects shall involve complex problem solving and complex engineering activities which include design systems, components or processes integrating (culminating) core areas; and meeting specific needs with appropriate consideration for public health and safety, cultural, societal, project management, economy, and environmental considerations where appropriate. The capstone project should involve students working in group. The programme may take the opportunity to assess many relevant programme outcomes through capstone project.
Industrial Training	Exposure to professional engineering practice in the form of an industrial training scheme is compulsory for minimum of eight (8) weeks continuously. The industrial training is shown to have exposed students and to have made them familiar with relevant engineering practices. Students should be placed in relevant organization and undergo structured training supervised by qualified person. The IHL shall put in place a system to monitor and assess the industrial training. It is proposed that at least 9 reports are to be examined by the Evaluation Panel (3 from the best group, 3 from the middle group and 3 from the poor group).
Exposure to Professional Practice	Exposure to engineering practice is integrated throughout the curriculum. It has been obtained through a combination of the following: a) Lectures/talks by guest lecturers from industry b) Academic staff with industrial experience

	c) Courses on professional ethics and code of conduct d) Industry visits e) Industry-based project f) Regular use of a logbook in which industrial experiences are recorded

Criterion 3: Faculty Staff Establishment	
Unless stated otherwise, the evaluation should follow this scale: • **Unsatisfactory:** Few or not at all • **Satisfactory:** Sufficient Level	
Academic Staff	
Adequacy of Academic Staff	There must be a minimum of **8** full-time academic staff relevant to the particular engineering discipline. The staff shall be sufficient in number and competencies to cover all curricular areas.
Academic Qualification	At least 60% of the staff members are full-timers, with the majority having PhDs in appropriate areas.
Professional Qualification	Each programme shall have at least three (3) full-time Professional Engineers registered with the Engineers Board of Kenya or equivalent at all times and actively engaged in the programme. For programmes with a total student enrolment exceeding 160, at least 30 percent of the full time and actively teaching engineering academic staff shall be registered with the EBK as Professional Engineers. Staff Members are also encouraged to attain other Professional qualifications and be active.
Research/ Publication	Academic Staff members should be given opportunities to conduct research. The IHL should have provision for research grants for the staff members. Research Output includes recent publication

	conferences/refereed journals and patents.
Industrial Involvement/ Consultancy	The Evaluation Panel is to assess whether the staff members are involved in appropriate consultancy, collaborations, advisory and engagements with the industry and relevant organisations.
Teaching Load	Average teaching load (teaching hours per week): 12 – 15 (satisfactory), >15 (unsatisfactory). The Evaluation Panel shall triangulate the teaching load assessment with the academic staff during the interview.
Motivation and Enthusiasm	The Evaluation Panel is to have a separate meeting with faculty staff members to assess their motivation and enthusiasm.
Use of Lecturers from Industry/Public Bodies	The faculty is encouraged to invite engineers from industry and professional bodies to deliver seminars/lectures/talks to students.
Awareness of the Outcome-Based Approach to Education	The Evaluation Panel is to assess staff ability to implement the Outcome-Based approach to education.
Support Staff	
Qualifications	Certificates, diplomas and degrees in the relevant areas: ≥60 (Satisfactory) < 60 (Unsatisfactory)
Adequacy of Support Staff	Laboratory Staff Member to 2 Laboratories: Satisfactory The Evaluation Panel may use his/her discretion when a large laboratory/workshop is evaluated. The objective is to ensure that the laboratories and workshops are well maintained, and equipment is functioning for the learning purposes

Development of Staff	
Staff Development	The IHL shall systematically plan and provide appropriate training, sponsorship for postgraduate studies/ sponsorship for conferences, sabbatical leave etc. for academic staff. Similarly, for support staff, the IHL shall provide the opportunities for them to upgrade their competencies through training and practical exposure.
Staff Assessment	The IHL shall incorporate annual assessment of staff performance which takes into account participation in professional, academic and other relevant bodies as well as community involvement. Similarly, the IHL shall also establish a working system for evaluation/feedback by students on matters relevant to their academic environment.
Staff: Student Ratio	The Evaluation Panel shall evaluate the ratio of academic staff: student for the programme for the last four (4) academic sessions. The following guide shall be used for evaluation. Poorer than 1:25 1:25 or better Unsatisfactory Satisfactory

Criterion 4: Institutions Training Facilities and Infrastructure	
Aspects	Guide for Evaluation
	Facilities in terms of lecture rooms, laboratory facilities, library/resource centre, eateries and general facilities should be available and accessible to the students. In the case of off-campus/distance-learning mode, the Evaluation Panel should comment on whether the facilities are equivalent to those provided for the on-campus students. In the case where the students are sent to the main campus to complete the experiments over a short period of time rather than being spread out (as in the case of the main campus), the Evaluation Panel should comment on the effectiveness of such a practice in the report after interviewing the students.
Lecture Rooms Quantity Provided and Quality of A/V	(a) Lecture Rooms – Quantity and Quality (in terms of furniture, environment and AV Equipment) Unsatisfactory: Inadequate Satisfactory: Adequate
Laboratory / Workshop - Student Laboratory and Equipment	Laboratory/Workshop – Laboratory facilities should be examined to ensure there are sufficient facilities and equipment, and in working order to cater for the students. Average Student Number per Laboratory Experiment is: more than 5 (Unsatisfactory) 4 -5 (Satisfactory)
IT/Computer Laboratory/Modern Tools - Adequacy of	IT/Computer Laboratory/Modern Tools Accessibility and Adequacy Unsatisfactory/Satisfactory

Software	
Library / Resource Centre - Quantity of Books Provided	The IHL is to have sufficient, relevant and recent titles of online/hardcopies of text and reference books, Standards and journals to support teaching and research for the programme evaluated. For off-campus/distance-learning mode, the Evaluation Panel should comment on how the learning materials are made available and accessible to the students. Not available/Not accessible: Unsatisfactory Available/Accessible: Satisfactory

Criterion 5: Duration of Training	
Aspects	Guide for Evaluation
Programme Duration	To be five years.

Criterion 6: Quality Assurance Systems	
Aspects	Guide for Evaluation
	Unless stated otherwise, the evaluation should follow this scale: Unsatisfactory: Inadequate Satisfactory: Adequate
Institutional Support, Operating Environment, and Financial Resources	
Quality and Continuity of the Programme	The Evaluation Panel should examine the evidence provided by the Faculty/IHL on whether institutional support and financial resources are sufficient to ensure programme quality and continuity. Support from external bodies should be encouraged.
Attract and Retain a Well-Qualified Academic and Support Staff	The Evaluation Panel should examine the evidence provided by the Faculty/IHL on whether the institutional support and financial resources are sufficient for the programme to attract and retain well-qualified academic and support staff. Support from external bodies should be encouraged.
Acquire, Maintain, and Operate Facilities and Equipment	The Evaluation Panel should examine the evidence provided by the Faculty/IHL on whether the institutional support and financial resources are sufficient for the programme to acquire, maintain and operate facilities and equipment. Support from external bodies should be encouraged.
Programme Quality Management and Planning	

System for Programme Planning, Curriculum Development, and Regular Curriculum and Content	The Evaluation Panel should assess the overall CQI process being used in the programme. Generally, the Evaluation Panel will assess whether there are proper and sufficient policies/rules/regulations/ procedures in the Department/ Faculty or IHL, and whether those systems are implemented. Quality systems used in the IHL can be highlighted. Other forms of implementation for quality purposes such as external examiners, board of studies, and benchmarking shall also be evaluated. The established system for the programme shall be evaluated to assess the effectiveness of such a system towards improvement of overall programme delivery. Benchmarking should also be available either desktop or site visit.
External Assessment and Advisory System	
External Examiners and how these are being used for Quality Improvement	The programme shall appoint an external examiner to assess the overall quality of the programme. The Evaluation Panel shall examine the external examiner's reports and determine whether the recommendations by the examiners have been implemented by the programme to improve overall quality. External examiner's evaluation is to be made at least one in every one academic year.
Industry Advisory Panel and other Relevant Stakeholders	The programme shall have an Industry Advisory Panel (IAP) with members officially appointed with specific Terms of Reference (TOR) and period from industry and/or other relevant stakeholders. The programme shall provide evidence of meetings and dialogues with the IAP and the extent of their involvement in terms of quality improvement. IAP meeting shall be conducted at least once a year and properly documented.
Quality Assurance	

System for Examination Regulations including Preparation and Moderation of Examination Papers	The IHL shall establish a working system for examination regulations including preparation and moderation of examination papers.
System of Assessment for Examinations, Projects, Industrial Training	The IHL shall establish a working system for assessment of examinations, projects, industrial training and other assessments. The scope and tools of assessment shall be coherent to measure the achievement of programme outcomes.
Safety, Health and Environment	
System for managing and implementation of safety, health and environment	The IHL shall demonstrate that it has put in place a policy, system and resources for managing and implementation of safety, health and environment. The safety, health and environment culture must be apparent among staff and students.
Students	
Entry Requirements (Academic)	The entry requirement to the programme shall be evaluated to ensure that the students accepted have the minimum qualifications required for training and education as an engineer.

Transfer Policy/Selection Procedures/ Appropriateness of Arrangements for Exemptions from Part of the Course/ Transfer Policy	The IHL shall develop a clear, documented and enforced policy on admission and transfer of students. The policy shall take into account the different backgrounds of students in order to allow alternative educational pathways. The exemptions of AU hours shall be based on justifiable grounds. A maximum AU Exemption of 30% of the total programme AUs allowed for accredited/recognized Diploma to Bachelor degree; and a maximum AU Transfer of 50% of the total programme AUs is allowed between accredited/recognised from Bachelor-to-Bachelor degree.
Student Counselling	IHLs shall provide counselling services to students regarding academic and career matters, as well as provide assistance in handling health, financial, stress, emotional and spiritual problems.
Workload	Students shall not be over-burdened with workload that may be beyond their ability to cope with.
Enthusiasm and Motivation	The teaching-learning environment shall be conducive to ensure that students are always enthusiastic and motivated.
Co-Curricular Activities	IHLs shall also actively encourage student participation in co-curricular activities and student organisations that provide experience in management and governance, representation in education, competitions and related matters and social activities. These involvements can be towards attainment of the relevant POs if the IHL designed them to be part of the process. Evaluation Panel should consider these.
Observed Attainment of the Programme Outcomes by the	The Evaluation Panel is to get a first-hand feel of the students' achievement of the Programme Outcomes by interviewing and observing them at random to triangulate various aspects of the attainment.

Students	