

POLICY

FOR THE ACCREDITATION OF ENGINEERING TECHNOLOGY PROGRAMMES

Section 1	Policy – (basis for accreditation)
Section 2	Requirements for Accreditation – (what is accredited)
Section 3	Accreditation Process – (how is accreditation carried out)
Section 4	Submission Prior to Visit
Section 5	Documentation for Use during Accreditation Visits
Section 6	Documentation for Use during the Interim Accreditation Visits

Section 3

ACCREDITATION PROCESS – (HOW IS ACCREDITATION CARRIED OUT)

CONTENTS

	Introduction
	Process of accreditation
3.1	Evidence
3.1.1	Documentation
3.1.2	Interviews
3.1.3	Inspections
3.1.4	Recording of evidence
3.2	Establishing proof
3.3	Recommendation of the accreditation team
3.4	Recommendation to TPAC
3.5	Typical timetable for an accreditation visit

POLICY

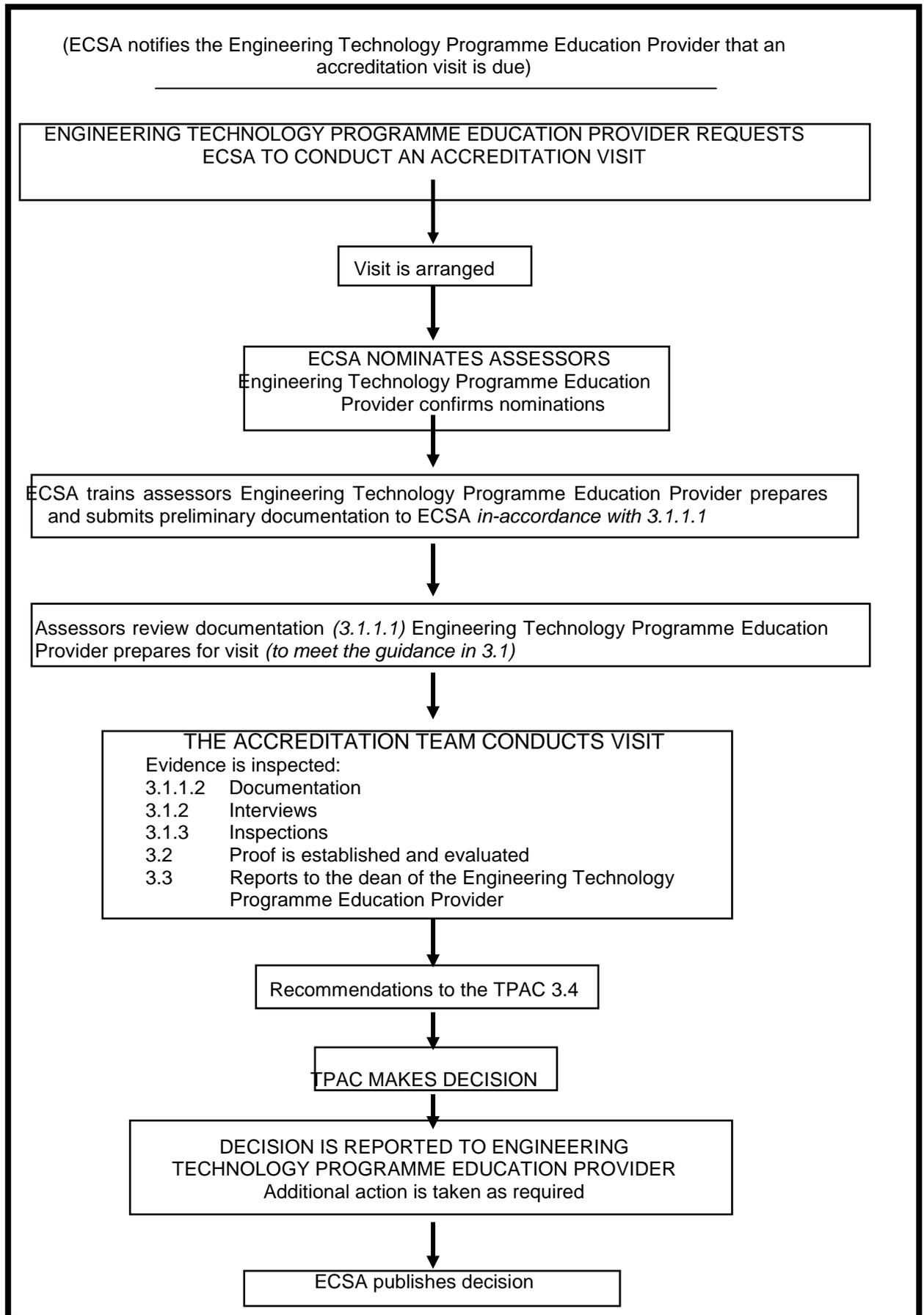
INTRODUCTION

Accreditation of the National Diploma: Engineering and the Baccalaurues Technologiae Degree: Engineering programmes by ECSA serves to establish the following:

1. Whether the programmes meet the minimum educational requirements toward registration as Candidate Professional Engineering Technologists, Candidate Professional Certificated Engineers and Candidate Professional Engineering Technicians.
2. Whether the graduates from the respective programmes are ready for employment and are equipped to continue learning throughout their careers.
3. To establish the international comparability of the programmes.
4. To assure the public of the quality of the programmes.
5. To encourage improvement and innovation in engineering education in response to national and global needs.

The requirements that ECSA must consider when accrediting a qualification are described in Section 2 of this document. To assist in the presentation and subsequent processing of the evidence the method indicated in the following diagram is recommended and will be followed unless an alternative process is agreed to in writing.

DIAGRAM 2: PROCESS OF ACCREDITATION



3.1 EVIDENCE

Evidence is the indication of the various aspects of the programme under consideration. It is the Engineering Technology Programmes Education Provider's responsibility to provide ECSA with the evidence required for the evaluation to be made. The sources of evidence include but need not be limited to:

- (a) Documentation (to be available in the respective discipline venues)
- (b) Interviews, and
- (c) Inspections

3.1.1 Documentation

This is made up of the documentation provided prior to the visit and the documentation that is available at the visit.

3.1.1.1 Documentary Submissions Prior to the Visit

To enable the assessors to prepare for the visit, seven (7) copies of this document must be submitted to ECSA when requested (at least two months prior to the accreditation visit), by the person responsible for the programme. ECSA reserves the right to cancel the visit if this submission is delivered late. The submission should include the following. *(The references below refer to the items described in Section 1 and Section 2 of this guideline).*

ISSUE	REFERENCE TO OTHER SECTIONS OF THE GUIDELINE	TABLE NUMBER SECTION 4
Identification of the programme	2.1	Front Page
Name of the Engineering Technology Programme Education Provider	2.1	Front Page
Name of department	2.1	Front Page
Person responsible for the programme	2.1	Front Page
Purpose for the accreditation - either regular or specific. In the case of specific accreditation the reason must be given with the Engineering Technology Programme Education Provider's response.	1.4.3, 1.4.4, 2.7 1.4.1	Front Page
Purpose statement of the programme	2.2	Front Page
Description of the criteria of the programme	2.3	Front Page
Summary of how the purpose and criteria are achieved, and assessed –	2.3, 2.4, & 2.5	1
Summary of underpinning knowledge	2.3.2, 2.3.3, 2.5. & 2.6	2
Criteria used for selection of students	2.6.2	3
Results of the programme	2.5.2, 2.5.3, 2.5.4, 2.5.5, 2.5.6	4a or 4b
Role of staff	2.5.2, 2.5.3, 2.5.4, 2.5.5, 2.5.6	5
Resources used in the learning process	2.5.2, 2.5.3, 2.5.4, 2.5.5, 2.5.6	6
Summary of the assessment/evaluation system	2.5.2, 2.5.3, 2.5.4, 2.5.5, 2.5.6, 2.6.1	7
Experiential training venues and assessors	2.4, 2.5.6, 2.6.1	8
Development and changes of the programme	1.4.4, 2.7	9

A layout is given in Section 4. It is available electronically from ECSA.

3.1.1.2 Documentation to be available at the visit

Documentary evidence is to be available for review during the visit. The staff of the Engineering Technology Programme Education Provider is expected to assist with providing evidence. The documentation available during the visit should include but is not limited to:

- i. The documents describing the programmes that are registered with the relevant authorities such as SAQA/Department of Labour/Department of Higher Education and Training and Council for Higher Education.
- ii. Course material used by staff and students - such as course outlines, tutorial sheets, laboratory experiment instructions (reflecting minimum number of experiments to be completed), prescribed texts, notes and study guides.
- iii. Examiners and moderators guidelines.
- iv. Examination papers and memorandums reflecting solutions and mark allocation for the examinations conducted in each course / subject since the previous ECSA accreditation visit.
- v. Marked and moderated examination scripts of the last two examinations in each course/subject. In large classes a selection of the best, average and borderline students scripts should be provided for each examination paper (minimum sample of 20% or at least 20 scripts) whichever is the greater - in those subjects with less than 20 learners, all the scripts must be available.
- vi. In those courses/subjects where continuous evaluation is applied, exemplars of the moderated examination papers, scripts and moderators reports for each evaluation of the course/subject. In large classes a selection of the best, average and borderline student's scripts should be provided for each examination paper (minimum of 20% or at least 20 scripts).
- vii. Examples of:
 - Assignments
 - Design projects
 - Laboratory work
 - Investigation projects representative of the range of sub-disciplines in the programme. These examples should include the work of good, average and "borderline" students.
 - Where the exams deviate from the formal assessment system, evidence of the system used must be kept. These examples should include the work of good, average and "borderline" students.
- viii. Individual student records should be accessible on request.
- ix. Structured experiential training programmes for each specific discipline.
- x. Experiential training records of co-operative education trainees.
- xi. Research thrust together with examples of outcomes where applicable.
- xii. The institutional quality policy and procedures.
- xiii. The institutional and faculty policy and procedures in respect of addressing recognition of prior learning (RPL) and providing foundation programmes.
- xiv. CV's of academic staff should be available. These must indicate the qualifications and experience that justify the individual's competency for the work they are doing in the programme.
- xv. Plans for Continuing Professional Development (CPD) of the academic staff.
- xvi. Minutes of the advisory or equivalent committee – indicating the co-operation with the industry served.
- xvii. Plans for the next four years that describe how the qualification will operate – this must include how the financial planning (capital, maintenance and operational) will operate for the projected period.

3.1.1.3 Historical Information

The ECSA Manager: Education provides the accreditation team members with reports of the previous evaluation and relevant correspondence for reference purposes.

3.1.2 Interviews

Interviews are used to obtain clarification of the evidence found in the documentation and to gauge the morale and professional attributes resulting from the programme.

The following people should be interviewed:

	PERSON	SECTIONS UPON WHICH MOST OF THE INVESTIGATION WILL BE FOCUSED
a.	Person responsible for the qualification	Section 2
b.	Staff - Academic	2.2, 2.3, 2.4 & 2.5.2 with emphasis on the specific subjects taught, 2.6
c.	Staff - Practicals and Projects	2.2, 2.3, 2.4 & 2.5.3/2.5.4, 2.6
d.	Staff – Experiential training	2.2, 2.3, 2.4 & 2.5.3.2.5.4,
e.	Staff – Librarians/media and Computer Specialists	2.2, 2.3, 2.5.6 & 2.5.5
f.	Students – S1/S2 (1 below average, 1 average, 1 above average) for National Diploma Engineering (See below)	2.2, 2.3.1, 2.3.2, 2.5 with emphasis on the early components of the programme, 2.6.2
g.	Students – S3/S4 (1 below average, 1 average, 1 above average) for National Diploma Engineering (See below)	2.2, 2.3.1, 2.3.2, 2.5 with emphasis on the later components of the programme – 2.5.4/iii, 2.6.1
h.	Students – doing/completed experiential training but not doing or completed the BTech Engineering (1 below average, 1 average, 1 above average)	2.5.6, 2.6
i.	Students – BTech Post ND 1 below average, 1 average, 1 above average (See below)	2.5.6, 2.6
j.	Qualified persons – 1 ND and 1 BTech	2.7
k.	Employer representatives/members of learned vocational society	2.2,2.3.1, 2.3.2, 2.3.3, 2.4, 2.5.6, 2.7

- The Head of Department (HOD) must be available throughout the accreditation visit.
- Final year students who are busy with projects should be available for interviews. If they are not available, individuals who obtained their qualifications during the previous academic year must be interviewed.
- The person responsible for the programme is requested to select the interviewees and brief them regarding the purpose of the interview and the issues that will be addressed. This selection of students should cover the spectra of ability, and gender.
- The assessors are required to ask questions that will cause the interviewees to provide answers that reflect the true situation(s).

3.1.3 Inspections

Laboratory/practical facilities, libraries and media centres are inspected to confirm that the work specified can and does take place in accordance with the specification and the requirements. The staff at the Engineering Technology Programme Education Provider is expected to assist with providing evidence.

3.1.4 Recording of Evidence

Documentation for use during the investigation and for preparing the report is attached. Section 4 is for submission prior to the visit, and Section 5 is for completion by the accreditation team during the accreditation visit. The relevant issues described in Section 2 are listed. These issues are worded as questions. The findings from the relevant sources must be noted. Where deviation from the criteria is found (generally the 'no' answer), the detail of the nonconformity must be recorded within the report document.

These questions listed are a guide. Additional questions must be added, if required, to establish the facts regarding relevant issues.

3.2 ESTABLISHING PROOF

The assessors are required to establish the answers to the questions on the documentation. This is done by probing the sources. Asking the questions directly may not provide the true facts.

The evidence from the three sources as recorded on the investigation sheets. Comparison of the findings from each source is reviewed to establish the true situation (proof).

3.3 RECOMMENDATION OF THE ACCREDITATION TEAM

Based on the proof established (using the investigation sheets) the accreditation team is required to recommend accreditation or an alternative recommendation.

The recommendation must be motivated on the basis of the findings and discussion with the person responsible for the qualification.

Once approved by the Visit Leader copies of the documentation completed by the accreditation team will be sent to the Dean for factual correctness before being submitted to TPAC.

3.4 RECOMMENDATION TO TPAC

The original recommendation will be submitted to the Technology Programme Accreditation Committee for ratification/a decision for further action. ECSA will publish the findings.

(The Engineering Technology Programme Education Provider is expected to provide the necessary secretarial and printing services to produce the documentation).

3.5 TYPICAL TIMETABLE FOR AN ACCREDITATION VISIT

This is provided to assist the Engineering Technology Programme Education Provider and Accreditation Team in arranging the activities during the visit. Efficient time keeping is essential if all the activities are to be completed during the time available.

Day before visit	Activity	Resources required	Persons required
15:00	Check in at Hotel		
16:00 - 18:00	Separate meeting of discipline teams	Venue for teams to sit together	All assessors divided into disciplines
18:00 - 19:30	Feedback meeting of all disciplines	One venue for feedback	Total accreditation team
19:30	Dinner		

Day 1	Activity	Resources required	Persons required
08:00 - 08:10	Dean's welcome to the delegation	Large venue	HOD's to be present
08:10 - 08:15	Visit Chairman addresses delegation		
08:15 - 08:30	Teams move to departmental venues. <i>ECSA team divided into two and are allocated separate duties.</i>	Departmental venues	HOD's to accompany branch teams
08:30 - 13:00	Review documentation: Specifications (purpose statement and description of criteria)	Documentation regarding specifications (purpose statement and description of criteria)	HOD to be available
	Compare specification with ECSA standards requirements		HOD to be available
	Evaluation of results	Assessment documentation including examination questions & answers, and projects & reports	HOD to be available
	Review resources available	Documentation concerning funding and planning Summary of resources	HOD to be available
	Laboratory Inspection	Visit to resources	
10:00	Tea/Coffee in working venues		
12:30	Finger lunch in venue		
13:00 - 15:15	Interview learners. (Schedule to suit Engineering Technology Programme Education Provider.)	B Tech learners 1 below average 1 average 1 above average	
		2 recently qualified ND 2 recently qualified B Tech	
		S3 or S4, 3 learners 1 below average 1 average 1 above average	

15:15	Tea/coffee in working venue		
15:15 - 16:15	Interview learners. Schedule to suit Engineering Technology Programme Education Provider. <i>ECSA team divides into two and requires two venues</i>	Team A S1 or S2, 3 learners 1 below average 1 average 1 above average Team B 3 learners doing/completed experiential training 1 below average 1 average 1 above average	
16:15 - 17:15	Interview local employers and local branch vocational society		Head of Department to be available
18:00	ECSA accreditation team plenary at hotel		ECSA assessors only

Day 2	Activity	Resources required	Persons required
08:00 - 08:15	Plenary session of branch teams in departmental working venues		
08:15 - 11:45	Interview staff. Schedule to suit Engineering Technology Programme Education Provider. ECSA team divides into two and requires two venues		Science lecturer Engineering lecturer Supervisor engineering Supervisor practical Supervisor experiential learning Supervisor project
10:00	Tea/coffee in working venue		
11:45 - 13:00	Interview staff. Schedule to suit Engineering Technology Programme Education Provider.	Records of requests made and requests met by the library/media centres	Discipline Librarian/Media Supervisor Computer facility Supervisor
13:00 - 13:30	Compare ECSA specifications	Consistency of concerns/deficiencies Correct procedures followed	Visit Leader Team Leaders ECSA Admin
13:30 - 14:00	Feedback session to HoD		Team Leader HOD
14:00-14:30	Discussion with the Dean		Visit Leader ECSA Admin
	Consolidating results and completing reports. Finger lunch in venue	Type report	ECSA accreditation team HOD's on call
15:30-16:30	Feedback session to Dean, HOD's and staff	Large venue	ECSA accreditation team
16:30	Depart from Engineering Technology Programme Education Provider		

Note: Representatives from each team to visit common areas e.g. library, media centre, laboratories, computer access, examinations, etc.
The time table above can be amended in co operation with the Dean.