

Training Academy Certification and Accreditation Self-Study Requirements

A-04-GL

**REVISION 3: 12 April 2022** 

ENGINEERING COUNCIL OF SOUTH AFRICA Tel: 011 6079500 | Fax: 011 6229295

Email: engineer@ecsa.co.za | Website: www.ecsa.co.za



Document No.:
A-04-GL

Revision No.: 3

Effective Date:
12/04/2022

Subject: Training Academy Certification and Accreditation Self-Study
Requirements

Compiler:
P Kutame

Approving Officer:
MB Mtshali

Next Review Date:
12/04/2026

Page 2 of 19

## **TABLE OF CONTENTS**

DEFINITIONS	3
ABBREVIATIONS	5
DOCUMENT CUSTODIAN	6
BACKGROUND	6
1. PURPOSE OF THIS DOCUMENT	7
2. RESPONSIBILITY	7
3. AVAILABILITY OF DOCUMENTATION	7
4. REQUIREMENTS FOR PROGRAMME SELF-STUDY DOCUMENTATION	8
4.1 Initial information to be submitted	8
5. Training academy certification VISIT DOCUMENTATION	9
5.1 Training Academy identification and responsibility	9
5.2 Strategic and organisational objectives	10
5.3 Finance and operations	10
5.4. Follow-up on previous visit (unless Initial Desktop Evaluation)	10
6. DOCUMENTATION FOR ENGINEERING TRAINING PROGRAMME ACCREDITATION	ON
VISIT: SELF-STUDY SUBMISSION FOR EACH TRAINING PROGRAMME	11
6.1 Programme identification and responsibility	12
6.2 Follow-up on previous visit	12
6.3 Training programme and course information	13
6.4 Assessment of outcomes and the assessment system	13
6.5 Qualified Mentors and learning progress	14
6.6 Sustainability factors for the programme	15
6.6.1 Candidates	15
6.6.2 Staff	16
6.6.3 Resources	16
6.6.4 Impact of the programme	16
7. DOCUMENTATION TO BE AVAILABLE DURING VISIT	16
REVISION HISTORY	18

Document No.: A-04-GL	Revision No. 3				
Subject: Trainir	Subject: Training Academy Certification and Accreditation Self-Study Requirements				
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>3</b> of <b>19</b>		

### **DEFINITIONS**

**Assessment:** The process of determining the capability or competence of an individual by evaluating performances against standards.

**Category:** A mode of registration defined in or under the ECSA Act that has a distinctive purpose, characteristic competencies, defined principal routes to registration and designated educational requirements.

**Certification:** Formal recognition awarded to an education or training programme through a quality assurance procedure specifying that it meets the criteria laid down for the type of programme.

**Certification criteria:** Statements of requirements that must be satisfied by a programme in order to receive certification.

**Evaluation:** Determining compliance of a result with prescribed criteria based on documentation, inspection and the application of judgement supported by reasoning.

**Final Visit:** Visit held at a time within the cycle stated by the Central Registration Committee relating to the decision on the findings of the previous visit.

**Graduate:** A qualifying learner, irrespective of whether qualification is a degree or a diploma.

**Level:** A measure of learning demands expressed in terms of level descriptors for types of problems, knowledge required, skills and responsibility.

**Interim Report:** An evaluation of the aspects of a training programme as required by the Central Registration Committee in making the decision on the findings of the previous visit; this may require a further visit.

**Interim Visit:** Visit held at a time within the cycle stated by the Central Registration Committee in the decision regarding the findings of the previous visit.

**Mentor:** A professionally registered person who guides the competency development of a Candidate in an appropriate category.

Document No.: A-04-GL	Revision No.: 3 Effective Date: 12/04/2022			
Subject: Training Aca	ECSA			
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>4</b> of <b>19</b>	

**Programme:** A structured, integrated teaching arrangement with a defined purpose and pathway leading to a qualification.

**Qualification:** The formal recognition of a specified learning achievement usually awarded on successful completion of a programme.

**Regular Visit:** A visit that is held on a four-year cycle after the Training Academy has been certified by the ECSA.

**Standards:** Statements of outcomes to be demonstrated, level of performance and content baseline requirements in the context of engineering training programmes.

**Supervisor:** A person who oversees and controls engineering work performed by a Candidate

Document No.: A-04-GL			
Subject: Trainir	E C S A		

## **ABBREVIATIONS**

ECSA	Engineering Council of South Africa
EM	Education Manager

Document No.: A-04-GL	Revision No : 3				
Subject: Trainir	ECSA				
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>6</b> of <b>19</b>		

### **DOCUMENT CUSTODIAN**

The custodian of this document is the Research Policy and Standards Division. The Regulatory Functions Division is responsible for its implementation.

## **BACKGROUND**

The documents that define the Engineering Council of South Africa (ECSA) system for certification of engineering training programmes that meet the professional competency requirements for registration are shown in Figure 1. The illustration also locates the current document.

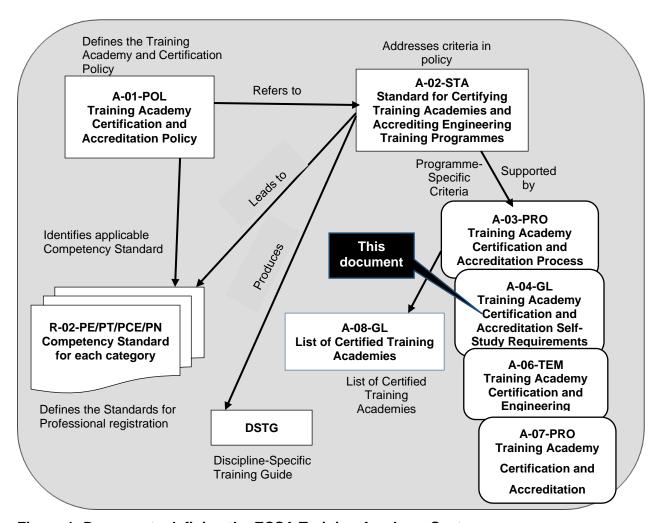


Figure 1: Documents defining the ECSA Training Academy System

Document No.: A-04-GL					
Subject: Trainir	A-04-GL 12/04/2022  Subject: Training Academy Certification and Accreditation Self-Study Requirements				
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>7</b> of <b>19</b>		

### 1. PURPOSE OF THIS DOCUMENT

This document specifies the responsibilities, timing, format and required content of the Training Academy's self-study documentation that is to be submitted by a Training Academy prior to a Certification and/or Accreditation Visit. These requirements apply to the certification and accreditation criteria defined in document **A-02-STA**.

## 2. RESPONSIBILITY

In arranging to conduct a certification and/or accreditation, the ECSA deals with a single point of contact in the Training Academy, the Coordinator. The Coordinator is, therefore, responsible for ensuring that the necessary documentation is submitted to the ECSA prior to a visit. The Coordinator is required to identify the persons responsible for preparing the self-study documentation and coordinating the detailed arrangements for the visit to the ECSA. The ECSA's point of contact here is the Education Manager (EM). Closer to the visit, other points of contact are as defined in document **A-03-PRO**.

## 3. AVAILABILITY OF DOCUMENTATION

Documentation must be uploaded to the ECSA's Microsoft SharePoint cloud storage no less than six (6) weeks before the visit. The ECSA reserves the right to cancel a Certification and/or Accreditation Visit if the documentation is not received in time.

Attention is drawn to Section 7, which indicates the specific documentation that must be readily available during the visit. Failure to have uploaded this documentation 24 hours before the visit may jeopardise a favourable Team recommendation.

The Coordinator is expected to ensure that all involved staff has access to the documentation because the Team may raise matters from the documentation during the interviews.

Document No.: A-04-GL	Revision No. 3				
Subject: Trainin	ECSA				
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>8</b> of <b>19</b>		

### 4. REQUIREMENTS FOR PROGRAMME SELF-STUDY DOCUMENTATION

The required self-study documentation is designed to provide the Certification/Accreditation Team with the information needed to make their evaluation. The documentation consists of four parts:

- Initial information provided by the Coordinator at the start of planning the visit as specified in Section 4.1
- 2. Submission by the Coordinator as specified in Section 5
- 3. Self-contained self-study submission to be evaluated as specified in Section 6
- 4. Information to be available during the visit as specified in Section 7.

The documents in items 1, 2 and 3 must be uploaded to ECSA's Microsoft SharePoint cloud storage. The ECSA will provide login details prior to the upload deadline.

Items 2 and 3 must be uploaded to ECSA's Microsoft SharePoint cloud storage at least six (6) weeks prior to the visit. The Training Academy Certification and Accreditation Policy document **A-01-POL** requires documentation as a prerequisite for a visit to take place and provides for cancellation of the visit should the documentation not be submitted in time.

### 4.1 Initial information to be submitted

When a Certification/Accreditation Visit is initiated, the Coordinator must submit the following information to the ECSA for use in determining the Team selection:

- For Training Academy certification
  - The person responsible for the Training Academy
- For each engineering training programme that is offered or is planned for the period of accreditation
  - The person responsible for the programme
  - The category and discipline of the training programme
  - Major programme changes in progress or being planned

Document No.: A-04-GL			
Subject: Trainir	ECSA		
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>9</b> of <b>19</b>

 Degree of commonality of the assessment methodology with the other programmes

### 5. TRAINING ACADEMY CERTIFICATION VISIT DOCUMENTATION

Prior to each regular Certification Visit, the Coordinator is required to prepare and submit to the ECSA a self-study report that encompasses the elements defined in sections 5.1 to 5.4.

These documentation requirements are written primarily for the Regular Visit, Interim Visit and Final Visit. In the case of an Interim Report, the assessment committee must specify the scope of the required documentation. In the case of submission for an Initial Desktop Evaluation, there is no requirement to include Section 5.4.

The Coordinator is responsible for the correctness and completeness of all pre-visit and visit documentation; this responsibility may not be delegated to other staff members.

Persons responsible for preparing the self-study and visit documentation must ensure that the documentation presents the evidence that allows the Team to evaluate the programme against the criteria indicated in document **A-01-POL** (Training Academy Certification and Accreditation Policy) using the framework in document **A-06-TEM** (Training Academy Reporting Template).

The section headings in Section 5 may be used as section headings in the self-study submission.

### 5.1 Training Academy identification and responsibility

- Name of Training Academy
- Person responsible for the Training Academy

Document No.: A-04-GL					
Subject: Training	A-04-GL 12/04/2022  Subject: Training Academy Certification and Accreditation Self-Study Requirements				
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>10</b> of <b>19</b>		

### 5.2 Strategic and organisational objectives

- Strategic objectives of the Training Academy together with an assessment of the extent
  to which any existing or planned training programmes are consistent with the
  organisational objectives. These should be drawn from the company business plan or
  other approved documentation.
- The Training Academy's objectives and commitment to the outcome-based objectives of the engineering training programme

## 5.3 Finance and operations

- Training Academy finances, capital and operating costs for the current year and four previous years: funding for staffing, running, equipment, computing and networking
- Common facilities to support existing or planned engineering training programmes
- Any other matters that are considered relevant

## 5.4. Follow-up on previous visit (unless Initial Desktop Evaluation)

Depending on the decision of the previous Certification Visit, provide statements on the following:

- (a) In the case of an Interim Report, Interim Visit or Final Visit:
  - A statement indicating how the deficiencies identified during the previous visit have been remedied
  - A statement of any major changes to the Training Academy that are unrelated to the deficiencies that are to be remediated
- (b) If concerns were expressed in the decision letter of the previous visit, the Training Academy's response to these concerns must be detailed.

Document No.: A-04-GL	REVISION NO. 3				
Subject: Trainin	ECSA				
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>11</b> of <b>19</b>		

# 6. DOCUMENTATION FOR ENGINEERING TRAINING PROGRAMME ACCREDITATION VISIT: SELF-STUDY SUBMISSION FOR EACH TRAINING PROGRAMME

Prior to each regular Accreditation Visit, the Coordinator is required to prepare and submit to the ECSA a self-study report encompassing the elements defined in sections 6.1 to 6.6.

These per-programme documentation requirements are written primarily for a Regular Visit, Interim Visit or Final Visit. In the case of an Interim Report, the assessment committee must specify the scope of the required documentation. In the case of a submission for Provisional Evaluation, the documentation must address all issues, detailing the entire programme and including plans or commitments for stages that are not implemented. In the case of a submission for Initial Desktop Evaluation, the items identified in Table 1 must be addressed.

Table 1: Self-study documentation requirements

Type of evaluation	6.1	6.2	6.3	App1	6.4	6.5	6.6	7
Initial Desktop	*		*	*	*	*	*	-
Provisional	*		*	-	-	-	-	-
Regular/Interim/Final	*	+	*	*	*	*	*	7.1,2,3,8
Key: *: Required; +: Requi	red for re-	submissi	on					

Any major item of documentation not listed in Section 5.2 that is common to all programmes may be included in the Coordinator's documentation and cross-referenced from the per-programme documents.

The Programme Coordinator designated by the Coordinator is responsible for the correctness and completeness of all pre-visit and visit documentation; this responsibility may not be delegated to other staff members.

Persons responsible for preparing the self-study and visit documentation must ensure that the documentation presents the evidence that allows the Team to evaluate the programme against

Document No.: A-04-GL	Revision No.: 3	Effective Date: 12/04/2022	
Subject: Training Academy Certification and Accreditation Self-Study Requirements			ECSA
Compiler:	Approving Officer:	Next Review Date:	Page <b>12</b> of <b>19</b>
P Kutame	MB Mtshali	12/04/2026	1 age 12 01 13

the criteria in document **A-01-POL** (Training Academy Certification and Accreditation Policy) using the framework in document **A-06-TEM** (Training Academy Reporting Template).

The section headings in Section 6 may be used as section headings in the self-study submission.

## 6.1 Programme identification and responsibility

- Name of Training Academy
- Name of engineering training programme
- Person responsible for the training programme
- Summarise any major changes that have occurred since the last Accreditation Visit (if applicable), giving dates of implementation and cohorts of affected Candidates:
  - Training and experience objectives, structure and content of training programme
  - Assessment of Competency Outcomes
  - Work horizon
  - Qualified Mentors and learning progress
  - Sustainability factors for the programme
  - Resources

Describe plans for changes to the training programme in addition to outcomes, assessments and resources that may come into effect during the next accreditation cycle. For every change, identify the cohort of Candidates under each identified variant discipline who will complete the programme and indicate the range of years over which the Candidates are expected to complete the programme.

### 6.2 Follow-up on previous visit

Depending on the decision of the previous Accreditation Visit, provide statements on the following:

(c) In the case of an Interim Report, Interim Visit or Final Visit:

Document No.: A-04-GL	Revision No.: 3	Effective Date: 12/04/2022	
Subject: Training Academy Certification and Accreditation Self-Study Requirements			ECSA
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>13</b> of <b>19</b>

- A statement indicating how the deficiencies identified at the previous visit have been remedied
- A statement of any major changes to the programme that are unrelated to the deficiencies that are to be remediated.
- (d) If concerns were expressed in the decision letter of the previous visit, the Training Academy's response to these concerns must be detailed.

## 6.3 Training programme and course information

A statement of the training objectives (purpose) and the outcomes of the programme must be included. The Training Academy's format for presenting the objectives and outcomes to its Candidates and constituency should be used:

- (a) A description of the structure of the programme in terms of the outcomes to be achieved and the number years to complete.
- (b) Analysis of the programme content.
- (c) Identification and description of the core design of the programme. This must be more than a mere list of the tasks; rather, the logic underlying the construction of the core and arguments for its coherence must be presented.
- (d) A summary of the criteria for awarding credit, for allowing re-assessment, for allowing the Candidate to progress from one year to the next and for excluding the Candidate from the programme.

### 6.4 Assessment of outcomes and the assessment system

In this section, the Programme Coordinator responsible for the programme is required to provide evidence that the Evaluation Team can use to answer **Questions 2.1 and 2.2**.

Does the assessment within the programme

ensure that all Candidates satisfy each outcome defined in the relevant Standard?

Document No.: A-04-GL	Revision No.: 3	Effective Date: 12/04/2022	
Subject: Training Academy Certification and Accreditation Self-Study Requirements			ECSA
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>14</b> of <b>19</b>

- 2. use a documented set of assessment criteria and processes that taken together demonstrate that the outcomes are satisfied at the level indicated by the range statement?
- (a) Each outcome specified in the relevant Standard must be explicitly addressed in terms of the means of assessment and the criteria for satisfaction with each outcome and the required level. Evidence must be presented with rows under each outcome indicating the following:
  - The tasks/problems involved in the assessment of the outcome at the required level
  - The assessment criteria and the method of assessment
  - o The Candidate's required level of performance
  - The consequences for the Candidate not satisfying the outcome
- (b) The internal policies and procedures to validate the assessment of the outcomes through internal processes must be described.
- (c) Evidence of internal administrative checks and balances in the assessment system must be provided.
- (d) A concise analysis of the strengths and weaknesses of the system for assessing outcomes must be conducted.

Note: Assessment material is to be made available online as specified in Section 7.

# 6.5 Qualified Mentors and learning progress

Evidence of the effectiveness of the mentoring and learning process within the programme must be provided, addressing no less than the following aspects:

- 1. Taking the Candidate's entry level into account, how does the programme
  - (a) demonstrate the use of fundamental and core disciplinary knowledge?
  - (b) demonstrate the use of specialist knowledge?
  - (c) develop the student towards satisfying the outcomes?

Document No.: A-04-GL	Revision No.: 3	Effective Date: 12/04/2022	
Subject: Training Academy Certification and Accreditation Self-Study Requirements			ECSA
Compiler:	Approving Officer:	Next Review Date:	Page <b>15</b> of <b>19</b>
P Kutame	MB Mtshali	12/04/2026	raye 13 01 19

- 2. How does the programme develop independent learning?
- 3. How is the programme coordinated?
- 4. How and at what stages is the progress of the Candidate monitored?
- 5. List the Mentors etc. together with their affiliations, qualifications and the duties assigned to each.
- Describe the processes used by the department/section for assessing and continuously improving the quality of the training and assessment of the programme.
   Provide specimen paper trails for quality assurance and improvement aspects of the programme.
- 7. Provide a brief description of administrative procedures for programme review and development, including external secondment if required.
- 8. Indicate the throughput of the programme and how it varies by gender and race. List the measures that are taken to monitor and improve/maintain throughput.
- 9. Provide a concise analysis of the strengths and weaknesses of the training, the assessment process, and the quality assurance and continuous improvement process.

## 6.6 Sustainability factors for the programme

### 6.6.1 Candidates

- (a) Specify the entry routes to the programme, including academic development programmes, and the entry requirements for each route. Any admission-rating formulas must be explained. Indicate the distribution of Candidates entering by the various routes. Demonstrate the distribution of applicants by admission rating for recent Candidates.
- (b) Describe the capacity of the Training Academy to conduct the programme for the enrolled number of Candidates, considering other commitments that the unit may have.

Document No.: A-04-GL	Revision No.: 3	Effective Date: 12/04/2022	
Subject: Training Academy Certification and Accreditation Self-Study Requirements			ECSA
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>16</b> of <b>19</b>

### 6.6.2 Staff

- (a) Provide a list of the staff that is involved as Supervisors in the programme, indicating their experience and specialities and their academic and professional qualifications. The registration status with the ECSA or other body of each member of engineering staff must be shown.
- (b) Provide a description of the strategies for staff recruitment, development and retention.
- (c) Provide a list of support staff showing overall responsibilities and contributions to the programme.

### 6.6.3 Resources

- (a) Budget allocations to the programme's host department over a five-year period under the headings, Equipment, Computing, Operating, Library Books and Journals. Headings may vary depending on the provider budget categories used.
- (b) List the laboratories that support the programme, with a short description of the facilities and the function of each and the support that they provide for the programme.
- (c) Specify the computing and networking facilities that are available to the Candidates in the programme and to the staff of the departments.

## 6.6.4 Impact of the programme

Describe the measures to assess the impact of the programme and how the results are used to improve the programme.

## 7. DOCUMENTATION TO BE AVAILABLE DURING VISIT

The following materials must be available to the Team in a properly indexed file system on the ECSA's Microsoft SharePoint cloud storage 24 hours before the visit.

Document No.: A-04-GL	Revision No.: 3	Effective Date: 12/04/2022	
Subject: Training Academy Certification and Accreditation Self-Study Requirements			ECSA
Compiler: P Kutame	Approving Officer: MB Mtshali	Next Review Date: 12/04/2026	Page <b>17</b> of <b>19</b>

- (a) Assessment materials for each Candidate, including assignments and project statements, designs and solutions (memoranda) in addition to an assessment against the outcome criteria for the last three years.
- (b) Examples of design and/or laboratory/investigational projects for the most recent year.
- (c) The CVs of all involved staff. These may be full CVs or summaries comprising approximately two pages.
- (d) Documentation on the assessment process and evidence of appropriate quality assurance having taken place.

Document No.: A-04-GL	Revision No.: 3	Effective Date: 12/04/2022	
Subject: Training Academy Certification and Accreditation Self-Study Requirements			ECSA
Compiler:	Approving Officer:	Next Review Date:	Page <b>18</b> of <b>19</b>
P Kutame	MB Mtshali	12/04/2026	Faye 10 01 19

## **REVISION HISTORY**

Revision			
number	Revision date	Revision details	Approved by
Concept A	1 September 2017	Adapted E-12-P for new A-05-P	John Cato
Concept B	17 September 2017	Various changes	RAH
•	28 September 2017		28 September 2017
Concept C	09 October 2017	Approved	PDSGC
Rev. 1	16 November 2017	Ratification	Council
Rev. 2		Alignment with the Policy and Standards Framework on ECSA Policies	EL Nxumalo
	01 September 2020	Approval	RPSC
Rev. 3 Draft A		Introduced certification of Training Academies and accreditation of engineering training programmes	Working Group
Rev. 3 Draft B	03 March 2022	Review with the Education BU	RPS BU and Education BU
Rev. 3 Draft E		Submission to the ATT for inputs and comments	RPS BU and Education BU
Rev. 3 Draft F	30 March 2022	Review and Recommendation for Approval	Executive RPS: EL Nxumalo
Rev. 3	12 April 2022	Approval	RPSC

Document No.: A-04-GL	Revision No.: 3	Effective Date: 12/04/2022	
Subject: Training Academy Certification and Accreditation Self-Study Requirements			ECSA
Compiler:	Approving Officer:	Next Review Date:	Page <b>19</b> of <b>19</b>

The Process for

# **Training Academy Certification and Accreditation Self-Study Requirements**

Revision 3 dated 12 April 2022 and consisting 19 pages has been reviewed for adequacy by the Business Unit Manager and is approved by the Acting Executive: Research, Policy and Standards (RPS).

B.	14/04/2022
Business Unit Assistant Manager	Date
ADHI.	14/04/2022
Acting Executive: RPS	Date

This definitive version of this policy is available on our website.