ENGINEERING COUNCIL OF SOUTH AFRICA



Standards and Procedures System

Documentation Requirements for Accreditation Visits to BSc(Eng) / B Eng Programmes

Status: Approved by UAC

Document: PE-73 Version: Revision – 2 Date: 26 July 2004

1. Purpose

This document specifies the responsibilities, timing, format and required content of documentation to be submitted by a university prior to an Accreditation Visit.

Terminology defined in **PE-71** section 3 is used in this document.

2. Responsibility

In arranging an Accreditation Visit, ECSA deals with a single point of contact in the university, the Dean of the Faculty of Engineering, or officer with full delegated authority of the Dean. The Dean is therefore responsible for ensuring that the necessary documentation is submitted to ECSA prior to the Visit. The Dean is required to identify to ECSA the person(s) responsible for preparing the documentation and coordinating the detailed arrangements for each Programme.

3. Availability of documentation

Documentation must reach the ECSA office not later than six weeks before the Visit. ECSA reserves the right to cancel an Accreditation Visit if the documentation is not received in time.

Attention is drawn to the requirements of section 7 for documentation to be readily available during the Visit. Failure to produce on-site documentation or undue delay may jeopardize a favourable Team recommendation.

The Head is expected to ensure that academic staff has access to the documentation as the Team may raise matters from the documentation during interviews.

4. Documentation Requirements

The following documentation requirements are designed in order to provide the Accreditation Team with information needed in the order that the evaluation is made. The documentation consists of four parts:

- 1. Initial information provided by the Dean at the start of planning the Visit, as specified in section 4.1:
- 2. Submission by the Dean, as specified in section 5;
- 3. Self-contained submission for each Programme to be evaluated as specified in section 6;
- 4. Information to be available during the Visit as specified in section 7.

Items 1 and 2 are to be submitted to ECSA at least six weeks prior to the Visit. (**PE-70** requires documentation as a prerequisite for a Visit to take place.)

4.1 Initial information to be submitted

When a Visit is initiated, the Dean must submit the following information to ECSA for use in determining the Teams required, particularly for closely related Programmes, and for Team selection:

- 1. List of Programmes that are offered in or planned for the period of Accreditation;
- 2. For each Programme:
 - (a) the department responsible for the Programme;
 - (b) the person responsible for the Programme;
 - (c) the curriculum, showing the courses/modules, whether compulsory and elective and the year/semester in which offered;
 - (d) major curriculum changes in progress or planned:
 - (e) degree of commonality of assessment methodology with other programmes.

5. Visit Documentation: Submission by the Dean

Prior to each Accreditation Visit the Dean of the Faculty is requested to prepare and submit to ECSA a statement encompassing:-

- 5.1 Strategic objectives of the University and Faculty which is home to engineering programmes, together with an assessment of the extent to which they are achieved.
- 5.2 Faculty commitment to outcomes-based programme objectives and student assessment.
- 5.3 The University and Faculty Policy and practice for quality assurance and quality improvement of the Programme and assessment of students.
- 5.4 Faculty finances including the method of obtaining and allocating staffing, running, equipment, computing and networking, library, travel and research funding.
- 5.5 Common facilities to support programmes.
- 5.6 Description of academic development programme(s) for students who do not meet normal entry requirements.
- 5.7 Perceived strengths and weaknesses of the Faculty, Departments and Programmes.
- 5.8 Any other matters considered relevant.

6. Visit Documentation: Submission for each Programme

Prior to each regular Accreditation Visit the Head of Department is required to prepare and submit to ECSA a statement encompassing the elements defined in sections 6.1 to 6.6.

To restrict the physical volume of Pre-visit documentation, **double sided printing** must be used and a ring-binder that permits the volume(s) to be opened flat must be used.

The per-programme documentation requirements are written for a Regular Visit, Interim Visit or Final Visit. In the case of an Interim Report, the UAC must specify the scope of the required documentation. In the case of a submission for Provisional Evaluation, the documentation must address all the issues listed,

detailing the entire curriculum and plans or commitments for stages not implemented. In the case of a submission for Initial Evaluation, all items must be addressed at least at a planning level.

Any major item of documentation that is common to all programmes may be included in the Dean's documentation and cross-referenced from the per-programme documents.

The Head or Programme co-ordinator designated by the Head is responsible for the correctness and completeness of all documentation, both Pre-visit and on-site, and this responsibility may not be delegated to other staff members.

Persons responsible for preparing the documentation must ensure that the documentation presents the evidence that allows the Team to evaluate the Programme against the criteria in PE-61 using the framework in document PE-75.

6.1 Programme Identification and Responsibility

- 6.1.1 Name of University
- 6.1.2 Name of Department
- 6.1.3 Full name and abbreviation of the degree as defined in the university rules.
- 6.1.4 The person responsible for the Degree Programme.
- 6.1.5 Identify variants on the Programme by which students may obtain a qualification, for example access programmes, franchise arrangements and transfer arrangements. If necessary, describe the routes to the degree by means of a diagram.
- 6.1.6 Dates and nature of the last major and minor revisions of the programme objectives, outcomes, assessment methods, structure or content. Describe plans for changes to the Programme, outcomes, assessment and resources which can come into effect during the five years following the Visit. For every change, *identify the cohort of students* that will graduate under each identified variant curriculum and the range of years over which graduates are expected.

6.2 Follow up on previous Visit

Depending on the decision of the previous Visit provide statements on:

- 6.2.1 In the case of an Interim Report, Interim Visit, or a Final Visit (or a re-evaluation Visit following Conditional Accreditation under Revision 7 or earlier guidelines), a statement indicating how the deficiencies identified at the previous Visit have been remedied.
- 6.2.2 If concerns were expressed in the previous Visit report, the department's response to those concerns must be detailed

6.3 Programme and Course Information

- 6.3.1 A statement of the educational objectives (purpose) of the Programme and the exit level outcomes of the Programme. The University's format for stating objectives and outcomes to its students and constituency should be used.
- 6.3.2 A description of the structure of the Programme.
- 6.3.3 The courses prescribed in each semester or year of study, the staff responsible for the course, the loading in lectures, tutorial and laboratory period per week, assessment components and class sizes. Table 1 in document **PE-76**, **Rev-3** gives the preferred format for this information.

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- 6.3.4 Analysis of the Programme content by knowledge area in the format defined in Table 1 in document **PE-76**, **Rev-3**.
- 6.3.5 Identification of the core of mathematics, basic sciences and fundamental engineering sciences. This must be more than a mere list of courses: rather the logic underlying the construction of the core and arguments for its coherence must be presented.
- 6.3.6 Identification of specialist study components of the Programme. The objectives and logic underlying the specialist component must be presented.
- 6.3.7 As Appendix 1 to the submission, provide information for each course in the curriculum, including service courses, consisting of at least the following:
 - (a) Course outcomes;
 - (b) How the students are assessed against the outcomes;
 - (c) Detailed content;
 - (d) List of prescribed books and other supporting material.

This information should preferably be in the form provided to each student.

6.4 Assessment of Outcomes and Assessment System

In this section, the academic entity responsible for the Programme is required to *provide evidence* that the evaluation Team can use to answer the following question:

- **Question 2:** Does the assessment within the Programme ensure that all graduates satisfy each exit level outcome defined in **PE-61** section 13:
- (a): Using a set of assessment criteria that, taken together, demonstrate the outcome is satisfied; and
- (b): At a level indicated by the range statement?
- 6.4.1 Each outcome specified in **PE-61** section 2 must be explicitly addressed in terms of the means of assessment and the criteria for satisfaction of each outcome and the required level at exit level. Evidence must be presented using Table 9 of **PE-76**, showing
 - The location by course(s) or module(s) of the assessment;
 - The method of assessment, including the assessment criteria;
 - The level of performance required.
- A summary of the criteria for awarding credit, allowing re-assessment, allowing repeat courses, progression of students from one year to next, graduation and exclusion from the Programme.
- 6.4.3 Details of the method of moderation of assessment including the role of second and external examiners.
- 6.4.4 List of external examiners, second examiners, moderators etc. together with their affiliations and the duties assigned to each.
- 6.4.5 Internal academic and administrative checks and balances in the assessment and promotion system.
- 6.4.6 A concise analysis of the strengths and weaknesses of the assessment system.

Note that assessment material for each course is to be made available on site as specified in section 7.

6.5 Teaching and Learning Process

Provide evidence of the effectiveness of the teaching and learning process within the Programme addressing at least the following aspects:

- 6.5.1 What is the teaching and learning methodology and how is it geared to the student entry routes and level(s)?
- 6.5.2 How does the Programme develop the student towards satisfying the exit level outcomes?
- 6.5.3 How does the Programme provide fundamental and core disciplinary knowledge?
- 6.5.4 How does the Programme approach specialist knowledge?
- 6.5.5 What is the formative role of assessment in the Programme?
- 6.5.6 How does the Programme provide a basis for lifelong learning?
- 6.5.7 What is the throughput of the Programme?
- 6.5.8 Provide a concise analysis of the strengths and weaknesses of the teaching and learning process.

6.6 Sustainability Factors for Programme

6.6.1 Staff

- A list of staff with their academic and professional qualifications and experience, specialities and publication numbers. Staff giving support courses to the Degree Programme should also be listed. Table 5 in document **PE-76** Rev-2 shows the preferred format. The ECSA registration status of each member of engineering staff must be shown. (Full CV's of the academic staff are to be available on site.) It should be possible to cross-reference between tables 1 and 5.
- 6.6.1.2 Provide an analysis of key staff indicators as defined in Table 6 of **PE-76** Rev-2.
- 6.6.1.3 Provide a description of strategies for staff recruitment, development and retention.

6.6.2 Students

- What are the entry routes to the Programme, including academic development programmes, and what are the entry requirements for each route? Any admission rating formulas must be explained. What is the distribution of students entering by the various routes? Use Table 3 in **PE-76** Rev-2.
- 6.6.2.2 Describe academic development programmes for students who do not meet direct entry requirements. (If academic development of students in the Programme is covered fully in the Dean's submission or in section 6.5, simply cross-reference it here.)
- 6.6.2.3 Student enrolment statistics over a five-year period. Refer to Table 4 in **PE-76** Rev-2.
- 6.6.2.4 Graduation statistics over a five-year period, including the number of degrees awarded cum laude, first class or distinction categories. Refer to Table 4 in **PE-76** Rev-2.

6.6.3 Resources

- 6.6.3.1. Support staff list showing their overall responsibilities and contributions to the Programme.
- 6.6.3.2 Budget allocations over a five-year period under the headings equipment, computing, running, library books and journals. Headings may be varied depending on university budget categories used. Use Table 7 of **PE-76** Rev-2.

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- 6.6.3.3 Key SAPSE indicators, equivalent subsidy students (ESS) and senior lecturer equivalents (SLE) and the ratio ESS/SLE, over a five-year period. Use Table 7 of **PE-76** Rev-2.
- 6.6.3.4 List of the laboratories that support the Programme with a short description of the facilities and function of each and the support provided for the Programme.
- 6.6.3.5 Computing and networking facilities available (a) to students in the Programme, and (b) to staff of the department.

6.6.4 Quality Assurance and Quality Improvement

- 6.6.4.1 Describe the processes used by the department for assessing the quality of teaching, learning and assessment for the Programme. Provide specimen paper trails for quality assurance of aspects of the Programme.
- 6.6.4.2 Provide a brief description of academic and administrative procedures for Programme review and development, including service courses.

7. Documentation to be available during Visit

The following materials are to be available *in the Team Conference Room* during the Accreditation Visit. Materials relating to service courses must be available in every Team conference room, with student scripts selected from the Programme concerned. Items 7.1 to 7.4 should be compiled in a file for each course.

- 7.1 Assessment Materials for each course including: Test papers, assignments and project statements, examination question papers with specimen solutions for the last three years in each course. Materials must be provided to each Team for all courses taught by service departments.
- 7.2 Marked examination scripts for the most recent examination in each course and project reports. In large classes a selection of the best, average and just passing/failing students scripts in each course should be supplied.
- 7.3 Examples of final year design and/or laboratory/investigational projects representative of the range of sub-disciplines in the Programme and of good, average and just passing/failing students.
- 7.4 Course material supplied to current students: course outlines, tutorial sheets, laboratory experiment instruction sheets, prescribed texts, notes etc.
- 7.5 Access to individual student academic records on request.
- 7.6 Full CV's of the department's academic staff. (Full CV's of service course staff are not required: their details are summarised in table 5.)
- 7.7 Documentation on the internal quality assurance process, including instances of paper trails for quality assurance of aspects of the Programme.

8. Revision History

Version	Date	Revision Authorised by	Nature of Revision
Concept-A	15 Oct 1999	UAC	Initial Synthesis
Draft – A	18 Jan 2000	UAC	Minor corrections
Draft-B	18 April 2000	UAC Working Group	Aligned with PE-75
Draft-C	20 July 2000	UAC	Minor and Editorial Changes
Rev – 0	11 Aug 2000	Council	Converted to PDF format
Rev-1 Draft-A	20 Nov 2001		Increased detail on several items

Rev-1 Draft-B	9 July 2002	Increased detail
Rev-2	26 July 2004	Added detail and clarification