


<b>ENGINEERING COUNCIL OF SOUTH AFRICA</b> <i>Standards and Procedures System</i>		 <b>E C S A</b>
<b>Documentation Requirements for Accreditation Visits</b>		
<b>Status: Approved by Council</b>		
<b>Document : E-12-P</b>	<b>Rev-1</b>	

## 1 Purpose

This document specifies the responsibilities, timing, format and required content of documentation to be submitted by a provider prior to an accreditation visit. These requirements apply to programmes contemplated in the accreditation criteria defined in document E-03-P evaluated by both the EPAC and TPAC.

The notation for various persons and bodies defined in E-10-P, section 3 is used in this document.

## 2 Responsibility

In arranging an accreditation visit, ECSA deals with a single point of contact in the provider, 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's is required to identify to ECSA the person(s) responsible for preparing the documentation and co-ordinating 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 have 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 2 and 3 are to be submitted to ECSA at least six weeks prior to the visit. (The accreditation policy requires documentation as a prerequisite for a visit to take place and provides for cancellation of the visit should documentation not be submitted in time.)

#### **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 will be offered in or are 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, the credits<sup>1</sup> allocated and the year/semester in which offered. The format for this information is defined in Table 1 of E-13-P;
  - d) Major curriculum changes in progress or planned;
  - e) Degree of commonality of assessment methodology with other programmes.

### **5. Visit Documentation**

#### **5.1 General**

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.

#### **5.2 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:

- 5.2.1.** Strategic objectives of the Provider and Faculty which is home to engineering programmes, together with an assessment of the extent to which the programmes are consistent with institutional objectives. These should be drawn from the Faculty's business plan or other approved university documentation.
- 5.2.2.** The Faculty's educational objectives and commitment to outcomes-based programme objectives and student assessment.
- 5.2.3.** The provider and faculty policy and practice for quality assurance and continuous quality improvement of the programme and assessment of students.
- 5.2.4.** Faculty finances, capital and operating, for the present and four previous years: staffing, running, equipment, computing and networking, library, travel and research

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<sup>1</sup> Credits must be calculated according to the procedure specified in the relevant standard.

funding. Table 11 of document E-P-13 may be used. Describe the process for obtaining and allocating funding under the various headings.

5.2.5. Common facilities to support programmes.

5.2.6. Description of academic development programme(s) for students who do not meet normal entry requirements.

5.2.7. Selection and admission of students in relation to the institution's equity and diversity plans.

5.2.8. Staff equity and diversity plans in relation to the institution's plans and the level of achievement by department/school.

5.2.9. Perceived strengths and weaknesses of the faculty, departments and programmes.

5.2.10. 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.

The per-programme documentation requirements are written for a Regular Visit, Interim Visit or Final Visit. In the case of an Interim Report, the accreditation committee 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 not listed in section 5.2 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 E-03-P using the framework in document E-14-P.**

### **6.1 Programme identification and responsibility**

6.1.1. Name of Provider.

6.1.2. Name of Department.

- 6.1.3.** Full name and abbreviation of the qualification as defined in the provider's rules.
- 6.1.4.** The person responsible for the 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.** Summarise any major changes, giving dates of implementation, that have occurred since the last accreditation visit under the headings:  
Educational objectives, curriculum structure and content;  
Assessment of exit level outcomes;  
Teaching, learning, assessment and quality assurance;  
Staff, students and other resources.
- 6.1.7.** Describe plans for changes to the programme, outcomes, assessment and resources which can come into effect during next accreditation cycle. 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 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 decision letter, the provider'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 provider'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, in terms of the courses/modules, whether compulsory or elective, the credits allocated and the allocation to semesters or year of study. Table 1 of document E-13-P must be used.
- 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 2 in document E-13-P gives the preferred format for this information.
- 6.3.4.** Analysis of the programme content by knowledge area in the format defined in Table 3 in document E-13-P.

- 6.3.5. Identification and description of the design of the core of the programme comprising 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 programme. The objectives and logic underlying the specialist component must be presented.
- 6.3.7. The rules of combination governing the requirements for constructing curricula and the award of the qualification, including explicitly stated articulation options into, out of and beyond the programme.
- 6.3.8. 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.
- 6.3.9. As Appendix 1 to the programme submission, provide in a separate bound volume, a specification for each course/module in the curriculum, including service courses, consisting of at least the following:
  - Course outcomes;
  - How the students are assessed against the outcomes;
  - Detailed content;
  - 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:

**Questions 2.1 and 2.2.** Does the assessment within the programme

1. ensure that all graduates satisfy each exit level outcome defined in the relevant standard;
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.

- 6.4.1. Each outcome specified in the relevant standard 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 4 of E-13-P, showing
  - The course(s) or module(s) in which assessment of the outcome takes place at exit level (Column 2);
  - The assessment criteria and the method of assessment (Column 3);
  - The level of performance required of the student (Column 4).
- 6.4.2. Describe the internal policies and procedures to validate the assessment of exit level outcomes through internal processes and external moderation.

**6.4.3.** Internal academic and administrative checks and balances in the assessment and promotion system.

**6.4.4.** A concise analysis of the strengths and weaknesses of the system of assessing exit level outcomes.

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.** Taking the student entry level into account, how does the programme develop;

- fundamental and core disciplinary knowledge
- specialist knowledge
- the student towards satisfying the exit level outcomes?

The format specified in Table 5 of E-13-P is recommended, together with a suitable commentary.

**6.5.2.** What is the teaching and learning methodology, how is it geared to the student entry routes and level(s) and what learning opportunities does it provide?

**6.5.3.** Describe academic development programmes provided? (If academic development of students in the programme is covered fully in the Dean's submission, simply cross reference it here, highlighting any programme-specific conditions.)

**6.5.4.** How does the programme develop independent learning?

**6.5.5.** How is the programme co-ordinated?

**6.5.6.** What is the role of formative assessment in the programme? How does the assessment process provide timely feedback to students?

**6.5.7.** How and at what stages is the progress of students monitored?

**6.5.8.** Details of the method of moderation of assessment including the role of second and external examiners.

**6.5.9.** List of external examiners, second examiners, moderators etc. together with their affiliations and the duties assigned to each. Table 6 provides a format for this information.

**6.5.10.** Describe the processes used by the department/school for assessing and continuously improving the quality of teaching, learning and assessment for the programme. Provide specimen paper trails for quality assurance and improvement aspects of the programme.

**6.5.11.** Provide a brief description of academic and administrative procedures for programme review and development, including service courses.

**6.5.12.** What is the throughput of the programme and how does it vary by gender and race? What measure are taken to monitor and improve/maintain throughput? Data must be formatted according to Table 7 of E-13-P.

**6.5.13.** Provide a concise analysis of the strengths and weaknesses of the teaching, learning and assessment process and of the quality assurance and improvement process.

## **6.6 Sustainability factors for programme**

### **6.6.1 Students**

**6.6.1.1.** 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? What is the distribution of students by admission rating for recent school-leavers. Use Table 8 in E-13-P.

**6.6.1.2.** Student enrolment statistics over a five year period. Refer to Table 7 in E-13-P.

**6.6.1.3.** Graduation statistics over a five year period, showing those graduating in the minimum period and in one or two periods longer than the minimum. Refer to Table 7 in E-13-P.

**6.6.1.4.** Describe the capacity of the school/department to conduct the programme for the enrolled number of students, taking into account other commitments that the unit may have.

### **6.6.2 Staff**

**6.6.2.1.** 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 9 in document E-13-P 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 2 and 9.

**6.6.2.2.** Provide key staff indicators as defined in Table 10 of E-13-P.

**6.6.2.3.** Provide a description of strategies for staff recruitment, development and retention.

**6.6.2.4.** For BEng-type programmes, describe the research profile of the staff and opportunities for research development of staff.

**6.6.2.5.** Support staff list showing their overall responsibilities and contributions to the programme.

### **6.6.3 Resources**

**6.6.3.1.** Budget allocations over a five year period under the headings equipment, computing, running, library books and journals. Headings may be varied depending on provider budget categories used. Use Table 11 of E-13-P.

**6.6.3.2.** Key HEMIS indicators, full time equivalent students (FTE) and senior lecturer equivalents (SLE) and the ratio ESS/SLE, over a five year period. Insert into Table 10 of E-13-P.

**6.6.3.3.** 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.

**6.6.3.4.** Computing and networking facilities available (a) to students in the programme, and (b) to staff of the department, indicating the capacity and time of availability to students in the programme.

### **6.6.4 Impact of programme**

**6.6.4.1** Describe 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 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 year 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. Information on the times that students have access to laboratory, computing and other resources.
- 7.6. Access to individual student academic records on request.
- 7.7. 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.)
- 7.8. Documentation on the internal quality assurance process, including instances of paper trails for quality assurance of aspects of the programme.
- 7.9. Documentation on the moderation process (internal and external) including the moderators reports for the most recent examinations.

#### Revision History

Version	Date	Revision Authorized by	Nature of revision
Rev 0:Concept-A	26 Aug 2006	Working Group	Developed from PE-73-r2
Rev-0 C-B	30 Nov 2006	Working Group	Renumbered, adapted to E-03-P criteria
Rev 0 C-C	19 January 2007	Working Group	Requirements aligned to evaluation form
Draft A	19 May 2007	Working Group	Editorial
Revision 1	7 Feb 2008	Council	