References: 3.2, 3.3 and 3.4

ENGINEERING COUNCIL OF SOUTH AFRICA

ENGINEERING TECHNOLOGY PROGRAMMES

DOCUMENT FOR COMPLETION BY THE ACCREDITATION TEAM
Section 5
DOCUMENTATION FOR USE DURING ACCREDITATION VISIT
REPORT for Baccalaureus Technologiae: Engineering

EDUCATIONAL INSTITUTION			
SCHOOL/DEPARTMENT			
DISCIPLINE			
PROGRAMME			
PERSON RESPONSIBLE FOR PROGRAMME			
TYPE OF VISIT			
DATE OF VISIT			
DATE OF PREVIOUS VISIT			
OUTCOME OF PREVIOUS VISIT			
NUMBER OF PAGES OF THIS REPORT	**Pages (excluding front page)**		
VISIT TEAM	**NAME**		**SIGNATURE**
Leader	....		....
Member	....		....
Member	....		....
Member	....		....
Member	....		....
Member	....		....
Observer	....		....

The open lines between the questions are for comments*

References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
2.2	**PURPOSE STATEMENT**						
2.2	Is the purpose of the programme clearly stated?						
2.2	Is the description/specification of the programme clearly stated?						
2.2	Does the purpose of the qualification describe the work of a Candidate Engineering Professional?						
2.3	**DESCRIPTION OF CRITERIA OF QUALIFICATION**						
2.3.1	Does the description of the criteria/specification/purpose of the qualification meet the ECSA Criteria for the relevant qualification -						
i	General engineering – identification and analysis of problems, problem solving.						
ii	Management and communication – in the working environment of self and others.						
iii	Engineering specific to discipline and the target industry.						
iv	Application of engineering practice and ethical work practice – including evaluation of ability, competency and work of oneself and of others.						

ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

CAMPUS………………………………... DISCIPLINE…………………………………DATE……………………

References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
2.3.3	**For the Baccalaureus Technologiae Degree: Engineering** Does the purpose indicate						
i	That the qualification inclusive of the relevant National Diploma in Engineering or proof of equivalent competency.						
ii	A higher level of proficiency (than that required in the National Diploma) in a particular engineering technology is achieved.						
iii	A basic structure to meet the core requirements/underpinning knowledge of mathematics, science and technology as applied in engineering. This includes but is not limited to:						
	• Use of mathematics to solve technical problems and simple modelling						
	• Support reasoning in technical subjects. Evaluation of results of calculations						
	• Perform statistical analyses						

ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

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References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
	• Basic science that focuses on the needs of specialist technology area, supports reasoning about engineering phenomena						
	• Engineering science that focuses on know-how in specialist field, must know how knowledge reacts with related areas and must support interaction with other specialists and generalists						
iv	Technology is transferred for practical purposes. At least 30% of the qualification must be project work involving the solution of **real/industrial/applied** problems using fundamental principles that underpin current technology.						
v	Application of knowledge and skills is used in solving complex problems using analytical thinking, technical and managerial skills.						

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
2.4	**CRITICAL CROSS- FIELD OUTCOMES OF BACCALAUREUS TECHNOLOGIAE: ENGINEERING**						
2.4	Does the specification comply with the content specified by ECSA with respect to						
i	Identify and solve problems in which responses display that responsible decisions using critical and creative thinking have been made.						

ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

CAMPUS……………………………... DISCIPLINE…………………………………DATE……………………

References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
ii	Work effectively with others as a member of a team, group, organisation, community						
iii	Organise and manage oneself and one's activities responsibly and effectively						
iv	Collect, analyse, organise and critically evaluate information						
v	Communicate effectively using visual, mathematical and/or language skills in the modes of oral and/or written persuasion.						
vi	Use science and technology effectively and critically, showing responsibility towards the environment and health of others.						
vii	Demonstrate an understanding of the world as a set of relatedsystems by recognising that problem-solving contexts do not exist in isolation.						
viii	In order to contribute to the full personal development of each learner and the social and economic development of the society at large, it must be the intention underlying any programme of learning to make an individual aware of the importance of:						
	o Reflecting on and exploring a variety of strategies to learn more effectively						

ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

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References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
	o Participating as responsible citizens in the life of local, national and global communities						
	o Being culturally and aesthetically sensitive across a range of social contexts						
	o Exploring education and career opportunities, and						
	o Developing entrepreneurial opportunities						
2.5	**LEARNING STRATEGY**						
2.5	Does the learning structure specified comply with the criteria specified by ECSA for learning strategy with respect to?						
	Academic Education						
i	Address components of the qualification that are best learnt using this method of learning.						

ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

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References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
ii	Addressing identifiable components of the qualification as described in the criteria including the acquisition of knowledge and skills and the ability to identify problems and to apply knowledge in solving them.						
iii	Must have appropriate entrance requirements/prerequisites.						
iv	Must have definite exit criteria/measurable competencies.						
v	Problem solving, design and synthesis must follow a logical method and become progressively more complex.						
vi	Resources must be adequate to complete the learning specified. The resources include but are not limited to:						
	• Lecturers with adequate knowledge, skill and appropriate experience						
	• Tutors with adequate knowledge, skill and appropriate experience						
	• Lecture facilities and tutorial rooms, resource centers						
vii	Provision for maintaining and developing the resources must be adequate. In the case of staff issues, these should include but are not limited to:						

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References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
	• Ensuring adequate knowledge						
	• Ensuring adequate teaching skills						
	• Ensuring that industrial exposure is current and appropriate for the content taught						
	• Appropriate work load						
	• Adequate staff retention and variation						
	• Continuing professional development						
viii	Registration with ECSA is preferable, to determine the level of competence.						

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SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES BTech	NO BTech	YES BTech	NO BTech	YES BTech	NO BTech
ix	Must have effective/adequate and appropriate assessment/evaluation method (described and applied).						
x	Credit/assessment must be appropriate to the type of learning and the effort required/complexity of the learning. (It is expected that credit earned for tests, tutorials and small projects is proportional to the effort expended and competency/learning achieved.)						
.xi	The results achieved should indicate a 'typical' rate of success achieved by the learners.						
xii	Student to lecturer ratio should be such that the outcomes are not compromised.						
2.5.3	**Laboratory Work**						
i	Develop manipulative skills needed in the workplace using equipment and instruments currently used in the discipline.						

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References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
ii	Acquire knowledge that can be effectively learnt through hands on activities and to consolidate/review learning acquired through academic studies. Where academic and laboratory studies address the same content, it is expected that the content is addressed concurrently in both using both methods.						
iii	Assessment and credit awarded must be appropriate to the type of learning and the effort required/complexity of the learning.						
iv	The combined work of individuals may lead to a group result but the work of each individual must be clearly identified and assessed independently.						
v	Adequate resources are available and are used to execute the work specified according to acceptable and safe practice – including but not limited to time, equipment, and supervision.						
vi	Provision for maintaining and developing the resources must be adequate. This includes but is not limited to:						
	o Ensuring adequate quantities and qualities of appropriate equipment is available						

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SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
	o Ensuring adequate number of technical support staff, teaching staff and supervisory staff and that these staff are competent						
	o Appropriate work load for the staff						
vii	Adequate staff retention and variation.						
viii	Assessment and credit awarded must be appropriate to the type of learning and the effort required/complexity of the learning.						
2.5.4	**Practical Assignments/Project Work**						
i	Appropriate project work is desirable in all subjects. It is essential in engineering components of each programme.						
ii	Students must source and evaluate information using libraries and other resources and/or establish information through experimentation. This is combined with making deductions and forming conclusions and reporting results.						
iii	Projects must be more complex at higher levels in the programme, to ensure that many of the skills and knowledge acquired during the earlier learning activities. This includes the application of mathematics, science, communication and computing in problem solving, design and synthesis in progressively more complex exercises.						

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SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES BTech	NO BTech	YES BTech	NO BTech	YES BTech	NO BTech
iv	Adequate resources are available and are used by the learners for the projects. These include supervision and tuition and guidance, laboratories, libraries and other media sources.						
v	Safe and ethical practice is applied during the execution of projects and their evaluation.						
vi	Assessment and credit awarded must be appropriate to the type of learning and the effort required/complexity of the learning.						
vii	The work of each student must be clearly identified and assessed independently.						
2.5.5	**Does the computer component achieve/address the following -**						
i	Competency of the students in the use of common computer applications such as word processing, drawing and using spread sheets.						
ii	Use of these applications in further studies.						
iii	Learning of and application of appropriate software in discipline specific activities.						
iv	Adequate access to the equipment that is required for the work specified.						

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SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES BTech	NO BTech	YES BTech	NO BTech	YES BTech	NO BTech
v	Provision for maintaining and developing the resources.						
vi	Tuition and software support that ensure that the specified learning can take place.						
vii	Assessment and credit awarded must be appropriate to the type of learning and the effort required/complexity of the learning.						
2.6	**Is the assessment/quality assurance specified adequate to ensure compliance with the specification with respect to:**						
2.6.1	Appropriate assessment for individual components/aspects of the qualification						
i	It must be carried out according to defined procedure(s)						
ii	All the outcomes of the qualification must be assessed						
iii	The Weighting of the credits must reflect the learning involved, the complexity of the work assessed and its importance in the course						
iv	The results achieved over a number of years						

ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

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SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech
v	Assessments must be accurate measures of the competencies/knowledge and skills achieved.						
vi	Has the Examination process or the graduation process been compromised in any way?						
2.6.2	**Entrance Requirements**						
	Are the entrance requirements adequate to ensure the students admitted to the program will be successful?						
	Has the minimum Entrance requirement process been compromised in any way?						

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
2.7	**Does the documentation show that the programme is revised regularly to address changing requirements and does this take place in a controlled manner?**						
	Additional Questions						

ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

CAMPUS……………………………... DISCIPLINE………………………………….DATE……………………

References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

REF. (SEC. 2)	QUESTION	DOCUMENTATION (3.1.1)		INTERVIEWS (3.1.2)		INSPECTIONS (3.1.3)	
		YES	NO	YES	NO	YES	NO
		BTech	BTech	BTech	BTech	BTech	BTech

ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

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SECTION 5:   REPORT

Deficiencies to be described using the format below
The programme is considered deficient in that:

REF.	POLICY DESCRIPTION OF DEFICIENCIES Insert the Question from Policy Section 5	DESCRIPTION OF DEFICIENCIES

Concerns to be described using the format below
The programme was found to have the following concerns:

REF.	POLICY DESCRIPTION OF CONCERNS Insert the Question from Policy Section 5	DESCRIPTION OF CONCERNS

Further comments
The following issues that are not addressed in other parts of the report, are recorded by the accreditation team:

ISSUE/COMMENT	COMMENT

*Complete the relevant section

ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

CAMPUS……………………………... DISCIPLINE…………………………………DATE……………………

References: 3.2, 3.3 and 3.4

SECTION 5:   REPORT

1.   The accreditation assessment team recommends that the

o   **Baccalaureus Technologiae: Engineering: ....
    be PROVISIONALLY**

    ACCREDITED until the first group of students graduate in ....

NB: USE FOR ACCREDITATION UNTIL THE NEXT CYCLE

2.   The accreditation assessment team recommends that the

o   **Baccalaureus Technologiae: Engineering:
    .... be ACCREDITED**

    until ....

NB: USE FOR ACCREDITATION FOR A LIMITED PERIOD (At the Regular visit)

3.   The accreditation assessment team recommends that the

o   **Baccalaureus Technologiae: Engineering:
    .... be ACCREDITED**

    until XX XXXXXXXXX XXXX

    subject to a Quality Improvement Plan that addresses all the deficiencies and concerns be
    submitted to ECSA by XX XXXXXXXX XXXX with a follow up visit before XX XXXXXXXX XXXX.

Team Leader: ....   Member: ....

                                                                        ....

Visit Leader: ....

                                                                        ....

Date: ....

          ENGINEERING TECHNOLOGY PROGRAMME EDUCATION PROVIDER…………………………..

CAMPUS……………………………... DISCIPLINE…………………………………DATE……………………