



The South African Council for the Project and Construction Management Professions

— CONSTRUCTING NEW PERSPECTIVES —

ACCREDITATION POLICY, PROCEDURES, EDUCATIONAL FRAMEWORK AND GUIDELINES

SECOND ACCREDITATION CYCLE 2017- 2022

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FOREWORD FROM THE PRESIDENT

To accredit is to show to be true or correct; to certify as meeting official requirements - according to the Chambers English Dictionary. Accreditation is a mechanism by which mandated professional bodies assure the quality of upstream supply of professionals, in this case the taught programmes of academic institutions. No profession can sustain its existence without assuring minimum quality standard and a measure of consistency in the education and training of candidates who, with relevant experience, qualify as fully-fledged professional persons.



Mr Eric Manchidi
President: SACPCMP

The South African Council for the Project and Construction Management Professions (SACPCMP) is mandated by Act 48 of 2000 to assess educational programmes in project and construction management with a view to granting conditional or unconditional accreditation or refusing or withdrawing accreditation of such programmes. From its inception in 2001, the SACPCMP recognised the need to fulfil this mandate. However, it has taken two terms of Council to formulate an accreditation policy and framework as a basis for the fulfilment of this mandate.

The wording of the Act 48 of 2000 suggests that, once Council has met the precedent requirements for programme accreditation, including alignment with the Higher Education Act and consultations with the Council for Higher Education, South African Qualifications Authority and the Council for the Built Environment, it should conduct mandatory accreditation of relevant programmes.

This policy document presents the underlying philosophy and approach the SACPCMP will adopt in accrediting all construction management and project management programmes in South Africa.

The SACPCMP is foremost in formulating a policy for accreditation of both undergraduate and postgraduate programmes leading to relevant qualifications in construction management, project management and construction health and safety. In formulating the accreditation policy, the SACPCMP adopted an eclectic approach yet avoided reinventing the wheel of well-established and credible approaches to accreditation.

As Council enters its second 5 years accreditation cycle with effect from 1 April 2017, I believe that this accreditation policy is fit for purpose and anticipate that its adoption by the Council will be matched by full acceptance by the target stakeholders, namely institutions of higher learning.

The SACPCMP recognises that accreditation places an unavoidable burden on educational institutions. For this reason, a workshop is planned with educational institutions to reach common understanding on how to minimise this burden, for example, through convenient timing of visits or timelines for documentation.

I hereby commend this accreditation policy to affected stakeholders for scrutiny and constructive feedback to the Council.

Mr Eric Manchidi
President: SACPCMP

REGISTRAR'S MESSAGE

The Council is mandated to accredit programmes offered by educational institutions, leading to the award of construction management and project management qualifications as stipulated in section 13 of the SACPCMP Act No. 48 of 2000. In addition it is mandated to conduct accreditation audits of all institutions of higher learning that offer Construction and Project Management programmes. It should also consult with the Council on Higher Education (CHE) regarding matters relevant to education in Construction and Project Management as well as consult with the South African Qualifications Authority (SAQA) or anybody established by it and voluntary associations to determine competency standards for registration. This requires an elaborate system of auditing and reporting.



Ms. Nomvula Rakolote
Registrar

To this end, the Council has developed an accreditation policy for the purpose of auditing programmes leading to qualifications in the fields covered by the Council, to enhance its mandate and to improve the quality of qualifications in Project and Construction Management and Construction Health and Safety.

Whilst drafting the programme accreditation policy and framework, the Council was cognizant of the provisions inherent in the SAQA Act No 58 of 1995, Higher Education Act 101 of 1997, Council for the Built Environment(CBE) Act of 2000, Skills Development Act of 1998, the National Qualifications Framework (NQF)Act 2008 and the Higher Education Qualifications Framework (HEQF). These legislations provided the guiding principles with specific reference to the provision of quality education.

The CBE has supported the SACPCMP programme accreditation policy development process to its conclusion and approval. In addition to financial support, the CBE also provided guidance on standardization, synergy and alignment of accreditation criteria as well as consistency in the accreditation policies among the Built Environment Professions while still taking into account the unique nature of each profession. Consultation was also done with relevant stakeholders that included SAQA, HEQC and the VAs for their input.

As we enter into the second accreditation cycle of Council with effect from 1 April 2017, the amended Programme Accreditation policy incorporates amendments which were consulted on and workshopped with the respective Heads of Department of accredited Institutions, Assessors and Panellists including members of the Programme Accreditation Committee of Council.

I wish to thank all roleplayers involved in the development and amendment of this policy. It is due to their hardwork and dedication that the Council is in a position of auditing programmes in institutions of higher learning and a new era has begun, of improving qualifications in the Project and Construction Management as well as Construction Health and Safety professions.

Ms. Nomvula Rakolote
Registrar

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CONSTRUCTION AND PROJECT MANAGEMENT PROGRAMMES

SACPCMP

The South African Council for the Project and Construction Management Professions

— **CONSTRUCTING NEW PERSPECTIVES** —

SECTION 1

PROGRAMME ACCREDITATION POLICY

SECTION 1: PROGRAMME ACCREDITATION POLICY

1.1 Background Information

The South African Council for the Project and Construction Management Professions (SACPCMP) is constituted and recognised by Act no. 48 of 2000: Project and Construction Management Professions Act. The function of this act is twofold that is, first the provision for the registration of professionals, candidates and specified categories in the project and construction management professions, and secondly, the regulation of the project and construction management and construction health and safety professions in association with the Council for the Built Environment (RSA, 2000). Specifically, Act 48 of 2000 (RSA, 2000:10-11) grants the following powers, among others, to the SACPCMP:

- i. Subject to sections 5 and 7 of the Higher Education Act, 1997 (Act No. 101 of 1997), to conduct accreditation visits to any educational institution which has a department, school or faculty which offers project and construction management educational programmes, but must conduct at least one such visit during its term of office. If the Council does not conduct an accreditation visit within that term of office, it must notify the Minister accordingly and provide him or her with reasons for the failure to do so;
- ii. Either conditionally or unconditionally to grant, refuse or withdraw accreditation to all educational institutions and their educational programmes with regard to project and construction management;
- iii. Consult with the Council on Higher Education (CHE) established in terms of the Higher Education Act, 1997, regarding matters relevant to education in project and construction management;
- iv. To consult with the South African Qualifications Authority (SAQA) established by the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995), or any body established by it and the voluntary associations, to determine competency standards for the purpose of registration;

SECTION 1: ACCREDITATION POLICY

- v. To liaise with the relevant National Standards Body established in terms of Chapter 3 of the regulations under the South African Qualifications Authority Act, 1995, with a view to the establishment of a standards generating body in terms of those regulations;
- vi. To give advice or render assistance to any educational institution, voluntary association or examining body with regard to educational facilities for and the training and education of registered persons and prospective registered persons.

The most relevant sections with regards to programme accreditation are thus the power to conduct institutional audits and assessment for accreditation of construction and project management programmes in addition to having the ability to decline or withdraw such accreditation, and the requirement to consult with SAQA, CHE and CBE in pursuance of accreditation.

The accreditation policy review was initiated by the Accreditation Committee in 2016 and sanctioned by the Council. The new policy builds on the first policy issued in 2011. The objective is to update the existing policy in order to recognise the increasingly technological changes within the project and construction management discipline.

The review process involved a desktop analysis of construction management programmes locally and internationally to identify dominant themes which are consolidated into a body of knowledge that reflects the socio-economic environment prevailing in South Africa. This is presented to relevant stakeholders who have an interest in higher learning in construction management education. Given the role of South Africa on the African continent and beyond, the framework is designed to ensure relevance in other economies with similar socio-economic conditions.

The review took cognizance of changes within the built environment that had to be recognized by the education system, particularly in project and construction management.

These include: -

- Changes in education policy
- Regulatory issues affecting the built environment
- Prominence of health and safety, sustainable development and environmental issues and the implications thereof for construction management education
- Innovation in technology.

1.2 Aims

- To define the accreditation policy and underpin the theoretical spectrum upon which the construction management profession is practiced and developed.
- To incorporate the ethical norms and conduct within the profession.
- To express best practice in quality assurance as contemplated by the Accreditation Committee of SACPCMP and CHE policies.
- To integrate theoretical knowledge and industry and professional practice to enhance the learning process.
- To relate the learning process to professional development and inculcate a culture of life-long learning.

1.3 The Framework

The framework identifies several learning outcomes in project and construction management as detailed in the education framework. The framework provides a range of learning outcomes in the learning continuum that defines the project and construction management discipline; details of which can be found in the education framework.

1.4 The Underpinning Legal Framework

The South African Council for the Project and Construction Management Professions (SACPCMP) is constituted and recognized by Act no. 48 of 2000: Project and Construction Management Professions Act. The function of this Act is twofold: firstly, the provision for the registration of professionals, candidates and specified categories in the project and construction management professions, and secondly, the regulation of the project and construction management professions in association with the Council for the Built Environment (RSA, 2000). Specifically, section 13 of Act 48 of 2000 (RSA, 2000:10-11) grants the following powers, among others, to the SACPCMP:

- i. Subject to sections 5 and 7 of the Higher Education Act, 1997 (Act No. 101 of 1997) and the subsequent amendments to conduct accreditation visits to any educational institution which has a department, school or faculty which offers project and construction management educational programmes, but must conduct at least one such visit during its term of office. If the Council does not conduct an accreditation visit within that term of office, it must notify the Minister accordingly and provide him or her with reasons for the failure to do so;
- ii. Either unconditionally or conditionally to grant, refuse or withdraw accreditation to all educational institutions and their educational programmes with regard to project and construction management;
- iii. Consult with the Council on Higher Education (CHE) established in terms of the Higher Education Act, 1997, regarding matters relevant to education in project and construction management;
- iv. To consult with the South African Qualifications Authority (SAQA) established by the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995), or any body established by it and the voluntary associations, to determine competency standards for the purpose of registration;

- v. To liaise with the relevant National Standards Body established in terms of Chapter 3 of the regulations under the South African Qualifications Authority Act, 1995, with a view to the establishment of a standards generating body in terms of those regulations;
- vi. To give advice or render assistance to any educational institution, voluntary association or examining body with regard to educational facilities for and the training and education of registered persons and prospective registered persons.

The most relevant sections with regard to programme accreditation therefore include the power to conduct institutional audits and assessment for accreditation of construction and project management programmes in addition to having the ability to decline or withdraw such accreditation, and the requirement to consult with SAQA, CHE and CBE in pursuance of accreditation.

1.5 Definition, Concepts and Principles of Accreditation

Construction Management is defined as:

- *The management of the development and improvement of the built environment;*
- *Exercised at a variety of levels from site and project, through the corporate organizations of the industry and its clients, to society as a whole;*
- *Embracing the entire construction value stream from inception to recycling, and focusing upon a commitment to sustainable construction;*
- *Incorporating a wide range of specialist services;*
- *Guided by a system of values demonstrating responsibility to humanity and to the future of our planet;*
- *Informed, supported and challenged by an independent academic discipline*

CIOB (2010)

SACPCMP takes cognizance of the CIOB definition and, among others, make this a reference point when identifying and recognizing programmes for accreditation. To this end, accreditation is defined as *the assessment of an academic programme, department or institution against a predetermined set of requirements and standards to ensure competency and desired professional conduct among the graduates*. In the context of the Project and Construction Management Professions Act No. 48 of 2000;, ‘**accreditation**’ means recognition by the Council of educational programmes offered by educational institutions relating to the project and construction management professions, and after the process of evaluation. In a nutshell accreditation offers the following benefits:-

- It ensures the protection of public interest by guaranteeing competent and ethically oriented professionals.
- It acts as a quality assurance tool to programme providers.
- It performs an oversight role to Government.
- It ensures a standard benchmark for evaluating similar programmes.
- It secures greater employment mobility for programme graduates.

Accreditation may be mandatory or voluntary in approach. As far as SACPCMP is concerned, a mandatory accreditation process is favoured as there is a need to comply with the existing Project and Construction Management Professions Act No. 48 of 2000: Other motivations for mandatory accreditation are the need for national compatibility and greater collaboration among institutions nationally and internationally.

It should be noted that registered persons need to participate in the accreditation process in order to signify the importance of collaboration between the institutions and the industry to make it easier for graduates from accredited programmes to enter the job market. In South Africa, particularly in the project and construction management professions, this is widely supported by Act no. 48 of 2000.

Accreditation works on the principles that (1) the unit being accredited, its programme, department or faculty must be clearly identified, (2) the process is consultative and peer driven; (3) the process may include requests from the programme provider, an accreditation visit and an accreditation decision; (4) the decision is valid for a cycle and (5) differentiates full accreditation from provisional accreditation and reaccreditation. Generally speaking, accreditation is defined as the assessment of an academic programme, department or institution against a predetermined set of requirements to ensure competency and desired professional conduct among the graduates.

SECTION 1: PROGRAMME ACCREDITATION POLICY

1.6 Application of the Legal Framework

The main acts that govern the accreditation of academic and professional programmes in the construction and project management professions are the SAQA Act No 58 of 1998, Higher Education Act 101 of 1997 and the Council for the Built Environment Act No. 43 of 2000. These acts discuss pertinent issues that guide and empower SAQA, CHE and CBE and are discussed below.

1.6.1 SAQA Act No 58 of 1995

This Act delineates the functions of the South Africa Qualifications Authority which include the following (Republic of South Africa, 1995):

- i. to oversee the development of the National Qualifications Framework;
- ii. to formulate and publish policies and criteria for (a) the registration of bodies responsible for establishing education and training standards or qualifications and (b) the accreditation of bodies responsible for monitoring and auditing achievements in terms of such standards or qualifications;
- iii. to oversee the implementation of the National Qualifications Framework, including (a) the registration or accreditation of bodies referred to in paragraph (ii) and the assignment of functions to them; (b) the registration of national standards and qualifications; (c) steps to ensure compliance with provisions for accreditation; and (d) steps to ensure that standards and registered qualifications are internationally comparable;
- iv. to advise the Minister on matters affecting the registration of standards and qualifications; and
- v. to be responsible for the control of the finances of the Authority.

Part 2 of the second function provides the legal basis supporting accreditation of programmes by the SACPMCP and lays down the framework for co-operation with SAQA.

1.6.2 Higher Education Act No. 101 of 1997

The Act outlines the functions of the CHE as, among others:

- i. to provide advice to the Minister on any aspect of higher education;
- ii. to promote quality assurance in higher education;
- iii. to audit the quality assurance mechanisms of higher education institutions, and accredit programmes of higher education.

In discharging the functions related to quality assurance (ii and iii above), the CHE is required to establish a Higher Education Quality Committee (HEQC) which is answerable to SAQA and can delegate any quality promotion and quality assurance functions to other appropriate bodies capable of performing such functions. This is where the role of the SACPCMP in the accreditation process comes in.

1.6.3 Council for the Built Environment Act No. 43 of 2000:

The most applicable functions of the CBE with regard to accreditation is outlined in the Council for the Built Environment Act No 43 of 2000 as follows:

- i. to ensure the consistent application of policy by the councils for the professions with regard to accreditation; the registration of different categories of registered persons; key elements of competence testing of registered persons; codes of conduct to be prescribed by the councils for the professions;
- ii. the recognition of voluntary associations for the built environment professions, by approving the framework for that recognition submitted by the councils for the professions, taking due cognisance of the characteristics of each built environment profession; and
- iii. in consultation with councils for the professions, to obtain recognition for the councils for the professions as bodies responsible for the establishment of education and training standards in terms of the SAQA Act (Act No. 58 of 1995).

This implies that the CBE must, in addition to other duties, support and delegate accreditation of programmes to the SACPCMP where project and construction management professions are concerned.

1.6.4 Skills Development Act No 97 of 1998

The Skills Development Act of 1998 has enabled the restructuring of technical programmes in order to accommodate greater numbers which are required by the country. This has led to the introduction of Sector Education and Training Authorities (SETAs) which are accredited by SAQA. At a higher level, however, the SACPCMP needs carry out accreditation in order to protect the public interest and ensure compliance with the national policy and legislation.

1.6.5 The National Qualifications Framework Act 2008

This Act provides for the creation of quality councils for post basic education. It also recognizes SAQA as the overarching authority No 67 of in charge of development and implementation of policy and criteria for recognising professional bodies and designations, inter alia other statutory and non-statutory bodies. The professional bodies must, however, co-operate with the quality councils to ensure quality assurance is achieved.

The quality councils include Umalusi (for general and further education courses), CHE (for Higher Education) and the Quality Council for Trades and Occupations (QCTO) (for trades and occupational qualifications).

1.7 The Higher Education Qualifications Framework (HEQF), Government Notice of 2007

This framework unified the qualifications for all tertiary institutions in order to promote articulation and transfer of students across the levels. The framework also addresses the issue of standards setting and quality assurance and mandated the CHE with the responsibility of generating and setting standards for all higher education qualifications and ensuring that they met SAQA criteria for registration as a national qualification. The framework also noted that professional degrees could be designed with collaboration of the professional councils.

1.8 Rationale

The motivation for accreditation of programmes is fourfold: first, the need to ensure acceptable quality of programmes; second, the need to ensure that academic programmes have established mechanisms that can yield reliable information for programme planning, self evaluation, external evaluation and public reporting; thirdly, the need to validate institutional information on effectiveness of programmes; and lastly, the need for peer and expert review of programmes to ensure consistency and enhance credibility (Higher Education Quality Committee, 2004a; Higher Education Quality Committee, 2004b).

The Higher Education Quality Committee (2004a) requires that quality management in education programmes must ensure that the institution has systems strategies and resources in place that take care of quality assurance, support, development and enhancement, in addition to monitoring and evaluation.

1.9 Principles

Currently there are several categories of registration in the project and construction management professions; health and safety, and mentorship as well as candidate categories in those areas. However, this policy is focused on FOUR categories: (a) professional construction manager, (b) professional construction project manager, (c) candidate construction manager and (d) candidate construction project manager.

It must be emphasised that a person may not practice in any of these categories unless registered in that category, and that a person registered in the category of candidate must perform work in the project and construction management professions only under the supervision and guidance of a professional in a category as prescribed.

A person applying for registration as a candidate in whichever category is required to have satisfied the education outcomes as determined by the Council (that is, has passed accredited or recognized examinations at any educational institution offering relevant educational programmes in project and construction management and has passed any other examination that may be determined by the Council among other requirements). On the other hand, registration in the professional category requires demonstration of competence as measured against standards determined by the Council for the relevant category of registration, in addition to passing any additional examinations that may be determined by the Council, among other requirements.

The above emphasizes the importance of the appropriate educational background in order for a professional to fit into any of the above categories of practice. In order for the education programmes to deliver the correct outcome, the SACPMCP must put in place credible measures for the accreditation of programmes by institutions. It is in this regard that the role of the accreditation committee is to provide the following services:

- i. to determine the equivalence of external awards in project and construction management profession in liaison with SAQA and CHE;
- ii. to explore avenues for enriching programmes in the project and construction management profession; and
- iii. to assess programmes for relevance and quality after a thorough audit of modules and learning infrastructure of educational establishments.

For their part, the educational establishments are required to provide accreditation documents to the committee, permit accreditation visits by the committee and pay the accreditation fees as determined by the SACPCMP.

SECTION 1: ACCREDITATION POLICY

1.10 Key Requirements

Programmes are required to show clear policies that promote principles that are consistent with the project and construction management profession. The key requirements assessed during the programme accreditation visits must be in line with the following policies:

- i. Programme administration and governance: This aims at ensuring overall credibility in the organisation and management of programmes in construction management (CM) and construction project management (CPM).
- ii. Student support and success: With reference to the Higher Education Quality Committee (2004), the programme must ensure adequate infrastructure, adequate staffing levels and regular review of academic support services for the programmes offered, among other things.
- iii. Teaching, learning and pedagogies: Policies on teaching, learning and pedagogic skills must be geared towards quality management. This implies proper record keeping for all courses /programmes offered; continuous review of the programmes in line with the mission, vision and strategic plan of the institution; impressive student success rates; and clear allocation of various responsibilities for the whole programme.
- iv. Student assessment: Student assessment must be done in a manner that enforces integrity, proper quality assurance and commitment to the acquisition of skills and knowledge.
- v. Work-based learning or practical training: Programmes are required to integrate practical training or work-based learning with theoretical knowledge, as this ensures not only the relevance of training to the industry needs but also the students' exposure to a work environment.

-
- vi. Progression to post graduate studies, programme output (graduation) and impact (placement in the workplace): Records should give a positive feedback on the overall effects of the programme.
 - vii. Programmes are required to show clear cut policies that promote the principles that are consistent with the construction and project management professions.

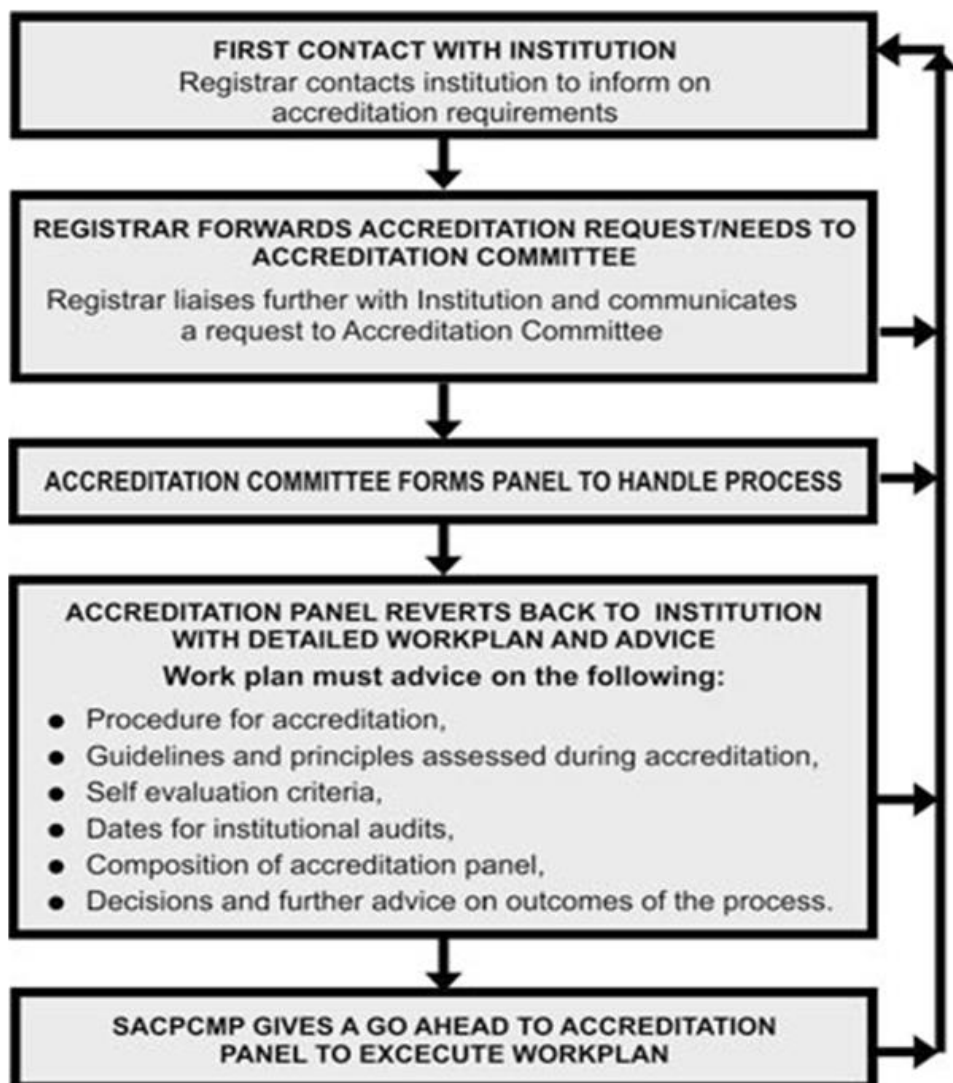
1.11 General Procedure and Protocol

Accreditation of programmes is initiated by the SACPCMP. The Registrar communicates with the institutions regarding the requirement, forwards a request to the accreditation committee which meets to agree on an associated timing and work plan.

The work plan for the accreditation process must include reverting back to the institution with advice on general guidelines and principles for accreditation, self-evaluation criteria and the accreditation process details. Figure 1 below outlines the general procedure for the programme accreditation process.

SECTION 1: ACCREDITATION POLICY

Figure 1.1: General Procedure for Accreditation Process



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The South African Council for the Project and Construction Management Professions

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SECTION 2

PROGRAMME ACCREDITATION

PROCEDURE AND PROCESSES

2.1 Introduction

This section explains the administrative processes, procedures and categories for accreditation of the programmes CPM and CM. A documented accreditation system is favoured. This system focuses mainly on the criteria and processes needed for evaluation of CPM/CM education programmes. Table 2.1 below outlines the eligibility of graduates from different programmes to register in various categories of CPM/CM.

Table 2.1: Eligibility for professional registration for different categories of graduates

Ref.	Programme	Eligibility for Professional Registration
1	Diploma in CM or equivalent	Candidate Registered CM
2	Advanced Diploma in CM or equivalent	Candidate Registered CM
3	Bachelor's degree in CM or equivalent	Candidate Registered CM
4	Honours Degree in CM/CPM or equivalent	Candidate Registered CM/CPM
5	Postgraduate Diploma in CM/CPM or equivalent	Candidate Registered CM/CPM
6	Master of Science in CM/CPM or equivalent	Candidate Registered CM/CPM

Accreditation in this case implies formal recognition by the SACPCMP through a quality assurance procedure that meets the guidelines in parts 1-5 of the process. The main purposes of accreditation are:

- i. Public identification of programmes producing graduates with appropriate technical capabilities and required competencies in CM and CPM
- ii. Certification to SAQA, CHE and other government/quasi government bodies to ensure competence, reduced risks and safety
- iii. A firm guarantee to prospective students and graduates that programmes

SECTION 2: ACCREDITATION PROCEDURE AND PROCESSES

are of acceptable quality

- iv. A basis for international comparability, reciprocal recognition, and graduate mobility
- v. Consultative feedback on the design of programmes to ensure continued reliability and relevancy to CPM and CM needs.

The accreditation criteria and self-assessment guidelines provide a consistent theme and the basis upon which programme providers are required to submit documentation for evaluation by the accreditation panel.

The required documentation procedures are simplified to minimise the complexity of the compilation task, any duplication of effort, and maximise the effectiveness of the information sought.

2.2 The Basis of Accreditation

A credible education programme in CPM/CM must be sequential, specific in discipline with unique outcomes. This means that the programme must incorporate multiple delivery options, with each option representing a separate implementation pathway. This is clearly embraced in the Education Framework and subsequent documents explaining accreditation criteria guidelines to accreditation and self-assessment framework. In these documents multiple career pathways are outlined to achieve different levels in CM and CPM competencies.

The SACPCMP evaluates CPM/CM/CHS programmes for accreditation at the initiation of the Registrar of the Council. Accreditation of programmes in CM/CPM is obligatory. Accreditation does not award titles to individuals or to organisational entities such as faculties or schools.

The levels at which the programmes are to be accredited are outlined in Table 1. It is acknowledged that during accreditation the programmes are not ranked or merit-graded but they are either accredited, or not accredited.

SECTION 2: ACCREDITATION PROCEDURE AND PROCESSES

The following are the key attributes/principles evaluated during accreditation:

- i. Detailed specification of educational outcomes set for the programmes' broad objectives and a detailed range of capabilities targeted for graduates.
- ii. Encouragement of innovation by reducing to a minimum prescriptive measures on the attainment of required programme outcomes; the main focus of accreditation will therefore be on the intent and demonstrated competencies required in practice as CM/CPM.
- iii. Accreditation should be geared towards the promotion of best practice in industry and academia. As a result, accreditation of programmes may be followed by a request by the SACPCMP to the educational provider to give permission for examples of good practice to be communicated to the CHE or SAQA or the Department of Higher Education.
- iv. Educational providers are required to initiate and maintain independent interactions with industry role players and organisations.

In line with the requirements of the Higher Education Quality Committee (HEQC), accreditation of programmes is dealt with either as new or existing. The SACPCMP accredits existing programmes.

2.3 Accreditation Processes

The accreditation process has two phases; the candidacy phase and accreditation phase. Existing programmes required to undergo a re-accreditation process.

The accreditation process commences with a formal enquiry from the programme providers to the Council. The Registrar of the Council then invites the programme providers to a consultative meeting where programme details and the accreditation process are explained.

After the consultative meeting, the Council provides the programme providers with the necessary literature and information pack containing the following: -

- i. policy, procedures and processes for programme accreditation
- ii. self-evaluation criteria for programme accreditation
- iii. forms for programme evaluation.

The programme provider fills in the form and reverts to the Council. The Registrar is then required to forward the application to the accreditation committee which constitutes an accreditation panel. The panel meets to appoint a team leader to carry out the following:

- i. evaluation of the documents provided
- ii. setting of accreditation site visit date
- iii. site visit and final decision making.

Depending on the decision reached, the process may move on to post-accreditation, monitoring and closure.

2.3.1 Candidacy Phase

It is emphasised that under the Higher Education Qualifications Framework, the programme providers must first seek registration of the programme with the Council on Higher Education (CHE). The SAQA Act also provides for broad based consultations with SAQA before rolling out the programme. Only after registration with CHE can the Council embark on accreditation of programmes. Once the programme has been registered with CHE, the institution can apply, with supportive evidence, for recognition of the programme for candidacy by SACPCMP.

The accreditation process will commence after the graduation of the first cohort of students from the programme.

2.3.2 Accreditation Phase

In the accreditation phase the education providers must carry out the following: -

- i. demonstrate that they conform to the accreditation policy and guidelines of CHE and SACPCMP during the candidacy phase. The accreditation process of the programme follows after the graduation of the first group of students;
- ii. complete a self-evaluation document in line with the accreditation framework document.

The accreditation evaluation panel will undertake a site visit which will be undertaken in consultation with other stakeholders in the built environment and the education programme provider. The aim is to make joint visits with other accreditation bodies where necessary.

Upon evaluation of the presentation and site visit, the accreditation evaluation panel will be required to make a decision either to grant programme accreditation status or make other appropriate decisions. The decision must be accompanied by a report outlining suggested improvements for and concerns about the programme.

New programmes will be accredited as follows:

Table 2.3.3: Cycle of Accreditation

Programme	NQF	Accreditation Period
Diploma in CM or equivalent	6	5 years
Advanced Diploma in CM or equivalent	7	5 years
Bachelor's degree in CM or equivalent	7	5 years
Honours degree in CM/CPM or equivalent	8	5 years
Postgraduate Diploma in CM/CPM or equivalent	8	5 years
Master of Science in CM/CPM or equivalent	9	5 years

2.4 Accreditation and Re-accreditation of Programmes

At the end of the accreditation cycle the Council will contact institutions to request for submissions required for re-accreditation.

Table 2.4.1: Accreditation Decisions

Decisions	Interpretation
Commend, accreditation/re-accreditation status granted	All the minimum standards for accreditation/re-accreditation are fully met and the programme has demonstrated appropriate practices and innovation.
Needs improvement, provisional accreditation/re-accreditation granted subject to conditions	Programme did not comply with all the minimum standards. Full accreditation/re-accreditation will only be granted upon the institution addressing the weaknesses identified.
Does not comply, accreditation/ re-accreditation not granted	Programme did not comply with the majority of minimum standards for accreditation/re-accreditation.. The programme be placed on a support and guidance system for a period

The decision of the accreditation/ re-accreditation panel will be accompanied by reports detailing decisions, concerns and suggestions on the programme. The interim report will be given on site, while a full report will be available within four weeks after the site visit.

2.5: Post- Accreditation and Monitoring

The programme provider will be expected to submit regular reports on key issues such as student admission, staff movements, policy and programme changes and research. This will be submitted on a standard template accompanied by supportive evidence. The reports will be assessed by the accreditation committee or Registrar and due attention given where necessary.

2.6 Appeal

The education providers may appeal the decision taken by the accreditation panel should they feel aggrieved. All appeals should be submitted in writing to the Registrar of the Council within 14 days of receipt of the full accreditation report.

The appeal should be formulated so that the decision to appeal is clearly articulated and motivating reasons presented as to why the verdict should be reconsidered. On receipt of the appeal the accreditation panel will be reconstituted within 30 days. The process will start again.

2.7 Monitoring and Closure

The programme provider will be expected to submit regular reports on the issues highlighted as requiring attention during programme accreditation. This will be done on a standardised template accompanied by self-evaluation criteria. The reports will be assessed by the accreditation committee or Registrar and due attention given where necessary.

SECTION 3

BACKGROUND TO EDUCATIONAL

FRAMEWORK

The SACPCMP has four professional categories of registration as explained in the policy document. The distinct education requirements for these categories are any of the following accredited qualifications in the built environment (1) Honours degree, (2) Bachelor of Technology qualification, (3) National Higher Diploma or (4) National Diploma.

The accreditation of programmes is only for project and construction management qualifications or equivalent. This is in line with the need to avoid duplication, as the other programmes in the built environment are accredited by their respective councils.

The core specialisations considered relevant for registration are Construction Management, Quantity Surveying, Architecture and Engineering (Civil, Mechanical, Electrical or specialised). With regard to the registration grades, the project work experience is considered as well as the educational qualification (refer to the registration route diagram on page 2). This means that the education framework for accreditation purposes must put in place the subjects that roundly address the skills needed in project and construction management. The knowledge areas that are needed for the project and construction management professions revolve around three categories:

- (i) **Technical and construction aligned subjects:** These are developed around technical and industry specific contents. Subjects could be those relevant to the discipline such as Physical Sciences, Engineering Subjects and Services, Construction Technology, Graphics, Surveying or Geodetic Principles, Building Science, Environmental Science, Quantification and Specification, Cost Engineering, among others. These subjects should be creative and iterative in structure. They are integrated with construction management principles to entrench the core objectives of the discipline.
- (ii) **Specialised skills subjects:** These are subjects that are needed to support the functions of a construction or project manager which could include Information Technology, Economic and Commercial Sciences, Communication, Legal Studies, Quantitative Skills, Research Methodology and Analytical Skills, among others.
- (iii) **Managerial subjects:** These include subjects that impart managerial skills such as General Management (including Management Science, Financial Management, Operations Management, Resources Management, Business Management, Entrepreneurship and Business Ethics, among others. Other managerial skills required in Construction Project Management include but are not limited to subjects such as Procurement, Planning, Scheduling, Quality Management, Risk Management, Health and Safety.

SECTION 3: BACKGROUND TO EDUCATIONAL FRAMEWORK

Because construction is continually changing clients' requirements and the accompanying need to satisfy them is dynamic. Therefore the SACPCMP must continually develop a concrete framework for the evaluation of educational programmes for accreditation purposes.

In doing this, the SACPCMP recognises the roles of other bodies such as SAQA, CHE and HEQF particularly with regards to the newly legislated NQF Act of 2008. In terms of the Higher Education Act of 1997, the CHE was in charge of quality assurance via (1) institutional audits to evaluate capacities or (2) by programme accreditation after the unit standards had been registered with SAQA.

Under the new arrangement, the educational providers are required to visit the CHE for evaluation before registering the unit standards with SAQA. The Councils in the Built Environment (including the SACPCMP) can still register the programmes under advisement from CHE. This is important in the sense that the Councils in the built environment are able to focus on the primary function of advising the CHE and the educational providers on the curriculum and content issues in programmes. Because the councils may have capacity to undertake accreditation in the built environment, they will continue to offer accreditation of programmes under the advisement of the CHE.

Figure 3.1: Registration routes in the SACPCMP

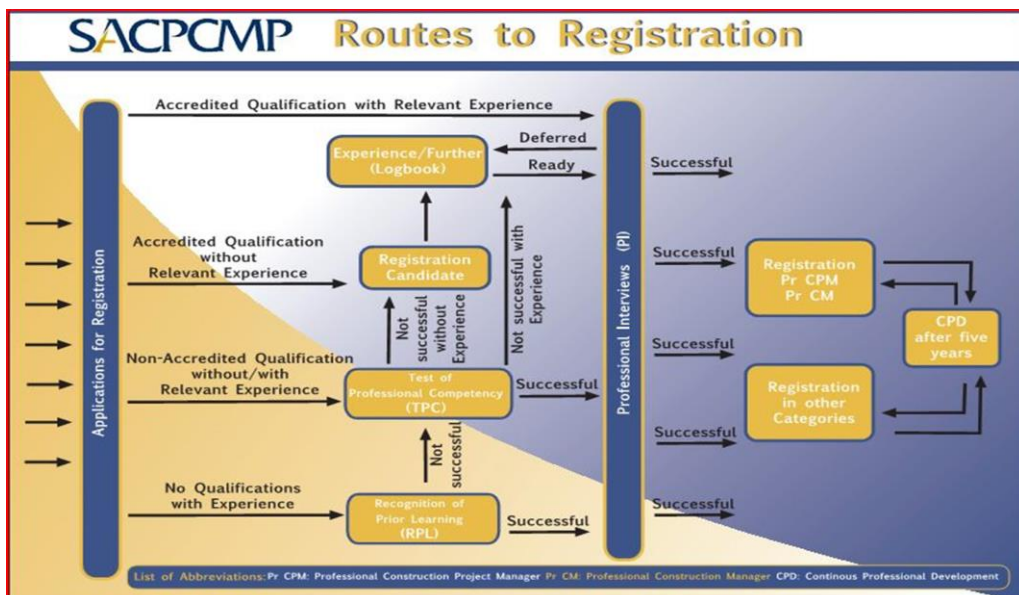
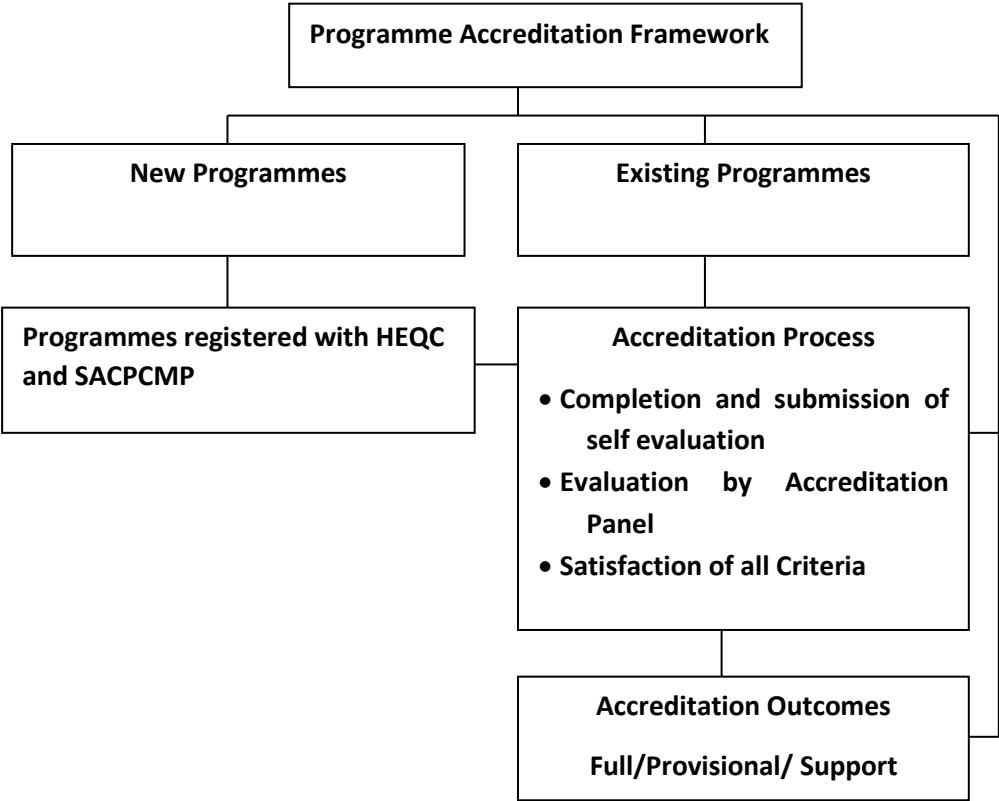


Figure 3.2: Accreditation Framework



SECTION 4

REQUIREMENT OF THE FRAMEWORK

SECTION 4: REQUIREMENT OF THE FRAMEWORK

4.1 Framework Requirements

From the foregoing it is clear that an appropriate educational framework must be able to satisfy the following:

1. Acquisition of core knowledge in addition to the support and industry required skills which are essential in the operation of a project manager.
2. Inclusion of a diverse range of specialisation in the built environment to ensure continued relevance of the SACPCMP to all people with qualifications in that field.
3. The integration of ethical responsibilities and best professional conduct in construction and project management.
4. Development of important learning and personal attributes as required of a good project or construction manager.
5. Development of outward-looking professionals rich in social values in the management of projects.

4.2 Educational Framework

The educational framework will focus on learning outcomes structured according to different levels of qualifications. In the first four levels under the newly enacted HEQF (that is levels 6, 7, 8, and 9) the qualifications are assessed according to the subject knowledge area classification. The subject knowledge area classification used is that discussed in the introduction that categorises subjects as industry related, support or core. The Council will focus on the assessment for accreditation of programmes leading to a diploma, advanced diploma, bachelors degree, honours degree, postgraduate diploma or masters qualification.

4.3 Evaluation Components

At each level the key components evaluated will be the effectiveness with regard to the objectives and course descriptors which reflect on content in technical and industry related subjects, specialised skills subjects and managerial related subjects. In as much as these levels are distinct, the boundaries must be flexible enough to ensure that programmes develop their own independent identities. It is also expected that the levels will be progressive in nature to ensure that the skills and competency levels are indicative of the educational framework levels achieved. courses designed within the framework will be able to satisfy the accreditation panel and achieve the required academic objectives. The details of other principles necessary to ensure this are discussed in the document detailing accreditation requirements and self-evaluation criteria.

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CONSTRUCTION AND PROJECT MANAGEMENT PROGRAMMES

SACPCMP

The South African Council for the Project and Construction Management Professions

— **CONSTRUCTING NEW PERSPECTIVES** —

SECTION 5

EDUCATIONAL FRAMEWORK GUIDELINES

5.1 Introduction

The Project and Construction Management Professions in South Africa as defined by the SACPCMP's Act No. 48 of 2000. The SACPCMP is a major stakeholder in the development of the profession and the Education Framework is the underpinning principle. The Framework covers NQF Levels 6 to 9 and is a reference point for institutions of higher learning who wish to review existing programmes and or design of new programmes. SACPCMP accredits programmes in institutions of higher learning that demonstrate the highest quality standards to satisfy the needs of the discipline, the country and the society at large.

The following themes have been identified through a consultative process based on an analysis of the Standard Governing Body, the Project and Construction Management programmes in institutions of higher learning locally and internationally.

- Construction Technology
- Construction Management
- Construction Environment
- Sustainable Construction
- Construction Research Innovation

The themes that describe the Project and Construction Management body of knowledge may be incorporated in programmes as modules or sub-modules. However, SACPCMP does not prescribe how the themes may be designed in the programme. The institutions have a choice in deciding when and how which themes may be used and the extent of coverage of the modules when reviewing or designing the curriculum. This allows versatility in programme design to align with institutions vision and mission. The proposed guidelines for educational framework that are deemed suitable for attainment of qualifications that allow registration as a professional or candidate professional in the SACPCMP are as follows:

Table 5.1: NQF/HEQF levels

Qualification	HEQF levels	Credits
National Diploma	6	240/360
Advanced Diploma/Bachelor of Technology	7	120
Bachelors degree	7	360
Honours degree	8	120
Postgraduate Diploma	8	120
Masters degree	9	180

5.2 Educational Themes

The educational themes are discussed as tabulated below: -

Table 5.2: Construction Technology

Sub-theme	Level 6	Level 7	Level 8
Construction design and construction processes	Demonstrate Knowledge and understanding of the principles, functional and performance requirements of simple designs and the standards and regulations construction technology and processes	Apply knowledge and principles to construction design and construction processes to achieve functional and performance requirements	Appraise the principles of construction design and construction processes for functional and performance requirements and advise on alternative solutions in relation to functional elements and performance.
Site Analysis	Demonstrate knowledge of site analysis techniques and explain basic geodetic principles.	Apply geodetic principles for sites required for construction projects	
Materials and components	Demonstrate knowledge of various components and materials used in construction, their properties and their performance characteristics and their ecological foot prints and environmental impact.	Apply the knowledge on properties and performance characteristics of materials and components and describe the conditions which they are used in construction.	Advise on the use of materials and components basing on the construction design and performance requirements to ensure sustainable use environmental consciousness
Quantification and specification of construction	Demonstrate knowledge of principles pf quantification and specification of construction work	Apply knowledge of principles pf quantification and specification of construction work	Evaluate principles of quantification and specification of construction work
Services management	Demonstrate an understanding of the functional requirements of services in construction designs	Apply the knowledge of functional requirements of services in construction designs and their technological characteristics.	Appraise the functional requirements of services in construction designs and awareness of sustainability impacts
Structural Stability	Demonstrate knowledge of different types of construction elements and their basic understanding of structural stability	Apply knowledge to appreciate structural stability of various construction elements	Appraise structural stability principles to construction elements.

Table 5.3: Construction Management

Sub-Theme	Level 6	Level 7	Level 8
Management Processes	Demonstrate knowledge of management principles as they relate to construction processes	Apply knowledge of principles of management to construction process	Appraise management principles provide solutions to problems of management in construction processes
Resource Management	Demonstrate knowledge and understanding of principles of human management and plant and equipment management as used in the construction process	Apply knowledge of principles of resource management to the construction processes.	Evaluate different resource management principles in relation to construction processes.
Planning and Scheduling of Construction projects	Demonstrate knowledge of principles of time, cost and resource management in Construction	Apply knowledge to plan and control time and cost of construction processes	Appraise and apply different Planning and control techniques for complex construction processes.
Documentation	Demonstrate knowledge of various documents used in construction and their interpretation for effective communication	Apply the knowledge of various documents used in the construction processes for effective management	Advise on the use of various documentation and the circumstances
Health and Safety Management	Demonstrate knowledge and understanding of the principles of health, welfare and safety management. To include legislation, policy, regulations and tools	Apply knowledge to health, welfare and safety in the construction processes.	Appraise principles and practices to health, welfare and safety in construction processes and provide solutions to challenges of health and safety

Table 5.4: Construction Environment

Sub-theme	Level 6	Level 7	Level 8
The structure and stakeholders in Construction Industry	Demonstrate of an understanding of the structure of the construction industry and its stakeholders	Appreciate the role the industry plays in socio economic development	Appraise the impact of socio cultural dimensions in the built environment
Legal Environment	Demonstrate an understanding the legal principles systems that affect the construction industry.	Apply knowledge of the principles of the legal systems in the construction environment	Advise on the various legal systems that affect the construction processes
Economic Principles and Financial Management	Demonstrate knowledge of micro and macro-economic principles as well as financial management principles.	Apply the principles of micro and macro-economics and financial management to the construction industry and processes.	Appraise micro and macro-economics principles and financial management principles to the construction industry and construction processes
Procurement	Demonstrate knowledge and understating of procurement process including tendering	Apply procurement principles and describe procurement routes in the construction processes	Evaluate procurement principles and provide solutions to challenges in relation to financial, legal and policy aspects.
Business Development	Demonstrate knowledge of business management in construction	Apply Business principles in construction	Evaluate business principles in construction business environment
Socio cultural Management	Demonstrate awareness of a range of ethnic diversity and cultures in the construction industry.	Apply ethical considerations in the built environment, in the workplace, on site and construction processes in relation various stakeholders, in the project and the industry	Analyze the role and value of openness, transparency and accountability. Balance between confidentiality, commercial sensitivity and value of openness.

Table 5.5: Sustainable Construction

Sub-theme	Level 6	Level 7	Level 8
Aspects of sustainability	Demonstrate knowledge and understanding of all aspects of sustainability eg social, Technical environmental and economic.	Apply knowledge of sustainable principles in the construction industry and construction processes.	Analyse the main sustainability principles and how they impact on construction processes and industry.
Legislation and Policy	Demonstrate and understanding of legislation and policy for sustainability	Appreciate the legal and policy requirements for sustainability and impact on the construction industry.	Evaluate legal and policy dimensions with regard to sustainability and the construction industry
Pollution Management and techniques	Recognize the sources of pollution generally and those generated by the construction industry.	Apply appropriate techniques to minimize pollution passive and active as used in the construction industry.	Evaluate techniques of minimization of pollution and the trade -off between costs and benefits
Construction processes	Demonstrate an understanding of the sources of waste in the construction processes.	Develop and apply policies to Minimize waste construction processes.	Evaluate techniques available to Minimize waste in the construction processes.

Table 5.6: Construction Research and Innovation

Sub-theme	Level 6	Level 7	Level 8
Mathematical and Statistical Models	Demonstrate knowledge of Mathematical and statistical models useful in construction	Apply knowledge of Mathematical and statistical models useful in construction	Use mathematical and statistical models to solve problems of construction process and research
Information Technology	Demonstrate knowledge of information technologies	Apply information technologies in construction processes	Use information technologies to solve problems in construction
Engineering Technology	Demonstrate understanding of techniques operational in engineering structures	Apply techniques operational in engineering structures	Evaluate techniques operational in engineering structures
Research			Identify a contemporary construction management issue. Select appropriate research methodologies and apply to the identified problem adhering to ethical standards. Analyze, synthesize and evaluate key issues affecting construction processes or industry

Table 5.7: Masters Programmes NQF Level 9

Learning Outcomes	Indicative Range of Subjects
The examination of the characteristics of the built environment and the construction industry and the role it plays in the national and international environment.	The built environment and the construction industry as a catalyst for social and economic development and relationships with the natural environment. The composition and characteristics of the construction market
Critically analyze the management of the construction process in cognizance of the environmental, economic and social impacts within a national context.	Construction process through the whole project cycle Complex issues arise from operational, resources and time/cost optimization.
Examination of the legal environment as it relates to the construction industry.	Discipline and professional regulations. Legislation and regulation for development. Contracts, delicts and health and safety. Recognizing the complex relationships between legal relationships among stakeholders.
Analyze and understand anatomies of construction organizations and relate to their roles and responsibilities within the broader economy.	Organizational structural analysis with regard to resource allocation. Policies and corporate culture towards business acumen and development
Analyze organizational and management processes in relation to achievement of their objectives.	Integrating risk management and assessment into the decision-making process
Analyze, critically appraise and perform complex decision-making and associated risk management in directing construction process to achieving desired outcomes.	Identifying the need for change, and embracing change management models.
The performance of advanced construction and project management skills through the whole project cycle.	Achievement in the context of a real or simulated project, based on a case studies and could include project/ role definition, feasibility studies and appraisals, market research and location factors, strategic procurement decisions, team selection, target setting, operational/production control, decision-making, problem solving, feedback, analysis, subsequent action. Project factors will include stakeholder negotiations, time/cost value, plan/ programme, resource, production, health and safety, quality, human resources, environment and sustainability.
Performance of high level planning and programming skills	Planning of complex project/multiple project scenarios, project scope and definition, assembly of data, use of method statements, programme, resource levelling, contingencies, updating; bar charts, critical path networks; and information technology techniques.

Table 5.8: Dissertation NQF Level 9

Learning Outcomes	Indicative Range of Subjects
Research on contemporary construction management issues.	Recognize challenges from the environment, the project cycle and techniques
Select and apply appropriate ethical research methodologies and follow research protocols.	Present arguments in a logical manner with scientific evidence and sufficient depth and rigour
Analyze, synthesize and evaluate key issues affecting the built environment.	Offer solutions to the development of the discipline and the profession recognizing the immediate socio economic environment and the wider society.

5.3 Level 5/6

Qualification title: National Diploma in the Built Environment Specialisation

Minimum period of study: three years

Proposed SAQA minimum credits: 360

Level descriptor

At this level the learner is expected to be able to demonstrate knowledge relating to all active issues in project and construction management including health and safety.

Appropriate learning outcomes for the programme:

Learners credited with this unit standard are expected to be able to:

- a) demonstrate a grasp of the basic technical skills required in the interpretation and preparation of drawing, measurement and quantity determination, construction methods, construction techniques or any related subjects;
- b) demonstrate knowledge of the general purpose and principles of construction management;
- c) demonstrate knowledge of managing a construction site and undertaking contract administration in consultation with other parties including basic management tasks;
- d) demonstrate an ability to manage material and human resources in a construction project.

Elements of the Framework

The following mix is suggested

Technical related subjects: a significant number of the credit hours of learning subjects that are related to Construction Methods, Construction Techniques, Quantities, Building Science, Applied Mechanics, Physics, Mathematics or Numeracy, Site surveying, Construction Technology and Building or Engineering Graphics, among others. Greater emphasis will be placed on subject combinations that work best for the achievement of the course objectives and satisfaction of the course descriptors.

Managerial subjects: sufficient number of the credit hours of this category should be devoted to subjects related to construction management and financial management subjects. Emphasis should be placed on subject combinations that will enable realisation of the stated objectives of understanding basic construction management principles and team interaction, deployment and management.

Specialised skills subjects: appropriate number of the credit hours should be allocated to this area of study and typical subjects may in this case include information communication technology, written and oral communication skills and industrial relations. Emphasis will be on subjects that equip learners with qualitative and quantitative skills necessary for supporting managerial functions in the construction project.

In addition, sufficient learning at this education level must be work based or experiential training.

SECTION 5: EDUCATION FRAMEWORK GUIDELINES

Associated assessment for the learning outcomes of the programme

- i. It is expected that the learner should be able to appreciate simple numeric functions, basic construction technology, introductory concepts in construction and general management and be able to explain those principles that are demanded by the work of a registered candidate professional of the SACPCMP.
- ii. In addition the learner is expected to be able properly to contextualise the knowledge areas and key issues.
- iii. The learner is expected to apply basic principles assimilated into practical project situations.

Tables 1, 2 and 3 give a summarised outcome and specific associated criteria expected from this category of subjects at level 5.

Table 5.3.1: Details of expected outcomes and assessment for technical related Subjects - Level 5/6

Expected Learning Outcome	Associated Assessment Criteria
To appreciate principles considered in basic concepts in interpretation of design, construction technology principles and selection of components, materials and any applicative situation.	The qualifying learner is able to explain all the concepts learnt
To demonstrate an understanding of various concepts in the application of the subject in an industry situation.	The qualifying learner is able apply the concepts in an industry situation.
Describe and relate the interaction of different concepts in applicative situations.	The qualifying learner is able to present analysis of scenarios in cases of interactions of concepts in applicative situations.
Demonstrate competence in using the techniques learnt in problem solving process.	The qualifying learner uses the skills practically to solve actual problems in the industry.

Table 5.3.2: Details of expected outcomes and assessment for specialised skills subjects - Level 5/6

Expected Learning Outcome	Associated Assessment Criteria
To describe basic components and principles in the support subject/knowledge areas.	The qualifying learner is able to explain all the concepts and principles learnt.
To appreciate the requirement of knowledge of the subject in construction and project management situations.	The qualifying learner is able to apply the basic principles in construction and project management.
Describe and relate the interaction of different basic concepts introduced in the subject knowledge area in construction and project management situations.	The qualifying learner is able to present an analysis of the resulting effect of the application of principles espoused by the programme in construction and project management.
Demonstrate competence in using the principles and techniques learnt in problem solving situations in construction and project management	The qualifying learner uses the principles learnt practically to solve actual problems in construction and project management.

Table 5.3.3: Details of expected outcomes and assessment for specialised skills subjects - Level 5/6

Expected Learning Outcome	Associated Assessment Criteria
To describe basic concepts and principles in the construction and general management.	The qualifying learner is able to explain all the concepts and principles learnt.
To appreciate the requirement of the knowledge of concepts in construction and sector.	The qualifying learner is able apply the basic principles in construction and project general management in the construction management.
Describe and relate the interaction of different basic concepts in construction and general management.	The qualifying learner is able to list expected results from the application of construction and general management in actual situations.
Demonstrate competence in construction and general management techniques in problem solving situations in construction and project management.	The qualifying learner uses the principles of construction and general management practically to solve actual problems in construction and project management.

5.4 Level 6/7

Qualification Title: Bachelor of Science in Construction Management

Minimum period of study: three years

Proposed SAQA credits: 360

Level descriptor

At the end of this level, the graduate is expected to conceptualise, plan and supervise construction work in a full project cycle.

Purpose or learning outcome of the programme

Learners credited with this framework are able to:

- 1) demonstrate knowledge of construction methods and techniques;
- 2) demonstrate knowledge in measurement, description and specification for construction work;
- 3) perform cost estimation techniques and preparation of tenders; demonstrate knowledge of basic management and planning and supervision processes in the entire project cycle;
- 4) demonstrate an understanding of basic legal issues in construction and perform construction contracts administration;
- 5) understand socio-economic issues affecting construction and project environment;
- 6) demonstrate a grasp of information technology application, computer usage and application in the construction environment;
- 7) demonstrate knowledge of written and oral communication in the construction environment.

SECTION 5: EDUCATION FRAMEWORK GUIDELINES

Elements of the Framework

These will be units dealing with knowledge from basic up to the intermediate levels in all categories of subjects. Details of a suggested mix of subjects offered are:

Technical related subjects: A significant number of the credit hours of learning subjects are related to Construction Methods, Construction Techniques, Quantities, Building Science, Applied Mechanics, Physics, Mathematics or Numeracy, Site Surveying, Construction Technology and Building or Engineering Graphics, among others. Greater emphasis will be placed on subject combinations that work best for the achievement of the course objectives and satisfaction of the course descriptors, such as achieving the ability to estimate, measure and tender, and the ability to demonstrate a grasp of construction techniques and methods.

Managerial subjects: A sufficient number of the credit hours and the subjects under this category must relate directly to construction management and financial management. Emphasis should be placed on subject combinations that will enable realisation of the stated objectives of achieving the ability to plan and supervise a construction project in a full cycle. Contents should therefore stress areas in planning, scheduling, resource management, production management, financial management and management science among other related subjects.

Specialised skills subjects: an appropriate number of credit hours and related subjects in this case include economics, cost accounting, legal studies, arbitration, organisation psychology, informatics, computer skills, communication skills and industrial relations. Emphasis should be on subjects that equip the learners with qualitative and quantitative skills necessary for supporting managerial functions in a construction project.

SECTION 5: EDUCATION FRAMEWORK GUIDELINES

Associated Assessment of Learning Outcomes of the Programme

1. At this level the learner is expected to have a good grasp of knowledge on other aspects that affect the construction environment.
2. The qualifying learner must demonstrate an ability to plan projects from conception to commissioning.
3. The qualifying learner is expected to perform all construction project functions from procurement, financial management, scheduling and planning.
4. Application of best practices required in construction management is expected of the learner.

Further details on expectations for level 7 qualification are outlined in Tables 4, 5 and 6 below.

Table 4: Details of expected outcomes and assessment for technical Related subjects - Level 6/7

Expected Learning Outcome	Associated Assessment Criteria
To understand and apply further concepts in the interpretation of design, construction technology and selection of components, materials and any applicative situation.	The qualifying learner is able to explain multiple concepts needed in the industry.
To be able to undertake a cross sectional evaluation or comparative analysis of multiple concepts in the application of the subject in an industry situation.	The qualifying learner is able to undertake a comparative evaluation of multiple concepts in an industry situation.
To undertake an in-depth analysis of design or methodological concepts used in the industry during problem solving.	The qualifying learner is able critically to analyse the effects of application of various concepts in problem solving exercises
To apply the concepts and principles learnt in the implementation of solutions to actual problems in the industry.	The qualifying learner is able to use practically the skills to solve actual problems in the industry.

SECTION 5: EDUCATION FRAMEWORK GUIDELINES

5: Details of expected outcomes and assessment for specialised skills subjects - Level 6/ 7

Expected Learning Outcome	Associated Assessment Criteria
To understand and apply further concepts in principles in the support subject/knowledge areas.	The qualifying learner is able to explain multiple concepts needed in construction and project management at the intermediate level.
To analyse critically the effects of the application of various principles in the support knowledge areas towards solving problems in construction and project management situations.	The qualifying learner is able to undertake a comparative evaluation of multiple concepts and principles in support knowledge areas in construction and project management.
To undertake an in-depth analysis of the principles and concepts of support knowledge area.	The qualifying learner is able critically to analyse the principles and concepts in support knowledge areas.

Table 6: Details of expected outcomes and assessment for: managerial subjects - Level 6/7

Expected Learning Outcome	Associated Assessment Criteria
To understand and apply further concepts in construction and general management.	The qualifying learner is able to explain multiple concepts needed in construction and general management in an applied construction environment.
Thorough knowledge of the interaction of construction and general management principles.	The qualifying learner is able undertake a comparative evaluation of construction and general management applied interactively in the construction environment.
Comprehensive knowledge of construction and general management principles as applied in a construction environment	The qualifying learner is able critically to analyse and the principles and concepts in construction general management as applied in the construction environment.

5.5 Level 7/8

Qualification title: Bachelor of Science Construction Management

Minimum period of study: Four years or Honours or three years Bachelor plus one year Honours

Proposed SAQA minimum credits: 480 or 360 +120

Descriptor

At this level the learner must demonstrate the ability to undertake all project planning design and management activities such as construction management, procurement, financial management, interpretation of contracts and legal opinions and interpretation of environmental impact assessment reports, in addition to being able to conceptualise, plan and supervise a civil construction work in a full project cycle. The qualifying learner is also expected to be competent enough to undertake research work.

Purpose or expected learning outcomes of the programme

This is for people who undertake full project management in construction projects and must be complemented by sufficient practical orientation/work experience. In addition to the learning outcomes stipulated in the three-year bachelors programme, learners credited with this framework are able to:

- i. demonstrate knowledge of advanced construction methods and techniques;
- ii. undertake full project design, planning and management responsibilities including project planning, project control, analysis, identification, supply chain management, human resources management and solving managerial problems in construction;
- iii. Confirm the supervisor's role and client's requirements;
- iv. confirm an understanding of contracts in construction;
- v. define project requirements and objectives with the supervisor;
- vi. ascertain the capability of available resources with the supervisor and other team members;
- vii. communicate detailed instructions to supervisors and other team members;
- viii. undertake simple research projects in the construction industry.

SECTION 5: EDUCATION FRAMEWORK GUIDELINES

Elements of the Framework

This will be a continuation of the three- year degree qualification. At the end of the course the learners will in addition undertake a research writing task which will introduce them to research activities. Additional courses taken in this period include Construction Management, Construction Project Management, Advanced Construction Technology, Construction Law, Health and Safety in Construction, Feasibility Studies and Financial Analysis. Details of the mix recommended are given below: For the first three years, the following subject cluster mix is advised:

Technical related subjects: a significant number of the credit hours should be devoted to subjects related to Construction Methods, Construction Techniques, Quantities, Building Science, Applied Mechanics, Physics, Mathematics or Numeracy, Site surveying, Construction Technology and Building or Engineering Graphics, among others. Greater emphasis should be placed on subject combinations that work best for the achievement of the course objectives and satisfaction of the course descriptors such as achieving the ability to estimate, measure and tender and the ability to demonstrate a grasp of construction techniques and methods.

Managerial subjects: a sufficient number of the credit hours should relate directly to construction management and financial management. Emphasis should be placed on subject combinations that will realise the stated objectives of achieving the ability to plan and supervise construction projects in a full cycle. Contents should therefore stress areas in planning, scheduling, resource management, production management, financial management and management science, among other related subjects.

Specialised skills subjects: an appropriate number of the credit hours and typical subjects may in this case include Economics, Cost Accounting, Legal Studies, Organisational Psychology, Informatics, Computer Skills, communication skills and industrial relations. Emphasis should be on subjects that equip learners with qualitative and quantitative skills necessary for supporting managerial functions in the construction project.

For the final year (which can be taken separately as an honours programme), the following subject cluster mix is advised:

SECTION 5: EDUCATION FRAMEWORK GUIDELINES

Technical related subjects: a sufficient number of the credit hours should include subjects related to advanced construction technology, construction planning, sustainable construction, and health and safety in construction.

Managerial subjects: a sufficient number of the credit hours may include construction project management, financial management and management science.

Specialised skills subjects: an appropriate number of the credit hours may include construction law, feasibility studies and financial analysis.

Research project/dissertation: a sufficient number of the credit hours and involves conceptualising and designing a research project/study to solve a problem in the construction industry.

Associated assessment for the expected learning outcomes of the programme

1. The qualifying learner is expected to be able apply construction and project management principles in all construction work, to communicate ideas, theories and concepts to all professionals involved in construction activities, in addition to acting according to the required professional conduct and decorum in projects.
2. The qualifying learner must demonstrate the ability to solve problems in construction projects using all the knowledge available in construction environment studies, engineering services, economic studies, commercial sciences, legal studies and information technology.

The graduate must demonstrate the ability to conduct independent research aimed at solving industry based problems and contributing to the proper understanding of concepts in construction and project management.

SECTION 5: EDUCATION FRAMEWORK GUIDELINES

Table 8: Details of expected learning outcomes in Technical Related Subjects
- Level 7/8

Expected Learning Outcome	Associated Assessment Criteria
To understand and apply advanced concepts in the design or selection of components, materials and any applicative situation.	The qualifying learner is able comfortably to explain advanced concepts in the design or selection of components in any applicative situation.
To demonstrate an integration of knowledge and skills in the industry.	The qualifying learner is able effectively to match skills and concepts needed in the industry.
To be able exhaustively to use all the methodological concepts espoused during the programme.	The qualifying learner is able undertake a comparative evaluation of multiple concepts in industry situation.
To apply appropriate concepts and principles learnt in the implementation industry.	The qualifying learner is able practically to use of solutions to actual problems in the appropriate methods in solving actual problems in the industry.

Table 9: Details of expected learning outcomes in specialised skills subjects
-Level 7/8

Expected Learning Outcome	Associated Assessment Criteria
To understand advanced principles and concepts in support knowledge areas.	The qualifying learner is able comfortably to explain advanced concepts in the support knowledge areas.
To apply advanced principles and concepts in support knowledge areas towards solving problems in the construction and project management environment.	The qualifying learner can apply principles and concepts in the support knowledge areas to advise clients.
To demonstrate an integration of concepts from the support knowledge areas and other knowledge areas.	The qualifying learner is able effectively to match multi-disciplinary concepts and principles in solving problems in construction and project management fields.
To be able to present exhaustive analysis of cases in construction and project management using the support knowledge base.	The qualifying learner is able to undertake a critical analysis of cases in construction and project management using the support knowledge base.

Table 10: Details of Expected Learning Outcomes, Managerial subjects - Level 8

Expected Learning Outcome	Associated Assessment Criteria
To understand advanced principles and concepts in support knowledge areas.	The qualifying learner is able comfortably to explain advanced concepts in the support knowledge areas.
To apply advanced principles and concepts in support knowledge areas towards solving problems in the construction and project management environment.	The qualifying learner can apply principles and concepts in the support knowledge areas to advise clients.
To demonstrate an integration of concepts from the support knowledge areas and other knowledge areas.	The qualifying learner is able effectively to match multi-disciplinary concepts and principles in solving problems in construction and project management fields.
To be able to present exhaustive analysis of cases in construction and project management using the support knowledge base.	The qualifying learner is able to undertake a critical analysis of cases in construction and project management using the support knowledge base.

SECTION 5: EDUCATION FRAMEWORK GUIDELINES

5.6 Level 8/9

Qualification Title: Master of Science (Construction Management)

Minimum Period of Study: one year

Proposed SAQA Credits: 180

Level descriptor

Demonstration of advanced knowledge and skills in project management, research in

- 1 All project planning design and management activities such as construction management, procurement, financial management, interpretation of contracts and legal opinions and interpretation of environmental impact assessment reports.
- 2 Conceptualisation, planning and supervising construction work in a full project cycle.

Purpose or expected learning outcomes of the programme

People credited with this unit standard are able to:

- i. undertake multiple level project management on mega scales and have advanced knowledge and skills in all the core areas of project management and full contract specification for civil infrastructure projects;
- ii. undertake research in project management;
- iii. have a thorough understanding of legal processes in construction.

Elements of the Framework

There will be two routes to attainment of qualification in the level: -

Alternative A: class attendance and research report

- 1 Candidates will be exposed to courses taught in advanced level subjects associated with construction management, management science, health and safety, environmental science and management, human relations in construction, financial management and construction law. These subjects must equip the candidates with the necessary knowledge needed to achieve the expected learning outcomes.

Details of an acceptable mix are:

Managerial subjects: a sufficient number of the credit hours for courses taught and subjects offered may include but are not restricted to construction management, construction marketing, management science and financial management.

Specialised skills subjects: an appropriate number of the credit hours and subjects offered may include but are not be restricted to health and safety, environmental science and management, human relations in construction and construction law.

Research report: a significant number of the credit hours should be devoted to research.

- 2 As shown above, in addition to the taught courses the candidates will be expected to conduct practical research in the project management and construction field; this will be accompanied by a research report. The research report should be designed and planned to solve advanced problems in the construction industry.

Alternative B: Research Thesis

In this case the candidate is expected to attain the qualification by acquiring skills through a full time research programme where he/she will be able to solve a practical problem or contribute to a deeper understanding in the construction/project management field. The research thesis must reflect a deeper understanding of the subject matter. It is assumed that the candidate has attained the necessary advanced knowledge in construction management, project management, academic literacy, numeracy, graphics and construction technology through the research experience.

Associated Assessment of the Learning Outcomes of the Programme

1. The qualifying learner is expected to show mastery of advanced study and research in construction and project management. This must be evidenced in the formulation and planning of the research, write-up of the dissertation and practical value of the research.

SECTION 5: EDUCATION FRAMEWORK GUIDELINES

2. The qualifying learner must demonstrate the capacity to apply specialist knowledge to project and construction management. This could be demonstrated through leadership in advanced problem solving situations, ability to be a team player, effective communication and showing initiation and ability to work with little supervision.
3. The graduate must demonstrate the ability to evaluate projects, risks and concerns in relation to global trends and concerns. This could be demonstrated by the application of problem solving techniques to practical situations.

The expected outcomes and associated assessments for Level 8 are summarised in Table 5.11

Table 11: Summarised Details of Expected Outcomes for Level 8 /9

Expected Learning Outcome	Associated Assessment Criteria
To exhibit flair and creativity in analysis in the construction industry.	The qualifying learner demonstrates initiative, independence of thought and action, communication and networking skills.
To demonstrate the ability to work independently in solving problems in the construction industry.	The qualifying learner is able to plan and execute the planned actions independently.
To demonstrate mastery of advanced topics, principles, concepts, techniques and issues in the construction industry	i. The qualifying learner has a wide knowledge of project and construction management. ii. The qualifying learner is competent in construction and project management. iii. The qualifying learner appreciates learning in construction and project management as a lifelong venture.
To demonstrate competency in performing high order problem solving techniques. This may include evaluation of competing projects, risk assessment, procurement, marketing and control in project situations.	i. The qualifying learner demonstrates the ii. ability to select, apply, evaluate and develop iii. specialised approaches towards solving iv. problems in construction and general project v. situations. vi. The qualifying learner uses diverse knowledge vii. sources to enrich his/her solutions to viii. problems in construction and general project ix. situations. x. The qualifying learner has a holistic approach xi. in problem solution formulation.

Expected Learning Outcome	Associated Assessment Criteria
To plan and execute effectively the entire functions of a construction/ project manager in a full project cycle.	The qualifying learner is competent enough to identify, analyse and solve problems in construction and management systems.
To undertake research and produce elaborate research reports in construction and project management.	The qualifying learner is competent in research methodology in the context of the built environment and is familiar with the South Africa's construction industry.



The South African Council for the Project and Construction Management Professions

— CONSTRUCTING NEW PERSPECTIVES —

SECTION 6

PROGRAMME ACCREDITATION

GUIDELINES

6.1 Preamble

This section gives general guidelines for institutions offering CPM/PM programmes to follow in pursuit of accreditation. The accreditation guidelines outlines the basis for evaluation of project and construction management programmes and in addition to providing institutions with the forum for review and development of the teaching and learning environment necessary for continuous quality improvement. The guidelines for accreditation have taken into account difference between absolute requirements for accreditation on one hand and expected characteristics and performance levels on the other hand in addition to innovation and diversity in the educational design, delivery and quality processes. In order to ensure compliance with the Higher Education Act of 1997, the subsequent National Qualifications Framework Act 2008 and policy shift contained in the Higher Education Qualifications Framework (HEQF) the committee adopted the 19 points criteria given by the Higher Education Quality Committee (Council for Higher Education, 2004). Details of these criteria are available below.

6.2 Criterion 1 (Programme Design and Educational Outcomes; National and Regional Need for the Programme)

The programme is consonant with the institution's mission, forms part of institutional planning and resource allocation, meets national and regional requirements, the needs of students and other stakeholders, and is intellectually credible. It is designed coherently and articulates well with other relevant programmes, where possible.

Minimum requirements for criterion 1:

- i. The programme is consonant with the institution's mission and goals and was approved by the appropriate institutional structures, including Senate/equivalent structure. Provision is made for the programme in the institution's planning and resource allocation processes.

- ii. The programme meets the national requirements pertaining to programmes which have been developed within the context of the NQF/HEQF from time to time.
- iii. Learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time cater for the learning needs of its target student intake. Competences expected of students who successfully complete the programme are made explicit.
- iv. The design maintains an appropriate balance of theoretical, practical and experiential knowledge and skills. It has sufficient disciplinary content and theoretical depth, at the appropriate level, to serve its educational purposes.
- v. The design offers students learning and career pathways with opportunities for articulation with other programmes within and across institutions, where possible.
- vi. Courses in the programme are coherently planned with regard to content, level, credits, purpose, outcomes, rules of combination, relative weight and delivery. Outsourcing of delivery is not permitted.
- vii. There is a policy and/or procedures for developing and evaluating learning materials and ensuring their alignment with the programme goals and underpinning philosophy. Where necessary, members of the academic staff are trained to develop learning materials.
- viii. Programme outcomes meet national and/or regional labour market, knowledge or other socio-cultural needs. The requirements of professional bodies are taken into consideration, where applicable. Relevant stakeholders, including academic peers from outside the institution, and employers and professional bodies where applicable, are involved in the development of the programme.
- ix. The characteristics and needs of professional and vocational education are catered for in the design of the programme, where applicable.

- x. The programme promotes the students' understanding of the specific occupation for which they are being trained.
- xi. Students master techniques and skills required for the profession and the curriculum must comprise an integrated set of tasks and structured learning experiences to ensure successful delivery of academic content and acquisition of required technical competencies in CM/CPM.
- xii. Work-based learning and placement in a work-based environment form an integral part of the curriculum, where possible.
- xiii. Service learning is an integral part of the learning experience and is included in the programme design.
- xiv. Enabling mechanisms (which may include incentives) are in place to support the implementation of service learning, including staff and student capacity development.

6.3 Criterion 2: Identifiable Organizational Structure, Demonstration of Commitment to CM and CPM Education, Programme Awards

There must be an identifiable organisational entity responsible for the project and or construction management programme at the educational institution awarding the degree. In addition, the institution must demonstrate sufficient expertise in CPM and CM in these areas. It is anticipated that the long term programmes must tackle the following:

- i. The award of programme should reflect construction management, construction project management and related relevant areas in its name or cited as a major field of study in the academic transcript. It is however expected that new titles may evolve due to the dynamic requirements of the market and the profession.
- ii. The programme must aim at producing graduates with competencies in construction management or project management.

- iii. Evidence is provided on the educational institution long-term commitment to and development of programmes in CM/CPM.

6.4 Criterion 3 Student Recruitment, Admission Policy, Academic Development for Students and Student Retention

Recruitment documentation informs potential students of the programme accurately and sufficiently, and admission adheres to current legislation. Admission and selection of students are commensurate with the programme's academic requirements, within a framework of widened access, equity and institutional capacity to offer good quality education and the needs of the profession. Academic development initiatives promote student, staff and curriculum development and offer academic support for students, where necessary.

Minimum requirements for criterion 3:

- (i) Advertising and promotional materials contain accurate and sufficient information about the programme with regard to admission policies, completion requirements and academic standards. Marketing and advertising are done according to DoE and SAQA regulations and accurate information is provided about the NQF level and the accreditation status of the programme.
- (ii) Admission, matriculation exemption, age exemption, etc. adhere to current legislation.
- (iii) The programme's admission criteria are in line with the National Plan for Higher Education's (NPHE's) goal of widening access to higher education. Equity targets are clearly stated, as are the plans for attaining them. Provision is made, where possible, for flexible entry routes, which includes RPL with regard to general admission requirements, as well as additional requirements for the programme, where applicable. Admission of students through an RPL route should not constitute more than 10 percent of the student intake for the programme.

- (iv) Selection criteria are explicit and indicate how they contribute to institutional plans for diversity. The number of students selected for the programme does not exceed the capacity available for offering good quality education.
- (v) The quality and number of students admitted takes into account the needs of the profession.
- (vi) Staff responsible for academic development are adequately qualified and experienced for their task, and their knowledge and skills are regularly updated.
- (vii) Academic support is offered to the students where necessary.
- (viii) The effectiveness of academic development initiatives is regularly monitored and feedback is used for improvement.

6.5 Criterion 4: Staffing Recruitment and Development

The recruitment and employment of staff follows relevant legislation and appropriate administrative procedures, including redress and equity considerations. Academic staff responsible for the programme are suitably qualified and have sufficient relevant experience and teaching competence, and their assessment competence and research profile are adequate for the nature and level of the programme. The institution and/or other recognised agencies contracted by the institution provide opportunities for academic staff to enhance their competences and to support their professional growth and development. The academic and support staff complement is of sufficient size and seniority and the size of the student body to ensure that all activities related to the programme can be carried out effectively. The ratio of full-time to part-time staff is appropriate. Support staff are adequately qualified and their knowledge and skills are regularly updated.

Minimum requirements for criterion 4:

- (ix) Recruitment and employment of staff adhere to the stipulations of the Labour Relations Act and to conditions of service, and there are appropriate administrative procedures for the selection, appointment, induction and payment of staff members and tutors. Redress and equity considerations receive due attention in the appointment of staff.

- (x) Academic staff for undergraduate programmes have relevant academic qualifications higher than the exit level of the programme, but at minimum a degree. Academic staff for postgraduate programmes have relevant academic qualifications at least on the same level as the exit level of the programme. At least 50 percent of the academic staff for postgraduate programmes have relevant academic qualifications higher than the exit level of the programme. The qualifications of academic staff were awarded by recognised higher education institutions.
- (xi) The majority of full-time academic staff have two or more years of teaching experience in a recognised higher education institution, and in areas pertinent to the programme. A sufficient number of academic staff members also have relevant professional experience. Qualified and experienced academic staff design the learning programme, although junior or part-time tutors may act as facilitators of learning.
- (xii) Academic staff are competent to apply the assessment policies of the institution. Some of the academic staff responsible for the programme have at least two years' experience of student assessment at the exit level of the programme. There is ongoing professional development and training of staff as assessors in line with SAQA requirements.
- (xiii) The institution and/or other recognised agencies contracted by the institution provide orientation and induction opportunities in which new academic staff members participate. Provision is made for regular staff development opportunities in which relevant academic staffs participate.
- (xiv) The staff : student ratio expressed as full-time Senior Lecturer equivalents is suitable for the nature and field of the programme and number of enrolled students. Sufficient support staff dedicated to the programme are available, where appropriate.

- (xv) The programme has an appropriate full-time : part-time staff ratio to ensure working conditions conducive to teaching and learning and research. Part-time and junior staff and tutors are trained, where necessary, and monitored by full-time staff.
- (xvi) The academic staff complement is such that it ensures that students are exposed to a diversity of ideas, styles and approaches.
- (xvii) Contractual arrangements relating to the hours and workload of staff ensure that all programme quality assurance, teaching, research, learning support, materials development, assessment, monitoring of part-time staff (where applicable), counselling and administrative activities take place.
- (xviii) Administrative, technical and academic development support staff are adequately qualified for their duties, and opportunities exist for staff development.
- (xix) For distance learning programmes, sufficient administrative and technical staff are employed to handle the specialised tasks of registry, dispatch, management of assignments, record-keeping, and other issues in relation to student needs.
- (xx) It is required that the institution has sufficient staff and facilities to provide adequate levels of student counselling, support services, and interaction with relevant constituencies such as employers and graduates. The conventional academic year must comprise sufficient time of active formal study and examination

6.6 Criterion 5 (Teaching and Learning Strategy; Student Assessment Policies and Procedures)

The institution gives recognition to the importance of promoting student learning. The teaching and learning strategy is appropriate for the institutional type (as reflected in its mission), mode(s) of delivery and student composition, contains mechanisms to ensure the appropriateness of teaching and learning methods, and makes provision for staff to upgrade their teaching methods.

The strategy sets targets, plans for implementation, and mechanisms to monitor progress, evaluate impact and effect improvement. The different modes of delivery of the programme have appropriate policies and procedures for internal assessment; internal and external moderation; monitoring of student progress; explicitness, validity and reliability of assessment practices; recording of assessment results; settling of disputes; the rigour and security of the assessment system; RPL; and for the development of staff competence in assessment.

Minimum requirements for criterion 5:

- i. Recognition of the importance of the promotion of student learning is reflected in the institution's central operating policies and procedures, including resource allocation, provision of support services, marketing, appointments and promotions.
- ii. A teaching and learning strategy is in place which:
 - iii. Is appropriate for the institutional type as reflected in its mission (programme types, research, and teaching), mode(s) of delivery (contact/distance/e-learning), and its student composition (age, full-time/part-time, advantaged/disadvantaged), etc.
 - iv. Has a mechanism to ensure that teaching and learning methods are appropriate for the design and use of learning materials and instructional and learning technology.
 - v. Provides for staff development opportunities where staff can upgrade their teaching methods.
 - vi. Contains targets, plans for implementation, ways of monitoring progress and evaluating impact, and mechanisms for feedback and improvement.
 - vii. There are appropriate policies and procedures for RPL, including the identification, documentation, assessment, evaluation and transcription of prior learning against specified learning outcomes, so that it can articulate with current programmes and

qualifications. Assessment instruments are designed for RPL in accordance with the institution's policies on fair and transparent assessment.

- viii. Internal assessment of student learning achievements by academic staff responsible for teaching a course/module of the programme in a system that includes internal moderation.
- ix. External moderation of students' learning achievements by appropriately qualified personnel. Moderators are appointed in terms of clear criteria and procedures and conduct their responsibilities in terms of clear guidelines.
- x. Monitoring student progress in the course of the programme.
- xi. Ensuring the validity and reliability of assessment practices.
- xii. Secure and reliable recording of assessment results.
- xiii. Settling of student disputes regarding assessment results.
- xiv. Ensuring the security of the assessment system, especially with regard to plagiarism and other misdemeanors.

6.7 Criterion 6 (Quality Assurance)

The programme has effective quality assurance system that ensures effective administration and coordination, yields good student retention and throughput rates and ensures enhanced employability of students and leads to alleviation of shortages of expertise in the field. In addition, user surveys, reviews and impact studies on the effectiveness of the programme are undertaken at regular intervals. Results are used to improve the programme's design, delivery and resourcing, and for staff development and student support, where necessary.

Minimum requirements for criterion 6:

- i. The programme information system is managed effectively in order to provide reliable information on the following:-
 - a. Venues, timetables, access to library and IT facilities, availability of academic and support staff for student consultations, and student support services. Information and communication needs of students remotely receive due attention.
 - b. Records of the students in the programme, including admission, progression, grades/marks, fees and graduation.
 - c. Records of students in the programme for the National Learner Records Database (NLRD) of SAQA.
- ii. Clear and efficient arrangements are in place for ensuring that the integrity of certification processes for the qualification obtained through the programme is not compromised. These include:
 - a. Effective mechanisms to quality assure the processing and issuing of certificates.
 - b. Effective security measures to prevent fraud or the illegal issuing of certificates.
- iii. The programme coordinator has access to and monitors information on retention and throughput rates for the programme.
- iv. User surveys are undertaken at regular intervals for feedback from academics involved in the programme, graduates, peers, external moderators, professional bodies and employers, where applicable, to ascertain whether the programme is attaining its intended outcomes.
- v. There are regular reviews of the effectiveness of benchmarking in the programme against equivalent national and international reference points, with a view to goal setting and continuous self-improvement in the programme.

- vi. Impact studies are regularly undertaken to measure and evaluate the impact of the programme and its graduates on the employability of students and in alleviating shortages of expertise in relevant fields, where these are the desired outcomes of the programme. Impact studies could also ascertain the degree of acknowledgement of the programme in the community, by other institutions, and in the workplace, where applicable.
- vii. Results of user surveys, reviews and impact studies are used in a regular evaluation of all programme aspects and to develop improvement plans.
- viii. The institutions are required to have a clear delineation of roles and responsibilities for different cadres of management. This may be well explained by having available an organogram showing organisation structure, roles and responsibilities. The organisation structure and respective roles and responsibilities need to be regularly reviewed
- ix. Effective administrative systems are in place for:
 - a. Identifying academically non-active students, particularly in distance education programmes.
 - b. Monitoring student performance in order to ensure timely identification of at-risk students. There are strategies for advising students on improving their chances of success and for referral to appropriate academic development programmes. Rules for re-admission to programmes are clear and are sensitively applied.
 - c. Dealing with the needs of a diverse student population.

6.8 Criterion 7 (Facilities, Infrastructure and Resources)

Suitable and sufficient venues, IT infrastructure and library resources are available for students and staff in the programme. Policies ensure the proper management and maintenance of library resources, including support and access for students and staff. Staff development for library personnel takes place on a regular basis.

Minimum requirements for criterion 7:

- (i) Suitable and sufficient venues are available at all official sites of learning where the programme is offered, including teaching and learning venues, laboratories and workshops where appropriate. There are codes for laboratory practice and safety, where appropriate. Venue allocation and timetabling are carefully planned to accommodate the needs of students.
- (ii) Suitable and sufficient IT infrastructure, as determined by the needs of the programme, is available at all sites of learning. This includes functionally appropriate hardware (computers and printers), software (programmes) and databases. The infrastructure is properly maintained and continuously upgraded and adequate funds are available for this purpose. Students and staff are trained in the use of technology required for the programme.
- (iii) Suitable and sufficient library resources exist which:
 - a. Complement the curriculum.
 - b. Provide incentives for students to learn according to their own needs, capacity and pace.
 - c. Support appropriate professional and scholarly activities of students and staff involved in the programme.
- (iv) Policies exist for the proper management and maintenance of library resources, and for their continuous renewal and expansion. These policies are integrated into the institution's financial plan.
- (v) On- and off-campus students have adequate library support and adequate access to library research and computing facilities.
- (vi) Staff development takes place on a regular basis to update the library staff's knowledge and skills.

6.9 Criterion 8 (Professional development; Industry and Practical Exposure)

There shall be strategies and policies that guarantees close liaison with the profession. In addition, there must be evidence of learning arrangements with the stakeholders to ensure that the work based learning is objectively centered towards the enrichment of knowledge and the coordination of work-based learning is done effectively in all components of the programme. This includes an adequate infrastructure, effective communication, recording of progress made, monitoring and mentoring.

Minimum requirements for criterion 8:

- (i) The institution has in place a strategy that ensures collaboration with professional bodies.
- (ii) The work-based learning must be integrated in the programme design.
- (iii) The institution and employers have appropriate arrangements geared towards assessment of the objectives and outcomes of the learning process. Various parties, i.e. the institution, students, mentors and employers, adhere to the arrangement.
- (iv) Regular and effective communication takes place between the institution, students, mentors and employers involved in work-based learning. Good working relations are maintained between the various parties involved.
- (v) A system (both at the institution and at the place of employment) is in operation to record and monitor regularly and systematically the progress of the student's learning experience in the workplace.
- (vi) A mentoring system enables the student to recognise strengths and weaknesses in his/her work, to develop existing and new abilities, and to gain knowledge of work practices

6.10 Criterion 9 (Postgraduate Policies, Procedures and Regulations)

Postgraduate programmes have appropriate policies, procedures and regulations for the admission and selection of students, the selection and appointment of supervisors, and the definition of the roles and responsibilities of supervisors and students, etc.

Minimum requirements for criterion 9:

- (i) Appropriate policies, procedures and regulations are in place for student admission, selection and assessment. These are communicated to all postgraduate students, and academic and administrative staff, and implemented consistently across the institution and programme.
- (ii) The selection and appointment criteria in place for postgraduate supervisors are acceptable to the research community in the area of study. These include the following:
 - a. The supervisor has a qualification in a relevant field of study higher than, or at least at the same level as, the exit level of the postgraduate programme he/she is supervising.
 - b. The supervisor has an appropriate research track record, as well as experience, expertise and peer recognition in the field of study.
 - c. In the case of inexperienced or new supervisors, there is ongoing staff development and support, and joint supervision is explored as an option.
- (iii) Explicit guidelines exist on the roles and responsibilities of supervisors and students and other matters relevant to the performance of research. These include:
 - a. The nature, format and expected turnaround time for work submitted to the supervisor.

b. Forms of assessment, and the communication of feedback to the student, which includes:

1. The periodicity of contact between student and supervisor, and the schedule for the submission of progress reports and written work.
2. Research ethics, code of conduct, regulations on plagiarism and intellectual property rights.
3. Examination and qualification requirements.

6.11 Criterion 10 (Research)

There must be evidence of an established policy on research. The institution must envision a research that is scholarly, innovative, and interactive with industry and community. As a result the research and CM/CPM practice experience in the industry must form part of programme design and learning appraisals.

Minimum requirements for criterion 10:

- i. The institution shows evidence of a well-developed policy that guides research,
- ii. Research is integral to learning activities in the programme,
- iii. Academic research follows trends that are current, pragmatic, innovative, scholarly and reflect on community and industry practices.

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CONSTRUCTION AND PROJECT MANAGEMENT PROGRAMMES

SACPCMP

The South African Council for the Project and Construction Management Professions

— **CONSTRUCTING NEW PERSPECTIVES** —

SELF EVALUATION REPORT

SELF-EVALUATION DOCUMENT FOR PROGRAMME ACCREDITATION

PREAMBLE

This section presents a template to be used by institutions seeking accreditation to undertake self evaluation. It addresses the areas highlighted in the policy framework. The main purpose of the self evaluation by institutions is to assess their readiness for the internal audit for accreditation purposes.

The self evaluation document has been designed so as to (1) help the institution meet and comply with all the relevant requirements for accreditation, (2) give an indication to the institution if they are ready for accreditation, (3) give an indication to the institution as to what can be expected during the on-site audit, (4) allow the institution to take steps to ensure readiness for accreditation, (5) familiarise with the SACPCMP policy and seek clarity or assistance when necessary and to (6) allow the SACPCMP to assess and to provide guidance to the institution prior to the on-site visit.

The document gives general guidelines for institutions offering CM/CPM programmes to follow in pursuit of accreditation. The accreditation guidelines outlines the basis for evaluation of construction and project management programmes and in addition to providing institutions with the forum for review and development of the teaching and learning environment necessary for continuous quality improvement.

The guidelines for accreditation have taken into account differences between absolute requirements for accreditation on one hand and expected characteristics and performance levels on the other hand in addition to innovation and diversity in the educational design, delivery and quality processes. The claims made in every criterion should be supported by evidence.

CRITERION 1 (PROGRAMME DESIGN)

Criterion 1: Programme Design and Educational Outcomes; National and Regional Need for the Programme

The programme is consonant with the institution's mission, forms part of institutional planning and resource allocation, meets national and regional requirements, the needs of students and other stakeholders, and is intellectually credible. It is designed coherently and articulates well with other relevant programmes, where possible.

Minimum requirements for criterion 1:

- i. The programme is consonant with the institution's mission and goals and was approved by the appropriate institutional structures, including Senate/equivalent structure. Provision is made for the programme in the institution's planning and resource allocation processes.
- ii. The programme meets the national requirements pertaining to programmes which have been developed within the context of the NQF/HEQF from time to time.
- iii. Learning outcomes, degree of curriculum choice, teaching and learning methods, modes of delivery, learning materials and expected completion time cater for the learning needs of its target student intake. Competences expected of students who successfully complete the programme are made explicit.
- iv. The design maintains an appropriate balance of theoretical, practical and experiential knowledge and skills. It has sufficient disciplinary content and theoretical depth, at the appropriate level, to serve its educational purposes.
- v. The design offers students learning and career pathways with opportunities for articulation with other programmes within and across institutions, where possible.

vi. Courses in the programme are coherently planned with regard to content, level, credits, purpose, outcomes, rules of combination, relative weight and delivery. Outsourcing of delivery is not permitted.

vii. There is a policy and/or procedures for developing and evaluating learning materials and ensuring their alignment with the programme goals and underpinning philosophy. Where necessary, members of the academic staff are trained to develop learning materials.

viii. Programme outcomes meet national and/or regional labour market, knowledge or other socio-cultural needs. The requirements of professional bodies are taken into consideration, where applicable. Relevant stakeholders, including academic peers from outside the institution, and employers and professional bodies where applicable, are involved in the development of the programme.

ix. The characteristics and needs of professional and vocational education are catered for in the design of the programme, where applicable.

x. The programme promotes the students' understanding of the specific occupation for which they are being trained.

xi. Students master techniques and skills required for the profession and the curriculum must comprise an integrated set of tasks and structured learning experiences to ensure successful delivery of academic content and acquisition of required technical competencies in CM/CPM.

xii. Work-based learning and placement in a work-based environment form an integral part of the curriculum, where possible.

xiii. Service learning is an integral part of the learning experience and is included in programme design:

xiv. Enabling mechanisms (which may include incentives) are in place to support the implementation of service learning, including staff and student capacity development.

Criterion 2: Identifiable Organizational Structure, Demonstration of Commitment to CM and CPM Education, Programme Awards

There must be an identifiable organisational entity responsible for the project and or construction management programme at the educational institution awarding the degree. In addition, the institution must demonstrate sufficient expertise in CPM and CM in these areas.

These could be accessed in It is required that the long term programmes must tackle the following:-

- i. The award of programme should reflect construction management, construction project management and related relevant areas in its name or cited as a major field of study in the academic transcript. It is however expected that new titles may evolve due to the dynamic requirements of the market and the profession.
- ii. The programme must aim at producing graduates with competencies in construction management or project management.
- iii. Evidence is provided on the educational institution long-term commitment to and development of programmes in CM/CPM.

Criterion 3 (Student Recruitment, Admission Policy, Academic Development for Students and Student Retention)

Recruitment documentation informs potential students of the programme accurately and sufficiently, and admission adheres to current legislation. Admission and selection of students are commensurate with the programme's academic requirements, within a framework of widened access, equity and institutional capacity to offer good quality education and the needs of the profession. Academic development initiatives promote student, staff and curriculum development and offer academic support for students, where necessary.

Minimum requirements for criterion 3:

- i. Advertising and promotional materials contain accurate and sufficient information about the programme with regard to admission policies, completion requirements and academic standards. Marketing and advertising are done according to DoE and SAQA regulations and accurate information is provided about the NQF level and the accreditation status of the programme.
- ii. Admission, matriculation exemption, age exemption, etc. adhere to current legislation.
- iii. The programme's admission criteria are in line with the National Plan for Higher Education's (NPHE's) goal of widening access to higher education. Equity targets are clearly stated, as are the plans for attaining them. Provision is made, where possible, for flexible entry routes, which includes RPL with regard to general admission requirements, as well as additional requirements for the programme, where applicable. Admission of students through an RPL route should not constitute more than 10 percent of the student intake for the programme.
- iv. Selection criteria are explicit and indicate how they contribute to institutional plans for diversity. The number of students selected for the programme does not exceed the capacity available for offering good quality education.
- v. The quality and number of students admitted takes into account the needs of the profession.
- vi. Staff responsible for academic development are adequately qualified and experienced for their task, and their knowledge and skills are regularly updated.
- vii. Academic support is offered to the students where necessary.
- viii. The effectiveness of academic development initiatives is regularly monitored and feedback is used for improvement.

Criterion 4: Staffing Recruitment and Development

The recruitment and employment of staff follows relevant legislation and appropriate administrative procedures, including redress and equity considerations. Academic staff responsible for the programme are suitably qualified and have sufficient

relevant experience and teaching competence, and their assessment competence and research profile are adequate for the nature and level of the programme.

The institution and/or other recognised agencies contracted by the institution provide opportunities for academic staff to enhance their competences and to support their professional growth and development. The academic and support staff complement is of sufficient size and seniority and the size of the student body to ensure that all activities related to the programme can be carried out effectively. The ratio of full-time to part-time staff is appropriate. Support staff are adequately qualified and their knowledge and skills are regularly updated.

Minimum requirements for criterion 4:

- i. Recruitment and employment of staff adhere to the stipulations of the Labour Relations Act and to conditions of service, and there are appropriate administrative procedures for the selection, appointment, induction and payment of staff members and tutors. Redress and equity considerations receive due attention in the appointment of staff.
- ii. Academic staff for undergraduate programmes have relevant academic qualifications higher than the exit level of the programme, but at minimum a degree. Academic staff for postgraduate programmes have relevant academic qualifications at least on the same level as the exit level of the programme. At least 50 percent of the academic staff for postgraduate programmes have relevant academic qualifications higher than the exit level of the programme.
- iii. The qualifications of academic staff were awarded by recognised higher education institutions.
- iv. The majority of full-time academic staff has two or more years of teaching experience in a recognised higher education institution, and in areas pertinent to the programme. A sufficient number of academic staff members also have relevant professional experience. Qualified and experienced academic staff design the learning programme, although junior or part-time tutors may act as facilitators of learning.
- v. Academic staff are competent to apply the assessment policies of the institution. Some of the academic staff responsible for the programme have at least two years' experience of student assessment at the exit level of the programme.
- vi.

- vii. There is ongoing professional development and training of staff as assessors in line with SAQA requirements.
- viii. The institution and/or other recognised agencies contracted by the institution provide orientation and induction opportunities in which new academic staff members participate. Provision is made for regular staff development opportunities in which relevant academic staffs participate.
- ix. The staff:student ratio expressed as full-time equivalents is suitable for the nature and field of the programme and number of enrolled students. Sufficient support staff dedicated to the programme are available, where appropriate.
- x. The programme has an appropriate full-time : part-time staff ratio to ensure working conditions conducive to teaching and learning and research. Part-time and junior staff and tutors are trained, where necessary, and monitored by full-time staff.
- xi. The academic staff complement is such that it ensures that students are exposed to a diversity of ideas, styles and approaches.
- xii. Contractual arrangements relating to the hours and workload of staff ensure that all programme quality assurance, teaching, research, learning support, materials development, assessment, monitoring of part-time staff (where applicable), counselling and administrative activities take place.
- xiii. Administrative, technical and academic development support staff are adequately qualified for their duties, and opportunities exist for staff development.
- xiv. For distance learning programmes, sufficient administrative and technical staff are employed to handle the specialised tasks of registry, dispatch, management of assignments, record-keeping, and other issues in relation to student needs.
- xv. It is required that the institution has sufficient staff and facilities to provide adequate levels of student counselling, support services, and interaction with relevant constituencies such as employers and graduates. The conventional academic year must comprise sufficient time of active formal study and examination

Criterion 5: Teaching and Learning Strategy; Student Assessment Policies and Procedures

The institution gives recognition to the importance of promoting student learning. The teaching and learning strategy is appropriate for the institutional type (as reflected in its mission), mode(s) of delivery and student composition, contains mechanisms to ensure the appropriateness of teaching and learning methods, and makes provision for staff to upgrade their teaching methods. The strategy sets targets, plans for implementation, and mechanisms to monitor progress, evaluate impact and effect improvement. The different modes of delivery of the programme have appropriate policies and procedures for internal assessment; internal and external moderation; monitoring of student progress; explicitness, validity and reliability of assessment practices; recording of assessment results; settling of disputes; the rigour and security of the assessment system; RPL; and for the development of staff competence in assessment.

Minimum requirements for criterion 5:

- i. Recognition of the importance of the promotion of student learning is reflected in the institution's central operating policies and procedures, including resource allocation, provision of support services, marketing, appointments and promotions.
- ii. A teaching and learning strategy is in place which:
 - a) Is appropriate for the institutional type as reflected in its mission (programme types, research, and teaching), mode(s) of delivery (contact/distance/e-learning), and its student composition (age, full-time/part-time, advantaged/disadvantaged), etc.
 - b) Has a mechanism to ensure that teaching and learning methods are appropriate for the design and use of learning materials and instructional and learning technology.
 - c) Provides for staff development opportunities where staff can upgrade their teaching methods.
- iii. Contains targets, plans for implementation, ways of monitoring progress and evaluating impact, and mechanisms for feedback and improvement.
- iv. There are appropriate policies and procedures for RPL, including the identification, documentation, assessment, evaluation and transcription of prior

learning against specified learning outcomes, so that it can articulate with current programmes and qualifications. Assessment instruments are designed for RPL in accordance with the institution's policies on fair and transparent assessment.

- v. Internal assessment of student learning achievements by academic staff responsible for teaching a course/module of the programme in a system that includes internal moderation.
- vi. External moderation of students' learning achievements by appropriately qualified personnel. Moderators are appointed in terms of clear criteria and procedures and conduct their responsibilities in terms of clear guidelines.
- vii. Monitoring student progress in the course of the programme.
- viii. Ensuring the validity and reliability of assessment practices.
- ix. Secure and reliable recording of assessment results.
- x. Settling of student disputes regarding assessment results.

- xi. Ensuring the security of the assessment system, especially with regard to plagiarism and other misdemeanors.

Criterion 6: Quality Assurance

The programme has effective quality assurance system that ensures effective administration and coordination, yields good student retention and throughput rates and ensures enhanced employability of students and leads to alleviation of shortages of expertise in the field. In addition, user surveys, reviews and impact studies on the effectiveness of the programme are undertaken at regular intervals. Results are used to improve the programme's design, delivery and resourcing, and for staff development and student support, where necessary.

Minimum requirements for criterion 6:

- i. The programme information system is managed effectively in order to provide reliable information on the following:-
 - a) Venues, timetables, access to library and IT facilities, availability of academic and support staff for student consultations, and student support services. Information and communication needs of students in remote (rural) areas receive due attention.
 - b) Records of the students in the programme, including admission, progression, grades/marks, fees and graduation.
 - c) Records of students in the programme for the National Learner Records Database (NLRD) of SAQA.

- ii. Clear and efficient arrangements are in place for ensuring that the integrity of certification processes for the qualification obtained through the programme is not compromised. These include:-
 - a. Effective mechanisms to quality assure the processing and issuing of certificates.
 - b. Effective security measures to prevent fraud or the illegal issuing of certificates.
- iii. The programme coordinator has access to and monitors information on retention and throughput rates for the programme.
- iv. User surveys are undertaken at regular intervals for feedback from academics involved in the programme, graduates, peers, external moderators, professional bodies and employers, where applicable, to ascertain whether the programme is attaining its intended outcomes.
- v. There are regular reviews of the effectiveness of benchmarking in the programme against equivalent national and international reference points, with a view to goal setting and continuous self-improvement in the programme.
- vi. Impact studies are regularly undertaken to measure and evaluate the impact of the programme and its graduates on the employability of students and in alleviating shortages of expertise in relevant fields, where these are the desired outcomes of the programme. Impact studies could also ascertain the degree of acknowledgement of the programme in the community, by other institutions, and in the workplace, where applicable.
- vii. Results of user surveys, reviews and impact studies are used in a regular evaluation of all programme aspects and to develop improvement plans.
- viii. The institutions are required to have a clear delineation of roles and responsibilities for different cadres of management. This may be well explained by having available an organogram showing organisation structure, roles and responsibilities. The organisation structure and respective roles and responsibilities need to be regularly reviewed
- ix. Effective administrative systems are in place for:-
 - a) Identifying academically non-active students, particularly in distance education programmes.

- b) Monitoring student performance in order to ensure timely identification of at-risk students. There are strategies for advising students on improving their chances of success and for referral to appropriate academic development programmes. Rules for re-admission to programmes are clear and are sensitively applied.
- c) Dealing with the needs of a diverse student population.

Criterion 7: Facilities, Infrastructure and Resources

Suitable and sufficient venues, IT infrastructure and library resources are available for students and staff in the programme. Policies ensure the proper management and maintenance of library resources, including support and access for students and staff. Staff development for library personnel takes place on a regular basis.

Minimum requirements for criterion 7:

- (i) Suitable and sufficient venues are available at all official sites of learning where the programme is offered, including teaching and learning venues, laboratories and workshops where appropriate. There are codes for laboratory practice and safety, where appropriate. Venue allocation and timetabling are carefully planned to accommodate the needs of students.
- (ii) Suitable and sufficient IT infrastructure, as determined by the needs of the programme, is available at all sites of learning. This includes functionally appropriate hardware (computers and printers), software (programmes) and databases. The infrastructure is properly maintained and continuously upgraded and adequate funds are available for this purpose. Students and staff are trained in the use of technology required for the programme.
- (iii) Suitable and sufficient library resources exist which:
 - a. Complement the curriculum.
 - b. Provide incentives for students to learn according to their own needs, capacity and pace.
 - c. Support appropriate professional and scholarly activities of students and staff involved in the programme.
- (iv) Policies exist for the proper management and maintenance of library resources, and for their continuous renewal and expansion. These policies are integrated into the institution's financial plan.

(v) On- and off-campus students have adequate library support and adequate access to library research and computing facilities.

(vi) Staff development takes place on a regular basis to update the library staff's knowledge and skills.

Criterion 8: Professional development; Industry and Practical Exposure

There shall be strategies and policies that guarantees close liaison with the profession. In addition, there must be evidence of learning arrangements with the stakeholders to ensure that the work based learning is objectively centered towards the enrichment of knowledge and the coordination of work-based learning is done effectively in all components of the programme. This includes an adequate infrastructure, effective communication, recording of progress made, monitoring and mentoring.

Minimum requirements for criterion 8:

- (i) The institution has in place a strategy that ensures collaboration with professional bodies.
- (ii) The work-based learning must be integrated in the programme design.
- (iii) The institution and employers have appropriate arrangements geared towards assessment of the objectives and outcomes of the learning process. Various parties, i.e. the institution, students, mentors and employers, adhere to the arrangement.
- (iv) Regular and effective communication takes place between the institution, students, mentors and employers involved in work-based learning. Good working relations are maintained between the various parties involved.
- (v) A system (both at the institution and at the place of employment) is in operation to record and monitor regularly and systematically the progress of the student's learning experience in the workplace.
- (vi) A mentoring system enables the student to recognise strengths and weaknesses in his/her work, to develop existing and new abilities, and to gain knowledge of work practices

Criterion 9: Postgraduate Policies, Procedures and Regulations

Postgraduate programmes have appropriate policies, procedures and regulations for the admission and selection of students, the selection and appointment of supervisors, and the definition of the roles and responsibilities of supervisors and students, etc.

Minimum requirements for criterion 9:

- (i) Appropriate policies, procedures and regulations are in place for student admission, selection and assessment. These are communicated to all postgraduate students, and academic and administrative staff, and implemented consistently across the institution and programme.
- (ii) The selection and appointment criteria in place for postgraduate supervisors are acceptable to the research community in the area of study. These include the following:
 - a. The supervisor has a qualification in a relevant field of study higher than, or at least at the same level as, the exit level of the postgraduate programme he/she is supervising.
 - b. The supervisor has an appropriate research track record, as well as experience, expertise and peer recognition in the field of study.
 - c. In the case of inexperienced or new supervisors, there is ongoing staff development and support, and joint supervision is explored as an option.
- (iii) Explicit guidelines exist on the roles and responsibilities of supervisors and students and other matters relevant to the performance of research. These include:
 - a. The nature, format and expected turnaround time for work submitted to the supervisor.
 - b. Forms of assessment, and the communication of feedback to the student, which includes:
 - 1. The periodicity of contact between student and supervisor, and the schedule for the submission of progress reports and written work.
 - 2. Research ethics, code of conduct, regulations on plagiarism and intellectual property rights.
 - 3. Examination and qualification requirements

Criterion 10: Research

There must be evidence of an established policy on research. The institution must envision a research that is scholarly, innovative, and interactive with industry and community. As a result the research and CM/CPM practice experience in the industry must form part of programme design and learning appraisals.

Minimum requirements for criterion 10:

- i. The institution shows evidence of a well-developed policy that guides research,
- ii. Research is integral to learning activities in the programme,
- iii. Academic research follows trends that are current, pragmatic, innovative, scholarly and reflect on community and industry practices.

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