

SACNASP

South African Council for Natural Scientific Professions



A Generic Framework for Developing Competency Profiles for Professional Scientists

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Practice of Professional Science

The practice of professional (extension) science is the **performing of any activity** that requires **application of the principles of the sciences**, and that concerns the safeguarding of

Public welfare

Life

Health

Property

Economic interest

The environment

Practice of Professional Science

This may include:

- **Investigations**
- **Interpretations**
- **Evaluations**
- **Consultations**
- **Management of discovery and development**

The Purpose of Competency Profiles

- **Communicating about the work of professional scientists**
 - government
 - employers
 - students
 - general public
- **Informing the assessment of candidates for registration.**
- **Creating stronger links between education and practice.**
- **Establish reference points for**
 - Continuing professional development
 - Practice guidelines
 - Disciplinary matters

Concepts and definitions

Professional competence – the ability, in a given practice situation, to act in a safe, effective and ethical manner.

Competence is enabled by the ability to perform specific tasks with acceptable levels of proficiency,

Concepts and Definitions

Competency – the ability to perform a practice task with a with a specified level of proficiency.

Competencies – constitute the array of abilities that the scientist brings to the workplace at **entry into independent practice**.

Competencies are not applied in isolation; they are an integrated set of abilities, each competency informing and qualifying the others.

Concepts and Definitions

Competencies cover a broad range of practice tasks to ensure that scientists entering independent practice for the first time are equipped to work in a variety of common practice settings.

Competencies describe practice tasks that are broad and complex.

Concepts and Definitions

Performance of competencies – require the application of significant learning in on or more cognitive, psychomotor and affective domains.

Entry into independent practice – requires **entry-level proficiency**, as a minimum, in every competency applicable to the scientists discipline and area of practice.

Definition of Entry-level Proficiency

Entry-level proficiency involves addressing commonly-occurring workplace situations without supervision or direction, within reasonable timeframe, and achieving outcomes consistent with generally accepted standards of the profession.

Definition of Entry-level Proficiency

It includes the ability to **recognise unusually complex** workplace situations that are beyond the capacity of the entry-level scientist, and addressing them by seeking advice or consultation, by reviewing research literature, and / or by referral to more experienced scientists.

Scope of Competencies

Should outline the education and work experience required for entry to independent practice.

Entry to independent practice – The point at which a scientist has completed the academic and supervised experience requirements of the regulatory body and is qualified to apply for (professional) registration.

Career Development and the applicability of the Competency Profile

Academic Education
Supervised Experience

- LEARNING



Competency profile at
entry to independent
practice

Beginning
Mastery
Expertise
Leadership

- PRACTICE

Structure of the Competency Profile

Categories could include:

- **Scientific Method**
- **General (extension) science**
- **Communication and reporting**
- **Information technology**
- **Organisation and management**
- **Professionalism**
- **Professional Development**
- **Ethics**

Development of Competency Profiles for Extension Science

That is up to you!

Enkosi
Ha khensa
Dankie
Re a leboga
Ro livhuwa
Siyathokoza
Siyabonga
Thank you

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