

GOVERNMENT NOTICES

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

No. 378

4 May 2007



SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with Regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Standards Generating Body (SGB) for

Forensic Science

registered by Organising Field 08, Law Military Science and Security, publishes the following unit standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the unit standards. The unit standards can be accessed via the SAQA web-site at www.saqqa.org.za. Copies may also be obtained from the Directorate for Standards Setting and Development at the SAQA offices, **Hatfield Forum West, 1067 Arcadia Street, Hatfield**, Pretoria.

Comment on the unit standards should reach SAQA at the address below and **no later than 4 June 2007**. All correspondence should be marked Standards Setting – SGB for Forensic Science and addressed to

The Director: Standards Setting and Development

SAQA

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DIRECTOR: STANDARDS SETTING AND DEVELOPMENT



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Demonstrate an understanding of forensic trace analysis

SAQA US ID	UNIT STANDARD TITLE		
244145	Demonstrate an understanding of forensic trace analysis		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	5

SPECIFIC OUTCOME 1

Explain the characteristics of forensic chemical trace evidence

SPECIFIC OUTCOME 2

Explain the value of explosives as trace evidence in forensic investigations.

SPECIFIC OUTCOME 3

Explain elementary principles of techniques applied in forensic trace analysis

SPECIFIC OUTCOME 4

Explain the evidential value of trace evidence in forensic investigations.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Demonstrate an understanding of the analytical principles of forensic toxicology investigation

SAQA US ID	UNIT STANDARD TITLE		
244146	Demonstrate an understanding of the analytical principles of forensic toxicology investigation		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	5

SPECIFIC OUTCOME 1

Classify common poisons

SPECIFIC OUTCOME 2

Explain elementary principles of poison identification

SPECIFIC OUTCOME 3

Demonstrate an understanding of the collection and preservation of toxicology evidence.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

Demonstrate *an* understanding *of* the field *of* forensic questioned documents

SAQA US ID	UNIT STANDARD TITLE		
244147	Demonstrate an understanding of the field of forensic questioned documents		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	10

SPECIFIC OUTCOME 1

Demonstrate an understanding of the characteristics of handwriting and signatures used in questioned document examinations.

SPECIFIC OUTCOME 2

Demonstrate an understanding of printing processes related to questioned document examination.

SPECIFIC OUTCOME 3

Explain the use of marks and indentations on documents in terms of forensic questioned document examinations.

SPECIFIC OUTCOME 4

Document forgery methods are described in context to forensic questioned document examinations.

SPECIFIC OUTCOME 5

Explain the falsification of documents for purposes of identification.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Demonstrate an understanding of the evidential value of forensic questioned documents evidence

SAQA US ID	UNIT STANDARD TITLE		
244148	Demonstrate an understanding of the evidential value of forensic questioned		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNITSTANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	10

SPECIFIC OUTCOME 1

Explain the different types of evidence examined in forensic questioned document examinations.

SPECIFIC OUTCOME 2

Explain the role of handwriting standards.

SPECIFIC OUTCOME 3

Demonstrate an understanding of the collection of forensic questioned document evidence

SPECIFIC OUTCOME 4

Explain the preservation and packaging procedures of forensic questioned documents evidence.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Demonstrate an understanding of forensic fire investigation

SAQA US ID	UNIT STANDARD TITLE		
244149	Demonstrate an understanding of forensic fire investigation		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	5

SPECIFIC OUTCOME 1

Demonstrate an understanding of the elementary concepts of the chemistry of fire.

SPECIFIC OUTCOME 2

Explain the causes of fire.

SPECIFIC OUTCOME 3

Demonstrate knowledge of fire scene evaluation.

SPECIFIC OUTCOME 4

Explain the elementary principles of analysis of fire debris residues.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Demonstrate an understanding of the field of forensic ballistics***

SAQA US ID	UNIT STANDARD TITLE		
244150	Demonstrate an understanding of the field of forensic ballistics		
SGW	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNIT STANDARD N P E	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	8

SPECIFIC OUTCOME 1

Explain the elementary principles of internal ballistics in terms of firearm mechanisms.

SPECIFIC OUTCOME 2

Explain the elementary principles of external ballistics in context of forensic ballistics examinations.

SPECIFIC OUTCOME 3

Explain the elementary principles of terminal ballistics in terms of the interaction of a bullet and a target.

SPECIFIC OUTCOME 4

Explain intermediate ballistics principles in terms of the events surrounding the muzzle of a firearm.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA US ID	UNIT STANDARD TITLE		
244151	Demonstrate an understanding of firearms in the field of forensic ballistics		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAUD	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	8

SPECIFIC OUTCOME 1

Explain elementary operational principles of firearms in order to identify firearm mechanism types.

SPECIFIC OUTCOME 2

Explain firearm mechanisms types in context of forensic ballistic examinations.

SPECIFIC OUTCOME 3

Demonstrate an understanding of firearm manufacturing methods in terms of the different firearm components and materials.

SPECIFIC OUTCOME 4

Demonstrate an understanding of firearm safety in forensic ballistics collection and preservation of firearm evidence.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Explain visual recording *of* a scene *of* incidence

SAQA <i>US</i> ID	UNITSTANDARD TITLE		
244152	Explain visual recording of a scene of incidence		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society-		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	5

SPECIFIC OUTCOME 1Explain photography as a method for recording *a* scene of incidence**SPECIFIC OUTCOME 2**Explain videography as a method for recording a scene *of* incidence.**SPECIFIC OUTCOME 3**

Compile an elementary plan of a scene of incidence.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Demonstrate an understanding of forensic drug investigation***

SAQA US ID	UNIT STANDARD TITLE		
244153	Demonstrate an understanding of forensic drug investigation		
SQA	PROVIDER		
SGB Forensic Science			
FIFA	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNITSTANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	5

SPECIFIC OUTCOME 1

Describe and classify drugs

SPECIFIC OUTCOME 2

Demonstrate knowledge of elementary principles of drug identification.

SPECIFIC OUTCOME 3

Demonstrate an understanding of the collection and preservation of evidence in forensic drug investigations.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Demonstrate an understanding of forensic questioned documents examinations

SAQA US ID	UNIT STANDARD TITLE		
244154	Demonstrate an understanding of forensic questioned documents examinations		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	10

SPECIFIC OUTCOME 1

Explain the various degrees of conclusions in questioned document examinations.

SPECIFIC OUTCOME 2

Explain the elementary concepts of examination techniques of questioned documents.

SPECIFIC OUTCOME 3

Demonstrate and understanding of the specialized examination equipment used in forensic questioned document examinations.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Demonstrate an understanding of forensic chemistry analysis

SAQA US ID	UNIT STANDARD TITLE		
244155	Demonstrate an understanding of forensic chemistry analysis		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	

SPECIFIC OUTCOME 1

Identify the fields of forensic chemistry

SPECIFIC OUTCOME 2

Explain the elementary concepts of properties of matter

SPECIFIC OUTCOME 3

Demonstrate an understanding of the elementary concepts of measurement in chemistry.

SPECIFIC OUTCOME 4

Explain the elementary principles of chemical reactions

SPECIFIC OUTCOME 5

Adhere to health and safety regulations in a forensic chemical environment.

SPECIFIC OUTCOME 6

Define the elementary principles of operation for instruments used in chemical instrumental analysis.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Explain the role of ammunition in the field of forensic ballistics

SAQA USID	UNIT STANDARD TITLE		
244 156	Explain the role of ammunition in the field of forensic ballistics		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	8

SPECIFIC OUTCOME 1

Classify ammunition types

SPECIFIC OUTCOME 2

Describe cartridge cases in terms of the functioning principles of ammunition

SPECIFIC OUTCOME 3

Describe bullets in terms of the functioning principles of ammunition.

SPECIFIC OUTCOME 4

Explain propellants in terms of firearm technology and thermodynamics



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:***Demonstrate an understanding of the field of fingerprinting***

SAQA US ID	UNIT STANDARD TITLE		
244158	Demonstrate an understanding of the field of finge		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 - Law, Military Science and Security	Safety in Society		
ABET BAND	UNITSTANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	.5

SPECIFIC OUTCOME 1

Explain the elementary principles of fingerprinting as identification method.

SPECIFIC OUTCOME 2

Explain the elementary principles of fingerprint classification

SPECIFIC OUTCOME 3

Explain the methods used in fingerprint examination



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Demonstrate an understanding of forensic ballistics examination techniques

SAQA US ID	UNIT STANDARD TITLE		
244160	Demonstrate an understanding of forensic ballistics examination techniques		
SGB	PROVIDER		
SGB Forensic Science			
FIELD	SUBFIELD		
8 " Law, Military Science and Security	Safety in Society		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	8

SPECIFIC OUTCOME 1

Explain the elementary concepts of firearm identification, individualization and examination,

SPECIFIC OUTCOME 2

Explain the identification and comparison of bullets

SPECIFIC OUTCOME 3

Explain the identification and comparison of cartridges according to forensic ballistics examination principles.

SPECIFIC OUTCOME 4

Identify equipment used for the identification and comparison of ballistic impressions based on its purpose and function.

SPECIFIC OUTCOME 5

Explain the identification and individualization of tool marks

SPECIFIC OUTCOME 6

Explain the restoration of obliterated numbers on metals through the electro magnetic process.