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GOVERNMENT NOTICES

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

No. 1011   **26 September 2008**

SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with Regulation 24(c) of the National Standards Bodies Regulations of 28 March 1998, the Task Team for

Radiography and Clinical Technology

registered by Organising Field 09 – Health Sciences and Social Services, publishes the following Qualification for public comment.

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

Comment on the Qualification should reach SAQA at the address below and *no later than 27 October 2008.* All correspondence should be marked **Standards Setting – Task Team for Radiography and Clinical Technology** and addressed to

> The Director: Standards Setting and Development
> SAQA
> *Attention: Mr. D. Mphuthing*
> Postnet Suite 248
> Private Bag X06
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DR. S. BHIKHA
DIRECTOR: STANDARDS SETTING AND DEVELOPMENT

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:
Doctor of Clinical Science

SAQA QUAL ID	QUALIFICATION TITLE		
63949	Doctor of Clinical Science		
ORIGINATOR		PROVIDER	
TT - Radiography and Clinical Technology			
QUALIFICATION TYPE	FIELD	SUBFIELD	
Doctoral Degree	9 - Health Sciences and Social Services	Curative Health	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	360	Level 8 and above	Regular-ELOAC

This qualification does not replace any other qualification and is not replaced by another qualification.

PURPOSE AND RATIONALE OF THE QUALIFICATION
Purpose:

The learner who successfully completes this qualification will be able to:

> Apply high level problem-solving skills and critical reflective reasoning at the most advanced academic levels culminating in the production of a thesis that meets the accepted criteria and ethical principles for the academic institution.
> Develop a comprehensive and high level of thinking, enquiry and insight by exploring untapped scientific territories in pursuit of universal knowledge.
> Have an opportunity to engage in meaningful and sound academic discourse according to the National and International Community of Clinical Scientists.
> Apply the acquired specialised knowledge by Mentoring and Coaching lower level research students.

Rationale:

The South African government has identified a critical need for Clinical Scientists who can make a significant and original contribution through independent research in a specialised area of technology.

This qualification has been structured to:

> Meet that need and provide for advanced research within technology through the inclusion of a research dissertation that complies with the accepted norms, criteria and ethical principles for research at a doctorate level.
> Contribute to the solutions which are aligned to the rising challenges of the Health Systems within the Continent and the Country.
> Add value to Scientific Research Skills which is a critical factor in positioning Candidates for competitive global participation, innovation and leadership within the field of Science and technology.
> To conduct original research within the field of technology and present their findings at local and international conferences/seminars as well as publish them in accredited publications.

RECOGNIZE PREVIOUS LEARNING?

Y

LEARNING ASSUMED IN PLACE
> Successful completion of the Master of Clinical Science (or equivalent).

Recognition of Prior Learning:

Recognition of prior learning will be applied on an individual basis and will be conducted in accordance with the institutional and accredited RPL policies. Providers are required to develop structured and accredited means of the assessment of individual learners against the exit-level outcome of the qualification on a case-by-case basis. Such procedures and the assessment of individual cases are subject to moderation by independent assessors.

Access to the Qualification:

Successful completion of a Master of Clinical Science or equivalent qualification in accordance with the selection protocol of the educational institution or through recognition of prior learning (RPL). Evidence of prior learning may be presented in a format agreed to by the relevant provider or the relevant Education and Training Quality Assurance body (ETQA) or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

QUALIFICATION RULES
A minimum total credits of 360 at NQF Level 9.

EXIT LEVEL OUTCOMES
The Clinical Scientist with a Doctoral Degree will show competence in the following exit level outcomes in order to contribute to original global knowledge in the particular field/area chosen, by applying scientifically appropriate research methods, theories and techniques appropriately and correctly and producing a thesis which meets international standards:

1. Conduct independent research into the literature within the broader context of the field/area of investigation to synthesise and critically evaluate existing information and knowledge.

2. Plan, design, motivate, budget for, and conduct a comprehensive scientific research project.

3. Critically analyse, evaluate and interpret the findings.

4. Report the findings in a thesis, in a scientific format for international consumption.

Critical Cross-Field Outcomes:

> Identify and solve problems and think critically and creatively in designing, executing and reporting on a specialised area of Clinical Technology.
> Collect, organise, analyse and evaluate information by data collection and its synthesis into a logical contribution to the knowledge in the particular field chosen for the study.
> Work effectively with specialised scientists in the particular field at a high academic level.
> Manage one's own time to achieve execution of a research plan and integrate all the conflicting information pertinent to the study within the stipulated time frames.
> Communicate, particularly in scientific terms, in internationally acceptable language both verbally and in written reports and publications.
> Using science and technology to contribute to the existing knowledge and future understanding in the field is an overt outcome of this qualification.

ASSOCIATED ASSESSMENT CRITERIA
Associated Assessment Criteria for Exit-Level Outcome 1:

> The research field and its implications are critically explored evaluated, analysed and justified in a research report.
> Relevant and recent information on the research area is gathered from wide variety of sources.
> Relevant and current information is critically analysed, evaluated and discussed in a detailed literature review.

Associated Assessment Criteria for Exit-Level Outcome 2:

> Appropriate research design and methodology are selected, described, justified and defended in terms of the research topic.
> A research proposal is compiled and presented in accordance with the institutional research policies and procedural criteria.
> The budget for the research is drawn in an accurate, honest and responsible manner.
> Medical and research ethics and legal issues pertinent to research in technology are critically reflected on, included in the proposal and adhered to during the research process.
> The experimental research is responsibly and ethically conducted.

Associated Assessment Criteria for Exit-Level Outcome 3:

> Data is analysed using the relevant instruments and statistical tools.
> Logical interpretation of data reflects clear understanding of the relationship between facts in the study and the ability to evaluate contradictory information.

Associated Assessment Criteria for Exit-Level Outcome 4:

> The dissertation is written up according to the institutional research policies and procedural criteria.
> Information technology skills are applied effectively in the production of the thesis.
> Language and numeracy skills are applied effectively and correctly in clearly communicating the research problem, its investigation, the outcome, and the recommendations.
> New knowledge, or technology or solution to a problem is contributed and published in appropriate journals and presented at appropriate conferences and seminars.

Integrated Assessment:

Continuous assessment will be used to assess the learner's performance. The learner will be afforded opportunities to improve performance through formative assessment before summative assessment is performed.

INTERNATIONAL COMPARABILITY
Introduction:

The South African government has identified a need for both a specialist Clinical Technologist who can operate independently at an advanced level in the various categories of clinical technology as well as those who will make a contribution, through independent research in a chosen field. The developed qualification should further be comparable with qualifications offered elsewhere in the world. This will ensure that South Africa is on par with international trends and that the students who graduate with these qualifications will have employment and global competitive edge. This qualification was compared to those offered in America and the United Kingdom (UK). Documents on international as well as national curricula have been consulted.

USA Doctoral Degree Programmes:

The US PhD degree or doctoral degree is even more focused and specialized than the master's degree. Some students will complete a master's degree before applying to a doctorate degree programme, but that is not always necessary. Completion of a US doctorate degree typically takes between three and six years. The length of time will depend on the student's educational background (a student with a master's degree may take less time to complete his PhD if it is in the same field), the field of study selected, the student's dedication and ability, and the complexity of the thesis the student has chosen for his PhD. The thesis is a very long, extensive, and original research paper that is a requirement for completing the PhD programme.

Professional doctorates in the United States: In the United States, there are numerous degrees which incorporate the word "doctor" and are known as "professional doctorates". Such fields include audiology, chiropractic, dentistry, education, law, medicine, occupational therapy, optometry, osteopathic medicine, pharmacy, physical therapy, podiatry, practical theology, psychology, veterinary medicine, and many others that usually require such degrss for licensure, including several in development such as that for medical physics. Generally, these degrees are considered "first professional degrees". Professional doctorates were developed in the United States in the 19th century during a movement to improve the training of professionals by raising the requirements for entry and completion of the degree necessary to enter the profession. These professional doctorates were more rigorous than their bachelor equivalents in the U.S. and replaced them. The first professional doctorate was the M.D. in 1807 which was nearly sixty years before the first Ph.D. was awarded in the U.S. in 1861. The Juris Doctor was subsequently established by Harvard University for the same reasons that the Doctor of Medicine (MD) was established.

Doctor of Health Science (DHSc): The Doctor of Health Science degree was created in Europe and Australia. It is a post-professional doctorate and was usually awarded after completion of coursework and research to clinicians who do not hold the Doctor of Medicine (M.D.) degree. In Europe and Australia, the degree is awarded after completion of two to three years of coursework and research beyond the Masters degree. The degree found its place in the United States in early 2000 with the first "Doctor of Health Science" degree offered to Physical Therapists by the University of St. Augustine in Florida, USA. Concurrently, another programme was developing at Nova Southeastern University (NSU) in Fort Lauderdale, Florida. Nova Southeastern graduated its first class of Doctor of Health Science students in 2003. In 2008, A.T. Still University-Arizona School of Health Sciences in Mesa, Arizona became the second university offering this degree. While there are very few Doctor of Health Science programmes in the United States, these two programmes are the only unifying Doctorates open to Masters educated clinicians from all disciplines. Like its European counterparts, the degree requires two to three years of coursework and research beyond the Masters credential.

Argentina:

Similar to other countries, in Argentina the doctorate is the highest. The intention is that candidates produce true and original contributions in a specific field of knowledge within a frame of academic excellence. The doctoral candidate's work should be presented in a dissertation or thesis prepared under the supervision of a tutor or director, and reviewed by a Doctoral Committee. This Committee should be composed of examiners external to the programme, and at least one of them should also be external to the institution. The academic degree of Doctor is received after a successful defense of the candidate's dissertation. Currently, there are approximately 2,151 postgraduate careers in the country, of which 14% were doctoral degrees. Doctoral programmes in Argentina are overseen by the National Commission for University Evaluation and Accreditation, which is a decentralized agency in Argentina's Ministry of Education, Science and Technology.

Germany:

A research doctorate usually takes three to five years to complete. In Germany, most doctorates are awarded with specific designations for the field of research instead of a general "PhD" for all

fields. The degree is written in front of the first name for addresses (within texts, the abbreviation "Dr." is common) and accompanies the person's name (unlike in German-speaking Switzerland). There are no first degree doctorates but medical students can obtain a "Dr. med." after one semester of mostly undergraduate research or data evaluation. The "Dr. med." is not equivalent to a PhD but to a Masters degree. Medical Students going into research can obtain a research doctorate in some subjects, such as molecular medicine or human biology.

Upon the completion of the habilitation paper a senior doctorate (habil) is awarded. This senior doctorate is known as the habilitation. It is not a degree, but an additional qualification. It authorizes the owner to teach at German universities, plus qualifies the holder of the "habil." to teach in a certain subject. This or an equivalent professional experience is, traditionally the necessary prerequisite for a position of Professor.

Spain:

Doctor Degrees are regulated by Royal Decree (R.D. 778/1998). They are granted by the University on behalf of the King, and its Diploma has the force of a public document. The Ministry of Science keeps a National Registry of Theses called TESEO. According to the National Institute of Statistics, less than 5% of M.Sc. degree holders are admitted to Ph.D. programs, and less than 10% of 1st year Ph. D. students are finally granted a Doctorate. All doctoral programmes are of research nature. A minimum of 5 years of study are required, divided into 2 stages:

> A 3-year long period of studies, which concludes with a public dissertation presented to a panel of 3 Professors. If the project receives approval from the university, he/she will receive a "Diploma de Estudios Avanzados" (part qualified doctor).

> A 2-year (or longer) period of research, wherein extensions may be requested for up to 10 years. The student must write his/her thesis presenting a new discovery or original contribution to Science. If approved by his/her "thesis director", the study will be presented to a panel of 5 distinguished scholars. Any Doctor attending the public presentations is allowed to challenge the candidate with questions on his/her research. If approved, he/she will receive the doctorate. Four marks can be granted (Unsatisfactory, Pass, "Cum laude", and "Summa cum laude"). Those Doctors granted their degree "Summa Cum Laude" are allowed to apply for an "Extraordinary Award". A Doctoral Degree is required in order to apply to a teaching position at the University.

All Doctoral Degree holders are reciprocally recognized as equivalent in Germany and Spain ("Bonn Agreement of November 14th 1994").

United Kingdom:

All doctorates (except for those awarded honoris causa) granted by British universities are research doctorates in the sense described above, in that their main, and in many cases, only component is the submission of a thesis or portfolio of original research, examined by an expert panel appointed by the university. Even the relatively new 'vocational doctorates' such as the EngD, EdD, DSocSci and DClinPsych require the submission of a body of original research of a similar length to a PhD thesis. In the case of the EngD, however, this might be in the form of a portfolio of technical reports on different research projects undertaken by the candidate as opposed to a single, long monographical thesis. Another important difference is that traditional PhD programmes are mostly academic-oriented and normally require full-time study at the university, whereas, in an EngD programme, the candidate typically works full-time for an industrial sponsor on application-oriented topics of direct interest to the partner company and is jointly supervised by university faculty members and company employees.

The PhD itself is a comparatively recent introduction to the UK, dating from 1917. It was originally introduced in order to provide a similar level of graduate research training as was available in several other countries, notably Germany and the USA. Previously, the only doctorates available were the higher doctorates, awarded in recognition of an illustrious research career. The universities of Oxford and Sussex denote the degree of Doctor of Philosophy with the postnominal initials DPhil. The University of York also did this for some years, switching to the more conventional PhD quite recently.

Higher doctorates in the United Kingdom are awarded in recognition of a substantial body of original research undertaken over the course of many years. Typically the candidate will submit a collection of work, which has been previously published in a peer-refereed context. Most universities restrict candidacy to graduates or academic staff of several years' standing. The most common doctorates of this type are those in Divinity (DO), Medicine (MD or OM), Laws (IID), Civil law (DCI), Music (DMus or MusD), Letters (DLitt or LittD) and Science (DSc or ScD).

Conclusion:

This qualification compares well with international standards.

ARTICULATION OPTIONS
Any other recognised and relevant qualifications.

MODERATION OPTIONS
> Assessment within this qualification will have to be qualified as such and satisfy the stipulated conditions as outlined by the relevant ETQA of the accrediting body.

> Formative Assessment will be carried out internally whilst both internal and external moderation will be conducted by a recognised moderator.

> At the exit points of the qualification, moderation of assessment will be executed internally and externally.

CRITERIA FOR THE REGISTRATION OF ASSESSORS
In order for a Candidate to register as an assessor for this qualification, the candidate must:

·> Posses a relevant doctorate at NQF Level 8+.
> Possess relevant experience and proven record in research within the related field of study.
> Be familiar with the research community as an expert in the field of study.

NOTES
N/A

UNIT STANDARDS
This qualification is not based on Unit Standards.

LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION
None

No. 1012   **26 September 2008**

SAQA

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

Pharmacy

registered by Organising Field 09 – Health Sciences and Social Services, publishes the following Qualification and Unit Standards for public comment.

This notice contains the titles, fields, sub-fields, NQF levels, credits, and purpose of the Qualification and Unit Standards. The full Qualification and Unit Standards can be accessed via the SAQA web-site at www.saqa.org.za. Copies may also be obtained from the Directorate of Standards Setting and Development at the SAQA offices, SAQA House, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the Qualification and Unit Standards should reach SAQA at the address below and *no later than 27 October 2008.* All correspondence should be marked **Standards Setting – SGB for Pharmacy** and addressed to

> The Director: Standards Setting and Development
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> Postnet Suite 248
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DR. S. BHIKHA
DIRECTOR: STANDARDS SETTING AND DEVELOPMENT

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA

QUALIFICATION:
National Certificate: Pharmaceutical Sales Representation

SAQA QUAL ID	QUALIFICATION TITLE		
63969	National Certificate: Pharmaceutical Sales Representation		
ORIGINATOR		PROVIDER	
SGB Pharmacy			
QUALIFICATION TYPE	FIELD	SUBFIELD	
National Certificate	9 - Health Sciences and Social Services	Curative Health	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	120	Level 5	Regular-Unit Stds Based

This qualification replaces:

Qual ID	Qualification Title	NQF Level	Min Credits	Replacement Status
17099	Certificate: Medical Representative	Level 5	120	Will occur as soon as 63969 is registered

PURPOSE AND RATIONALE OF THE QUALIFICATION

Purpose:

This Qualification is for learners who have entered the arena of pharmaceutical sales representation. Since medical doctors and pharmacists comprise the majority of potential customers, the industry requires well-schooled individuals who can provide accurate product information to potential customers but who can also adapt their communication styles to suit each individual customer's needs. The Qualification is intended to produce credible, ethical and informed sales representatives who will be able to take specific product knowledge to the customer.

Although this Qualification and its associated Unit Standards are shown to fall into the subfield 'Curative Health' they are also applicable across all the other recognised sub-fields in the Organising Field: Health Sciences and Social Services.

On completion of this Qualification the learner will be capable of:

> Communicating assimilated information to the customer within the regulated pharmaceutical environment.
> Demonstrating an understanding of disease states and drug actions within the body.
> Accessing and analysing market data to formulate a business plan.
> Evaluating and utilising applicable recognised research findings to achieve a competitive advantage.

Rationale:

The pharmaceutical manufacturing industry recognized a need to formalise the marketing of pharmaceutical products in line with international trends. This need includes the provision of well-researched information on current and new products to the health care industry, so that patients can receive effective, safe and high quality medicines.

National legislation and associated regulations govern the sale of pharmaceutical products. Hence a Qualification for pharmaceutical sales representation, which is approved by the relevant bodies and enables the qualifying learner to provide specific pharmaceutical product information, is required.

Recent developments in the pharmaceutical industry and managed health care require that pharmaceutical sales representatives have a wide knowledge of the efficacy, safety and cost effectiveness of the products available, as well as the ability to convey selected information to customers. Meeting this requirement means that the qualifying learner will have the ability to access and utilise research findings.

With this Qualification as a basis, the qualifying learner can progress into marketing and/or sales' management, specialisation in clinical research or other areas.

Furthermore this qualification will also provide the basis for personal growth and the development of entrepreneurial skills which will contribute to the attainment of the millennium develop goals (MDG) particularly in health care. Within the Chemical Industries Sector Education and Training Authority (CHIETA) sector skills plan, the pharmaceutical sub-sector has identified pharmaceutical sales representation as a scarce skill. Addressing the related skills' gap will enlarge the pool of skilled persons for development into managerial and executive positions within the sub-sector.

RECOGNIZE PREVIOUS LEARNING?
Y

LEARNING ASSUMED IN PLACE
> Communication skills at NQF Level 4.
> Mathematical Literacy at NQF Level 4.
> Computer Literacy at NQF Level 3.

Recognition of Prior Learning:

Learners may provide evidence of prior learning for which they may receive credit towards the qualification by means of portfolios or other forms of appropriate evidence which may include, verified accounts of previous relevant work done and performance records and which evidence is in accordance with the requirements of the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

Access to the Qualification:

> Open: On conditional compliance with the learning assumed to be in place.

QUALIFICATION RULES
In order to be credited with this qualification, learners are required to achieve a minimum of 120 credits, to be compiled as follows:

> All 27 Fundamental component credits are compulsory.
> All 78 Core component credits are compulsory.
> A minimum of 15 Elective component credits are compulsory.

EXIT LEVEL OUTCOMES
1. Communicate assimilated information to the customer within the regulated pharmaceutical environment.

2. Demonstrate an understanding of disease states and drug action in the body.

3. Access and analyse market data to formulae a business plan.

4. Evaluate and utilise applicable recognised research findings to achieve a competitive advantage.

Critical Crossfield Outcomes:

> Identifying and solving problems are demonstrated in the application of ethical principles and in the related interactions.
> Team work is demonstrated in the interactions between both internal and external clients/customers and in the handling of pharmaceutical products.
> Organising of self is demonstrated in the successful handling of products and use of research findings.
> Collating information is indicated in the utilization of research data.
> Effective communicating is demonstrated through the successful achievement of sales call objective.
> Utilising science and technology is clearly indicated in the design of presentations and the access to clinical research data.
> Understanding the world as a set of related systems is indicated in the adherence to legislative requirements, use of clinical research data and interactions with clients/customers, colleagues and competitors.

ASSOCIATED ASSESSMENT CRITERIA
Associated Assessment Criteria for Exit Level Outcome 1:

1.1 A description is given of how ethical principles and behaviour are applied.
1.2 Knowledge is demonstrated of applicable industry legislation and/or codes during client/customer interactions.
1.3 Selling skills appropriate to a given situation are identified and applied during client/customer interactions.
1.4 Own and customer's professional styles are identified and own style is adapted to ensure effective use of time during a sales call.
1.5 Presentations appropriate to the situation are designed, developed and delivered.

Associated Assessment Criteria for Exit Level Outcome 2:

2.1 Human anatomy, physiology and pathology are described to provide information relating to health and medicines.
2.2 The principles of pharmacology and pharmaceutics are explained as they relate to medicines' information.
2.3 The principles of microbiology are applied as they relate to medicines' information.

Associated Assessment Criteria for Exit Level Outcome 3:

3.1 Market data are analysed through the use of appropriate tools.
3.2 Managed health care in South Africa is described in terms of the health care environment and funding approach.
3.3 Territory management plans are developed based on market data analysis and implemented.

Associated Assessment Criteria for Exit Level Outcome 4:

4.1 Clinical research methodology is applied to analyse and interpret clinical trials.
4.2 The findings of clinical research for a product are utilised to develop a competitive sales package.

4.3 The principles of pharmaco-economics are applied to clinical trial outcomes to demonstrate cost-effectiveness of medicines.

Integrated Assessment:

Formative assessment:

Throughout the learning programme, formative assessment strategies are used to ensure that exit level and critical cross-field outcomes are achieved. Strategies include:

> Written assignments.
> Tests (or examination equivalent tests).
> Projects.
> Demonstrations.
> And/or any other applicable method.

Summative Assessment:

Can take the form of:

> Oral.
> Written.
Or
> Practical examinations.

As agreed to by the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

INTERNATIONAL COMPARABILITY
In recognition of the reality of globalisation of the pharmaceutical industry, from a wide geographical sweep, the following countries have been identified as representative of the developed and developing worlds.

Australia:

Although only a small part of the world market, the pharmaceutical industry is a key industry in Australia, which sells over A$11 billion worth of medications domestically and directly employs over 14,000 people.

Medicines Australia (MA): A lobby group for major Australian pharmaceutical companies, previously known as the Australian Pharmaceutical Manufacturers' Association; administers a Code of Conduct on pharmaceutical marketing. This applies to all pharmaceutical companies in Australia, whether they are a member of MA or not. The Provisions of the Code; Section 4, apply to Pharmaceutical Representatives.

The following points pertain to their training and education:

> Companies have a responsibility to maintain high standards of ongoing training for company representatives.
> Company representatives should possess sufficient medical and technical knowledge to present information on the company's products in a current, accurate and balanced manner and should be cognisant of all provisions of this Code.
> It is the responsibility of company representatives visiting a hospital or other institution to make themselves aware of all hospital policies, including operating theatre procedures and conduct their business accordingly.

> Companies should ensure that company representatives have a thorough knowledge of Australia's Privacy Legislation and its implications for their role.
> All medical representatives who have been employed in the Australian prescription pharmaceutical industry since April, 1983 are required to have completed or be currently undertaking an endorsed Medicines Australia Education Programme for medical representatives.
> All medical representatives entering the Australian prescription pharmaceutical industry for the first time must enrol in the Code of Conduct component of the endorsed Medicines Australia Education Programme within the first six months of employment and must complete the full programme requirements for medical representatives within two years.
> Any person who is directly involved in the development, review and approval of promotional materials and educational materials for the general public, including product managers, medical, marketing or sales staff; or has direct interaction with health care professionals for the purpose of promoting a prescription medicine, whether part time or full time, must complete the Code of Conduct component of the endorsed Medicines Australia Education Programme within the first twelve months of commencement of employment.

Medicines Australia Education Programs: (Presented by the University of Queensland, Health InSITU and Medicines Australia):

> MA4200: Introduction to the Human Body:
> CEP Online Program MA4200: This program introduces the student without prior knowledge of human biology to the foundational biological principles of the human body and an introduction to medical terminology.

> Program 1: The Medicines Australia Code of Conduct (2008Sem2):
> CEP Online Program 1: Ethical practices within the pharmaceutical industry, including the obligations and practices of companies in their relationship with the health care industry and the public.

> Program 2: The Pharmaceutical and Healthcare Industry (2008Sem2):
> CEP Online Program 2: The historic development of the industry, government regulatory processes and the industry's role in the Australian health care system.

> Program 3: An Introduction to Pharmacology (2008Sem2):
> CEP Online Program 3: Pharmacokinetics and pharmacodynamics, how drugs are administered, transported through the body and absorbed.

> Program 4: Understanding Product Information (2008Sem2):
> CEP Online Program 4: An overview of the scientific, medical and therapeutic information contained in Product Information, including how the information is structured to comply with Therapeutic Goods Administration requirements.

> Program 5: Understanding Clinical Evidence (2008Sem2):
> CEP Online Program 5: A systematic approach to the analysis of published clinical papers, including how clinical trials are designed and conducted, and the four phases of clinical trials.

India:

The Indian pharmaceutical industry is one of the developing world's largest and most developed, ranking 4th in the world in terms of production volume and 13th in domestic consumption value. India's industry, valued at $5.3 billion in 2005, represents less than one percent of the global pharmaceutical industry of $550 billion. Over the last 30 years, India's pharmaceutical industry has evolved from almost non-existent to a world leader in the production of high quality generic drugs. India has garnered a worldwide reputation for producing high quality, low cost generic drugs.

Pharmaceutical regulation has not matched burgeoning industrial development and India has neither a nationally applicable code of conduct nor regulatory standards applicable to Pharmaceutical Representatives. In the Jan-Mar 2004 issue of the Indian Journal of Medical Ethics, Amitava Guha's article, "A comparison of codes of pharmaceutical marketing practices", ends with this statement on "Regulations in India":

> "The less said about this the better. We have a Magic Remedies (Objectionable Advertisement) Act, 1954. It has only one relevant clause, Clause 4, on misleading advertisements which: "Directly or indirectly gives false impression regarding the true character of the drug; makes a false claim for the drug, or is otherwise false or misleading in any particular material." After almost 50 years, surely it is time to develop a code on pharmaceutical promotional practices that is suitable for India, and the appropriate legislation to enforce it".

In ICMR Case Studies and Management Resources: Pharma Firms to Stop Gifts to Doctors: Is Self Regulation the Answer? It is stated:

"In January 2007, several pharmaceutical companies in India announced their intention to stop providing incentives (such as, gifts, cash, travel holidays, etc.) to doctors to influence their prescribing behaviour. This voluntary code was developed by The Organization of Pharmaceutical Producers of India (OPPI), which represented major domestic and multinational pharmaceutical companies operating in India. OPPI intended to make the code legally binding, but accepted that it would take a long time to be implemented. Many wondered whether this self-regulation by the industry could break a practice that had been built over the years".

Three-and-a-half years after its "comparison of codes" article, the 2007 Apr-Jun issue of the Indian Journal of Medical Ethics published, "Drug promotional practices in Mumbai: A qualitative study", which summarises the position as follows:

"The study findings indicate the institutionalisation of unethical and illegal drug promotional practices - at the cost of the consumer -- by drug companies, chemists and doctors, with a role played by medical representatives. We suggest that effective action against such practices must involve better regulation of the industry, as well as involvement of all the stakeholders -- doctors, chemists, manufacturers and consumers. However, the various associations have not shown any inclination towards self regulation. In fact, many of them are themselves mired in controversy. There is limited organised consumer action against spurious drugs and unethical promotional practices in the pharmaceutical industry".

The website of the Central Drugs Standard Control Organization of the DGHS, Ministry of Health and Family Welfare of the Government of India, lists all the "Laws Pertaining to Manufacture and Sale of Drugs in India". There are no standards for the training and regulation of Pharmaceutical Representatives listed.

The Indian Institute of Pharmaceutical Marketing, an institutional member of the Indian Pharmaceutical Association, "has been set-up with a view to serve the demand of trained marketing personnel/ executives in this sector of the corporate world".

It offers a course in Pharmaceutical Marketing Management, which covers the following:

> Pharmaceutical Marketing Management.
> Pharma Selling.
> Anatomy, Physiology and Pharmacology.
> Pharma Product Management.
> Pharma Distribution Management.
> Customer Behaviour.
> Advertising.

> Pharmaceutical Marketing Communication.
> Market Research.
> Drug Law's.
> Economics.
> Manufacturing Practices in Pharmaceutical Industry.
> Qualify Control Management.
> Production Planning.
> Fundamental of Management and Practical Training and Case Studies and Introduction to Information Technology.

Kenya:

In Kenya, the pharmaceutical industry consists of three segments, viz., the manufacturers, distributors and retailers, all of which play a major role in supporting the country's health sector. Kenya is currently the largest producer of pharmaceutical products in the Common Market for Eastern and Southern Africa (COMESA) region, supplying about 50% of the regions' market. Out of the region's estimated 50 recognised pharmaceutical manufacturers; approximately 30 are based in Kenya. About 9,000 pharmaceutical products have been registered for sale. These are categorised according to particular levels of outlet as free-sales/over-the-counter (OTC), pharmacy technologist dispensable, or pharmacist dispensable/prescription only".

The Pharmacy and Poisons Board is the Drug Regulatory Authority established under the Pharmacy and Poisons Act, Chapter 244 of the Laws of Kenya. The Board regulates the Practice of Pharmacy, Manufacture and Trade in drugs and poisons. According to the Board:

"Currently, a majority of persons practising as Pharmaceutical Representatives lack Pharmacological training hence are not able to conceptualize medical issues. On the other hand, [legislation], does not provide for training and licensing of the Pharmaceutical Representatives exhaustively".

The Pharmacy and Poisons Board, accordingly define the following criteria for registration as a Pharmaceutical Representative:

> Pharmaceutical Representative is a representative of manufacturing company, importer, distributor, wholesaler, who conducts promotional activities through provision of information about drugs to health care professionals. They are also licensed to carry drugs as samples in the course of their duties.
> Order Takers means that the pharmaceutical representative shall be involved in taking orders on behalf of their companies. They shall not be involved in provision of scientific information about drugs and will not carry and/or issue out samples.
> Training and Academic Qualifications. The following qualifications shall be the minimum criteria for consideration as a Pharmaceutical Representative by the Pharmacy and Poisons Board:
 > A diploma in Pharmacy, Cap 244.
 > A degree in Medicine and Surgery, Cap 255.
 > A degree in Veterinary Medicine, Cap 366.
 > A degree in Dentistry, Cap 253.
 > A degree in Nursing, Cap 257.
 > A diploma in Clinical Medicine, Cap 260.
 > A diploma in Nursing, Cap 257.
Or
 > Any other qualification the Pharmacy and Poisons Board deems satisfactory.

United Kingdom:

Pharmaceutical companies carry out nearly a quarter of all industrial research and development in the United Kingdom (UK), and spend more than 20 per cent of their gross output on research and development. Around 20 per cent of the world's top medicines were discovered and developed in Britain. The Pharmaceutical industry employs 72 00 people, generating another 250,000 jobs in related industries.

The Association of the British Pharmaceutical Industry (ABPI) is the trade association representing manufacturers of prescription medicines. The Code has been regularly revised since its inception in 1958 and is drawn up in consultation with the British Medical Association, the Royal Pharmaceutical Society of Great Britain, the Royal College of Nursing and the Medicines and Healthcare products Regulatory Agency of the Department of Health. The Code is accepted by virtually all pharmaceutical companies operating in the UK".

The ABPI Code incorporates the principles set out in:

> The International Federation of Pharmaceutical Manufacturers and Associations' (IFPMA) Code of Pharmaceutical Marketing Practices.
> The European Federation of Pharmaceutical Industries and Associations' (EFPIA) Code on the Promotion of Prescription-Only Medicines to, and Interactions with, Healthcare Professionals.
> The EFPIA Code of Practice on Relationships between the Pharmaceutical Industry and Patient Organisations.
> Directive 2001/83/EC on the Community Code relating to medicinal products for human use, as amended by Directive 2004/27/EC.
> The World Health Organisation's Ethical criteria for medicinal drug promotion.

Clause 16 of the ABPI: Code of Practice states the following on Training:

> All relevant personnel including representatives and members of staff (including persons retained by way of contract with third parties) concerned in any way with the preparation or approval of promotional material or of information to be provided to members of the UK health professions and to appropriate administrative staff or of information to be provided to the public and recognised patient organisations must be fully conversant with the requirements of the Code and the relevant laws and regulations.

> All personnel (including persons retained by way of contract with third parties) must be fully conversant with pharmacovigilance requirements relevant to their work and this must be documented.

> Representatives must pass the appropriate ABPI representatives examination, as specified in Clause 16.4. They must take the appropriate examination within their first year of such employment. Prior to passing the appropriate examination, they may be engaged in such employment for no more than two years, whether continuous or otherwise.

> The Medical Representatives Examination is appropriate for, and must be taken by, representatives whose duties comprise or include one or both of:

> Calling upon doctors and/or dentists and/or other prescribers.
> The promotion of medicines on the basis, inter alia, of their particular therapeutic properties.

The Generic Sales Representatives Examination is appropriate for, and must be taken by, representatives who promote medicines primarily on the basis of price, quality and availability.

The ABPI examinations for medical representatives and generic sales representatives are based on a syllabus published by the ABPI which covers, as appropriate, subjects such as body systems, disease processes and pharmacology, the classification of medicines and

pharmaceutical technology. Information on the National Health Service and pharmaceutical industry forms an additional core part of the syllabus. The syllabus is complementary to, and may be incorporated within, the company's induction training which is provided to representatives as a pre-requisite to carrying out their function.

The Medical Representatives Examination formats - the ABPI offers two options:

> The traditional examination, comprising a Morning Paper.
> The Accredited Programme (only offered to companies).

Generic Medicines Representatives sit the same Morning Paper as Medical Representatives.

The Morning Paper is in three parts:

> Paper 1: The industry and the Code of Practice (30 questions, 23 on the Code of Practice).
> Paper 2: The human body, pathology, pharmacology (30 questions).
> Paper 3: Body systems (140 questions):
 > Cardiovascular.
 > Respiratory.
 > Central nervous system.
 > Digestive.
 > Musculo-skeletal.
 > Endocrine.
 > Urinary.
 > Reproduction.
 > Skin.
 > Special senses.

Candidates need to pass all three papers with a mark of at least 60 per cent. Candidates scoring 80 per cent in all three papers at the same sitting will be eligible for a 'distinction' certificate, subject to passing all 3 specialist papers at the same sitting with 80 per cent or more.

The morning papers have an equal distribution of questions drawn from the ten topic areas under 'body systems'.

Afternoon specialist subject examination papers:

Candidates must select 3 examination subjects from the following list of topics. Examinations are based on materials contained within Volume 2 of the ABPI learning material:

> Paper 1: Arthritis and bone disease.
> Paper 2: Pharmacology.
> Paper 3: Oncology.
> Paper 4: Hypertension and Coronary Artery Disease.
> Paper 5: Dyslipidaemia.
> Paper 6: Respiratory diseases.
> Paper 7: Immunology.
> Paper 8: Alzheimer's and Parkinson's disease.
> Paper 9: Depressive illness and schizophrenia.
> Paper 10: Gastro-duodenal diseases.
> Paper 11: Osteoporosis.
> Paper 12: Diabetes.
> Paper 13: Female reproductive health.
> Paper 14: Male reproductive health.
> Paper 15: Dermatology.

Criteria for passing the exam:

The exam is divided into six papers; all have to be passed with a score of 60% or more. Candidates who fail one paper only, in either or both of the morning/afternoon exams may re-sit the single paper that they failed (in either session). Candidates who fail more than one paper in either or both of the morning/afternoon exams must resit the entire exam session (morning or afternoon).

In order to register a valid overall 'pass' the morning and afternoon papers must be taken and passed within 3 years of each other.

> ABPI Accredited Programme:

This programme is also essentially a modular approach to the ABPI examination, whereby the examination is normally taken in several stages. Candidates study learning materials based on company product training manuals which have been accredited by the ABPI. Copyright and other intellectual property rights in the company training manuals vests in the individual pharmaceutical company concerned and the training materials themselves are treated as confidential outside the company and the ABPI.

> Persons who have passed the Medical Representatives Examination whose duties change so as to become those specified in Clause 16.4 as being appropriate to the Generic Sales Representatives Examination are exempt from the need to take that examination. Persons who have passed the Generic Sales Representatives Examination whose duties change so as to become those specified in Clause 16.4 as being appropriate to the Medical Representatives Examination must pass that examination within two years of their change of duties.

> Details of the numbers of medical and generic sales representatives who have passed the respective examinations above, together with the examination status of others, must be provided to the Prescription Medicines Code of Practice Authority on request.

Conclusion:

Gift-giving; ethical vs. unethical promotion; transparency and self-regulation appear to be the main issues in the pharmaceutical industry right across the globe. Owing to inadequate national legislation and the lack of universally accepted self-regulatory codes, the pharmaceutical industry in India has yet to tackle the problem of "Unethical and illegal drug promotional practices". Kenya's embryonic industry is taken up with such issues as (in the words of the Pharmacy and Poisons Board), "the challenge of striking a balance between promotional activities for branded names and the Who recommended rational use of Essential Medicines" and the more elementary, "As we grapple with various dilemmas in the industry, the big question remains 'is there need for pharmaceutical representatives?".

Of the four countries studied, Australia and the United Kingdom have longer histories of dealing with pharmaceutical development, and therefore have the most developed legislation and mechanisms for dealing with the pharmaceutical industry. The pharmaceutical industries in these countries have developed controlling bodies and codes which deal comprehensively with the education, standards, and relationships within the industry, of pharmaceutical representatives.

Both Medicines Australia and the ABPI have defined expected behaviours and distilled required knowledge - pharmacological, industrial and legal - into manuals and codes, which pharmaceutical representatives are expected to master, and which they are rigorously examined upon within limited time frames. The codes have been compiled with the participation of the relevant learned bodies and government health departments - UK: British Medical Association,

the Royal Pharmaceutical Society of Great Britain, the Royal College of Nursing and the Medicines and Healthcare products Regulatory Agency of the Department of Health. In Australia, Medicines Australia's Continuing Education Program (CEP) has been redeveloped by the UQ Health Institution "the lifelong learning arm of the University of Queensland Faculty of Health Sciences". Maintaining self-regulation is the incentive for bodies like Medicines Australia or the ABPI to keep standards up to the mark.

But even in Australia and the United Kingdom, ethical questions remain problematic. Choice, the largest consumer organisation in Australia, points out, "that it is a conflict of interest for the Code to be administered by the industry peak body." and "it is also concerned that the sanctions available in the Code do little to prevent breaches]". Similar worries obtain in the United Kingdom. Clearly vigorous public participation, freedom of the press, and efficient national controlling bodies are essential for the success of this system.

Given the issues raised in this report, the exit level outcomes and the associated unit standards as envisaged in the National Certificate: Pharmaceutical Sales: Level 5 currently being generated for South Africa is in line with best practice internationally, and if developed along the lines indicated will be compatible with those countries which engage with outcomes-and-standards-based qualifications.

ARTICULATION OPTIONS
This Qualification articulates horizontally with:

> ID 59201: National Certificate: Generic Management, NQF Level 5.

The Qualification articulates vertically with:

> ID 61593: National Diploma: Marketing Management, NQF Level 5.
> ID 20901: First Degree: Marketing Management, NQF Level 6.

MODERATION OPTIONS
> Providers offering learning towards this Qualification or the component unit standards must be accredited by the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

> Moderation of assessment will be overseen by the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA, according to moderation principles and the agreed ETQA procedures.

> Internal and external moderation must be conducted by moderators appointed by the provider and accredited through the relevant ETQA or ETQA that has a Memorandum of Understanding in place with the relevant ETQA.

> Both internal and external moderators must be in possession of an appropriate qualification, as well as relevant clinical expertise and current experience.

NOTES
This qualification replaces qualification 17099, "Certificate: Medical Representative", Level 5, 120 credits.

UNIT STANDARDS

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	259362	Act in accordance with ethical and legal codes of pharmaceutical representation and the laws of the country	Level 5	6
Fundamental	242585	Analyse the dynamics of different interactive styles in client relationships	Level 5	3

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	259359	Conduct a sales call in a professional environment	Level 5	8
Fundamental	259357	Design, develop and deliver presentations	Level 5	10
Core	259360	Apply the principles of pharmacoeconomics to clinical study outcomes	Level 5	4
Core	259358	Conduct a sales territory analysis	Level 5	8
Core	259363	Describe human anatomy, physiology, pathophysiology and treatment options for common conditions	Level 5	45
Core	259365	Describe managed health care in the pharmaceutical environment	Level 5	3
Core	259364	Utilise pharmacology and pharmaceutics to provide information about medicines and their appropriate use	Level 5	10
Core	259361	Utilize applicable clinical research findings of pharmaceutical products to achieve a competitive advantage	Level 5	8
Elective	115311	Apply advanced driving skills / techniques in defensive and offensive situations	Level 5	9
Elective	13648	Apply appropriate social protocols in the workplace and community	Level 5	4
Elective	15234	Apply efficient time management to the work of a department/division/section	Level 5	4
Elective	244523	Conduct an ergonomic assessment and take appropriate action	Level 5	5
Elective	15096	Demonstrate an understanding of stress in order to apply strategies to achieve optimal stress levels in personal and work situations	Level 5	5
Elective	244570	Demonstrate knowledge and application of efficient study skills	Level 5	5
Elective	114863	Implement basic safety procedures in emergencies	Level 5	3
Elective	256075	Plan events	Level 5	3

LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION
None

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Design, develop and deliver presentations

SAQA US ID	UNIT STANDARD TITLE		
259357	Design, develop and deliver presentations		
ORIGINATOR		PROVIDER	
SGB Pharmacy			
FIELD		SUBFIELD	
9 - Health Sciences and Social Services		Curative Health	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Design a presentation to meet specific client needs.

SPECIFIC OUTCOME 2
Develop a presentation for a group/individual.

SPECIFIC OUTCOME 3
Deliver a presentation to a group/individual.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Fundamental	63969	National Certificate: Pharmaceutical Sales Representation	Level 5

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Conduct a sales territory analysis

SAQA US ID	UNIT STANDARD TITLE		
259358	Conduct a sales territory analysis		
ORIGINATOR		PROVIDER	
SGB Pharmacy			
FIELD		SUBFIELD	
9 - Health Sciences and Social Services		Curative Health	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Gather data relevant to the sales environment to operate effectively.

SPECIFIC OUTCOME 2
Interpret data and marketing information to identify key issues in the specific territory.

SPECIFIC OUTCOME 3
Make recommendations to meet identified objectives.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63969	National Certificate: Pharmaceutical Sales Representation	Level 5

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Conduct a sales call in a professional environment

SAQA US ID	UNIT STANDARD TITLE		
259359	Conduct a sales call in a professional environment		
ORIGINATOR		PROVIDER	
SGB Pharmacy			
FIELD		SUBFIELD	
9 - Health Sciences and Social Services		Curative Health	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Preparing for a sales call.

SPECIFIC OUTCOME 2
Making the sales call.

SPECIFIC OUTCOME 3
Following up on the sales call.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Fundamental	63969	National Certificate: Pharmaceutical Sales Representation	Level 5

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Apply the principles of pharmacoeconomics to clinical study outcomes

SAQA US ID	UNIT STANDARD TITLE		
259360	Apply the principles of pharmacoeconomics to clinical study outcomes		
ORIGINATOR		PROVIDER	
SGB Pharmacy			
FIELD		SUBFIELD	
9 - Health Sciences and Social Services		Curative Health	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	4

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Explain the theory of pharmacoeconomic analysis.

SPECIFIC OUTCOME 2
Apply the appropriate method of pharmacoeconomic analysis for specific clinical study results.

SPECIFIC OUTCOME 3
Differentiate between the cost-effectiveness of medicines and the cost-effectiveness of specific treatment modalities.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63969	National Certificate: Pharmaceutical Sales Representation	Level 5

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Utilize applicable clinical research findings of pharmaceutical products to achieve a competitive advantage

SAQA US ID	UNIT STANDARD TITLE		
259361	Utilize applicable clinical research findings of pharmaceutical products to achieve a competitive advantage		
ORIGINATOR		PROVIDER	
SGB Pharmacy			
FIELD		SUBFIELD	
9 - Health Sciences and Social Services		Curative Health	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Explain the principles of clinical research methodology.

SPECIFIC OUTCOME 2
Interpret clinical study results and reports.

SPECIFIC OUTCOME 3
Communicate the findings effectively.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63969	National Certificate: Pharmaceutical Sales Representation	Level 5

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Act in accordance with ethical and legal codes of pharmaceutical representation and the laws of the country

SAQA US ID	*UNIT STANDARD TITLE*		
259362	Act in accordance with ethical and legal codes of pharmaceutical representation and the laws of the country		
ORIGINATOR		*PROVIDER*	
SGB Pharmacy			
FIELD		*SUBFIELD*	
9 - Health Sciences and Social Services		Curative Health	
ABET BAND	*UNIT STANDARD TYPE*	*NQF LEVEL*	*CREDITS*
Undefined	Regular	Level 5	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate ethical behaviour.

SPECIFIC OUTCOME 2
Develop self as professional person.

SPECIFIC OUTCOME 3
Act in an advocacy role to protect human rights.

SPECIFIC OUTCOME 4
Maintain customer confidentiality.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Fundamental	63969	National Certificate: Pharmaceutical Sales Representation	Level 5

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA

UNIT STANDARD:

Describe human anatomy, physiology, pathophysiology and treatment options for common conditions

SAQA US ID	UNIT STANDARD TITLE		
259363	Describe human anatomy, physiology, pathophysiology and treatment options for common conditions		
ORIGINATOR		PROVIDER	
SGB Pharmacy			
FIELD		SUBFIELD	
9 - Health Sciences and Social Services		Curative Health	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	45

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Describe the structure and explain the function of the listed systems of the human body.

SPECIFIC OUTCOME 2
Describe the pathophysiology of common conditions.

SPECIFIC OUTCOME 3
Apply knowledge of microbiology as it relates to common conditions.

SPECIFIC OUTCOME 4
Discuss therapeutic options used for the management of common conditions.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63969	National Certificate: Pharmaceutical Sales Representation	Level 5

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Utilise pharmacology and pharmaceutics to provide information about medicines and their appropriate use

SAQA US ID	UNIT STANDARD TITLE		
259364	Utilise pharmacology and pharmaceutics to provide information about medicines and their appropriate use		
ORIGINATOR		PROVIDER	
SGB Pharmacy			
FIELD		SUBFIELD	
9 - Health Sciences and Social Services		Curative Health	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Explain the principles of pharmacokinetics and pharmacodynamics.

SPECIFIC OUTCOME 2
Explain the influence of pharmaceutics on the effects of medicine in the body.

SPECIFIC OUTCOME 3
Describe the factors that affect the safety of medicines.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63969	National Certificate: Pharmaceutical Sales Representation	Level 5

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Describe managed health care in the pharmaceutical environment

SAQA US ID	UNIT STANDARD TITLE		
259365	Describe managed health care in the pharmaceutical environment		
ORIGINATOR		PROVIDER	
SGB Pharmacy			
FIELD		SUBFIELD	
9 - Health Sciences and Social Services		Curative Health	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 5	3

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Describe the South African health care environment.

SPECIFIC OUTCOME 2
Describe and demonstrate knowledge of health care funding to operate effectively as a pharmaceutical sales representative.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63969	National Certificate: Pharmaceutical Sales Representation	Level 5

No. 1013   **26 September 2008**

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

Manufacturing and Assembly Processes

registered by Organising Field 06 – Manufacturing, Engineering and Technology, publishes the following Qualification and Unit Standards for public comment.

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

Comment on the Qualification and Unit Standards should reach SAQA at the address below and *no later than 27 October 2008.* All correspondence should be marked **Standards Setting – SGB for Manufacturing and Assembly Processes** and addressed to

The Director: Standards Setting and Development SAQA *Attention: Mr. D. Mphuthing* Postnet Suite 248 Private Bag X06 Waterkloof 0145 or faxed to 012 – 431-5144 e-mail: dmphuthing@saqa.org.za

DR. S. BHIKHA
DIRECTOR: STANDARDS SETTING AND DEVELOPMENT

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:
National Certificate: Spirits Production

SAQA QUAL ID	QUALIFICATION TITLE		
63929	National Certificate: Spirits Production		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
QUALIFICATION TYPE	FIELD	SUBFIELD	
National Certificate	6 - Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	120	Level 3	Regular-Unit Stds Based

This qualification does not replace any other qualification and is not replaced by another qualification.

PURPOSE AND RATIONALE OF THE QUALIFICATION
Purpose:

A person acquiring this qualification will be able to work in a spirits production environment by performing all the necessary processes applicable to his/her work environment, from intake of the raw material (rebate and distilling wine, maize and barley, or cane sugar and fruit raw materials) to spirits production and presentation of the final product for packaging/bottling. By applying quality control practices throughout the process, the learner will contribute to the quality assurance and food safety requirements of the final product.

This qualification provides the learner with the opportunity to access skills and career opportunities in the following strands within the spirits production industry:

> Wine spirits.
> Grain and malt spirits.
> Cane sugar, molasses and fruit raw material spirits.

The learner's choice of Electives will indicate his/her field of speciality with regards to the above strands.

The following range statement is applicable to spirits production:

> Wine spirits refer to any of the following:
 > Grape spirit.
 > Husk spirit (Husk brandy).
 > Premium husk spirit.
 > Pot still brandy.
 > Brandy.
 > Vintage brandy.
 > Blended brandy.
 > Estate brandy.

> Grain and malt spirits (whisky products) refer to any of the following:

> Whisky.
> Malt whisky.
> Blended whisky.
> Bourbon (Sour mash whisky).

> Cane sugar, molasses and fruit raw material spirits refer to any of the following:
> Cane spirit.
> Rum.
> Gin.
> Vodka.
> Unspecified spirit.
> Mixed spirit.

A person acquiring this qualification will also be able to operate equipment applicable to the relevant spirits production process. Portable competencies such as performing quality control practices and knowledge about introductory microbiology and heating and cooling media will also be obtained. The person will be able to apply all relevant personal safety and food safety practices during the performance of his/her tasks.

This qualification will allow a person to have access to education, training and career paths within the spirits production industry, ensuring learning mobility and progression on the framework through articulation with other qualifications. This qualification will enhance the social, economic and personal development of the learner, as well as the sustainability and productivity of the spirits production industry. The qualification will accelerate the redress of past unfair discrimination in education, training and employment opportunities.

Rationale:

This qualification reflects the current and future workplace-based needs of the spirits production industry that are expressed by both employers and employees. Typical learners will be:

> Persons who are currently working in a spirits production environment who does not have any formal qualification as recognition for their skills and knowledge.
> Learners with a broad knowledge and skills base in food handling practices who want to specialise in the spirits production industry.
> New entrants who want to develop employable skills in the spirits production industry.

This qualification is a direct outcome of an analysis of the former National Certificate in Food and Beverage Processing: Spirits Processing NQF Level 3 (NLRD 20509), which came to an end of its three-year lifespan. In this qualification, spirits production refers to the production of:

> Wine spirits.
> Grain and malt spirits.
> Cane sugar, molasses and fruit raw material spirits.

This qualification aims at providing formal recognition for competencies already obtained and will continue to do so by providing recognition to current workers in the spirits production industry. In addition, this qualification provides the new entrant with the opportunity to obtain competencies in spirits production within the workplace, as well as in quality control and food safety practices, which will ensure spirit products that are healthy and safe for human consumption. In this way, value is added to workers' employability and competence and the sustainability of the spirits production industry is improved.

This qualification provides the learner with competencies to be employed within different disciplines within the spirits production industry, as well as the flexibility to pursue careers within other sectors of the alcoholic beverage industry (see Articulation Possibilities). The range of

electives will allow the individual the opportunity to pursue careers within different strands of spirits production and quality control, as well as to be introduced to some principles of team management, generic management and small business development. Skilled workers are one of the key players in better manufacturing standards and productivity, which may increase business prosperity. This qualification will assist in social and economic transformation.

RECOGNIZE PREVIOUS LEARNING?
Y

LEARNING ASSUMED IN PLACE
A knowledge, comprehension and application of language, mathematics, natural science and technology principles at NQF Level 2 or equivalent.

Recognition of Prior Learning:

This qualification may be achieved in part or completely through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience. Evidence can be presented in a variety of forms, including previous international or local qualifications, reports, testimonials, mentoring functions performed, portfolios, work records and performance records. As such, evidence should be judged according to the general principles of assessment. Learners who have met the requirements of any unit standard that forms part of this qualification may apply for recognition of prior learning to the relevant ETQA. The applicant must be assessed against the specific outcomes and assessment criteria for the relevant unit standards. A qualification will be awarded should a learner demonstrate that all the exit level outcomes of the qualification have been attained.

Access to the Qualification:

> Open to any person.

QUALIFICATION RULES
> All the unit standards in the Fundamental component (36 credits) are compulsory.
> All the unit standards in the Core component (20 credits) are compulsory.
> In the Elective component, the learner must choose at least one of the following unit standards:

Unit standard title; NLRD no; Level; Credits:

> Operate the beverage pot-still (batch) distillation plant and process; ID 259319; Level 3; 25 Credits.
> Operate the beverage column-still (continuous) distillation plant and process; ID 259338; Level 3; 30 Credits.

> In addition, the learner must choose an elective strand (A, B or C). All Elective unit standards must then be completed for the selected elective strand. Elective strands include the following:

Elective strand A: Wine spirits: Choose all of the following unit standards:

Unit standard title; NLRD no; Level; Credits:

> Receive and handle rebate and distilling wine for beverage distilling purposes; ID 259322; Level 3; 6 Credits.
> Carry out wine or spirits wood maturation; ID 259203; Level 3; 8 Credits.
> Transfer and blend unmatured and matured wine distillates; ID 259281; Level 3; 6 Credits.
> Evaluate the sensory quality of unmatured and matured wine distillates; ID 259342; Level 3; 3 Credits.

The remaining credits may be chosen from any of the other unit standards listed under the Elective component in order to make up the total minimum of 120 credits for the full qualification.

Elective strand B: Grain and malt spirits: Choose all of the following unit standards:

Unit standard title; NLRD no; Level; Credits:

> Receive and handle maize and barley for beverage distilling purposes; ID 259317; Level 3; 6 Credits.
> Produce mash for grain distillate production; ID 259321; Level 3; 6 Credits.
> Produce wort for fermentation; ID 259320; Level 3; 6 Credits.
> Ferment raw product for beverage distilling purposes; ID 259340; Level 3; 10 Credits.
> Carry out wine or spirits wood maturation; ID 259203; Level 3; 8 Credits.
> Transfer and blend unmatured and matured grain and malt distillates; ID 259282; Level 3; 6 Credits.
> Evaluate the sensory quality of unmatured and matured grain and malt distillates; ID 259318; Level 3; 3 Credits.

Elective strand C: Cane sugar, molasses and fruit raw material spirits: Choose all of the following unit standards:

Unit standard title; NLRD no; Level; Credits:

> Receive and handle cane sugar and fruit raw materials for beverage distilling purposes; ID 259337; Level 3; 6 Credits.
> Prepare cane sugar and fruit raw material for fermentation; ID 259339; Level 3; 6 Credits.
> Ferment raw product for beverage distilling purposes; ID 259340; Level 3; 10 Credits.
> Carry out wine or spirits wood maturation; ID 259203; Level 3; 8 Credits.
> Transfer and blend unmatured and matured cane sugar and fruit distillates; ID 259341; Level 3; 6 Credits.
> Evaluate the sensory quality of unmatured and matured cane sugar and fruit distillates; ID 259298; Level 3; 3 Credits.

EXIT LEVEL OUTCOMES
Qualifying learners can:

1. Maintain and apply personal safety, food safety and quality control practices in a spirits production environment.
2. Carry out preparations prior to distillation.
3. Carry out distillation and post-distillation processes.
4. Communicate in variety of ways in a spirits production environment.

Critical Cross-Field Outcomes:

Critical Cross-Field Outcomes have been addressed by the exit level outcomes as follows:

Qualifying learners can:

Identify and solve problems in which response displays that responsible decisions, using critical and creative thinking, have been made by:

> Maintaining and applying personal safety, food safety and quality control practices in a spirits production environment.
 > Evident in Exit Level Outcome(s) 1.

> Problem solving during processing and manufacturing tasks.
 > Evident in Exit Level Outcome(s) 2, 3.

Work effectively with others as a member of a team, group, organisation or community by:

> Applying team-work during performing of personal and product safety practices and spirits production processes.
 > Evident in Exit Level Outcome(s) 1, 2, 3.
> Co-ordinating one's work with that of others in the direct surrounding area.
 > Evident in Exit Level Outcome(s) 2, 3.

Organise and manage oneself and one's activities responsibly and effectively by:

> Planning one's activities and preparing for operations.
 > Evident in Exit Level Outcome(s) 2, 3.
> Keeping organised, legible, coherent and focused records.
 > Evident in Exit Level Outcome(s) 4.

Collect, analyse, organise and critically evaluate information by:

> Carrying out quality control practices and evaluating the results.
 > Evident in Exit Level Outcome(s) 1, 2, 3, 4.
> Keeping organised, legible, coherent and focused records.
 > Evident in Exit Level Outcome(s) 4.

Communicate effectively by using mathematical and/or language skills in the modes of oral and/or written presentations by:

> Reading and interpreting quality control documentation.
 > Evident in Exit Level Outcome(s) 3, 4.
> Gathering and applying information regarding knowledge, processes and procedures in a spirits production environment.
 > Evident in Exit Level Outcome(s) 3, 4.
> Keeping organised, legible, coherent and focused records.
 > Evident in Exit Level Outcome(s) 3, 4.

Use science and technology effectively and critically, showing responsibility towards the environment and health of others by:

> Working according to health and safety regulations.
 > Evident in Exit Level Outcome(s) 1, 2, 3, 4.
> Carrying out quality control practices and evaluating the results.
 > Evident in Exit Level Outcome(s) 1, 2, 3, 4

Demonstrate an understanding of the world as a set of related systems by recognising that problem solving contexts do not exist in isolation by:

> Problem solving during processing and manufacturing tasks.
 > Evident in Exit Level Outcome(s) 2, 3.
> Reporting poor food safety, personal safety and hygiene conditions.
 > Evident in Exit Level Outcome(s) 1, 3, 4.
> Identifying poor quality products and reporting it.
 > Evident in Exit Level Outcome(s) 1, 3, 4.

Contribute to the full personal development of each learner and the social and economic development of the society at large by:

> Maintaining and applying personal safety, food safety and quality control practices in a spirits production environment.
 > Evident in Exit Level Outcome(s) 1.
> Carrying out preparations prior to distillation.
 > Evident in Exit Level Outcome(s) 2.
> Carrying out distillation and post-distillation processes.
 > Evident in Exit Level Outcome(s) 3.
> Communicate in variety of ways in a spirits production environment.
 > Evident in Exit Level Outcome(s) 4.

ASSOCIATED ASSESSMENT CRITERIA
Associated Assessment Criteria for Exit Level Outcomes 1:

> Knowledge and comprehension of the concept of microbiology and the effect of micro-organisms on personal health, hygiene and food and beverage product safety are applied according to standard food and beverage microbiological principles.
> Quality control practices are carried out in the spirits production environment according to the quality assurance policy and standard operating procedures.
> Health and safety principles are applied regarding pressure vessels and pressure systems according to occupational health and safety regulations and policies.

Associated Assessment Criteria for Exit Level Outcomes 2:

For elective strands A, B and C:

> Raw material (rebate and distilling wine, maize and barley, or cane sugar and fruit raw materials) is received for distilling purposes according to standard operating procedures.

For elective strand B only:

> Mash is produced and wort is separated for fermentation according to standard operating procedures.
> Fermentation is carried out according to standard operating procedures.
> Knowledge and comprehension of heating and cooling media is applied according to standard operating procedures.

For elective strand C only:

> Cane sugar and fruit raw material are prepared for fermentation according to standard operating procedures.
> Fermentation is carried out according to standard operating procedures.
> Knowledge and comprehension of heating and cooling media is applied according to standard operating procedures.

Associated Assessment Criteria for Exit Level Outcomes 3:

> Planning for distillation, as well as personal, equipment and product preparations are done according to standard operating procedures.
> Quality control practices are carried out in the specific context of the learner's work environment and according to the quality assurance policy and standard operating procedures by measuring, interpreting and controlling analytical and quality control parameters.
> Pot-still (batch) or column-still (continuous) distillation is carried out according to standard operating procedures.

> Knowledge and comprehension of heating and cooling media is applied according to standard operating procedures.
> Distilled product is processed further into final spirits products according to standard operating procedures.
Range: Processing refers to any combination of the following, relating to the specific elective strand:
 > Sensory evaluation.
 > Transfer and blending.
 > Wood maturation.
> Processing parameters are set, monitored and controlled according to standard operating procedures.

Associated Assessment Criteria for Exit Level Outcomes 4:

> Effective verbal communication is demonstrated during working with peers, colleagues and members of management.
> Quality control documentation is read and interpreted for application in further processing.
> Processing reports, records and documentation are identified, understood, organised, interpreted and presented in a legible, focused and coherent manner.
> Information is gathered and applied regarding knowledge, processes and procedures within a spirits production environment.

Integrated Assessment:

The applied competence (practical, foundational and reflexive competencies) of this qualification will be achieved if a learner is able to perform all the necessary processes applicable to his/her work environment, from intake of the raw material (rebate and distilling wine, maize and barley, or cane sugar and fruit raw materials) to the final product ready for packaging/bottling.

The identification and solving of problems, team work, organising one-self, the using of applied science, the implication of actions and reactions in the world as a set of related systems must be assessed during any combination of practical, foundational and reflexive competencies demonstrated. Assessment methods and tools must be designed to determine the whole person development and integration of applied knowledge and skills.

Applicable assessment tool(s) must be used to establish the foundational, reflexive and embedded knowledge applied to solve problems.

A detailed portfolio of evidence is required to prove the practical, applied and foundational competencies of the learner.

Assessors should develop and conduct their own integrated assessment by making use of a range of formative and summative assessment methods and should assess combinations of practical, applied, foundational and reflexive competencies. Assessors should assess and give credit for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience.

The exit level outcomes of this qualification can be assessed in one application.

Unit standards in the qualification must be used to assess specific and critical cross-field outcomes.

INTERNATIONAL COMPARABILITY
The following countries all support and implement vocational training and education, but not on a structured qualifications framework as found in South Africa:

> Germany.
> France.
> Italy.
> Chilli.
> Argentina.
> Africa.
> Japan.
> Taiwan.
> California.
> Portugal.
> Spain.

With regards to vocational training and education, most of these countries implement decentralised and market-orientated programmes, both in technical and commercial training. Also, no evidence of specific training towards spirits production could be found.

With regards to Africa, South Africa is by far the leading spirits producing country. African comparable courses could not be found.

In Germany, for instance, although no information could be found about specific vocational training towards spirits production, this country does implement a very pertinent vocational training system. When leaving schools, 70% of German students take a course of vocational training, mostly within their so-called "dual system". This system combines practical, on-the-job training with theoretical instruction at a part-time vocational school. Through their close cooperation, private business, industry and the public sector are sharing responsibility: Training regulations are drawn at federal level, while the states oversee the vocational schools. There are three types of vocational schools in Germany:

Part-time vocational schools (Berufsschulen):

> In the dual system, the vocational schools complement the training received in a company. Trainees attend a part-time vocational school one or two days a week for three years. The schools teach general subjects and theories that are easier understood in the classroom than at work. Usually about 40% of the school work is in basic academic subjects such as languages, mathematics and sciences and about 60% in subjects directly related to the chosen profession. Performance is assessed in an exam and documented by a certificate issued mostly by the chamber of industry and commerce.

The full-time vocational school (Berufsfachschule):

> This school offers courses lasting one to three years. These can be part of an apprenticeship or even replace an apprenticeship entirely.

The vocationally oriented upper secondary school (Fachoberschule):

> This school admits students with an intermediate school certificate. Courses cover theoretical instruction as well as training workshops and on-the-job training. They generally last two years and qualify participants for the specialised college (Fachhochshule).

On-the-job training (apprenticeships), last between two and three and a half years, depending on the complexity of the occupation. During this period, the apprentice earns a training allowance. The professional requirements that have to be learned during the vocational training are spelled out in training regulations. Based on proposals from the business associations and trade unions, these regulations are regularly revised and updated. The training concludes with an examination conducted by a board of examiners, generally organised by the local chamber of

industry and commerce. On the board of examiners are representatives of employers as well as vocational school teachers.

Although no company is obliged to provide training, over 500 000 firms in all branches of the economy, including the independent professions and the public service, provide vocational training. Larger enterprises have their own training workshops, but smaller firms train their apprentices right on the job. Very specialised firms pool their resources and send their apprentices to inter-company training centres in order to broaden their vocational skills.

The above system therefore compares well with the NQF based education and training system of our country.

Training programmes and best practices in spirits production were compared for the following countries, which all implement a qualifications framework system:

> England, Wales and Northern Ireland.
> Scotland.
> Australia.
> West Indies.
> United States of America (Kentucky).

England, Wales and Northern Ireland:

The National Qualifications Framework (NQF) in England, Wales and Northern Ireland offers various vocational qualifications relating to spirits production, namely:

NCFE Level 2 Certificate in Beers, Wines and Spirits, Retail Product knowledge:

This qualification is designed for people who are working in, or aspire to work within, a retail environment with a responsibility to provide customer service and to have relevant product knowledge. The focus is therefore on retail, wholesale and hospitality roles. It consists of the following units:

> Product knowledge of beer, lager and cider.
> Product knowledge of wine, including production, storage, serving and tasting.
> Product knowledge of champagne and fortified wine.
> Product knowledge of spirits, vermouths and liqueurs.
> Display, promotions and customer service in the beers, wines and spirits sector.

WSET Level 2 Intermediate Certificate in Wines and Spirits:

This qualification is intended for those who have little or no previous knowledge of the broad range of wines and spirits. It is suitable wherever a sound but simple level of product knowledge is required to underpin job skills and competencies. The focus is on customer service and sales in the hospitality, wholesale and retail industries. Competent learners will be able to the labels of major wines and spirits of the world and give basic guidance on appropriate selection and service, as well as understand the principles of wine tasting and evaluation. The qualification contains only one unit, namely:

> Wines and spirits of the world.

WSET Level 2 Professional Certificate in Spirits:

This qualification is intended to provide a comprehensive level of focused product knowledge required to underpin job skills and competencies in the wholesale and retail environment. Successful learners will be able to give information on the characteristics of the principle spirits

and liqueurs and identify major international brands within each category. The qualification contains only one unit, namely:

> Understanding spirits and liqueurs.

WSET Level 3 Advanced Certificate in Wines and Spirits:

This qualification will give a thorough understanding of the principle wines and spirits of the world and their commercial importance in the world market. The qualification will assist those who are required to make professional evaluations of wines and spirits with regards to their quality and commercial value. The qualification provides the in-depth product knowledge required to underpin job skills and competencies, for example in product selection in the retail and hospitality sectors. The qualification contains only one unit, namely:

> Wines and spirits of the world.

The focus of the above-mentioned qualifications is clearly on retail, wholesale and hospitality skills, clearly different than the focus of this South African qualification.

In addition, the following degree courses in brewing and distilling are offered in England, Wales, Northern Ireland and Scotland by the International Centre of Brewing and Distilling (ICBD):

BSc Brewing and Distilling (Hons):

> This course aims to educate potential managers of the malting, brewing and distilling industries and provide a full understanding of the science and technology of the processes involved from cereal farming to bottling and packaging.

MSc/PG Diploma in Brewing and Distilling:

> This course introduces suitably qualified graduates to the scientific principles of malting, brewing and distilling. Candidates are prepared for entry into the industry or to conduct research.

MSc/PG Diploma in Brewing and Distilling:

> This course focuses on introductory biochemistry and microbiology, production management and basics of business.

MBA in Brewing and Distilling:

> The MBA with specialisation in brewing and distilling is designed for managers and aspiring managers in the drinks industry. The programme will give those who wish to develop a management career in the drinks industry a solid grounding in management disciplines and provide a platform for progression towards senior management positions.

Clearly the focus of the ICBD qualifications is more on scientific background and management skills.

Also, the Institute of Brewing and Distilling (IBD) in the United Kingdom (UK) provides training towards brewing and distilling. The IBD is a members' organisation dedicated to the education and training needs of brewers and distillers and those in related industries. This is done by offering a range of internationally recognised qualifications and the training to support them, either through direct instruction or distance learning.

Training offered by the IBD is normally delivered through either residential courses or through in-house international courses.

Residential Courses:

These courses are held in the UK and are usually taking one week per diploma module. The courses include classroom lectures presented by experts in their field, visits to relevant companies and project work. This gives delegates the opportunity to work in groups and to prepare for exams. Relating to this are the networking opportunities which such a forum provides.

In-house Courses:

This is a more cost-effective method of training by which the learner is offered the opportunity to study on-site at his/her employer. Lecturers from IBD visit the employer to provide all theoretical and practical training. The following courses are offered by the IBD:

> Diploma in Brewing 1 (Material and wort).
> Diploma in Brewing 2 (Yeast and beer).
> Diploma in Brewing 3 (Process technology).
> Diploma in Brewing 3 (Packaging technology).
> Master Brewer (Modules 1-5).
> New Diploma in Beverage Packaging (Beer).
> Brewing Industry Bets Practice.
> Global Brewing Study Course.
> Distilling: Preparation is underway to offer training towards the IBD distilling qualification. The Diploma training course is currently under review.

The option of on-line distance learning exists for the Diploma in Brewing. Several training articles are also published by the IBD, although mostly on brewing.

It seems, therefore, that the training that is offered by the IBD is mostly focussed on brewing and not on distilling as such (except for the distilling qualification that is currently under review).

Australia:

The Australian Qualifications Framework (commonly known as the AQF) is a unified system of national qualifications in schools, vocational education and training (TAFEs and private providers) and the higher education sector (mainly universities). No specific qualifications for spirits production were found, only certificates I, II, III and IV in Food Processing and Wine.

West Indies:

All vocational trainees are certified to national occupational standards through the Trinidad and Tobago National Vocational Qualifications (TTNVQ) Framework, the new national accreditation system for vocational education, which allows them to pursue further education and training. The Government Vocational Centre provides Technical Vocational Education and Training (TVET) in various vocational disciplines aimed at addressing the deficiency in available human resources, particularly in the south-western peninsula of Trinidad. Training usually begins in September of each academic year, last for two years, and is open to eligible persons who are interested in acquiring level II (craft) certification.

Kentucky, USA:

Kentucky is the birth place of bourbon, which is a sour mash whisky. In this country, vocational studies are already introduced at High School Level, where learners are trained in developing

career paths, financial literacy and decision making. This programme is aligned with Kentucky's Academic Expectations as required by the Kentucky Department of Education.

Also in Kentucky, the Workforce Investment Act (WIA) of 1998, mandates that the Local Workforce Investment Boards (LWIB), in partnership with the state, develop a state wide list of training providers. These training institutions would be eligible to receive WIA funds for the purpose of providing training to eligible WIA adults and disabled workers.

The Division of Workforce and Employment Services (DWES), the state WIA administrative entity, is responsible for maintaining and disseminating the state wide List of Eligible Training Providers. This list is a compilation of provider applications submitted by the LWIBs. Customers, via the internet and the local one-stop centres, may access this list for information regarding programme offerings, cost of attendance, length of programme, and performance outcomes.

Information is provided for programmes or courses that have received initial certification, or have been recertified, by a Local Workforce Investment Area (LWIA) and the DWES. Initial certification and inclusion on these lists are based on data submitted to Local Boards by the training providers applying for certification under the WIA.

The WIA requires certain training providers to submit performance information when applying for inclusion on the Eligible Training Provider List. The performance information is self reported by the providers.

To remain on the state wide list, training providers are required to meet annual performance goals. The information used for the renewal process is collected and reviewed by the LWIA and the DWES. This information will assist viewers in making informed choices when selecting a training provider.

On searching the Eligible Training Provider List, contact details were provided, but unfortunately no information on specific courses.

Also, no evidence was found of structured training and development such as the NQF-based training in South Africa.

In final conclusion it was evident that the different training programmes differentiate between technical training and commercial, market-orientated training. This qualification focuses on technical training and the international information in this regard was utilised to secure that all applicable practices in the spirits production process were addressed in the recommended unit standards.

ARTICULATION OPTIONS
This qualification provides horizontal articulation (through Exit-Level-Outcome 1) with other NQF Level 3 National Certificates in Food and Beverage Processing. Further horizontal articulation exists with the new National Certificate in Winemaking NQF Level 3.

This qualification articulates vertically with:

> ID 57712: Further Education and Training Certificate in Generic Management; NQF Level 4.

MODERATION OPTIONS
> Anyone assessing a learner or moderating the assessment of a learner against this qualification must be registered as an assessor and moderator respectively with the relevant ETQA, or with another ETQA that has a Memorandum of Understanding with the relevant ETQA.

> Any institution offering learning that will enable the achievement of this qualification must be accredited as a provider with the relevant ETQA, or with another ETQA that has a Memorandum of Understanding with the relevant ETQA.

> Assessment and moderation of assessment will be overseen by the relevant ETQA, or by another ETQA that has a Memorandum of Understanding with the relevant ETQA, according to the ETQA's policies and guidelines for assessment and moderation.

>Moderation must include both internal and external moderation of assessments at exit points of the qualification, unless ETQA policies specify otherwise. Moderation should also encompass achievement of the competence described both in individual unit standards, exit level outcomes and the integrated competence described in the qualification.

> Anyone wishing to be assessed against this qualification may apply to be assessed by any assessment agency, assessor or provider institution that is accredited by the relevant ETQA.

CRITERIA FOR THE REGISTRATION OF ASSESSORS
For an applicant to register as an assessor, the following are essential:

> Anyone assessing a learner against this qualification must be registered as an assessor with the relevant ETQA, or with another ETQA that has a Memorandum of Understanding with the relevant ETQA.
> The applicant needs well-developed interpersonal skills, as well as subject matter and assessment experience.
> The applicant should have completed this qualification OR a similar qualification than this one at NQF Level 3 or higher, with a minimum of 12 months field experience after he/she has completed the qualification.

NOTES
N/A

UNIT STANDARDS

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	119472	Accommodate audience and context needs in oral/signed communication	Level 3	5
Fundamental	9010	Demonstrate an understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations	Level 3	2
Fundamental	9013	Describe, apply, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	Level 3	4
Fundamental	119457	Interpret and use information from texts	Level 3	5
Fundamental	9012	Investigate life and work related problems using data and probabilities	Level 3	5
Fundamental	119467	Use language and communication in occupational learning programmes	Level 3	5
Fundamental	7456	Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	Level 3	5
Fundamental	119465	Write/present/sign texts for a range of communicative contexts	Level 3	5
Core	120242	Demonstrate an understanding of heating and cooling media in a food-manufacturing environment	Level 2	4
Core	120235	Demonstrate an understanding of the concept of microbiology in a food handling environment	Level 3	6
Core	119802	Perform quality control practices in a food or sensitive consumer product operation	Level 3	6
Core	120354	Monitor and make recommendations on the application of health and safety principles regarding pressure vessels and pressure systems in the working place	Level 4	4
Elective	259171	Maintain wooden barrels for winemaking or spirits production	Level 2	7

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Elective	117197	Operate boiler, dryer and mixer	Level 2	5
Elective	252435	Apply basic invoicing and accounting principles	Level 3	6
Elective	244574	Apply knowledge of HIV/AIDS to a specific business sector and a workplace	Level 3	4
Elective	244611	Apply problem-solving techniques to make a decision or solve a problem in a real life context	Level 3	2
Elective	259203	Carry out wine or spirits wood maturation	Level 3	8
Elective	8025	Controlling and locating stock	Level 3	8
Elective	259298	Evaluate the sensory quality of unmatured and matured cane sugar and fruit distillates	Level 3	3
Elective	259318	Evaluate the sensory quality of unmatured and matured grain and malt distillates	Level 3	3
Elective	259342	Evaluate the sensory quality of unmatured and matured wine distillates	Level 3	3
Elective	259340	Ferment raw product for beverage distilling purposes	Level 3	10
Elective	242814	Identify and explain the core and support functions of an organisation	Level 3	6
Elective	242812	Induct a member into a team	Level 3	4
Elective	14665	Interpret current affairs related to a specific business sector	Level 3	10
Elective	253434	Maintain heat exchangers and pressure vessels	Level 3	8
Elective	120239	Monitor critical control points (CCPs) as an integral part of a hazard analysis critical control point (HACCP) system	Level 3	6
Elective	259338	Operate the beverage column-still (continuous) distillation plant and process	Level 3	30
Elective	259319	Operate the beverage pot-still (batch) distillation plant and process	Level 3	25
Elective	9913	Perform first line maintenance	Level 3	14
Elective	259339	Prepare cane sugar and fruit raw material for fermentation	Level 3	6
Elective	259321	Produce mash for grain distillate production	Level 3	6
Elective	259320	Produce wort for fermentation	Level 3	6
Elective	259337	Receive and handle cane sugar and fruit raw materials for beverage distilling purposes	Level 3	6
Elective	259322	Receive and handle maize and barley for beverage distilling purposes	Level 3	6
Elective	259317	Receive and handle rebate and distilling wine for beverage distilling purposes	Level 3	6
Elective	259341	Transfer and blend unmatured and matured cane sugar and fruit distillates	Level 3	6
Elective	259282	Transfer and blend unmatured and matured grain and malt distillates	Level 3	6
Elective	259281	Transfer and blend unmatured and matured wine distillates	Level 3	6
Elective	116942	Use a GUI-based word processor to create merged documents	Level 3	3
Elective	116940	Use a Graphical User Interface (GUI)-based spreadsheet application to solve a given problem	Level 3	6
Elective	244100	Apply integrated process control methods	Level 4	15
Elective	117241	Develop a business plan for a small business	Level 4	5
Elective	242821	Identify responsibilities of a team leader in ensuring that organisational standards are met	Level 4	6
Elective	244103	Use automated control techniques to control a process	Level 4	8

LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION
None

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Carry out wine or spirits wood maturation

SAQA US ID	UNIT STANDARD TITLE		
259203	Carry out wine or spirits wood maturation		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of maturation of wine and spirits.

SPECIFIC OUTCOME 2
Prepare for wood maturation.

SPECIFIC OUTCOME 3
Mature wine or spirits with the aid of wood.

SPECIFIC OUTCOME 4
Maintain the area and product after wood maturation.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Transfer and blend unmatured and matured wine distillates

SAQA US ID	UNIT STANDARD TITLE		
259281	Transfer and blend unmatured and matured wine distillates		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of the transfer and blending of unmatured and matured wine distillates.

SPECIFIC OUTCOME 2
Prepare to transfer and blend unmatured and matured wine distillates.

SPECIFIC OUTCOME 3
Transfer and blend unmatured and matured wine distillates.

SPECIFIC OUTCOME 4
Maintain the area and product after transfer and blending.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Transfer and blend unmatured and matured grain and malt distillates

SAQA US ID	UNIT STANDARD TITLE		
259282	Transfer and blend unmatured and matured grain and malt distillates		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of the transfer and blending of unmatured and matured grain and malt distillates.

SPECIFIC OUTCOME 2
Prepare to transfer and blend unmatured and matured grain and malt distillates.

SPECIFIC OUTCOME 3
Transfer and blend unmatured and matured grain and malt distillates.

SPECIFIC OUTCOME 4
Maintain the area and product after transfer and blending.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Evaluate the sensory quality of unmatured and matured cane sugar and fruit distillates

SAQA US ID	UNIT STANDARD TITLE		
259298	Evaluate the sensory quality of unmatured and matured cane sugar and fruit distillates		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	3

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of the sensory quality of unmatured and matured cane sugar and fruit distillates.

SPECIFIC OUTCOME 2
Determine the sensory quality of unmatured and matured cane sugar and fruit distillates.

SPECIFIC OUTCOME 3
Report on the sensory quality of unmatured and matured cane sugar and fruit distillates.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Receive and handle rebate and distilling wine for beverage distilling purposes

SAQA US ID	UNIT STANDARD TITLE		
259317	Receive and handle rebate and distilling wine for beverage distilling purposes		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of receiving and handling of wine for beverage distilling.

SPECIFIC OUTCOME 2
Prepare for intake of wine.

SPECIFIC OUTCOME 3
Receive wine for beverage distilling.

SPECIFIC OUTCOME 4
Maintain the area and product after intake.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Evaluate the sensory quality of unmatured and matured grain and malt distillates

SAQA US ID	UNIT STANDARD TITLE		
259318	Evaluate the sensory quality of unmatured and matured grain and malt distillates		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	3

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of the sensory quality of unmatured and matured grain and malt distillates.

SPECIFIC OUTCOME 2
Determine the sensory quality of unmatured and matured grain and malt distillates.

SPECIFIC OUTCOME 3
Report on the sensory quality of unmatured and matured grain and malt distillates.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Operate the beverage pot-still (batch) distillation plant and process

SAQA US ID	UNIT STANDARD TITLE		
259319	Operate the beverage pot-still (batch) distillation plant and process		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	25

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
9096	Operate the beverage pot-still distillation plant and process	Level 3	25	Will occur as soon as 259319 is registered

SPECIFIC OUTCOME 1
Demonstrate an understanding of beverage pot-still distillation.

SPECIFIC OUTCOME 2
Prepare to operate the beverage pot-still plant and process.

SPECIFIC OUTCOME 3
Perform beverage pot-still distillation for spirits production.

SPECIFIC OUTCOME 4
Maintain the area and product after pot-still distillation.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Produce wort for fermentation

SAQA US ID	UNIT STANDARD TITLE		
259320	Produce wort for fermentation		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of producing wort for fermentation.

SPECIFIC OUTCOME 2
Prepare to produce wort.

SPECIFIC OUTCOME 3
Produce wort for whisky production.

SPECIFIC OUTCOME 4
Maintain the area and product after production.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Produce mash for grain distillate production

SAQA US ID	UNIT STANDARD TITLE		
259321	Produce mash for grain distillate production		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of producing mash for grain distillates.

SPECIFIC OUTCOME 2
Prepare to produce mash.

SPECIFIC OUTCOME 3
Produce mash for whisky production.

SPECIFIC OUTCOME 4
Maintain the area and product after production.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Receive and handle maize and barley for beverage distilling purposes

SAQA US ID	UNIT STANDARD TITLE		
259322	Receive and handle maize and barley for beverage distilling purposes		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of receiving and handling of maize and barley for distilling into whisky products.

SPECIFIC OUTCOME 2
Prepare for intake of maize and barley.

SPECIFIC OUTCOME 3
Receive maize and barley for beverage distilling.

SPECIFIC OUTCOME 4
Maintain the area and product after intake.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Receive and handle cane sugar and fruit raw materials for beverage distilling purposes

SAQA US ID	UNIT STANDARD TITLE		
259337	Receive and handle cane sugar and fruit raw materials for beverage distilling purposes		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of receiving and handling of cane sugar and fruit raw materials for beverage distilling.

SPECIFIC OUTCOME 2
Prepare for intake of cane sugar and fruit raw materials.

SPECIFIC OUTCOME 3
Receive cane sugar and fruit raw materials for beverage distilling.

SPECIFIC OUTCOME 4
Maintain the area and product after intake.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Operate the beverage column-still (continuous) distillation plant and process

SAQA US ID	UNIT STANDARD TITLE		
259338	Operate the beverage column-still (continuous) distillation plant and process		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	30

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
9095	Operate the beverage column-still distillation plant and process	Level 3	30	Will occur as soon as 259338 is registered

SPECIFIC OUTCOME 1
Demonstrate an understanding of beverage column-still distillation.

SPECIFIC OUTCOME 2
Prepare to operate the beverage column-still plant and process.

SPECIFIC OUTCOME 3
Perform beverage column-still distillation for spirits production.

SPECIFIC OUTCOME 4
Maintain the area and product after column-still distillation.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA

UNIT STANDARD:

Prepare cane sugar and fruit raw material for fermentation

SAQA US ID	UNIT STANDARD TITLE		
259339	Prepare cane sugar and fruit raw material for fermentation		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of preparing cane sugar and fruit raw material for fermentation.

SPECIFIC OUTCOME 2
Prepare to handle cane sugar and fruit raw material.

SPECIFIC OUTCOME 3
Produce prepared cane sugar and fruit raw material for fermentation.

SPECIFIC OUTCOME 4
Maintain the area and product after production.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Ferment raw product for beverage distilling purposes

SAQA US ID	UNIT STANDARD TITLE			
259340	Ferment raw product for beverage distilling purposes			
ORIGINATOR		PROVIDER		
SGB Manufacturing and Assembly Processes				
FIELD		SUBFIELD		
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
Undefined	Regular	Level 3		10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of alcoholic yeast fermentation prior to distilling.

SPECIFIC OUTCOME 2
Prepare to ferment raw product.

SPECIFIC OUTCOME 3
Ferment raw product prior to distilling.

SPECIFIC OUTCOME 4
Maintain the area and product after fermentation.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Transfer and blend unmatured and matured cane sugar and fruit distillates

SAQA US ID	UNIT STANDARD TITLE		
259341	Transfer and blend unmatured and matured cane sugar and fruit distillates		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of the transfer and blending of unmatured and matured cane sugar and fruit distillates.

SPECIFIC OUTCOME 2
Prepare to transfer and blend unmatured and matured cane sugar and fruit distillates.

SPECIFIC OUTCOME 3
Transfer and blend unmatured and matured cane sugar and fruit distillates.

SPECIFIC OUTCOME 4
Maintain the area and product after transfer and blending.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA

UNIT STANDARD:

Evaluate the sensory quality of unmatured and matured wine distillates

SAQA US ID	UNIT STANDARD TITLE		
259342	Evaluate the sensory quality of unmatured and matured wine distillates		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	3

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of the sensory quality of unmatured and matured wine distillates.

SPECIFIC OUTCOME 2
Determine the sensory quality of unmatured and matured wine distillates.

SPECIFIC OUTCOME 3
Report on the sensory quality of unmatured and matured wine distillates.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3

No. 1014   **26 September 2008**

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

Manufacturing and Assembly Processes

registered by Organising Field 06 – Manufacturing, Engineering and Technology, publishes the following Qualification and Unit Standards for public comment.

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

Comment on the Qualification and Unit Standards should reach SAQA at the address below and *no later than 27 October 2008.* All correspondence should be marked **Standards Setting – SGB for Manufacturing and Assembly Processes** and addressed to

> The Director: Standards Setting and Development
> SAQA
> *Attention: Mr. D. Mphuthing*
> Postnet Suite 248
> Private Bag X06
> Waterkloof
> 0145
> or faxed to 012 – 431-5144
> e-mail: dmphuthing@saqa.org.za

DR. S. BHIKHA
DIRECTOR: STANDARDS SETTING AND DEVELOPMENT

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA

QUALIFICATION:
National Certificate: Winemaking

SAQA QUAL ID	QUALIFICATION TITLE		
63869	National Certificate: Winemaking		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
QUALIFICATION TYPE	FIELD	SUBFIELD	
National Certificate	6 - Manufacturing, Engineering and Technology	Manufacturing and Assembly	
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUAL CLASS
Undefined	120	Level 3	Regular-Unit Stds Based

This qualification replaces:

Qual ID	Qualification Title	NQF Level	Min Credits	Replacement Status
20510	National Certificate: Food and Beverages Processing: Wine Processing	Level 3	127	Will occur as soon as 63869 is registered

PURPOSE AND RATIONALE OF THE QUALIFICATION
Purpose:

A person acquiring this qualification will be able to work in a winemaking environment by performing all the necessary processes applicable to his/her work environment, from intake of the raw material (grapes) to winemaking and presentation of the final product (wine) for packaging/bottling. By applying quality control practices throughout the process, the learner will contribute to the quality assurance and food safety requirements of the final product.

A person acquiring this qualification will also be able to operate equipment applicable to the relevant winemaking process. Portable competencies such as performing quality control practices and knowledge about introductory microbiology and heating and cooling media will also be obtained. The person will be able to apply all relevant personal safety and food safety practices during the performance of his/her tasks.

This qualification will allow a person to have access to education, training and career paths within the winemaking industry, ensuring learning mobility and progression on the framework through articulation with other qualifications. This qualification will enhance the social, economic and personal development of the learner, as well as the sustainability and productivity of the winemaking industry. The qualification will accelerate the redress of past unfair discrimination in education, training and employment opportunities.

Rationale:

This qualification reflects the current and future workplace-based needs of the winemaking industry that are expressed by both employers and employees.

Typical learners will be:

> Persons who are currently working in a winemaking environment who have not received any formal recognition for their skills and knowledge.
> Learners with a broad knowledge and skills base in food handling practices who want to specialise in the winemaking industry.
> New entrants who want to develop employable skills in the winemaking industry.

This qualification is a direct outcome of an analysis of the former National Certificate in Food and Beverage Processing: Wine Processing NQF Level 3 (NLRD 20510), which came to the end of its three-year lifespan.

This qualification aims at providing formal recognition for competencies already obtained and will continue to do so by providing recognition to current workers in the winemaking industry. In addition, this qualification provides the new learner with the opportunity to obtain competencies in winemaking within the workplace, as well as in quality control and food safety practices, which will ensure wine products that are healthy and safe for human consumption. In this way, value is added to workers' employability and competence and the sustainability of the winemaking industry is improved.

This qualification provides the learner with competencies to be employed within different careers within the winemaking industry, as well as the flexibility to pursue careers within other sectors of the food industry (see Articulation Possibilities). Besides winemaking, the range of electives will allow the individual the opportunity to pursue careers within quality control, as well as to be introduced to some principles of team management, generic management and small business development. Skilled workers are one of the key players in better manufacturing standards and productivity, which may increase business prosperity. This qualification will assist in social and economic transformation.

RECOGNIZE PREVIOUS LEARNING?
Y

LEARNING ASSUMED IN PLACE
A knowledge, comprehension and application of language at NQF Level 2 or equivalent; and mathematics, natural science and technology principles at ABET Level 3 or equivalent.

Recognition of Prior Learning:

This qualification may be achieved in part or completely through the recognition of prior learning, which includes formal, informal and non-formal learning and work experience. Evidence can be presented in a variety of forms, including previous international or local qualifications, reports, testimonials, mentoring functions performed, portfolios, work records and performance records. As such, evidence should be judged according to the general principles of assessment. Learners who have met the requirements of any unit standard that forms part of this qualification may apply for recognition of prior learning to the relevant ETQA. The applicant must be assessed against the specific outcomes and assessment criteria for the relevant unit standards. A qualification will be awarded should a learner demonstrate that all the exit level outcomes of the qualification have been attained.

Access to the Qualification:

Open to any person.

QUALIFICATION RULES
> All the unit standards in the Fundamental component (36 credits) are compulsory.
> All the unit standards in the Core component (61 credits) are compulsory.
> In addition, the learner must choose at least 23 credits from the Elective component.

EXIT LEVEL OUTCOMES

1. Maintain and apply food safety, personal safety and quality control practices in a winemaking environment.

2. Process raw material (grapes) into juice for fermentation (vinification).

3. Perform the vinification process through fermentation and post-fermentation processes.

4. Work with and interpret numbers and shapes in a winemaking environment.

5. Communicate in variety of ways in a winemaking environment.

Critical cross-field outcomes have been addressed by the exit level outcomes as follows:

Qualifying learners can:

Identify and solve problems in which response displays that responsible decisions, using critical and creative thinking, have been made by:

> Maintaining and applying food safety, personal safety and quality control practices in a winemaking environment; Evident in Exit Level Outcome 1.
> Problem solving during processing and manufacturing tasks; Evident in Exit Level Outcome 2 and 3.

Work effectively with others as a member of a team, group, organisation or community by:

> Applying team-work during maintenance, personal and product safety practices and winemaking procedures; evident in Exit Level Outcome 2, 3 and 4.
> Co-ordinating one's work with that of others in the direct surrounding area; Evident in Exit Level Outcome 2 and 3.

Organise and manage oneself and one's activities responsibly and effectively by:

> Planning one's activities; Evident in Exit Level Outcome 2 and 3.
> Keeping organised, legible, coherent and focused records; Evident in Exit Level Outcome 5.

Collect, analyse, organise and critically evaluate information by:

> Performing quality control practices and evaluating the results; Evident in all Exit Level Outcome.
> Keeping organised, legible, coherent and focused records; Evident in Exit Level Outcome 5.

Communicate effectively by using mathematical and/or language skills in the modes of oral and/or written presentations by:

> Reading and interpreting quality control documentation; Evident in Exit Level Outcome 5.
> Gathering and applying information regarding knowledge, processes and procedures in a winemaking environment; Evident in Exit Level Outcome 5.
> Keeping organised, legible, coherent and focused records; Evident in Exit Level Outcome 5.

Use science and technology effectively and critically, showing responsibility towards the environment and health of others by:

> Working according to health and safety regulations; Evident in Exit Level Outcome 1, 2, 3 and 4.

> Performing quality control practices and evaluating the results; Evident in all Exit Level Outcomes.

Demonstrate an understanding of the world as a set of related systems by recognising that problem solving contexts do not exist in isolation by:

> Problem solving during processing and manufacturing tasks; Evident in Exit Level Outcome 2 and 3.
> Reporting poor food safety, personal safety and hygiene conditions; Evident in Exit Level Outcome 1.
> Identifying poor quality products and reporting it; Evident in Exit Level Outcome 2, 3 and 4.

Contribute to the full personal development of each learner and the social and economic development of the society at large by:

> Maintaining and applying food safety, personal safety and quality control practices in a winemaking environment; Evident in Exit Level Outcome 1.
> Processing raw material (grapes) into juice for fermentation (vinification); Evident in Exit Level Outcome 2.
> Performing the vinification process through fermentation and post-fermentation processes; Evident in Exit Level Outcome 3
> Working with and interpreting numbers and shapes in a winemaking environment; Evident in Exit Level Outcome 4.
> Communicate in variety of ways in a winemaking environment; Evident in Exit Level Outcome 5.

ASSOCIATED ASSESSMENT CRITERIA
Associated Assessment Criteria for Exit Level Outcome 1:

> Knowledge and comprehension of the concept of microbiology and the effect of micro-organisms on personal health, hygiene and food and beverage product safety are applied according to standard food and beverage microbiological principles.
> Quality control practices are performed in the winemaking environment according to the quality assurance policy and standard operating procedures.
> Knowledge and comprehension regarding personal safety practices in a winemaking environment are applied according to standard operating procedures, safety requirements and current legislation.

Associated Assessment Criteria for Exit Level Outcome 2:

> Raw material (grapes) is received for winemaking according to standard operating procedures.
> Grapes are destalked and crushed for winemaking according to standard operating procedures.
> Grape mash is cooled according to standard operating procedures.
> Grape juice is separated from solids according to standard operating procedures.
> Knowledge and comprehension of cooling media is applied according to standard operating procedures.

Associated Assessment Criteria for Exit Level Outcome 3:

> Planning for fermentation, as well as personal, equipment and product preparations are done according to standard operating procedures.
> Quality control practices are performed in the specific context of the learner's work environment and according to the quality assurance policy and standard operating procedures.
> Fermentation is performed according to standard operating procedures.

> Knowledge and comprehension of heating and cooling media is applied according to standard operating procedures.
> Fermented product is processed further into final wine products according to standard operating procedures.
> Range: Processing refers to any combination of the following:
> Clarifying through settling, racking, fining and centrifugation.
> Clarifying through filtering.
> Flash pasteurisation.
> Transfer and blending/fortification.
> Stabilisation.
> Wood maturation.
> Cap Classique procedures.

Associated Assessment Criteria for Exit Level Outcome 4:

> Analytical and quality control parameters are measured, interpreted and controlled within the winemaking environment.
> Quality control documentation is read and interpreted for application in further processing.
> Processing parameters are set, monitored and controlled according to standard operating procedures.

Associated Assessment Criteria for Exit Level Outcome 5:

> Effective verbal communication is demonstrated during working with peers, colleagues and members of management.
> Quality control documentation is read and interpreted for application in further processing.
> Processing reports, records and documentation are identified, understood, organised, interpreted and presented in a legible, focused and coherent manner.
> Information is gathered and applied regarding knowledge, processes and procedures within a winemaking environment.

Integrated Assessment:

The applied competence (practical, foundational and reflexive competencies) of this qualification will be achieved if a learner is able to perform all the necessary processes applicable to his/her work environment, from intake of the raw material (grapes) to the final product ready for packaging/bottling.

The identification and solving of problems, team work, organising one-self, the using of applied science, the implication of actions and reactions in the world as a set of related systems must be assessed during any combination of practical, foundational and reflexive competencies demonstrated. Assessment methods and tools must be designed to determine the whole person development and integration of applied knowledge and skills.

Applicable assessment tool(s) must be used to establish the foundational, reflexive and embedded knowledge applied to solve problems.

A detailed portfolio of evidence is required to prove the practical, applied and foundational competencies of the learner.

Assessors should develop and conduct their own integrated assessment by making use of a range of formative and summative assessment methods and should assess combinations of practical, applied, foundational and reflexive competencies. Assessors should assess and give credit for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience.

The exit level outcomes of this qualification can be assessed in one application.

Unit standards in the qualification must be used to assess specific and critical cross-field outcomes.

INTERNATIONAL COMPARABILITY

Training programmes and best practices of the following leading countries in the winemaking sector were compared:

> Argentina.
> Italy.
> France.
> Australia.
> New Zealand.
> California.
> Germany.

No information could be found for Africa.

Argentina:

The College of Agricultural Science - The National University of Cuyo - Mendoza:

The College of Agricultural Sciences, belonging to the National University of Cuyo, offers courses in viticulture and oenology and an undergraduate level, as well as a Master of Science degree programme in Viticulture and Oenology. The latter originated as a result of increasing demand for technology from the wine industry.

The content includes:

> Viticulture.
> Physiology of the vine.
> Vine genetics.
> Raw materials.
> Sanity and protection of the vineyard - plagues.
> Characteristics of the vines.
> Wine and human health.
> Viticulture economy and sociology.
> Viticulture regulations and law.
> Oenology (microbiology).
> Viticulture engineering.
> Winemaking technology.
> Methodology.
> Treatment and conservation of grapes and musts.

The National Institute for Agricultural Technology - Mendoza:

The National Institute for Agricultural Technology (Instituto Nacional de Technologia Agropecuaria, or INTA) offers regular tuition on agribusiness, wine, and equipment for both sectors.

The Agriculture Experimental Station Mendoza, part of INTA, also offers courses on viticulture and oenology. Every September the Station offers a wine tasting course at its Centre of Oenological Studies. A "Superior Wine Tasting Course" was also introduced and covers a

variety of topics related to the wine tasting practice over 12 days. The National Technological University for the Mendoza Region also offers a degree in oenology.

Alta Direccion - Escuela de Negocios (ADEN) - Mendoza:

ADEN offers two courses:

Graduate Course in Wine Management:

This course is directed at managerial professionals who want to guide their career towards the wine sector. The programme is presented in the form of weekly classes in theory and practice, case studies and integrative final experience with activity in winery.

The contents include:

> World wine industry overview and wine projects evaluation.
> Wine marketing, accounting and finances for cellars.
> Managing of cellar operations.
> Human resources in the wine industry.
> Commercialisation of wines.
> Winemaking and their styles; quality of wines.

Seminar of International Commercialisation of Wines:

Contents include:

> International commercialisation of wines.
> Techniques and operative instruments of international trade.
> Construction of the international mix.
> Searching of markets.
> Regulatory barriers.
> Export and international prices.
> Documentation.

MAZA University, School of Oenology and Agribusiness - Mendoza:

Strategic Management of Wines:

This programme is directed at professionals, technicians and managers of the wine industry and has the following content:

> Strategies of wine operations.
> Location and productive infrastructure of vineyards and cellars.
> Operations of vineyards and planning activities.
> Administration and planning of productive processes of the wine.
> Selection and evaluation of equipment.
> Handling of capacity in cellar and outsourcing.
> Process control of vineyards and cellars.
> Integral logistics strategic and operative administration.
> Supply chain management.
> Administration of inventories and warehouses.
> Production systems.
> Wines traceability.
> Total productive maintenance.
> Legislation and standards.

> Board of operative command, system of administration indicators.
> System for administration of information.

Strategic Marketing and Export of Wines:

This programme is directed at professionals, technicians and managers in general and has the following content:

> Strategic marketing of wine.
> Analysis of national and international markets.
> Consumers behaviour and valuation.
> Entrance strategies to international markets.
> External trade operation.
> Product strategies and packaging.
> Price and relationship with product quality.
> Integrated promotion programmes.
> Distribution channels and commercial logistics.
> Commercial plans for wine business.

Oenology Degree:

Content:

> Acquisition of techniques of winemaking and other products of the grape.
> Physical and chemical analyses.
> Organising and advice to wineries.
> Directing and conducting scientific and technical investigations.
> Studying and projecting winery business.
> Directing, organising and advising suppliers of services and inputs of the wine industry.
> Having a global vision of the national and international wine industry.

Clearly the programmes offered by the first two institutions are more focused on viticulture and oenology on higher educational levels, whereas the latter two institutions direct their programmes more towards management and marketing in the wine industry. Vocational training is not formalised, as through this qualification, but rather takes place by means of experiential learning and influences from international investors and consultants from France, Italy, Chile and the united States, who came on board after the economic downfall of Argentina's currency in 2002. Young graduates tend to be taken up easily within the industry.

Italy:

In the last few years the wine sector in Italy has been characterised by a strong expansion in terms of production and consumption, as well as the consumer's preference towards a quality and territorial-linked product. These trends led to an increase of competitiveness among the wine farms, which are now expressing the need of new professional consultants, with specific managerial and marketing skills, capable of interacting both on the global market and with the more and more demanding consumers.

The town of Florence, in first place, tried to give an answer to the wine farms' requests. In fact, starting from its own experience, in which tradition, quality and entrepreneurship have always meant the reason of the worldwide success of its typical productions, Florence promoted the first high level Italian post-degree initiative in this direction, setting up the Master in Wine Management.

The commitment of the province of Florence in setting up the above-mentioned programme has been undertaken during the inauguration of the great Wine Capitals Global Network at

"WINEXPO" in 1999 in Bordeaux. By undersigning an Agreement, the town of Florence joined Great Wine Capital Global Network together with Bordeaux, Oporto, San Francisco, Melbourne, Santiago de Chile, Bilbao and Cape Town (all important economic and cultural metropolis on the international panorama of viticulture and oenology. With regards to education and training, one of the main objectives of the Great Wine Capitals Global Network is the promotion of academic exchanges in order to increase the participation of the educational institutions in the international scenario.

The University of Florence is able to give a qualified contribution to the above-mentioned aim of the Network, by means of high profile educational courses and as the answer to a widespread need for skilled experts.

The First Specialisation Course covered basic elements of viticulture, oenology and the general wine sector, problem solving, features of the wine farms and enterprises, quality, wine testing and the international wine market. The course was later transformed into a University Master, which had the aim of giving a professional updating for the expert already operating in the wine sector and to train new entrants.

The content of the Master includes:

> Technical and economic aspects.
> Wine production and commercialisation.
> Qualitative aspects of the product.
> Characteristics of the enterprises in the sector.
> Enterprises' strategies.
> Management control.
> Business finance.
> Marketing of vine products.

During the first four years, more than 70% of the learners were able to find a job in important enterprises of the sector, showing the effectiveness of this educational method, strongly driven by the market. Moreover, this positive result highlights the importance of planning among the promoting State Body, Universities and the enterprises in the sector, in order to identify the correct and winning educational strategies on which it is necessary to invest in the future to stay competitive.

However, as in Argentina, vocational training is not formalised as through this qualification. Although the Master programme covers aspects of winemaking, it is on high educational level and focus strongly on marketing and management, which is different than the focus of this qualification.

France:

Vine and Wine Training and Research - Bordeaux:

To satisfy the needs of a sector which has a relevant economic importance and significant reputation, Bordeaux proposes a whole selection of training to cover the entire industry. Furthermore, a vine and wine research centre has been established since 1991 which, in 1996, became a Federating Research Institute for vine and wine sciences.

The four Bordeaux universities, several engineering schools, a business school and research organisations all contribute to the great quality of Bordeaux vine and wine science.

Moreover, a Vine and Wine Institute is in progress of creation in Bordeaux and it will group together all the university training courses about the vine-growing and winemaking sector.

Bordeaux Wine School:

The Bordeaux Wine School was set up a few years ago with the vision of offering courses for wine lovers, with the focus on wine tasting.

Again, the focus of the above-mentioned programmes is different than the aim of this qualification.

Australia:

Benchmarking was done against the Australian Qualifications Framework (AQF). A Winemaking Certificate II and III in Food Processing (Wine) - Cellar Operations were found. These courses were designed to provide participants with skills and knowledge to enable them to operate under limited supervision as skilled cellar door operations personnel across a wide range of winery activities. Learners graduating from the Certificate III may continue with the Diploma in Winemaking.

The content of the Certificate II and III is as follows:

Certificate II:

> Effective performance in the workplace.
> Food safety practices.
> Health and safety.
> Quality and implementation of quality systems.
> Communication and mathematics.
> Presenting and applying information.
> Sampling.
> Additions and finings.
> Inert gas handling.
> Oak handling and wine transfer.
> Cleaning and sanitising.
> Crushing, fermentation and must draining.
> Pressing.
> Heat exchanging.
> Stock handling.

Certificate III:

> OHS policies and procedures (monitoring the implementation).
> Quality and food safety programmes ((monitoring the implementation).
> Reporting on workplace performance.
> Fine filtration.
> Pressure leaf filtration.
> Product knowledge applied to organise work operations.
> Environmental management policies and procedures (mentoring the implementation).
> Setting up a production/packaging line for operation.

Other industry streams of the Certificate II and III in Food Processing (Wine) are possible by choosing units across streams, namely Wine Grape Growing, Laboratory, Bottling and Packaging, and Cellar Door Sales. Although the quality and food safety aspects of these Certificates are coming to the front more strongly, it compares well with this qualification.

In addition, the following institutions in Australia offer training related to winemaking:

Wine Technology and Marketing - Melbourne:

This institution offers training for the expanding wine industry in marketing, business and finance, as well as knowledge and understanding of viticulture and the winemaking involved in producing the unique wines of Australia.

The Diploma and Master courses in Wine Technology and Marketing at Monash University use an integrated approach to cover all of the many facets involved in wine business enterprises - from the production of grapes, through to winemaking, to wine marketing and distribution in the local and international export markets.

Australian College of Wine (ACW):

The ACW is a world class wine industry education and research facility and provides quality training in viticulture, winemaking, wine evaluation and wine marketing. It is unique in Australia in that it offers a range of programmes from intensive short courses to Certificate and Diploma level studies. The courses are designed for those already working in the industry and wanting to upgrade their skills, as well as for those looking to enter the industry. This system correlates well with the South African version.

Australian and International Agricultural Exchange:

This programme focuses on agricultural training for exchange students.

New Zealand:

On the New Zealand National Qualifications Framework (NZNQF), the National Certificates in Hospitality (Level 3 and Level 4) included the following winemaking-related unit standards:

> Produce blended bulk wines.
> Clean bulk wine tanks using automated equipment.
> Move yeast lees from bottle-fermented sparkling wines by riddling manually.
> Move yeast lees from bottle-fermented sparkling wines by disgorging.
> Prepare and wax wine tanks.
> Transfer bottle-fermented sparkling wines using automated equipment.
> Prepare and recondition oak wine barrels.
> Determine wine styles and characteristics using sensory evaluation.
> Use and maintain winery plant.

In addition, the National Certificates in Food and Related Products Processing (Level 3 and Level 4) with the sub-field and domain of Food Production (Beverages) contained the following unit standards related to winemaking:

> Transfer and racking.
> Handling of yeast lees.
> Pressing of grapes and juice extraction.
> Acetifying alcohol.
> Cap Classique procedures.
> Cleaning and sanitising.
> Knowledge of raw materials, mixing and blending.
> Yeast fermentation and microbiology.
> Maturation and storage of wine.
> Filtration, filtering and clarifying.
> Blending.
> Engineering.
> Operations control by means of computerised systems.

> Preparing and waxing wine tanks, preparing and reconditioning oak wine barrels.
> Propagating and distributing seed cultures for fermentation.
> Sensory evaluation of wines.

The latter NZNQF qualifications therefore correlate well with this South African version:

Other, non-NQF based qualifications (so-called KiwiQuals) offered by institutions in New Zealand includes:

> Certificate in Grape Growing and Winemaking, Level 4 (Wine management, establishing a vineyard, wine technology, wine analysis, small scale winemaking, winery establishment, winery engineering, sanitation and cellar safety).
> Certificate in Viticulture and Wine Production, Level 4 (pruning, marketing and wine production process).
> Certificate in Viticulture and Winemaking, Level 4 (viticulture, grape harvest, winemaking at technician level, wine technology, microbiology, analysis, winery operations, sensory evaluation, vineyard operations and vine physiology).
> Certificate in Wine, Level 4 (Viticulture, grape growing, establishment and maintenance of a vineyard, winemaking methods, analysis, sensory evaluation, marketing and management).
> Diploma in Viticulture and Wine Production, Level 5 (Viticulture, soil studies, weeds, pests and diseases, science and engineering, irrigation, wine production and technology, business information systems, communications, marketing and human resource management).
> Diploma in Wine Science, Level 6 (Botany, chemistry, microbiology, viticulture, biochemistry, metabolic biochemistry, plant physiology, wine evaluation and wine production).
> Graduate Diploma in Viticulture and Oenology, Level 7 (Viticulture, viticultural science, grape pest and disease management, wine quality assessment, wine chemistry and technology, vineyard and winery management, winery equipment and structures).

The trend in the above-mentioned qualifications is to combine the viticulture and winemaking skills, whereas this qualification focuses on the winemaking component only.

California:

The Napa Valley College in San Francisco offers training programmes for viticulture and oenology for the North Coast wine industry. The Certificate in Viticulture and Winery Technology consists of production-oriented courses in viticulture and winemaking. The Certificate in Wine Marketing and Sales is a mix of viticulture, winemaking and business courses. Certificate programmes may be modified to meet the career goals of the individual learner. The Associate of Science in Viticulture and Winery Technology degree allows the learner to specialise in either viticulture, winemaking or wine marketing and sales.

The winemaking option includes the following topics, pitching it at a slightly higher level than this qualification:

> Fundamentals in oenology.
> Laboratory analysis.
> Introduction to chemistry.
> Language and mathematics.
> Wines of California.
> Sensory evaluation of wine.
> Introduction to biology.
> Introduction to organic and biological chemistry.
> Wines of the world.
> Advanced winemaking.
> Fall winery operations.
> General viticulture.

> Winery management.
> Fundamentals of wine chemistry and microbiology.
> Spring winery operations.

Germany:

Although no information could be fund about specific vocational training towards winemaking in Germany, this country does implement a very pertinent vocational training system. When leaving schools, 70% of German students take a course of vocational training, mostly within their so-called "dual system". This system combines practical, on-the-job training with theoretical instruction at a part-time vocational school. Through their close cooperation, private business, industry and the public sector are sharing responsibility: Training regulations are drawn at federal level, while the states oversee the vocational schools.

There are three types of vocational schools in Germany:

Part-time vocational schools (Berufsschulen):

In the dual system, the vocational schools complement the training received in a company. Trainees attend a part-time vocational school one or two days a week for three years. The schools teach general subjects and theories that are easier understood in the classroom than at work. Usually about 40% of the school work is in basic academic subjects such as languages, mathematics and sciences and about 60% in subjects directly related to the chosen profession. Performance is assessed in an exam and documented by a certificate issued mostly by the chamber of industry and commerce.

The full-time vocational school (Berufsfachschule):

This school offers courses lasting one to three years. These can be part of an apprenticeship or even replace an apprenticeship entirely.

The vocationally oriented upper secondary school (Fachoberschule):

This school admits students with an intermediate school certificate. Courses cover theoretical instruction as well as training workshops and on-the-job training. They generally last two years and qualify participants for the specialised college (Fachhochshule).

On-the-job training (apprenticeships), last between two and three and a half years, depending on the complexity of the occupation. During this period, the apprentice earns a training allowance. The professional requirements that have to be learned during the vocational training are spelled out in training regulations. Based on proposals from the business associations and trade unions, these regulations are regularly revised and updated. The training concludes with an examination conducted by a board of examiners, generally organised by the local chamber of industry and commerce. On the board of examiners are representatives of employers as well as vocational school teachers.

Although no company is obliged to provide training, over 500 000 firms in all branches of the economy, including the independent professions and the public service, provide vocational training. Larger enterprises have their own training workshops, but smaller firms train their apprentices right on the job. Very specialised firms pool their resources and send their apprentices to inter-company training centres in order to broaden their vocational skills.

The above system therefore compares well with the NQF based education and training system of our country.

ARTICULATION OPTIONS

This qualification provides horizontal articulation (through Exit Level Outcome 1) with other NQF Level 3 National Certificates in Food and Beverage Processing. Further horizontal articulation exists with the new National Certificate in Spirits Production NQF Level 3.

This qualification articulates vertically with the Further Education and Training Certificate in Generic Management NQF 4 (NLRD 57712), as well as with the General Education and Training Certificate in Food and Beverage Handling Processes NQF 1 (NLRD 58026).

MODERATION OPTIONS
> Anyone assessing a learner or moderating the assessment of a learner against this qualification must be registered as an assessor and moderator respectively with the relevant ETQA, or with another ETQA that has a Memorandum of Understanding with the relevant ETQA.

> Any institution offering learning that will enable the achievement of this qualification must be accredited as a provider with the relevant ETQA, or with another ETQA that has a Memorandum of Understanding with the relevant ETQA.

> Assessment and moderation of assessment will be overseen by the relevant ETQA, or by another ETQA that has a Memorandum of Understanding with the relevant ETQA, according to the ETQA's policies and guidelines for assessment and moderation.

> Moderation must include both internal and external moderation of assessments at exit points of the qualification, unless ETQA policies specify otherwise. Moderation should also encompass achievement of the competence described both in individual unit standards, exit level outcomes and the integrated competence described in the qualification.

> Anyone wishing to be assessed against this qualification may apply to be assessed by any assessment agency, assessor or provider institution that is accredited by the relevant ETQA.

CRITERIA FOR THE REGISTRATION OF ASSESSORS
For an applicant to register as an assessor, the following are essential:

> Anyone assessing a learner against this qualification must be registered as an assessor with the relevant ETQA, or with another ETQA that has a Memorandum of Understanding with the relevant ETQA.
> The applicant needs well-developed interpersonal skills, as well as subject matter and assessment experience.
> The applicant should have completed this qualification OR a similar qualification than this one at NQF Level 3 or higher, with a minimum of 12 months field experience after he/she has completed the qualification.

NOTES
This qualification replaces qualification 20510, "National Certificate: Food and Beverages Processing: Wine Processing", Level 3. 127 credits.

UNIT STANDARDS

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	119472	Accommodate audience and context needs in oral/signed communication	Level 3	5
Fundamental	9010	Demonstrate an understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations	Level 3	2
Fundamental	9013	Describe, apply, analyse and calculate shape and motion in 2-and 3-dimensional space in different contexts	Level 3	4
Fundamental	119457	Interpret and use information from texts	Level 3	5

	ID	UNIT STANDARD TITLE	LEVEL	CREDITS
Fundamental	9012	Investigate life and work related problems using data and probabilities	Level 3	5
Fundamental	119467	Use language and communication in occupational learning programmes	Level 3	5
Fundamental	7456	Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	Level 3	5
Fundamental	119465	Write/present/sign texts for a range of communicative contexts	Level 3	5
Core	120416	Apply personal safety practices in a food or sensitive consumer product environment	Level 2	5
Core	120242	Demonstrate an understanding of heating and cooling media in a food-manufacturing environment	Level 2	4
Core	259148	Receive raw material for winemaking	Level 2	6
Core	259160	Clarify wine by means of a physical or physical-chemical process	Level 3	6
Core	120235	Demonstrate an understanding of the concept of microbiology in a food handling environment	Level 3	6
Core	259147	Ferment grape juice for winemaking	Level 3	10
Core	259149	Operate a grape mash cooler	Level 3	4
Core	259158	Operate grape destalking and crushing plant	Level 3	6
Core	119802	Perform quality control practices in a food or sensitive consumer product operation	Level 3	6
Core	259165	Separate grape juice and solids for winemaking	Level 3	8
Elective	120405	Clean and sanitise a fast moving consumer goods (FMCG) processing system using an automated cleaning-in-place (CIP) system	Level 2	5
Elective	259171	Maintain wooden barrels for winemaking or spirits production	Level 2	7
Elective	252435	Apply basic invoicing and accounting principles	Level 3	6
Elective	244574	Apply knowledge of HIV/AIDS to a specific business sector and a workplace	Level 3	4
Elective	244611	Apply problem-solving techniques to make a decision or solve a problem in a real life context	Level 3	2
Elective	8025	Controlling and locating stock	Level 3	8
Elective	259159	Evaluate the sensory quality of wine products	Level 3	3
Elective	259167	Filter wine by means of an automated or semi-automated process	Level 3	8
Elective	242814	Identify and explain the core and support functions of an organisation	Level 3	6
Elective	242812	Induct a member into a team	Level 3	4
Elective	14665	Interpret current affairs related to a specific business sector	Level 3	10
Elective	120239	Monitor critical control points (CCPs) as an integral part of a hazard analysis critical control point (HACCP) system	Level 3	6
Elective	120234	Pasteurise, thermise or vaccreate a liquid food product by means of a plate or tubular heat exchanger	Level 3	12
Elective	259164	Perform Cap Classique production procedures	Level 3	6
Elective	9913	Perform first line maintenance	Level 3	14
Elective	259161	Perform wine or spirits wood maturation	Level 3	8
Elective	259157	Perform wine stabilisation procedures	Level 3	6
Elective	259162	Perform wine transfer and blending	Level 3	6
Elective	116942	Use a GUI-based word processor to create merged documents	Level 3	3
Elective	116940	Use a Graphical User Interface (GUI)-based spreadsheet application to solve a given problem	Level 3	6
Elective	117241	Develop a business plan for a small business	Level 4	5
Elective	242821	Identify responsibilities of a team leader in ensuring that organisational standards are met	Level 4	6

LEARNING PROGRAMMES RECORDED AGAINST THIS QUALIFICATION
None

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Ferment grape juice for winemaking

SAQA US ID	UNIT STANDARD TITLE		
259147	Ferment grape juice for winemaking		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	10

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of grape juice fermentation.

SPECIFIC OUTCOME 2
Prepare to ferment grape juice.

SPECIFIC OUTCOME 3
Ferment grape juice as part of the vinification process.

SPECIFIC OUTCOME 4
Maintain the area and product after fermentation.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Receive raw material for winemaking

SAQA US ID	UNIT STANDARD TITLE			
259148	Receive raw material for winemaking			
ORIGINATOR		PROVIDER		
SGB Manufacturing and Assembly Processes				
FIELD		SUBFIELD		
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly		
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL		CREDITS
Undefined	Regular	Level 2		6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of raw material intake for winemaking.

SPECIFIC OUTCOME 2
Prepare the intake area.

SPECIFIC OUTCOME 3
Receive raw material for further processing.

SPECIFIC OUTCOME 4
Maintain the area and product after intake.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Operate a grape mash cooler

SAQA US ID	UNIT STANDARD TITLE		
259149	Operate a grape mash cooler		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	4

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of cooling of grape mash.

SPECIFIC OUTCOME 2
Prepare for cooling of grape mash.

SPECIFIC OUTCOME 3
Cool grape mash prior to further processing.

SPECIFIC OUTCOME 4
Maintain the area and product after grape mash cooling.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform wine stabilisation procedures

SAQA US ID	UNIT STANDARD TITLE		
259157	Perform wine stabilisation procedures		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of wine stabilisation.

SPECIFIC OUTCOME 2
Prepare to stabilise wine.

SPECIFIC OUTCOME 3
Stabilise wine prior to bottling/packaging.

SPECIFIC OUTCOME 4
Maintain the area and product after wine stabilisation.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA

UNIT STANDARD:

Operate grape destalking and crushing plant

SAQA US ID	UNIT STANDARD TITLE		
259158	Operate grape destalking and crushing plant		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of grape destalking and crushing.

SPECIFIC OUTCOME 2
Prepare for grape destalking and crushing.

SPECIFIC OUTCOME 3
Destalk and crush grapes for further processing.

SPECIFIC OUTCOME 4
Maintain the area and product after destalking and crushing.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Evaluate the sensory quality of wine products

SAQA US ID	*UNIT STANDARD TITLE*		
259159	Evaluate the sensory quality of wine products		
ORIGINATOR		*PROVIDER*	
SGB Manufacturing and Assembly Processes			
FIELD		*SUBFIELD*	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	*UNIT STANDARD TYPE*	*NQF LEVEL*	*CREDITS*
Undefined	Regular	Level 3	3

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of the sensory quality of in-line and final wine products.

SPECIFIC OUTCOME 2
Determine the sensory quality of wine products.

SPECIFIC OUTCOME 3
Report on the sensory quality of wine products.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Clarify wine by means of a physical or physical-chemical process

SAQA US ID	*UNIT STANDARD TITLE*		
259160	Clarify wine by means of a physical or physical-chemical process		
ORIGINATOR		*PROVIDER*	
SGB Manufacturing and Assembly Processes			
FIELD		*SUBFIELD*	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	*UNIT STANDARD TYPE*	*NQF LEVEL*	*CREDITS*
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of clarification of wine.

SPECIFIC OUTCOME 2
Prepare for clarification of wine.

SPECIFIC OUTCOME 3
Clarify wine through a physical or physical-chemical process.

SPECIFIC OUTCOME 4
Maintain the area and product after clarification.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform wine or spirits wood maturation

SAQA US ID	UNIT STANDARD TITLE		
259161	Perform wine or spirits wood maturation		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3 .	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of maturation of wine and spirits.

SPECIFIC OUTCOME 2
Prepare for wood maturation.

SPECIFIC OUTCOME 3
Mature wine or spirits with the aid of wood.

SPECIFIC OUTCOME 4
Maintain the area and product after wood maturation.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform wine transfer and blending

SAQA US ID	UNIT STANDARD TITLE		
259162	Perform wine transfer and blending		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	6

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of wine transfer and blending.

SPECIFIC OUTCOME 2
Prepare to transfer and blend wine.

SPECIFIC OUTCOME 3
Transfer and blend wine.

SPECIFIC OUTCOME 4
Maintain the area and product after wine transfer and blending.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Perform Cap Classique production procedures

SAQA US ID	*UNIT STANDARD TITLE*		
259164	Perform Cap Classique production procedures		
ORIGINATOR		*PROVIDER*	
SGB Manufacturing and Assembly Processes			
FIELD		*SUBFIELD*	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	*UNIT STANDARD TYPE*	*NQF LEVEL*	*CREDITS*
Undefined	Regular	Level 3	6

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
9098	Operate beverage cap classique plant and process	Level 3	25	Will occur as soon as 259164 is registered

SPECIFIC OUTCOME 1
Demonstrate an understanding of Cap Classique procedures.

SPECIFIC OUTCOME 2
Prepare to perform Cap Classique procedures.

SPECIFIC OUTCOME 3
Perform Cap Classique procedures.

SPECIFIC OUTCOME 4
Maintain the area and product after Cap Classique procedures.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA

UNIT STANDARD:

Separate grape juice and solids for winemaking

SAQA US ID	UNIT STANDARD TITLE		
259165	Separate grape juice and solids for winemaking		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of separation of grape juice and solids.

SPECIFIC OUTCOME 2
Prepare for separation of grape juice and solids.

SPECIFIC OUTCOME 3
Separate grape juice from solids for further processing.

SPECIFIC OUTCOME 4
Maintain the area and product after separation.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Core	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Filter wine by means of an automated or semi-automated process

SAQA US ID	UNIT STANDARD TITLE		
259167	Filter wine by means of an automated or semi-automated process		
ORIGINATOR		PROVIDER	
SGB Manufacturing and Assembly Processes			
FIELD		SUBFIELD	
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly	
ABET BAND	UNIT STANDARD TYPE	NQF LEVEL	CREDITS
Undefined	Regular	Level 3	8

This unit standard does not replace any other unit standard and is not replaced by another unit standard.

SPECIFIC OUTCOME 1
Demonstrate an understanding of wine filtration.

SPECIFIC OUTCOME 2
Prepare for wine filtration.

SPECIFIC OUTCOME 3
Clarify wine through filtration.

SPECIFIC OUTCOME 4
Maintain the area and product after filtration.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63869	National Certificate: Winemaking	Level 3

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

Maintain wooden barrels for winemaking or spirits production

SAQA US ID	UNIT STANDARD TITLE			
259171	Maintain wooden barrels for winemaking or spirits production			
ORIGINATOR		**PROVIDER**		
SGB Manufacturing and Assembly Processes				
FIELD		**SUBFIELD**		
6 - Manufacturing, Engineering and Technology		Manufacturing and Assembly		
ABET BAND	**UNIT STANDARD TYPE**	**NQF LEVEL**		**CREDITS**
Undefined	Regular	Level 2		7

This unit standard replaces:

US ID	Unit Standard Title	NQF Level	Credits	Replacement Status
9094	Maintain the beverage wooden barrels	Level 2	10	Will occur as soon as 259171 is registered

SPECIFIC OUTCOME 1
Demonstrate an understanding of maintaining wooden barrels.

SPECIFIC OUTCOME 2
Prepare the working environment for and perform maintenance of wooden barrels.

SPECIFIC OUTCOME 3
Maintain the working area after wooden barrel maintenance.

QUALIFICATIONS UTILISING THIS UNIT STANDARD

	ID	QUALIFICATION TITLE	LEVEL
Elective	63929	National Certificate: Spirits Production	Level 3
Elective	63869	National Certificate: Winemaking	Level 3