GOVERNMENT NOTICE

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

No. 839   **18 August *2006***

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

Audio-visual Media Production

registered by Organising Field 04, Communication Studies and Languages, publishes the following qualification and unit standards for public comment.

This notice contains the titles, fields, subfields, NQF levels, credits, and purpose of the qualification and unit standards. The 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 for Standards Setting and Development at the **SAQA** offices, Hatfield Forum West, 1067 Arcadia Street, Hatfield, Pretoria.

Comment on the qualification and unit standards should reach **SAQA** at the address below and no later ***than*** 14 September 2006. All correspondence should be marked Standards Setting – SGB for Audi-visual Media Production and addressed to

> The Director: Standards Setting and Development
> **SAQA**
> *Attention: Mr. D Mphuthing*
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> Private Bag X06
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DIRECTOR: STANDARDS SETTING AND DEVELOPMENT

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:

National Certificate: 3D Animation and Visual Effects

SAQA QUAL ID	QUALIFICATION TITLE		
57607	National Certificate: 3D Animation and Visual Effects		

SGB NAME	ORGANISING FIELD ID	PROVIDER NAME
SGB Audio-visual Media Production	4	

QUAL TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD
National Certificate	Communication Studies and Language	Communication Studies

ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS
Undefined	149	Level 5	Regular-Unit Stds Based

PURPOSE AND RATIONALE OF THE QUALIFICATION

Purpose:

Learners who attain this qualification are competent **3D** animation or visual effects artists. This qualification is set to improve the quality of **3D** animation and visual effects in South Africa, providing an entry level of generalist competence that can be developed to improve international competitiveness.

Qualifying learners attain skills to work in post production, design sound, capture motion, visualise in **3D** space, put ideas down visually (draw) on paper or computer, operate software packages, follow and assess storyboard instructions, plan work flow, manage themselves in larger projects, manage electronic files, model characters, create light and texture, animate by adding motion, composite and render, work in teams, and rig models. They attain knowledge about the history of animation, forms, styles and technology, characterisation and story boarding, the production process (modelling, texturing and lighting, animation and motion, compositing and rendering), types of outputs, procedures for storyboarding, conceptualising, copyright, intellectual property, editing principles, film/video/camera language and cinematography, scripting language, operating systems, Internet, hardware, resources, and health hazards related to computer use.

Qualified learners are capable of animating characters, modelling objects and characters, texturing and lighting objects, characters and backgrounds, drawing characters and objects, storyboarding scripts, managing own projects, compositing layers, managing electronic files, rigging models, rendering files, formats and outputting, designing backgrounds, assessing contracts and marketing their own **3D** animation and visual effects capabilities.

Rationale:

Typical learners have NQF Level 4 Further Education and Training Certificates and a keen interest in the animation and visual effects field. Visual literacy and inherent artistic ability are advantageous with drama training particularly valuable for future character animators. Mathematical literacy and aptitude (especially for **3D** Animation and visual effects) is a further advantage. Qualified learners can be employed in video game development, gaming, tourism, education, mobile telecommunications, television and video production (including digital special effects) as well as specialist **3D** and visual effects production facilities. Areas of employment may also include multi-media production. Most employers are SMEs and freelancers, and some are in the advertising industry.

To be a good **3D** animator or visual effects artist, much experience is required. The equipment required is very expensive, the work very time consuming, and, therefore, feasibility of starting an own business is limited - working for an existing organisation is mostly required. There is a demand for **3D** animation and visual effects in long form production. This is currently being provided in India and Malaysia, and South Africa could compete with those suppliers. Local and international demand is growing rapidly, and there are few 3D animators and visual effects artists, resulting in high fees being charged. This qualification aims to

ensure competence at production level, where the bread and butter of qualified learners is in the short form, for example, in the advertising industry.

In South Africa, a large percentage of **3D** animators and visual effects artists are self-trained. It is important for access to employment to develop a show reel/portfolio, especially for the long form market. Qualified learners will gain employer recognition for relevance, addressing the poor track record of **3D** animation and visual effects in South Africa, confounded by graphic design competence being put forward as 3D animation and visual effects competence. Qualified learners will understand the processes involved, as well as their value in the production value chain. International recognition will be enhanced and 3D animation and visual effects can become a South African cultural product outlet.

Potential economic returns include that South Africa can become an outsourcing service provider country, generating foreign revenue. South Africa is also in a good position to support the rest of Africa. Larger organisations in South Africa often outsource to SMEs, and there is a demand for both general and specialist competence. 3D animation and visual effects can also play an important role in the field of education. There is an international shortage and global demand for 3D animation and visual effects.

RECOGNIZE PREVIOUS LEARNING?

Y

LEARNING ASSUMED TO BE IN PLACE

The qualification design and credits are based on the assumption that learners have already attained the following competencies:

> Communication and language (NQF Level 4).
> Mathematical literacy (NQF Level 4).
> Working in a team (NLRD ID **10135).**
> Examine the applications of the Basic Conditions of Employment Act and its effect on earnings in own contract (NLRD ID 10717).
> Explain the application of the basic conditions of employment act in an employment contract (NLRD ID **11391**5).
> Computer literacy (hardware functions; operating systems; file management).

Recognition of prior learning (RPL):

This qualification can be achieved wholly, or in part, through recognition of prior learning. 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 described in the notes to assessors below. 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 Education and Training Quality Assurance body (ETQA). The applicant must be assessed against the specific outcomes and with the assessment criteria for the relevant Unit Standards. A qualification will be awarded should a learner demonstrate that the exit level outcomes of the qualification have been attained.

Access to the qualification:

Access to this qualification is open to those not visually impaired beyond the extent that is practical within specific contexts.

QUALIFICATION RULES

> All the Fundamental Component Unit Standards are compulsory **(15** credits).
> All the Core Component Unit Standards are compulsory **(124** credits).
> For the Elective Component learners are required to attain at least **10** out of **121** available credits.

EXIT LEVEL OUTCOMES

1. Manage electronic files and data safely, securely and according to specified requirements.
2. Analyse requirements for 3D animation processes based on given specifications and existing reference material.
> Range: Processes include storyboarding, modelling, animation, rigging models, shading, mapping images, lighting, rendering files, compositing layers, outputting, and designing backgrounds.
3. Develop creative elements according to specification using existing digital data.
> Range: Digital data can include photographic images, pictures, sound, etc.
4. Market own 3D animation and visual effects produced for specific purposes.

5. Evaluate 3D animation and visual effects against specified requirements.
6. Manage 3D animation production according to specified requirements.

ASSOCIA TED ASSESSMENT CRITERIA

1.
> Access to electronic data and files by all relevant persons is ensured.
> Electronic data and files are stored according to specified requirements for safety and security.

2.
> The availability of records of analysis processes for future use is ensured.
> All relevant technical and creative requirements are analysed.
> Reference material used is checked for relevance for specific analysis.

3.

> Creative elements are checked for compliance with specified storyboard requirements.
> Digital data is checked for compliance with legal requirements.
  > Range: Legal requirements include copyright and intellectual property legislation.

4.
> Marketing decisions are checked for compliance with purpose and specific context requirements.
> Marketing materials and presentation are checked for compliance with specified target group requirements.

5.
> Evaluation criteria are identified and described accurately.
> The information required is extracted so as to inform the evaluation process.
> Improvements are recommended and implemented where relevant and meet identified requirements.

6.
> Check-up procedures to ensure that project objectives are finished within specified time frames are developed.
> Checkup procedures to ensure that agreed ethical and legal requirements are met are drawn.
> The compliance of 3D animation products with specified requirements is ensured.
  > Range: Products can include models, storyboards, 3D animation (including objects, characters, shading, lighting, images, and backgrounds), rendered files, and rigged models.

Integrated assessment:

The assessment criteria in the unit standards are performance-based, assessing applied competence rather than only knowledge, or skills. In addition, learners must demonstrate that they can achieve the outcomes in an integrated manner, dealing effectively with different and random demands related to the environmental conditions in occupational contexts, to qualify. Evidence is required that the learner is able to achieve the exit level outcomes of the qualification as a whole and thus its purpose, at the time of the award of the qualification. Workplace experience can be recognised when assessing towards this qualification.

INTERNATIONAL COMPARABILITY

The leaders in animation and 3D animation education and training are in Canada (e.g. Vancouver Film School, Sheridan College Institute of Technology and Advanced Learning), the United Kingdom, and the United States of America (e.g. Californian Institute of the Arts, Edinboro University of Pennsylvania), with some new developments taking place in India, although the training providers operating in India are based in the United States of America.

NO qualifications were found in other African countries (e.g. Lesotho, Namibia, Botswana, Malawi, and Kenya). In Namibia, equivalent level qualifications are in the fields of Agriculture and Natural Resources, Economics and Management Science, Education, Humanities and Social Science (which includes Visual Arts, but not animation), **Law,** Medical and Health Science, and Science (which focuses on computer science only). In Botswana, equivalent level qualifications are available in the fields of engineering and technology, but are limited to industrial design. In Malawi, qualifications focus on agriculture, commerce, education, engineering, law, medicine, nursing, (natural) sciences and social sciences. In Kenya, qualifications focus on veterinary medicine, architecture design and development, arts (drama and theatre only), (natural) science, medicine and education.

In Canada, 3D animation qualifications start at a level equivalent to this South African qualification. For

example, at the Vancouver Film School, the programme in 3D Animation and Visual Effects and another programme in Classical Animation, both equivalent in terms of estimated notional hours (1200 hours or 120 credits), compare as follows with this South African qualification:

3D Animation and Visual Effects; Classical Animation; South Africa:

Compulsory

> Life drawing; Life drawing; Not included
> Classical animation; Animation; Not included
> Storyboarding; Storyboarding; Core
> Sculpting; (Not included); Not included
> Film theory; Film theory; Core (integrated)
> Art direction; (Not included); Not included
> Composition; Composition; Not included
> Character design; Character design; Elective (partially)
> Modelling; (Not included); Not included
> Visual effects, and lighting theory and techniques; (Not included); Core (integrated)
> 3D animation (tools and techniques); (Not included); Core
> 3D modelling; (Not included); Core
> 3D texturing; (Not included); Core
> 3D rigging; (Not included); Core
> 3D lighting; (Not included); Core
> Concept drawing; (Not included); Not included
> 2D animation (script, design bible, storyboards, concept drawings, colour palette, 2D and 3D animatics); (Not included); Not included
> Operating environment fundamentals; (Not included); Core (integrated)
> Photoshop; Flash; Core (generic)
> Scheduling; (Not included); Core (integrated)
> Character acting; Acting principles; Not included
> Digital compositing; (Not included); Core
> Produce the final cut of your reel; Digitise and finish films; Core
> Work with a sound and production team; (Not included); Elective
> (Not included); Camera technique; Not included
> (Not included); Background design; Elective (partially)
> (Not included); Layout; Not included
> (Not included); History of animation; Core (integrated)
> (Not included); Clean-up; Not included
> (Not included); Perspective; Not included
> (Not included); Animation assist; Not included
> (Not included); Effects animation; Elective
> (Not included); Colour theory; Core (integrated)
> (Not included); Doping and slugging; Core
> (Not included); Post production; Core, Elective
> (Not included); Digital ink and paint; Core (generic)
> (Not included); Sound; Elective

Elective (one focus area - animation, modelling, or visual effects - for each); Elective (none); Elective (any 10+ credits):

> Creative development in animation, modelling, or visual effects; (Not included); Not included
> Art direction in animation, modelling, or visual effects; (Not included); Elective
> Concept development in animation, modelling, or visual effects; Story concept; Not included
> Storyboarding in animation, modelling, or visual effects; (Not included); Core
> Portfolio completion in animation, modelling, or visual effects; Portfolio assembly (compulsory); Core

The most apparent difference between the above qualifications and the South African qualification is that classical animation and 2D animation competencies are excluded from the South African qualification. These aspects are addressed in a separate qualification for 2D animation.

Sheridan College Institute of Technology and Advanced Learning in Canada offer a four-year Bachelor of Applied Arts (Animation) that is at a level above the level of this qualification. At first year level, the qualification compares as follows with this South African qualification:

Sheridan: Bachelor of Applied Arts (Animation) Year I; South Africa:

> Introductionto digital tools; Integrated throughout
> Introductionto dynamic anatomy; Core (integrated)
> Visual concepts; Core (integrated)
> Introductionto dimensional drawing; Not included
> Life drawing; Not included
> Sound design: music, sound effects, vocal production; Elective (partially)
> Art in a social and cultural context; Not included
> Animation history; Not included
> International politics introduction; Not included
> Principles of psychology; Not included
> Social and cultural anthropology; Not included
> Applied research methods; Not included
> Animation and design; Core, Elective
> Animation principles; Core (integrated)
> Digital methodologies; Core (integrated)
> Layout and storyboarding; Core (partially)
> Composition and rhetoric; Not included
> Performance analysis; Not included

Although the South African qualification does not compare well with this qualification, it is important to include in the comparison the courses offered later in the Sheridan programme. Aspects included in the South African qualification that are addressed later in the Sheridan programme include animation and design of action, pose and graphics; atmosphere and movement in storyboarding; action analysis; figure analysis; modelling; 3D animation; rigging. Therefore, the major difference between the South African qualification and the Sheridan qualification is that the former does not address life and dimensional drawing; painting; creative structure in storyboarding; research; history of animation; social studies (psychology, anthropology, politics, composition and rhetoric); performance analysis.

The Californian Institute of the Arts (CalArts) in the United States of America differentiates between experimental and character animation, and offer two programmes at a level above the level of this qualification: a Bachelor of Fine Art: Experimental Animation, and a Bachelor of Fine Art Character Animation (both four years). The former qualification focuses on creative concept creative and technical proficiency, and the latter on technical proficiency only. This South African qualification addresses technical proficiency, rather than creative concept creation, and the two CalArts qualifications compare as follows with this South African qualification:

CalArts: Bachelor of Fine Art: Experimental Animation Year I; South Africa:

> 2-D animation; Not included
> Stop-motion animation; Core (partially)
> 2-D and 3-D computer animation; Core (partially)
> History of animation; Not included
> History of experimental animation as a fine art form; Not included
> Experimental animation under supervision; Not included

> CalArts: Bachelor of Fine Art Character Animation Year I; South Africa:

> Life drawing; Not included
> Colour and design; Core (integrated), Elective (partially)
> Storytelling; Not included
> Character animation; Core

Another programme example in the United States of America was identified at Edinboro University of Pennsylvania, namely, a Bachelor of Fine Arts: Cinema (Animation/Film/Video). The qualification is at a level above this qualification, but includes a beginning level that compares as follows with this South African qualification:

Edinboro: Bachelor of Fine Art: Bachelor of Fine Arts: (Animation) - Beginning level; South Africa:

Compulsory

> Character animation basic principles and fundamentals (thumbnailing, timing and spacing, staging, solidity and dimension, personality); Core
> Rough animation line testing and critique; Core
> Drawing for animation (apply gesture, attitude and expression to animation); Not included
> Computer animation (all forms) (history and aesthetics of computer animation and expressing personal

vision); Core (integrated)
> Experimental animation (paint on glass, sand, collage, cut-out, and scratch on film, using the elements of design, colour and value, and manipulation of
> Positive and negative shapes); Not included
> Stop motion animation (puppets, objects, clay, pixilation; design and build sets, engineer ball and socket joint armatures for characters and objects); Core (partially)
> Storyboards and staging; Core
> Design; Core (partially), Elective (partially)
> Lighting; Core (partially)
> Camera; Core (integrated)
> Movement; Core
> Editing; Elective

Elective (12 credits)

Art elective courses in computer animation (Computer Animation I, Computer Animation II, Advanced Computer Animation I, Advanced Computer Animation II); Core (partially):

At Full Sail, also in the United States of America, a 14-month programme is offered at the level of this South African qualification, namely, an Associate of Science Degree in Computer Animation. It compares as follows with the South African qualification:

Full Sail: Associate of Science Degree in Computer Animation; South Africa

> The history of 3D computer graphics; Not included
> 2D animation (controlling and manipulating a subject's volume, weight, proportion, acting, and movement); Not included
> 2D and 3D computer graphics, equipment and software applications; Core (partially, integrated)
> Operating and file systems, and commands; Fundamental
> Character, environments, and camera action design and creation; Core, Elective
> Character rigging; Core
> Acting for animators (acting theory, character motion and emotion, express and imply emotion through motion, body language, tell a story through computer animation); Not included
> Game techniques (game content creation, hardware shading, normal mappings, effects creation, rigging, and animation for game characters); Not included
> Animation in 3D (character walk, run, jump, sit, throw, catch, hit, and dance according to storyboard); Core
> Project planning and coordination; Core

Other providers such as Digital Media Academy linked to Stanford University and the University of Texas in the United States of America, and East Tennessee State University and The Art Institute of Philadelphia offer short courses of five days to eleven weeks that address specific components contained in the South African qualification, such as 3D character modelling and animation, principles, terms and terminology of 3D animation, trajectories, in/out tangents, weight/displacement, motion and camera movement, wrapping, texturing, particle systems and flow, rendering, storyboarding, 3D animation production, history of animation, timing, spacing, straight ahead vs. pose to pose, keys, extremes and in-betweens, squash and stretch, dope sheets, editing, set driven animation, staging, anticipation, holds, primary and secondary action, overlapping action, exaggeration, sequencing, working with sound, and video.

The most notable difference with the South African qualification is that the above American qualifications generally include drawing, and other forms of animation such as 2D animation in addition to 3D animation.

In the United Kingdom various qualifications exist below the level of this South African qualification as well as an equivalent level qualification. The BTEC Higher National Certificate in 3D Design consists of 600 hours contact time, and compares as follows with the South African qualification:

United Kingdom; South Africa:

Compulsory

> Drawing techniques and approaches; Not included
> Historical and contextual referencing; Not included
> Properties of 3D materials; Core
> 3D technology and processes; Core
> Critical study; Not included
> Professional practice and development; Core (partially)
> Professional studies; Not included

Elective (3 are required)

> Design method; Elective (partially)
> Computer applications in art and design; Not included
> Design principles; Elective (partially)
> 3D animated products: Core
> Product design; Elective (partially)
> Commercial model making; Core
> Furniture design; Elective (partially)
> Design for performance; Elective (partially)
> Specialist 3D materials; Core
> Specialist 3D technology and processes; Elective
> Design and function; Elective (partially)
> Visual and personal presentation; Not included
> Marketing; Not included
> Ceramics; Not included
> Jewellery, accessories and body adornment; Not included
> Light metals; Not included
> Wood; Not included
> Glass; Not included
> Exhibition and retail design; Elective (partially)
> Interior design; Elective (partially)

An example of a programme was identified at the SAE Institute, a private college for Audio Engineering, Creative Media and Digital Film training. The SAE 3D Animation Diploma runs over 15 months, and compares as follows with this South African qualification:

SAE 3D Animation Diploma; South Africa:

Compulsory

>3D software interfaces; Core (integrated)
> Modelling basics; Core
> Animation basics; Core
> Rendering basics; Core
> Polygonal modelling; Core (partially)
> Nurbs modelling; Core (partially)
> Subdivision surface modelling; Core (partially)
> Character modelling; Core
> Classical animation principles; Core (integrated)
> Keyframe animation; Core (partially)
> Forward and inverse kinematics: Core (integrated)
> Facial animation; Core (integrated)
> Blend shapes; Core
> Dynamics; Core
> Lighting; Core
> Materials and textures; Core
> Rendering concepts; Core
> Global illumination; Core
> Rendering with HDRI; Core (generic)
> Caustics; Elective (partially)
> Editing footage; Elective
> Audio - spot sounds; Elective
> Compositing 3D over live footage; Core (partially)
> Colour correction: Core (integrated)
> Output for broadcast; Core
> DVD authoring; Core

Ballyfermot College of Further Education in Ireland offers a I-year programme culminating in a Level 5 Certificate in Art. The programme includes life drawing, drawing and painting, animation and layout studies, sculpture, art and animation history, communications, and drama. The programme focuses on the development of strong drawing skills and provides only a broad introduction to animation. The College also offers a two-year programme at a level below the South African qualification, that addresses subjects such as animation, computer animation and modelling, visual language, layout, design history theory and practice (with film studies), life drawing, studio practice, and design history theory and practice (with script writing),

and a two-year post graduate qualification.

The main difference between the South African qualification and the qualifications offered in the United Kingdom is that the former does not include drawing, is not categorised within the design field, and does not address classical animation competence.

The South African qualification is of equal notional hours, and is mostly comparable with international qualifications at equivalent levels, except that it focuses on one area of animation and does not address drawing competence.

ARTICULATION OPTIONS

Vertical articulation is possible with the Bachelor of Design (NQF Level 6); SAQA ID 48810 and with a Bachelor of Visual Communications (NQF Level 6); SAQA ID 49603.

Horizontal articulation on the NQF is possible with the National Certificate: Information Technology (Systems Development) (NQF Level 5); SAQA ID 48872, and the National Certiite: Interactive Media (NQF Level 5); SAQA ID 49121.

MODERATION OPTIONS

Moderation of assessment and accreditation of providers shall be at the discretion of a relevant ETQA as long as it complies with the SAQA requirements. The ETQA is responsible for moderation of learner achievements of learners who meet the requirements of this qualification. Particular moderation and accreditation requirements are:

> Any institution offering learning that will enable the achievement of this qualification must be accredited as a provider with the relevant ETQA. Providers offering learning towards achievement of any of the unit standards that make up this qualification must also be accredited through the relevant ETQA accredited by SAQA.
> The ETQA will oversee assessment and moderation of assessment according to their policies and guidelines for assessment and moderation, or in terms of agreements reached around assessment and moderation between the relevant ETQA and other ETQAs and in terms of the moderation guideline detailed here.
> Moderation must include both internal and external moderation of assessments for the qualification, unless the relevant ETQA policies specify otherwise. Moderation should also encompass achievement of the competence described in Unit Standards as well as the integrated competence described in the qualification.
> Internal moderation of assessment must take place at the point of assessment with external moderation provided by a relevant ETQA according to the moderation guidelines and the agreed ETQA procedures.
> 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

Criteria for assessors

Assessment of learner achievements takes place at providers accredited by the relevant ETQA (RSA, 1998b) for the provision of programs that result in the outcomes specified for this qualification. Anyone assessing a learner or moderating the assessment of a learner against this qualification must be registered as an assessor with the ETQA. Assessors registered with the relevant ETQA must carry out the assessment of learners for the qualification and any of the Unit Standards that make up this qualification.

To register as an assessor, the following are required:

> Detailed documentary proof of relevant qualification/s, practical training completed, and experience gained.
> NQF recognised assessor credit.

Assessors should keep the following general principles in mind when designing and conducting assessments:

> Focus the initial assessment activities on gathering evidence in terms of the main outcomes expressed in the titles of the Unit Standards to ensure assessment is integrated rather than fragmented. Remember that the learner needs to be declared competent in terms of the qualification purpose and exit level outcomes.
> Where assessment across Unit Standard titles or at Unit Standard title level is unmanageable, then focus assessment around each specific outcome, or groups of specific outcomes. Take special note of the need for integrated assessment.

> Make sure evidence is gathered across the entire range, wherever it applies.

In particular, assessors should assess that the learner demonstrates an ability to consider a range of options by:

> Measuring the quality of the observed practical performance as well as the theory and underpinning knowledge.
> Using methods that are varied to allow the learner to display thinking and decision making in the demonstration of practical performance.
> Maintaining a balance between practical performance and theoretical assessment methods to ensure each is measured in accordance with the level of the qualification.
> Taking into account that the relationship between practical and theoretical components is not fixed, but vanes according to the type and level of qualification.

All assessments should be conducted in line with the following well-documented principles:

> Appropriate: The method of assessment is suited to the performance being assessed.
> Fair: The method of assessment does not present any barriers to achievements, which are not related to the evidence.
> Manage: The methods used make for easily arranged cost-effective assessments that do not unduly interfere with learning.
> Integrate into work or learning: Evidence collection is integrated into the work or learning process where this is appropriate and feasible.
> Valid: The assessment focuses on the requirements laid down in the standards; i.e. the assessment is fit for purpose.
> Direct: The activities in the assessment mirror the conditions of actual performance as close as possible.
> Authentic: The assessor is satisfied that the work being assessed is attributable to the learner being assessed.
> Sufficient: The evidence collected establishes that all criteria have been met and that performance to the required Standard can be repeated consistently.
> Systematic: Planning and recording is sufficiently rigorous to ensure that assessment is fair.
> Open: Learners can contribute to the planning and accumulation of evidence. Learners for assessment understand the assessment process and the criteria that apply.
> Consistent: The same assessor would make the same judgement again in similar circumstances. The judgement made is similar than the judgement that would be made by other assessors.

NOTES

N/A

UNIT STANDARDS
(Note: A blank space after this line means that the qualification is not based on Unit Standards.)

	UNIT STANDARD ID AND TITLE	LEVEL	CREDITS	STATUS
core	13793 Assemble pictures and sound to specification	Level5	6	Registered
core	120378 Support the project environment and activities to deliver project objectives	Level 5	14	Registered
core	242541 Render files for 3D animation	Level 5	8	Drafl - Prep for P Comment
core	242545 Shade and map images onto 30 models	Level 5	8	Draft - Prep for P Comment
core	242546 Compile and present portfolios of work	Level 5	10	Draft - Prep for P Comment
core	242547 Create lighting for 3D animation	Level 5	8	Draft - Prep for P Comment
core	242548 Composite layers for 30 animation	Level 5	8	Draft - Prep for P Comment
core	242549 Design backgrounds for 30 animation	Level 5	8	Draft - Prep for P Comment
Core	242550 Model objects and characters for 3D animation and visual effects	Level 5	15	Draft - Prep for P Comment
COR?	242551 Animate 3D characters and objects	Level 5	10	Draft - Prep for P Comment
core	242553 Output finished 3D animation	Level5	4	Draft - Prep for P Comment
Core	12984 Interpret provisions of a contract and assess liability of clients and other parties to an agency agreement	Level 6	10	Reregistered

core	242542 Rig models for 3D animation and visual effects	Level 6	8	Draft - Prep for P Comment
core	242544 Storyboard Scripts for 3D animation and visual effeck	Level 6	10	Draft - Prep for P Comment
Elective				
Elective	10147 Supervise a project team of a technical project to deliver project objectives	Level 5	14	Reregistered
Elective	10148 Supervise a project team of a business project to deliver project objectives	Level 5	14	Reregistered
Elective	13805 Select and assemble sound to support visual images	Level 5	7	Registered
Elective	13808 Edt and prepare audio, video and 3D content for multimedia	Level 5	6	Registered
Elective	115163 Convey a specific design message	Level 5	10	Registered
Elective	115379 Create object scripts for a multimedia/web-based computer application	Level 5	20	Registered
Elective	116778 Develop quality plans and ensure overall quality of products or services in a small business or business unit	Level 5	10	Registered
Elective	116786 Manage the cash flow of a small business or a business unit	Level 5	10	Registered
Elective	242543 Supervise on-set production for visual effects	Level 5	8	Draft - Prep for P Comment
Elective	115381 Apply the principles of creating a computer program using an OOP language in a GUI environment	Level 6	12	Registered
Elective	242552 Animate particles and natural effects for 3D animation and visual effeck	Level 6	10	Draft - Prep for P Comment
Fundamental	114050 Explain the principles of business and the role of information technology	Level 5	4	Registered
Fundamental	115362 Manage software development source files using appropriate tools	Level 5	5	Registered
Fundamental	117548 Design creative elements with digital photographic images	Level 5	6	Registered

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 1

Render files for 3D animation

SAQA US ID	UNIT STANDARD TITLE
242541	Render files for 3D animation

SGB NAME	ORGANISING FIELD ID	PROVIDER NAME
SGB Audio-visual Media Production	4	
UNIT STANDARD TYPE	**ORGANISING FIELD DESCRIPTION**	**SUBFIELD DESCRIPTION**
Regular	Communication Studies and Language	Media Studies

ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 5	Regular

SPECIFIC OUTCOME   1

Analyse storyboard requirements for rendering.

SPECIFIC OUTCOME   2

Render scenes using appropriate software effectively.

SPECIFIC OUTCOME   3

Record rendering information for future access.

SPECIFIC OUTCOME   4

Test rendering and evaluate quality of renders against specifications.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: **2**

SAQA US ID	UNIT STANDARD TITLE		
242542	Rig models for 3D animation and visual effects		
SGB NAME	**ORGANISING FIELD ID**		**PROVIDER NAME**
SGB Audio-visual Media Production	4		
UNIT STANDARD TYPE	**ORGANISING FIELD DESCRIPTION**		**SUBFIELD DESCRIPTION**
Regular	Communication Studies and Language		Media Studies
ABET BAND	**CREDITS**	**NQF LEVEL**	**UNIT STANDARD TYPE**
Undefined	8	Level 6	Regular

SPECIFIC OUTCOME 1

Analyse animation requirements relevant for rigging.

SPECIFIC OUTCOME 2

Design and construct skeleton structures that are fit for purpose.

SPECIFIC OUTCOME 3

Set up controls for animation.

SPECIFIC OUTCOME 4

Implement controls and blend shapes into rigs according to specific requirements.

SPECIFIC OUTCOME 5

Bind models to rigs for specific animation requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 3

SAQA US ID	UNIT STANDARD TITLE		
242543	Supervise on-set production for visual effects		

SGB NAME	ORGANISING FIELD ID	PROVIDER NAME
SGB Audio-visual Media Production	4	
UNIT STANDARD TYPE	**ORGANISING FIELD DESCRIPTION**	**SUBFIELD DESCRIPTION**
Regular	Communication Studies and Language	Media Studies

ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 5	Regular

SPECIFIC OUTCOME 1

Analyse visual effects requirements from given scripts.

SPECIFIC OUTCOME 2

Create shot lists for live action shoots.

SPECIFIC OUTCOME 3

Supervise shooting of visual effects elements on-set.

SPECIFIC OUTCOME 4

Prepare visual effects before cuts are locked.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 4

SAQA US ID	UNIT STANDARD TITLE		
242544	Storyboard scripts for **3D** animation and visual effects		
SGB NAME	**ORGANISING FIELD ID**		**PROVIDER NAME**
SGB Audio-visual Media Production	4		
UNIT STANDARD TYPE	**ORGANISING FIELD DESCRIPTION**	**SUBFIELD DESCRIPTION**	
Regular	Communication Studies and Language	Studies	
ABET BAND	**CREDITS**	**NQF LEVEL**	**UNIT STANDARD TYPE**
Undefined	10	Level **6**	Regular

SPECIFIC OUTCOME   1

Analyse given specifications in terms of technical requirements.

SPECIFIC OUTCOME   2

Convert analysis of given specifications into storyboards.

SPECIFIC OUTCOME   3

Evaluate animatics from storyboards.

SPECIFIC OUTCOME   4

Evaluate storyboards in terms of specified requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 5

SAQA US ID	UNIT STANDARD TITLE		
242545	Shade and map images onto 3D models		
SGB NAME	**ORGANISING FIELD ID**		**PROVIDER NAME**
SGB Audio-visual Media Production	4		
UNIT STANDARD TYPE	**ORGANISING FIELD DESCRIPTION**	**SUBFIELD DESCRIPTION**	
Regular	Communication Studies and Language	Media Studies	
ABET BAND	**CREDITS**	**NQF LEVEL**	**UNIT STANDARD TYPE**
Undefined	*8*	Level 5	Regular

SPECIFIC OUTCOME 2

Create image maps from existing sources.

SPECIFIC OUTCOME 3

Map images and textures onto models to meet specific requirements.

SPECIFIC OUTCOME 4

Evaluate shading and image mapping against production storyboard requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 　　　　　　　　　　　6

Compile and present portfolios of work

SAQA US ID	UNIT STANDARD TITLE		
242546	Compile and present portfolios of work		

SGB NAME	ORGANISING FIELD ID	PROVIDER NAME
SGB Audio-visual Media Production	4	
UNIT STANDARD TYPE	**ORGANISING FIELD DESCRIPTION**	**SUBFIELD DESCRIPTION**
Regular	Communication Studies and Language	Media Studies

ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	10	Level 5	Regular

SPECIFIC OUTCOME　1

Ascertain characteristics and requirements of defined contexts.

SPECIFIC OUTCOME　2

Select relevant work for defined contexts.

SPECIFIC OUTCOME　3

Select appropriate media, format, scale and mode of presentation for portfolios within defined contexts.

SPECIFIC OUTCOME　4

Present final portfolios for specific purposes.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 7

Create lighting for 3D animation

SAQA US ID	UNIT STANDARD TITLE		
242547	Create lighting for 3D animation `		
SGB NAME	ORGANISING FIELD ID		PROVIDER NAME
SGB Audio-visual Media Production	4		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION		SUBFIELD DESCRIPTION
Regular	Communication Studies and Language		Media Studies
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 5	Regular

SPECIFIC OUTCOME 1

Analyse lighting, shot and rendering requirements of production storyboards.

SPECIFIC OUTCOME 2

Select camera shots and lenses using appropriate software effectively.

SPECIFIC OUTCOME 3

Design camera movements using appropriate software effectively.

SPECIFIC OUTCOME 4

Light scenes using appropriate software effectively.

SPECIFIC OUTCOME 5

Evaluate lighting against production storyboard requirements.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 8

SAQA US ID	UNIT STANDARD TITLE		
242548	Composite layers for 3D animation		

SGB NAME	ORGANISING FIELD ID	PROVIDER NAME
SGB Audio-visual Media Production	4	

UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular	Communication Studies and Language	Media Studies

ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	8	Level 5	Regular

SPECIFIC OUTCOME 1

Select masking types appropriate for specific subjects.

SPECIFIC OUTCOME 2

Group layers for specific cornpositing processes.

SPECIFIC OUTCOME 3

Combine rendered objects into final shots.

SPECIFIC OUTCOME 4

Evaluate the quality of final shots against given criteria.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 9

SAQA US ID	UNIT STANDARD TITLE		
242549	Design backgrounds for 3D animation		
SGB NAME	**ORGANISING FIELD ID**		**PROVIDER NAME**
SGB Audio-visual Media Production	4		
UNIT NLV TYPE	**ORGANISING FIELD**		**SC /.**
Regular	Communication Studies and Language		Media Studies
ABET BAND	**CREDITS**	**NQF LEVEL**	**UNIT STANDARD TYPE**
Undefined	8	Level 5	Regular

SPECIFIC OUTCOME   1

Analyse storyboard and rendering requirements in terms of backgrounds.

SPECIFIC OUTCOME   2

Plan scene layouts based on storyboard and rendering requirements.

SPECIFIC OUTCOME   3

Create scene layouts using appropriate software effectively.

SPECIFIC OUTCOME   4

Evaluate quality of backgrounds against given criteria.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 10

SAQA US ID	UNIT STANDARD TITLE		
242550	Model objects and characters for 3D animation and visual effects		
SGB NAME	**ORGANISING FIELD ID**		**PROVIDER NAME**
SGB Audio-visual Media Production	4		
UNIT STANDARD TYPE	**ORGANISING FIELD DESCRIPTION**		**SUBFIELD DESCRIPTION**
Regular	Communication Studies and Language		Media Studies
ABET BAND	**CREDITS**	**NQF LEVEL**	**UNIT STANDARD TYPE**
Undefined	15	Level 5	Regular

SPECIFIC OUTCOME 1

Analyse modelling and rendering requirements of production storyboards.

SPECIFIC OUTCOME 2

Develop mock-up models for ideas.

SPECIFIC OUTCOME 3

Model objects and characters using appropriate modelling techniques.

SPECIFIC OUTCOME 4

Test models using appropriate forms.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD: 11

Animate 3D characters and objects

SAQA US ID	UNIT STANDARD TITLE		
242551	Animate 3D characters and objects		
SGB NAME	**ORGANISING FIELD ID**		**PROVIDER NAME**
SGB Audio-visual Media Production	4		
UNIT STANDARD TYPE	**ORGANISING FIELD DESCRIPTION**		**SUBFIELD DESCRIPTION**
Regular	Communication Studies and Language		Media Studies
ABET BAND	**CREDITS**	**NQF LEVEL**	**UNIT STANDARD TYPE**
Undefined	10	Level 5	Regular

SPECIFIC OUTCOME 2

Assess models for capability of executing plans.

SPECIFIC OUTCOME 3

Test motion against specific requirements.

SPECIFIC OUTCOME 4

Produce animations in digital file formats.

SPECIFIC OUTCOME 5

Obtain feedback regarding quality of animations.

SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:　　　12

SAQA US ID	UNIT STANDARD TITLE		
242552	Animate particles and natural effects for **3D** animation and visual effects		
SGB NAME	ORGANISING FIELD ID		PROVIDER NAME
SGB Audio-visual Media Production	4		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION		SUBFIELD DESCRIPTION
Regular	Communication Studies and Language		Media Studies
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	10	Level 6	Regular

SPECIFIC OUTCOME　1

Analyse animation requirements against specific criteria.

SPECIFIC OUTCOME　2

Create moving particles and natural effects for **3D** animation.

SPECIFIC OUTCOME　3

Create emitters and volume fields for animated particles and natural effects.

SPECIFIC OUTCOME　4

Evaluate quality of moving particles and natural effects.