

STADIO

HIGHER EDUCATION

SCHOOL OF MEDIA & DESIGN

DIPLOMA 3D ANIMATION

NQF 6 | 360 CREDITS | SAQA ID: 117901 | MIN. 3 YEARS

CAMPUSES: BELLVILLE

CAREER OPPORTUNITIES

- | | |
|-------------------------------|--------------------------------------|
| • ANIMATOR | • GAMING ANIMATOR |
| • TECHNICAL ARTIST IN RIGGING | • ILLUSTRATOR AND CARTOONIST |
| • 3D DESIGNER | • 3D MODELLER |
| • LIGHTING DESIGNER | • SPECIAL EFFECTS DESIGNER OF MOVIES |
| • CHARACTER DESIGNER | • TEXTURE ARTIST |

DESCRIPTION

This is an entry-level vocational qualification that provides students with a sound knowledge base together with specific procedures applied to animation to pursue further studies in this field, or enter this particular niche market. Since this a vocational programme, a balance is maintained between theoretical knowledge and practical abilities. Complementary to this, the programme offers opportunities for learning through exposure to the animation industry by way of compulsory work-based learning. Once qualified, the student may pursue a career as 3D modeller, colour key artist, concept artist, 3D designer or 3D texture artist. The Diploma in 3D Animation aims to address specific human resource needs in South Africa. There is a need for graduates with the knowledge and practical abilities in all areas of the 3D Animation field.

MODE OF DELIVERY - CONTACT LEARNING (BLENDED CONTACT)

The programme is offered in STADIO's **Blended Contact** mode of delivery. Contact learning is aimed at students who want to attend venue-based face-to-face classes at one of STADIO's campuses. The Blended Contact mode combines classroom and online learning and teaching in a manner that includes some flexibility, while optimising the time students spend on campus. Based on the nature of the module, each module utilises a unique combination of the following learning settings:

- **Classroom:** Classroom sessions involve learning by doing, debating, arguing, trying, experimenting, practising, analysing, and sharing — all the skills students will need when they enter the world of work. Students will have the opportunity to contribute to the learning process and at the same time they will learn from the contributions of their fellow students. Class attendance of venue-based sessions is compulsory.
- **Synchronous online:** These are live online teaching sessions facilitated by a range of lecturers from different campuses. STADIO believes in encouraging students to think and engage laterally and to consider different perspectives and this is what students will get from having different experts share their knowledge with them. Students will be advised of the date and time of the session at the start of the semester, and they may connect from the comfort of their home, or from any other venue. They may also come to campus to make use of the campus Wi-Fi to join these sessions. Some of the live online sessions may be recorded, while others will not. It depends on the nature of the session and the lecturer will advise students beforehand. The lecturer will also use these sessions for group work and for discussions. These sessions are also compulsory, as they are an integral part of the teaching programme.
- **Asynchronous online:** These are recorded lectures which students will watch in their own time, but within the timelines provided in the course environment. In these short sessions, the lecturers will explain the theoretical concepts and they will work through examples, etc. Students enjoy the benefit of watching these important sessions repeatedly during the semester, as they prepare for their assessments.

Students will find a detailed timetable indicating the combination of sessions on the learning management system (Canvas) at the start of the semester. This will enable them to plan their schedule ahead of time, and to optimise travelling arrangements to and from the campus.

Contact learning is suited to students who are able to attend and are interested in participating in face-to-face classes on a physical campus and who want to become part of a campus community with all the activities that go with being on the campus. It is important to realise that class attendance is compulsory and students must commit to regularly attend classes on campus if they want to be successful and derive the best benefits of contact learning.

OUTCOMES

1. Demonstrate detailed knowledge and an understanding of the key areas and practices of 3D Animation, including an understanding of and the ability to identify and comprehend the key terms, concepts, facts, and principles.
2. Demonstrate the ability to evaluate, select and apply appropriate methods, procedures or techniques in investigation or application of processes within the field of 3D Animation.
3. Demonstrate the ability to evaluate different sources of information, select appropriate information and apply well-developed processes of analysis, synthesis and evaluation of information related to 3D Animation.
4. Demonstrate the ability to present and communicate complex information through appropriate occupational conventions, formats and technologies in 3D Animation practice contexts.
5. Demonstrate the ability to make decisions and act appropriately based on an understanding of the relationships between 3D Animation and of how actions, ideas or developments in one system impact on other systems.
6. Demonstrate the ability to evaluate own performance, address personal learning needs and contribute to the learning of others regarding acquiring 3D Animation knowledge.
7. Demonstrate the ability to identify, evaluate and address problems, applying evidence-based solutions in 3D Animation.
8. Demonstrate an understanding of the ethical implications of decisions and actions based on an awareness of the complexity of ethical dilemmas within the field of 3D Animation.
9. Demonstrate an understanding of different forms of knowledge, schools of thought and forms of explanation within the field of 3D Animation, including operation or practice, and awareness of knowledge production processes.
10. Ability to work effectively in a team or group, take responsibility for own actions and decision-making, and use resources related to 3D Animation practices responsibly.

ADMISSION REQUIREMENTS

- a Senior Certificate (SC);
- a National Senior Certificate (NSC) with a minimum of 40% in four 20-credit subjects and minimum of 30% in English Home Language or First Additional Language; or
- a National Senior Certificate – Vocational Level 4 (NC(V)) with a minimum of 50% in three fundamental subjects including English; and minimum 60% in four vocational subjects; or
- A cognate Higher Certificate (NQF 5) or Advanced Certificate (NQF 6).

ADDITIONAL OR SPECIFIC ADMISSION REQUIREMENTS

- Applicants are required to submit a portfolio of evidence

ARTICULATION POSSIBILITIES

After successful completion of the Diploma in 3D Animation (NQF 6) the student may articulate to the Bachelor of Applied Arts in 3D Animation (NQF 7)

SPECIFIC REQUIREMENTS

MINIMUM SYSTEM REQUIREMENTS:

- **Reliable broadband Internet Access (Wi-Fi available at all our campuses, but you may prefer access from home as well)**
- **Firefox/Internet Explorer/Chrome web browser**
- **Microsoft Word**
- **PDF Viewer**
- **Ability to scan and upload documents**
- **Email/cellphone for notification and communication**
- **Home PC with Windows 10/11 operating system, Core Intel i5 or Ryzen 5 CPU, 16GB RAM, and 3D Accelerated Graphics Card (NVIDIA 1650 or above)**

ACCESS TO TECHNOLOGY:

STADIO provides students with materials, resources, assessments (including online tests and quizzes), as well as discussion opportunities and a number of administrative services via its student administration and learning environments. Having access to the above online facilities is essential for efficient communication, learning and success. You will need continuous access to study, using the resources mentioned above, and to access and submit some assessments.

STUDENT SUPPORT FOR CONTACT LEARNING STUDENTS

C4SS - CENTRE FOR STUDENT SUCCESS

The Centre for Student Success supports students with academic, psychological and financial wellness.

SSS - STUDENT SUPPORT SERVICES

Student Support Services is the first port of call for all student queries and requests, they can channel your requests to the right individuals.

THE BUDDY PROGRAMME

The Buddy programme exists to help first year students to make the transition between secondary and tertiary studies.

CURRICULUM OUTLINE

	1st YEAR	2nd YEAR	3rd YEAR
Compulsory (All)	Foundations of Drawing DFD11 (5)	Drawing for Animation DAD22 (20)	Script Writing for Animation SAD31 (10)
	3D Animation 1 AND13 (30)	3D Computer Graphics 2 CGD23 (35)	3D Computer Graphics 3 CGD33 (25)
	Drawing ADD11 (10)	3D Animation 2 AND23 (35)	3D Animation 3 AND33 (25)
	Design in Context DCD12 (20)	Applied 3D Animation 2 AAD22 (15)	Applied 3D Animation 3 AAD32 (20)
	3D Computer Graphics 1 CGD12 (20)	Entrepreneurship FED22 (15)	Work-based Learning WI34 (40)
	Creative Thinking CID11 (10)		
	Applied 3D Animation 1 AAD13 (25)		
CREDITS P/YEAR	120	120	120

* Some of the modules are semesterised and will be communicated at Registration

MODULE DESCRIPTIONS

FOUNDATIONS OF DRAWING

When this module has been completed, the student should be able to apply the concepts and techniques to draw realistic figures and shapes. Learning about life drawing; observational drawing technique; visual construction; foreshortening and spatial relationships will gain that knowledge. Main topics like the human form, dimensions, and volume; human figure anatomy and the use of geometric forms for figure drawing are addressed.

DRAWING

After this module has been completed, the student can apply the principles and techniques to draw realistic shapes and figures. The student must discuss the methods of conventional drawing and research. There is a strong emphasis on the ability, form, value, composition and perspective of the institution. The emphasis will also be on perceptive skills and self-articulation. The student must make his own artistic skills from nature, and manufactured materials.

3D ANIMATION 1

This module introduces the student to the art of animation. Particular attention is paid to philosophy and concepts underpinning, as well as traditional/conventional animation. Students get a chance to create an animation product with a strong personalised connection. In conjunction with concepts, students must apply this information, concentrating on the complexity of a 3D CG design and the tasks to be performed within a given timeframe.

3D COMPUTER GRAPHICS 1

This two-part module provides a basis for digital animation and 3D design. In the first part, the 3D theory and principles are addressed, as are the creative applications of the 3D CG design like graphic types (raster/vector), vectors, 3D space, Cartesian maths, view port, coordinate system, modelling types, tools available in the 3D CG environment, practical aspects of communication e.g. storyboarding and animatics, etc. The second part covers specific software functions and options, several technical processes e.g. application of materials (surface shader types), rendering, multi / sub-object materials, texture and texture coordinates.

DESIGN IN CONTEXT

This module discusses the basic principles and procedures in architecture. It equips students with knowledge about form and composition theories to establish a basis for advanced visual communication design practice. Particular attention is paid to the essence, elements and principles of design; popular compositional techniques; forms and shapes, and the design process. Using different digital imaging software packages, the students are equipped with knowledge of basic drawing aspects related to character animation.

APPLIED 3D ANIMATION 1

Students have the opportunity to learn information in a realistic hands-on way in this module. The 3D Computer Graphics theory must be extended to tasks that mimic the actual world of work (as if operating in an environment in an animation studio). Over the course of the year, students must create several formative projects, through which they will be introduced to the entire 3D project development process.

CREATIVE THINKING

This module provides students with creativity aspects. This offers fundamental knowledge of creativity that is central to any study of the visual arts, creative arts and performing arts. The basics of creativity, common forms of creativity, the method of producing and designing goods using creativity, the assessment of creativity and a career, as well as a historical context, are given attention in particular.

3D ANIMATION 2

This module provides the student with information and skills about digital animation of characters. In particular, attention is given to relevant theories and principles of basic digital character animation, the fundamental processes in the digital mode applicable to basic character animation, and evaluation of the output.

3D COMPUTER GRAPHICS 2

This module builds on the foundational knowledge learned from 3D Computer Graphics 1. It equips the student with comprehensive modeling processes knowledge and skills. Realistic photorealistic illumination. Managing the colour in video rendering. Particular attention is paid to related theories and concepts of basic digital animation of the character, the fundamental mechanisms specific to basic animation of character in digital form, and product assessment.

MODULE DESCRIPTIONS CONTINUED

DRAWING FOR ANIMATION

This module provides a basis for drawing animated characters. In particular, attention is paid to drawing the human form, simple anatomy, drawing methods for describing body function, using the center of gravity and distribution of weight, as well as spatial relations

APPLIED 3D ANIMATION 2

This module provides the student with information and skills about digital animation of characters. In particular, attention is given to related theories and concepts of basic digital character animation, the fundamental processes in the digital style specific to basic character animation, and product assessment.

ENTREPRENEURSHIP

This module introduces the student to the world of entrepreneurship and provides a forum for further studies in this area. Students will discuss the distinctive characteristics of the 'Entrepreneur' as a person who seizes opportunities to create innovative goods and services that address the various resource-stricken needs of customers. Finally, this module introduces the student to the criteria of a formal 'mini-business plan.' It also emphasises the role of women as aspiring entrepreneurs, supplemented by basic-line awareness of the advantages and drawbacks of current legal market types open to entrepreneurs in South Africa..

3D ANIMATION 3

The module will equip students with advanced post-production work knowledge in the 3D animation world. Relevant topics discussed include post-production principles with a concentration on ingenuity and imagination; interactive visual effects considering animation; editing common to animation video to create a narrative structure unique to short films; appropriate procedures and processes in the post-production animation environment, and quality requirements for feature film production. Students are allowed to integrate and apply knowledge across all relevant programme modules.

3D COMPUTER GRAPHICS 3

The final demonstration of expertise and skills learned by 3D simulations is dealt with in this module. All related programme modules' expertise offer students the opportunity of incorporating and implementing skills. In order to prove the potential to use the information within a particular field of expertise of their own choosing, the students must prepare, create, organise and apply their detailed online portfolio.

APPLIED 3D ANIMATION 3

This module provides students with advanced knowledge of 3D animation after completion. Relevant issues discussed include principles in post-production that rely on ingenuity and imagination; interactive graphic effects in the animation context; processing in animated images to create narrative frameworks for short films. Animation post-production systems and consistency requirements require acceptable strategies and processes.

SCRIPT WRITING FOR ANIMATION

This module offers students the experience of animated script writing. In particular, the emphasis is given to the aims and techniques of TV and video, video storytelling, animation creative development, effective plot scripts, including character creation, background, conflict and suspense, in the correct script style.

WORK-BASED LEARNING

WBL is an educational strategy that enables students to do real-life work and to experience the practicalities thereof. The students can apply academic and vocational skills that develop their employability. At this institution, the diploma and advanced certificate programmes NQF level 6 do work-based learning. It focuses on practical implementation of skills acquired during the learning process. The student will be using the knowledge and skills gained during the learning period at the institution to fulfil these tasks.

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FEES & PAYMENT
OPTIONS



PRESCRIBED
TEXTBOOKS



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