

### SCHOOL OF MEDIA & DESIGN

# 3D ANIMATION

NQF 7 | 375 CREDITS | SAQA ID: 117884 | MIN. 3 YEARS
CAMPUSES: BELLVILLE

CAREER OPPORTUNITIES	
• CARTOONIST	• 3D DESIGNER
• 3D MODELLER	CONCEPT ARTIST
FORENSIC ANIMATOR	ANIMATION FILM DIRECTOR
VISUAL DEVELOPMENT ARTIST	ANIMATED CHARACTER SUPERVISOR
POST PRODUCTION ARTIST & SUPERVISOR	• 3D TEXTURE ARTIST

#### **DESCRIPTION**

This STADIO Bachelor of Applied Arts in 3D Animation provides an appropriate balance of academic rigour and practical skills with a strong focus on technology and creativity, and facilitates creative research and development, and encourages students to define, refine and enhance their creative and technological skills and abilities. The qualification promotes the objectives of the HEQF by producing a well-rounded graduate with a vocational and career-orientated qualification at NQF level 7 at the exit point. This programme is industry focused and covers the entire process of Animation filmmaking, through theoretical and practical components, to ensure graduates are highly competitive in the film and media industry in South Africa.



#### 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 integrated knowledge of the key areas and practices of 3D animation, including an understanding of and Demonstrate the ability to apply and evaluate the key terms, concepts, facts, principles, rules and theories, and how it relates to other disciplines such as business marketing.
- 2. Demonstrate an understanding of knowledge as contested, and the ability to evaluate types of knowledge, principles and concepts common to the study of 3D animation.
- 3. Demonstrate an understanding of a range of methods of enquiry in a field, discipline or practice, and their suitability to specific investigations; and the ability to select and apply a range of methods to resolve problems or introduce change within the field of 3D animation.
- 4. Ability to identify, analyse, evaluate, critically reflect on and address complex problems, applying evidence-based solutions and theory-driven arguments in 3D animation.
- 5. Ability to take decisions and act ethically and professionally, and the ability to justify those decisions and actions drawing on appropriate ethical values and approaches within a 3D animation environment.
- 6. Ability to develop appropriate processes of information gathering for a given context or use; and the ability to independently validate the sources of information and evaluate and manage the information.
- 7. Ability to develop and communicate ideas and opinions in well-formed arguments, using appropriate terminology in 3D animation and related fields.
- 8. Ability to manage processes in unfamiliar and variable contexts, recognising that problem solving is context and system bound, and does not occur in isolation.



#### **ADMISSION REQUIREMENTS**

- a Senior Certificate (SC) with degree endorsement
- a National Senior Certificate (NSC) with a minimum of 50% in four 20-credit subjects and a 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 60% in three fundamental subjects including English; and minimum 70% in four vocational subjects; or
- the STADIO Diploma in 3D Animation (NQF 6)

## ADDITIONAL OR SPECIFIC ADMISSION REQUIREMENTS

Applicants are required to submit a portfolio of evidence

#### 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)	Philosophy and History of Animation	3D Computer Graphics 2	Script Writing for Animation
	PA11 (10)	CG23 (35)	SA31 (10)
	Foundations of Drawing	3D Animation 2	Contextual Info Design 3
	DF11 (5)	AD23 (35)	CD31 (10)
	End User Computing	Drawing for Animation	3D Animation 3
	EUC152 (10)	DA22 (20)	AN33 (25)
	Contextual Info Design 1	Entrepreneurship	3D Computer Graphics 3
	CD12 (10)	FE22 (15)	CG33 (25)
	Drawing and Design in Context	Contextual Info Design 2	Research Methodology
	DA14 (30)	CD21 (10)	RES372 (15)
	3D Computer Graphics 1	Academic Literacy	Work Integrated Learning
	CG12 (20)	AL21 (5)	WIL34 (40)
	3D Animation 1 AN13 (30)		
	Presentation Skills VP11 (5)		
	Creative Thinking CI11 (10)		
CREDITS P/YEAR	130	120	125

<sup>\*</sup> Some of the modules are semesterised and will be communicated at Registration

#### MODULE DESCRIPTIONS

#### PHILOSOPHY AND HISTORY OF ANIMATION

This is an introductory module to the world of animation involving a comparative study of certain visual arts in different time periods and cultures. This includes the chronological progression of animation techniques and the evolving styles of artistic expression in this particular field. The focus is mainly on the history of American film animation from 1900 to the present. Students are introduced to significant artists who have influenced the process and direction of film animation.

#### **FOUNDATIONS OF DRAWING**

After completion of this module, you will be able to apply the principles and techniques to draw realistic figures and shapes. This knowledge will be gained by learning about Life drawing; observational drawing technique; visual construction; foreshortening and spatial relationships. Key concepts such as the human form, proportions and volume; anatomy of the human figure and using geometric shapes for figure drawing is also covered.

#### **END-USER COMPUTING**

Students entering Higher Education come from a variety of backgrounds, and some may have had limited opportunities to develop the computer literacy skills they will need to cope with tertiary studies. End User Computing includes an online training component which allows student to practice simulated MS Office tasks at their own pace, supported by integrated feedback which helps them to identify and remedy their mistakes; and an assessment component which will count towards their overall module result. Students will also complete several assignments in which they will be expected to apply the MS Office tools that they have practiced in the online environment.



#### MODULE DESCRIPTIONS CONTINUED

#### **CONTEXTUAL INFO DESIGN 1**

This module explores the principles and concepts of contextual visual communication design. In particular, it focuses on the key features and elements of communication, models of technical communication, theories of communication signs, and the layers of meaning in mediated messages.

#### **DRAWING AND DESIGN IN CONTEXT**

After completion of this module, the student will be able to apply the principles and techniques to draw realistic figures and shapes. The student will be exploring traditional and trial techniques in drawing. There is solid accentuation on establishment aptitudes, form, value, composition, and perspective. It equips students with knowledge about theories of form and composition. Attention is paid specifically to the principles of design; common compositional techniques; forms and shapes, as well as the design process.

#### **3D COMPUTER GRAPHICS 1**

This module establishes a foundation for 3D design and digital animation. The student will be equipped with relevant knowledge and skills concerning 3D theory and principles, creative applications of 3D CG design such as graphic types (raster/vector), vectors, the notion of representing 3D space, Cartesian mathematics, viewport, co-ordinate systems, modeling types, the common tools available in the 3D CG environment, and common practical communication aspects such as the story idea, scriptwriting, storyboarding, animatics, and character design.

#### **3D ANIMATION 1**

This module equips the student with knowledge and skills on a variety of key 3D CG (computer graphics) and animation aspects organised under four broad themes: rendering and texturing, rigging and enveloping, non-linear animation, as well as applied post-production, which are inter-related and inter-dependent. Attention is paid to other relevant topics such as mixing, layering, editing, blending animation clips, appropriate controllers and required marking sets (non-linear animation), as well as modifying the various animation components.

#### **PRESENTATION SKILLS**

This module explores presentation skills which are vital for any visual communication designer working with clients. The primary focus is on public speaking. More specifically, attention is paid to the purpose of presentations in customer relations, the different modes of communication, and techniques for ensuring a dynamic presentation, proper planning of a presentation, and using suitable presentation media.

#### **CREATIVE THINKING**

This module introduces students to aspects of creativity. It establishes foundational knowledge and understanding of creativity which is central to any studies in the visual arts, applied arts and performing arts. In particular, attention is paid to the fundamentals of creativity, common manifestations of creativity, the process of creating and developing products using creativity, the evaluation of creativity, and a career as well as a historical perspective.

#### **3D COMPUTER GRAPHICS 2**

This module builds on the foundational knowledge gained in 3D Computer Graphics 1. It equips the student with knowledge and skills about detailed modeling processes. Realistic lighting for photorealism. Colour management in rendering for a film. Particular, attention is paid to relevant theories and principles of basic digital character animation, the underlying processes applicable to basic character animation in the digital mode, and evaluation of the product.

#### **3D ANIMATION 2**

This module equips the student with knowledge and skills about digital character animation. In particular, attention is paid to relevant theories and principles of basic digital character animation, the underlying processes applicable to basic character animation in the digital mode, and evaluation of the product.



#### MODULE DESCRIPTIONS CONTINUED

#### DRAWING FOR ANIMATION

This module builds on the modules, Foundations of Drawing (DF11), Drawing and Design in Context (DA14) to establish a basis for character animation drawing. In particular, attention is paid to drawing of the human figure, basic anatomy, drawing techniques to express body movement, utiliSing the center of gravity and weight distribution, as well as spatial relationships. The emphasis is not on studying anatomy as a life sciences module.

#### **ACADEMIC LITERACY**

Academic Literacy is of vital importance for students studying at a tertiary institution. This module will equip students with the necessary basic knowledge, understanding and skills that they should apply across all other modules during the completion and presentation of assignments. The content is structured around the following key themes: analyse an assignment topic, planning the first draft, using the correct vocabulary and tenses, formulating a paragraph, avoiding plagiarism, citing and referencing sources as well as correctly and professionally delivering a presentation.

#### **SCRIPT WRITING FOR ANIMATION**

This module will equip students with knowledge of scriptwriting for animation. In particular, attention is paid to the goals and practice of writing for television and film, storytelling through cinematic techniques, creative writing for animation, effective narrative scripts, including character development, story, tension, and suspense in the proper script format, and the suitability of scripts for animation.

#### **RESEARCH METHODOLOGY**

This module serves as foundation to research activities at postgraduate level, with the emphasis on fundamental knowledge and conceptual understanding. In particular, the student will acquire knowledge of the principles, concepts and processes pertaining to scientific research, types of research, as well as common aspects in the execution of a research assignment. Attention is given to problem identification, motivation of the study, research objectives, selecting suitable methods, planning, and preparing the research action, and interpretation of results leading to a research report.

#### **3D ANIMATION 3**

This module will equip students with a working knowledge of advanced post-production in the 3D animation environment. Specific aspects explored are post-production concepts with an emphasis on creativity and imagination; functional visual images in animation context; editing applicable to animation footage; appropriate techniques and processes in the animation post-production environment, and quality standards.

#### **CONTEXTUAL INFO DESIGN 3**

This module explores strategies and approaches to addressing the unique information needs of special target groups in society, such as those who are illiterate, the semi-literates, disabled persons, learners with different levels of cognitive development, and hard-to-reach audiences, as well as the implications for visual information design.

#### **3D COMPUTER GRAPHICS 3**

This module deals with the final demonstration of knowledge and skills acquired about 3D animation practice. Students are given the opportunity to integrate and apply knowledge across all relevant programme modules. The student must plan, generate, compile and submit a comprehensive portfolio of practical work in electronic mode to demonstrate the ability to apply knowledge within a certain area of specialiSation of own choice, depending on individual skills and interest. Options include character animation short films, computer game cinematic trailers, or interactive multimedia design.

#### **WORK INTEGRATED LEARNING**

WIL offers a student a holistic approach to education by applying all module content by integrating tasks being performed. The student develops the skills required from the industry. WIL is for students studying towards a degree. It will be expected of the student to perform on higher order thinking levels e.g. evaluation, analysis and synthesis in the industry. It is expected of the student to make recommendations on improvements in departments of the host company. WIL is not restricted to practical application of knowledge but could include work-simulated assignments.





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FEES & PAYMENT OPTIONS



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