



# **BACHELOR** **DIGITAL ARTS & ENTERTAINMENT**

**3D ANIMATION | VISUAL EFFECTS | GAME DEVELOPMENT | GAME GRAPHICS  
PRODUCTION | GAME SOUND INTEGRATION | INDEPENDENT GAME PRODUCTION**

Artwork by  
Katharina Alexander

**dnc**  
DIGITAL ARTS & ENTERTAINMENT

**howest**  
university of applied sciences



Bart Van Hoye | Game Asset Pipeline

# UNLEASH THE PIXELS

Ready to bring 2D or 3D worlds to life in games, films, and animations? If you're bursting with creativity and eager to master cutting-edge technology, our Bachelor in Digital Arts and Entertainment (DAE) at Howest University of Applied Sciences in Belgium is your playground!

**3-YEAR BACHELOR'S DEGREE**

**TECHNICAL ARTIST PROFILE**

**ENGLISH-TAUGHT**

**INTERNATIONAL FOCUS**

**AWARD-WINNING**

**INDUSTRY-CONNECTED**

**AFFORDABLE TUITION FEES**

**IN THE CENTRE OF WESTERN EUROPE**

**POSITIVE, INCLUSIVE ATMOSPHERE**

# AWARD-WINNING

DAE enjoys global recognition and shines on the international stage. We are proud of all our students, alumni, and faculty who have received numerous awards and showcased their work on influential websites, conferences and exhibitions.

The Rookies Awards has named DAE the Best Game Design & Development School in the world three times, in 2017, 2018, and 2021. In 2023, Mari Gallet won in the category 'Rookie of the Year - Concept Art'.

This confirms our reputation as a leading school for digital arts and entertainment.



Mari Gallet | Character Design



# INTERNATIONAL FOCUS

Since 2006, DAE has embraced an international focus, welcoming over 500 international students from more than 80 countries into its vibrant community of 1500 students.

DAE offers its students a window to the world thanks to international guest speakers, diverse faculty, study trips, career fairs, portfolio nights, conferences and a worldwide network of industry and academic partners. This equips our students with essential skills and connections for thriving careers worldwide.

Every student has the opportunity for an international experience, whether locally or overseas. For senior students, this includes:

- Study trips to the UK, USA, Japan or Canada**
- Study semester at a partner university abroad**
- End-of-studies internship in Belgium or abroad**

# CHECK THE ARTWORK



#howestDAE #daepportfolio



# OUR COMMUNITY

Studying at DAE is more than coursework - it's immersion within a vibrant international community where students can explore hobbies, sports, and their passions with like-minded individuals.

Upon joining DAE and its Community, students gain access to a dynamic range of activities like study nights, student-led workouts, workshops, cosplay events, and more.

Our community aims to connect students, develop their talents, and nurture creativity, providing a supportive network that boosts potential and offers support during challenging times.

## ETHICS

Our community is created by and for the students. Supported by the Community Team, we're committed to fostering a campus culture of **openness, inclusivity, acceptance, and connection.**

While our curriculum is technical, the importance of ethics is steadily gaining international attention. We choose to emphasize the importance of ethics through our **Mission Statement**, our code of ethics, positive demonstrations of values, and through our '**Game for Thought**' livestream on Twitch and podcast series.

# CHOOSE YOUR MAJOR

Our mission is to develop versatile **technical artists** primed to excel in games, VFX, animation, and beyond. Prior expertise isn't required to join DAE, but having some background in math or graphic software is a significant advantage.

Our three-year curriculum offers 180 ECTS points and includes six majors:

- Visual Effects
- 3D Animation
- Game Graphics Production
- Game Development
- Game Sound Integration
- Independent Game Production

Start your DAE journey by selecting one of six majors. This decision crucially steers your educational focus either towards developing **artistic skills** like 3D modeling, animation, character design, etc. or **technical skills** such as game engine programming, scripting, and tool development.



Course overview on our website!



Vivien Siemers | Character Creation

# CURRICULUM OVERVIEW

1st year

INTRODUCTION & FUNDAMENTALS

EXPANSION OF FUNDAMENTALS

2nd year

DEVELOPMENT OF EXPERTISE

FINALIZING HARD SKILLS & PORTFOLIO DEVELOPMENT

3rd year

GRADUATION WORK & GROUP PROJECTS

(INTER)NATIONAL INTERNSHIP

## TECHNOLOGIES USED

Autodesk Maya, Autodesk 3D studio MAX, Blender, Arnold, Houdini, Unreal Engine 4, Unreal Engine 5, Davinci Resolve, Quixel Megascans, phpMyAdmin, Pixel Farm, Sketchfab, Wacom Intuos Pen Tablet, Optitrack Motion Capture, Geogebra5, C++, GLSL, GIT, Open GL ES, Substance Designer, Ftrack, Photoshop, Premiere, NET, Zbrush, After Effects, Adobe CC, Framework (C#), Python, Blackmagic Fusion, Microsoft Visual Studio, Enterprise, Processing, DirectX SDK, Unity, MySQL, WebGL, HLSL, HacknPlan, Wwise, Nuendo, JUCE, Lua, Cockos Reaper, Substance Painter

# GAME GRAPHICS PRODUCTION

Game Graphics Production students are the epitome of 'technical artists,' specializing in creating **high-quality 3D content for AAA games** using 2D, 3D and tech skills to select the perfect tools for every task.

The first year covers fundamental graphic and technical subjects. In the second year, students advance to optimizing game assets in 3D and integrating them into game engines. Students must decide between two distinct paths:

**'Style'**: emphasizes the 'artist' and focuses on artistic design and creation with courses like character design and stylized creation

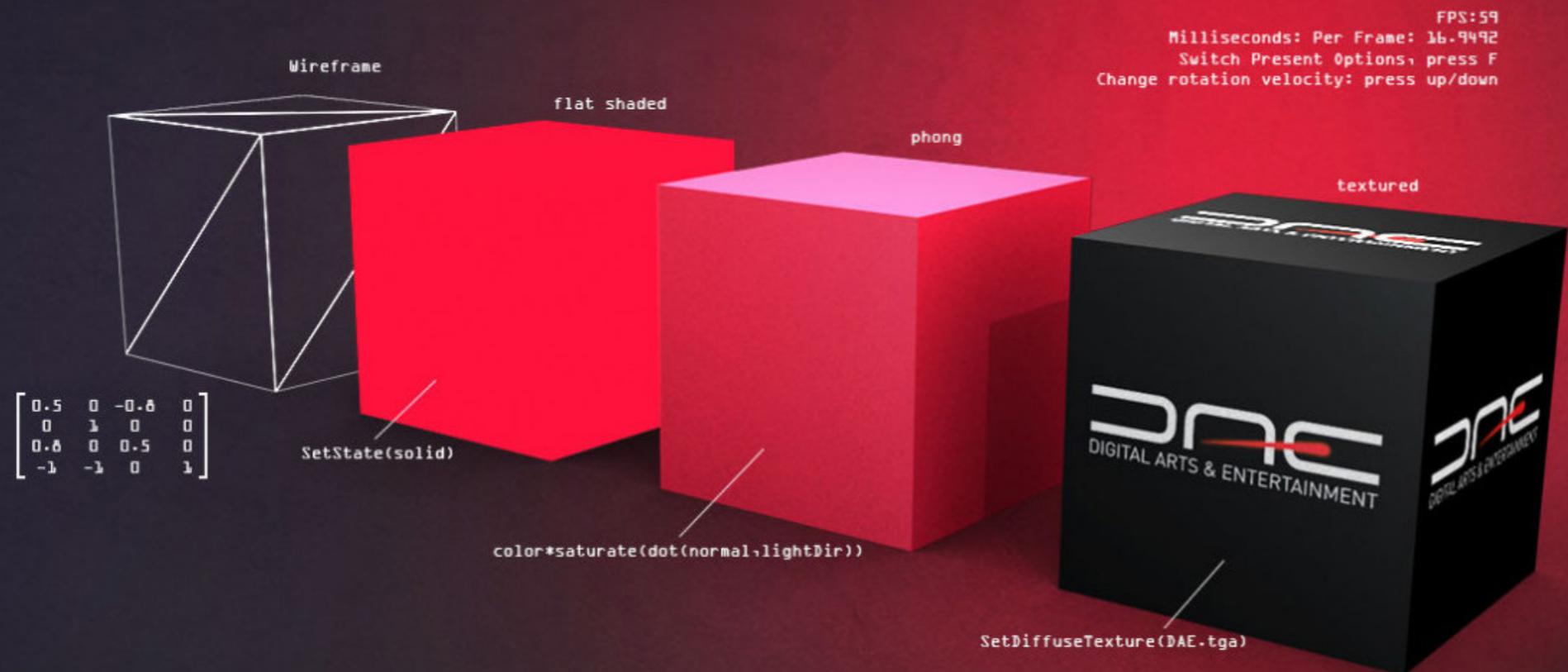
**'Tech'**: emphasizes automating 3D production processes with courses like scripting and proceduralism

## CAREER PATHS

Technical artist, 3D environment artist, prop artist, 3D character artist, 2D/3D artist, 3D sculptor, shader artist, engine tool developer, procedural 3D artist...



# GAME DEVELOPMENT



This major in game development trains you to write **efficient, optimized code** to enhance gaming experiences.

Focusing on AAA game development, you'll dive deep into graphics and gameplay programming using **C++** and a **3D API**. Unlike traditional programming, you'll always create **real-time applications** like games and simulations. As the architect behind the scenes, your job is to integrate separate elements into a seamless, functioning game.

Immersed in **game engines**, your deep understanding of the 3D pipeline empowers you to skillfully assemble various game assets into a polished, coherent application.

The focus is not on designing the content yourself, but on creating it and implementing it on the technical level. Artists may create breathtaking environments, but it's the coders that truly bring the virtual world to life.

## CAREER PATHS

3D programmer, level designer, console programmer, gameplay programmer, tool developer, shader developer...

# GAME

# SOUND INTEGRATION

Sound is an indispensable part of audiovisual media and games. This major not only equips students with technical sound design and audio programming expertise, but also with a broad set of skills. These include programming, 3D modelling, and game design, as well as mathematics, physics, and game engines.

The program sharpens essential skills for mastering, integrating, and articulating sound design requirements in game production.

Our program prioritizes technical skills over aesthetics, focusing on four key areas: **SFX**, **Voice Registration**, **Ambience**, and **Music**. They master practical skills in **recording**, **mixing**, and **mastering**, becoming proficient with their **Digital Audio Workstation**. Additionally, they delve deep into how **middleware** functions and learn to expertly integrate **audio assets** into game engines.

## CAREER PATHS

Technical sound designer, audio programmer, field recordist, Foley artist, sound editor, mixing engineer, voice director...





# INDEPENDENT GAME PRODUCTION

Making games is serious business. In Independent Game Production, students will navigate the **full game production cycle**—from concept, game design and prototype to the finished product.

Throughout the course, you will dive into **C# programming**, learn techniques to quickly create visually striking **2D and 3D assets**, and understand **game engine** mechanics. We give you the tools and the knowledge to lead game projects and **kickstart your own business**.

Our program introduces you to the world of **applied and serious games**, expanding your job prospects beyond just the entertainment games industry. As an IGP graduate, you're valuable to any company focused on **gamification, VR, AR, and innovation**. Motivated and entrepreneurial students can even join our incubator to start building their own studio.

## CAREER PATHS

Game designer, indie game developer, applied game developer, mobile/casual game developer, 2D/3D designer...

# 3D

# ANIMATION

Are you captivated by the magic of animation? We guide you through every step of producing a 3D animation film, from visual storytelling and a 2D animatic to a 3D block-out, leading up to the final scene.

Right from the start, we dive into the basics - teaching you **anatomy** and **perspective drawing**. You'll get a crash course in **programming** and a **solid 3D foundation** (3D modelling, sculpting, texturing, shading...) that sets you up for later success in **rigging** and **animating** your creations efficiently.

You'll learn to **analyze reference material** frame by frame, crafting believable and universal silhouettes and emotions. You will make characters jump, run, fly, or fall in love. Plus, you'll have the chance to play with **motion capture** and **photogrammetry** in our high-tech **greenkey** and **virtual production studio**!

## CAREER PATHS

Character animator, character modeller, rigging artist, technical artist, 3D artist...



# GIANT OF THE STEPPE

Giant of the Steppe | Group Projects

# VISUAL EFFECTS

The Visual Effects (VFX) major spans design basics, color theory, advanced 3D modelling, and simulations, using industry-standard software like Maya, Fusion, and Houdini. It focuses on three essential pillars: compositing, simulations, and 3D.

In **compositing**, students learn to seamlessly integrate multiple images, a skill widely used across film, TV, advertising, and gaming.

**Simulations** involve mastering procedural and simulation techniques in Houdini to create complex and realistic visual effects such as smoke, fire, water, and destruction.

Lastly, **3D** is fundamental to the VFX industry. We explore the creation of complex scenes, environments, vehicles, and props using advanced software like Maya and Zbrush.

## CAREER PATHS

Fx artist, rotoscoper, technical artist, compositor, 3D artist, lighting artist...

# DESTINATION: FUTURE!

Jumpstart your career with DAE! Our **Internship Coordinator** is here to connect you with your internship through some incredible in-house events.

Network with industry experts at a **Portfolio Night**, or land an interview at the **Unwrap Career Fair**, featuring over 80 companies on the lookout for talent like yours. Finish off with your 18-week end-of-year internship and land a job!

With your versatile technical artist profile, you can work in a game, animation, or VFX studio, launch your own company, or apply your innovative skills in other sectors.

## DID YOU KNOW?

### Global Reach

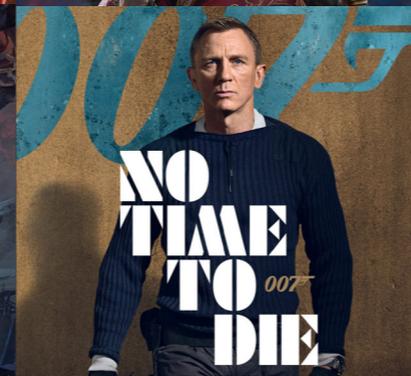
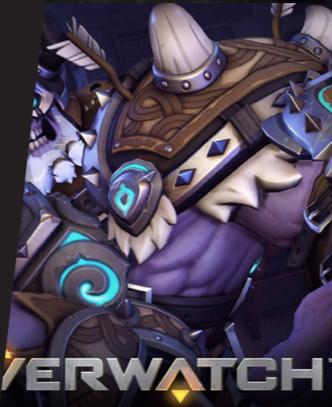
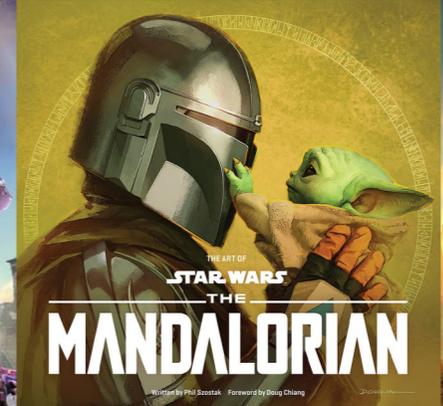
Our graduates work with leading studios worldwide, including 63 alumni who helped develop Baldur's Gate 3!

### Spotlight Success

Works by our students frequently feature in top industry publications like Artstation, The Rookies, Polycout, Zbrush Central, and 80LVL.

### Beyond Entertainment

From architecture to healthcare, diverse industries seek our graduates for their innovative skills.



# IN THEIR OWN WORDS

## COMPANIES

"Howest DAE is a world class university, the students that I've worked alongside have all run with AAA experienced dev crews within their first weeks, concluding their internships with showcase features and in-game artwork in top-quality released games and have gone on to launch themselves as hugely influential and successful talents in the game-dev industry."

**Jason Green, Studio Art Director at Electric Square (UK)**

Year after year DAE succeeds in expanding the pool of exceptional VFX talent. Their high standards produce very versatile artists with a well-rounded technical knowledge & a solution driven team player mentality.

DAE engages in a continuous dialogue with leading studios, in order to keep developing the scope of their training – aligning it with the ever-changing needs of the industry.

One thing is certain: DAE leaves a distinct mark on the VFX landscape in Belgium and far beyond."

**Kris Janssens, Head of VFX at LOOM & CAVIAR (BE)**

## ALUMNI

"DAE helped to kickstart my career and was the beginning of an amazing adventure."

**Jeroen Maton, Palette Art Lead at Bungie (USA)**

"It was my childhood dream to become a game developer, DAE turned this dream into reality. From Belgium to the Netherlands, to the United Kingdom, to China and Singapore. Now I am a world traveler and a global citizen."

**Brian Cox, Director of Partner Engineering at Inworld AI (SG)**



## STUDENTS

"I am incredibly happy to be one of the winners of the Grads in Games 2023 competition for emerging talent in Environment Art! This recognition means a lot to me, especially given the high quality of submissions from so many talented students. Thanks to DAE and Grads in Games for this great opportunity and to all the participants who showcased their excellent work!"

**Tom Verbeek, Internship at IO Interactive (SE)**

"My artistic journey began when I was young because I always knew I was going to do something creative, but it took me a while to figure out exactly what that was. In DAE, I found my passion for creating environments from scratch and plan to focus on Environment Art in the future. At the moment, I'm building my portfolio and showcase my passion and love for environments."

**Lara D'Adda, Internship at Triumph Studios (NL)**

I grew up in a very creative family that encouraged my love for drawing from a young age. I always knew I wanted to be an artist, but my specific desire to work in digital art developed in my early teens. My parents always took me to see every new animated film in the cinema. One day, coming out of one of those cinemas, I decided that I wanted to create such things. And now I do!

**Mari Gallet, Internship at Larian Studios (BE)**

# DAE CAMPUSES

DAE students explore **three vibrant campuses**: The Level, The Square, and The Penta. Each campus allows for peak learning and networking, making sure students thrive academically, feel at home, and forge lifelong friendships.

## The Level

Home and heart of DAE! Dive into learning with small and big classrooms, art labs, a conference room, the Hive project room... Bring your ideas to life with our state-of-the-art equipment like our mocap, greenkey studio and virtual production studio.

## The Square

More than just classrooms and an audio studio, this vibrant campus hosts DAE Research, packed with the latest hardware and software. It's the hotspot for DAE film and game jams!

## The Penta

Classes surrounded by nature! The main campus of Howest in Kortrijk houses the student restaurant, library, cinema area, helpdesk, largest auditoriums, and more.

## Visit us!

Experience first-hand the lively atmosphere during the **Howest Info Days**. We are excited to welcome you and your family to visit our campus The Level.

Howest 'The Level'  
Botenkopersstraat 2 8500 Kortrijk  
+32 56 23 43 60  
info@digitalartsandentertainment.be



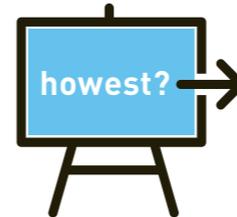
All info days!



# GET TO KNOW HOWEST

Howest University of Applied Sciences is known for its innovative and interdisciplinary approach to education and research. Working closely with industry partners, Howest ensures its programmes provide students with the real-world skills they'll need to succeed. With campuses located in the historical cities of Bruges and Kortrijk, Howest offers affordable education in the heart of Europe.

HOWEST.BE

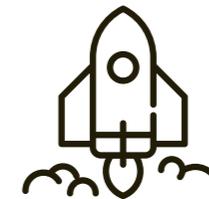


- 38 postgraduate certificates
- 30 bachelor's programmes
- 22 English-taught semesters
- 13 associate degrees
- 1 European master's

773 employees

member of  
Ghent University  
Association

member of  
R<sup>7</sup> UN  
REGIONAL  
UNIVERSITY  
NETWORK  
EUROPEAN UNIVERSITY



200 (registered)  
student-entrepreneurs  
(AJ 22-23)



member of  
Ghent University  
Association

member of  
R<sup>7</sup> UN  
REGIONAL  
UNIVERSITY  
NETWORK  
EUROPEAN UNIVERSITY

1.054 international  
students  
coming from  
100 countries

±10.000 students

2.056 degrees a year

201 international academic  
partnerships

+ €8 million  
a year on research  
and innovation

# STUDENT SUPPORT (STUVO)

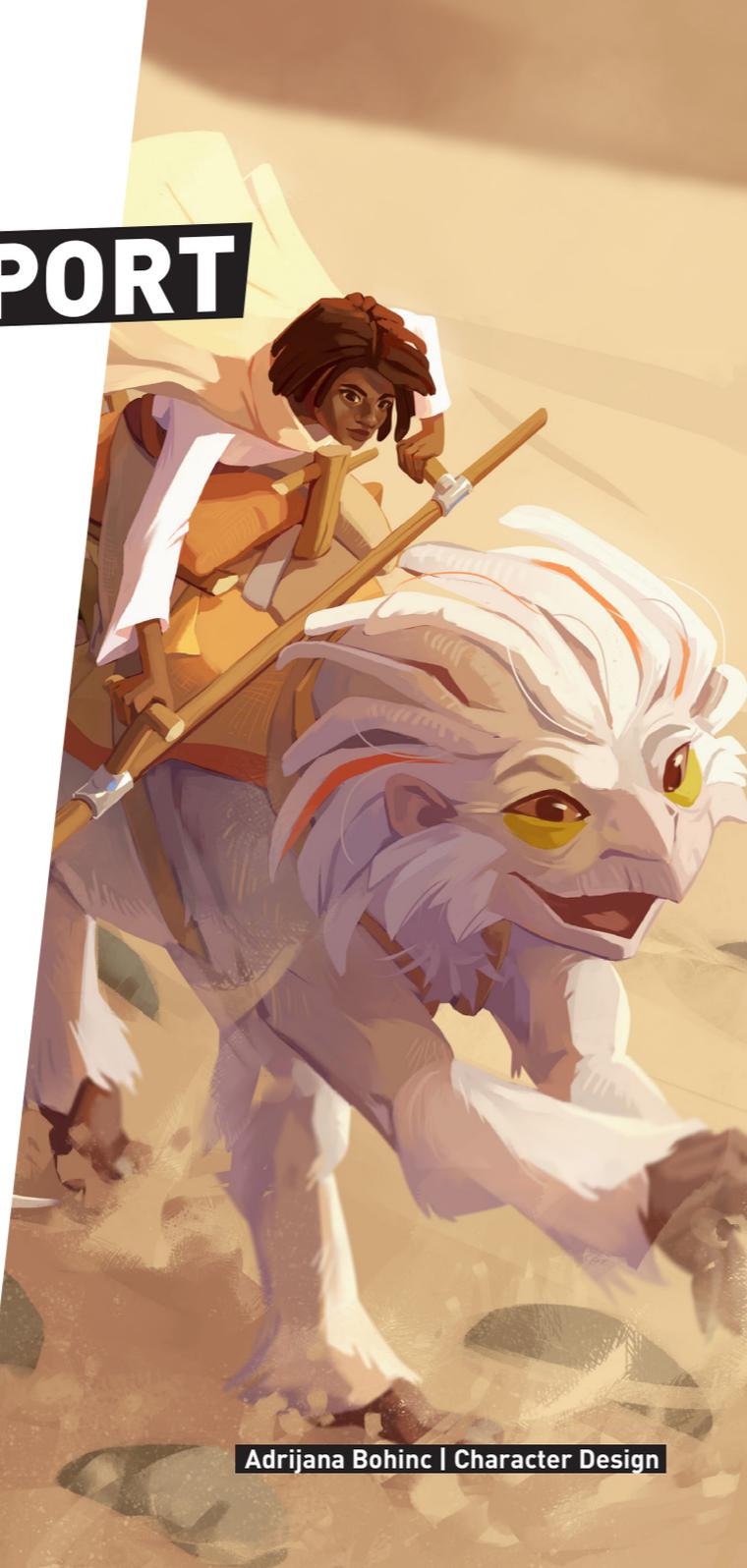
The Student Services Services (STUVO) is a professional and free service that provides all students of Howest and UGENT (campus Kortrijk) with the opportunity to study in optimal conditions and aims to make life at the college or university exciting, pleasant, and carefree.

#### Students can turn to STUVO for:

Study grants | Student financing | Social-legal advice | Psychosocial support | Individual support | Social services Group training sessions by 'Psywest' | Special status & facilities | Housing | Mobility | Study coaching | Assistance with study choices | Cultural or sports events & activities | ...



STUVO website!



Adrijana Bohinc | Character Design



Tuomas Paul | Character Design

# INTERNATIONAL APPLICATIONS

Ready to take the step?

For detailed information about the step-by-step application process, requirements, legislation, and document submission, please visit the Howest website:

[www.howest.be/en/apply-now](http://www.howest.be/en/apply-now)

Or contact [admissions@howest.be](mailto:admissions@howest.be).



[www.digitalartsandentertainment.com](http://www.digitalartsandentertainment.com)

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