ENTi
Escola de Noves Tecnologies Interactives

centro adscrito a:
UNIVERSITAT DE BARCELONA







ENTI-UB
The video game University

Discover what we have to offer in education







ENTI-UB
THE VIDEO GAME UNIVERSITY

Creating video games? Developing them? Designing them graphically? Conceiving them? Adding music? Are you a developer? A digital Artist? Are you an entrepreneur? Working in a large company in the field? Making progress with an indie project?

Specialising in applied gamification in fields such as fitness, health, architecture, communication, tourism or any other service? These are just some of the questions that can be answered in ENTI-UB The Video Game University.

STUDY VIDEO GAMES IN BARCELONA: NEW ENTI CAMPUS!

For the 2020–2021 season, all study areas from the school of interactive new technologies are relocating to the heart of the Barcelona University Campus. It will be a chance to try the new facilities of The Video Game University!

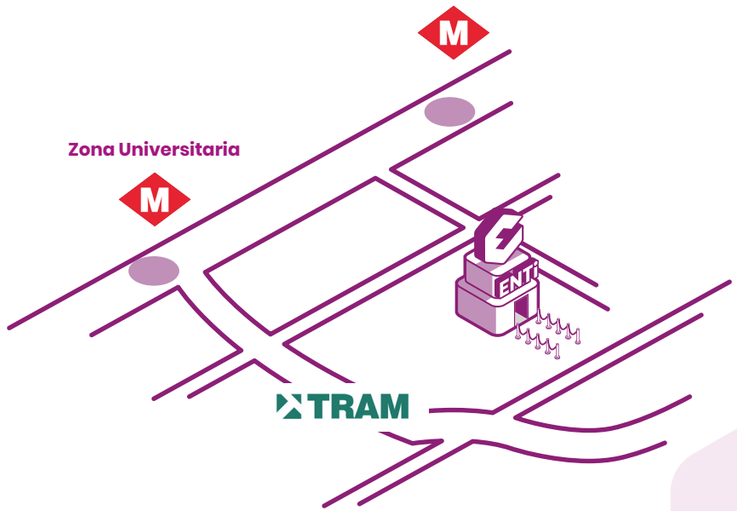


WHERE ARE WE?

c/Baldiri Reixac, 7
08028, Barcelona
T. 93 323 36 64

HOW TO GET THERE?

Public Transport:
•Metro –L3
•Bus
•Tram – T1, T2, T3



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ENTI-UB'S ACADEMIC MODEL

With the Video Game University's teaching methodology, students work on both *hard skills* and *soft skills*:

- High and low-level programming languages.
- Art for creating characters and environments.
- 3D animation.
- Writing. Communication. Integrity. Values. Constant learning.
- Initiative. Autonomy. Decision-making. Global vision.
- Leadership. Team management. Teamwork.
- Creativity.
- Characters' psychology and emotions and the gamer: user experience.
- Marketing and economics. Business model and real projects.
- Volumes, spaces and anatomy.
- Game mechanics. Character interaction.
- Sound design and music.
- Adapting to changes. Problem-solving.

UNIVERSITY OF BARCELONA, THE BEST

UNIVERSITAT DE BARCELONA

ENTI-UB is a centre affiliated with the University of Barcelona, the number one University in the country according to international rankings. The ENTI-UB model, incorporates the DNA of video game lovers and the rigour, quality and standards of the UB, an institution with more than 560 years of history. Thank to this relationship:

ENTI-UB students have at their disposal StartUB!: the project incubation centre of the University of Barcelona (UB).

The ENTI-UB students have access to the same benefits as a UB student:

- **Libraries**
- **UB Sport services. Catering services**
- **Access to free software and virtual classrooms**
- **Discounts: School of Modern Languages, UB publications, shops...**







REASONS FOR CHOOSING ENTI



1. Unique training in video games

The School of New Interactive Technologies specialises in video games. Pioneering centre founded in 2013, the most experienced school in video game training.



2. Very well-defined career profiles

The Video Game University training is based on the **professional profiles demanded by the industry.** Especially, Developers and Artists. Also: *Game Designer, Producer, Music...*



3. Diversity of training levels

The ENTI academic approach prepares students to start working in any company in the industry and **in other fields also**.



4. Unique Projects

ENTI-UB presents programmes that give considerable importance to student projects. Thus, students can also decide to **start** their own business. This can be achieved in **ENTI-Pro and StartUB!**: the places where students can work on the prototype of their games and develop them, with speciality knowledge but also with training related to the project's viability.



5. Total commitment to the student

It is a private management centre invested in **personalised** attention.



6. Experience the video game industry hands-on through programmes and internships

From the outset, ENTI-UB students join the video games industry. They work with the best professionals, they get in contact with companies... **All students** at the ENTI-UB have access to internships. Every year, ENTI-UB students attend all the **major events**, fairs and conventions of the industry: Gamelab, Nice One...



7. Innovation

Virtual reality headsets, motion capture suits, consoles, tablets, computers, peripherals, specific software... The ENTI-UB student has all the necessary **technology** at their disposal in order to learn how the industry works.



8. Alumni

ENTI-UB works on the relationship between students and companies, to give students access to more enriching **job offers** that fit their professional profiles better.



9. International dimension and gamification

The Video Game University has a network of **international relations** with educational institutions in: Mexico, Denmark, The Netherlands... And it has a firm commitment to gamification, to applied games and Serious Games. In addition, English is included in the syllabus in order to enhance employment prospects.



10. Teaching Staff

The teaching staff, chosen for this goal, guarantees the combination of theory and practice needed to work in the video game industry. Students have the best **professionals in the field** as their teachers. Their professors work in the most important companies in the industry (King, Digital Legends, The Breach Studio, Undercoders, Beautiful Glitch...).

ENTI-PRO and StartUB! A space for creation, projects and companies

In each course, students work on their video games. Together, they can create and test their entrepreneurship skills in places like ENTI-Pro o StartUB! Each year, students show their best creations at the end-of-season celebration, The Demoday. These are just some of the latest titles that have come from classrooms at The Video Game University.



Mail Mole (Talpa Games)

A friendly mole needs our help to deliver mail! This is the presentation of a game with levels, secrets and dangers that will soon come out on PC and consoles.



A Tale of Paper (Open House Games)

Best video game in the 2018 PlayStation Talent awards which will be released on PS4. Project developed by ENTI students with the support of The Video Game University.



Demon Blade (Garage 51)

Garage 51 is a start-up born from the effort of a group of ENTI students, and Demon Blade is theirheadliner creation. This mobile game has already passed the 250,000 downloads mark! Congratulations!

GARAGE 51



Dreamball (Rampage Game Studios)

This ball game can be a dream or a nightmare, but it surely is an excellent multiplayer game that has gone straight from the ENTI classrooms to the Nintendo Switch screens.

NINTENDO SWITCH

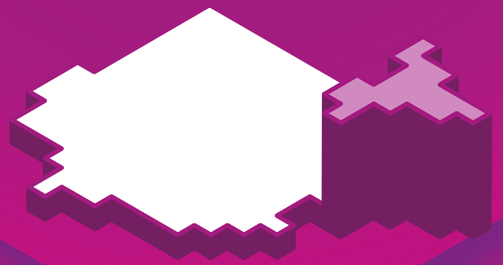
THE VIDEO GAME INDUSTRY

A consolidated industry, in expansion and with great employment opportunities.

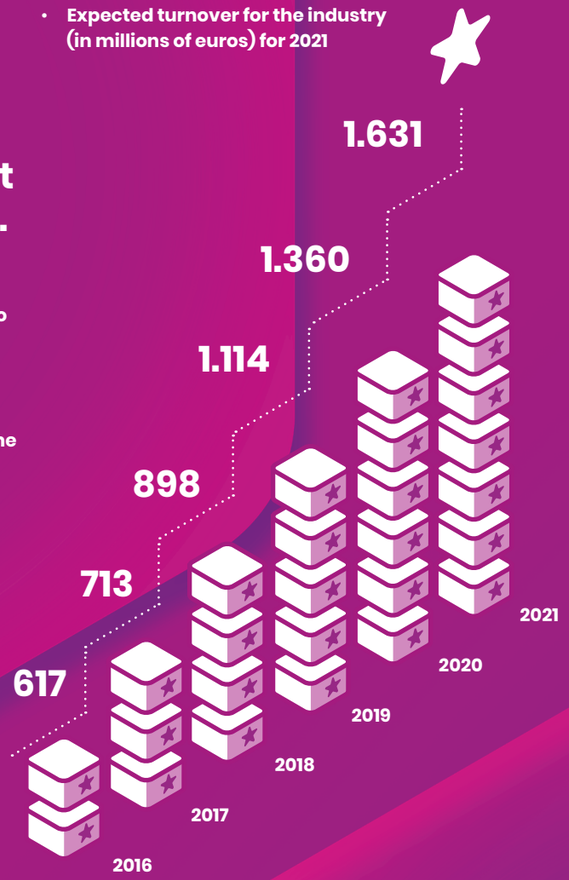
- Catalonia is home to

31 %

of Spain's video game companies*



- Expected turnover for the industry (in millions of euros) for 2021



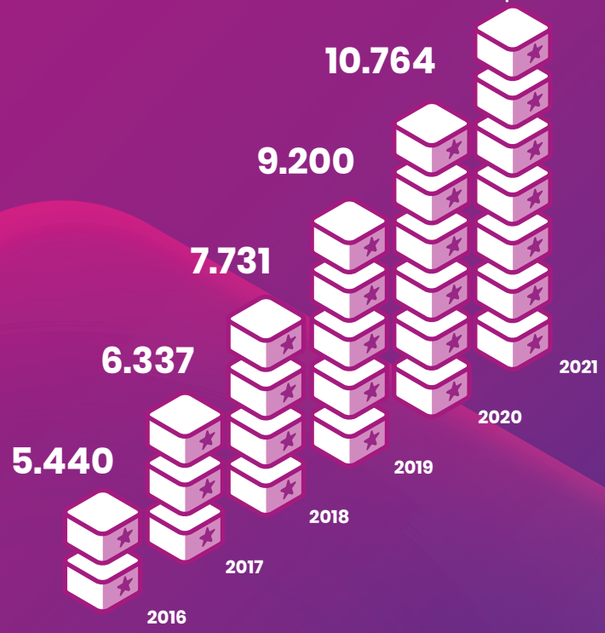
- Annual growth estimated for industry turnover: **23 %**

- Annual estimated growth of the number of workers in the industry: **18,2 %**

- Jobs forecast in the industry for 2021:

12.379

direct jobs.





- Over half of the workers in the industry

55%

are professionals under the age of 30.

- Two out of three video game professionals

68%

have studied undergraduate and/or postgraduate programmes.

- The video game industry will have a total value of over 175 billion euros per year in 2021.**

**Data from the of the Spanish Video Game Development White Paper (DEV)*

***Data from Digi-capital, a company that specialises in statistics analysis of the digital sector.*



DEGREE **IN INTERACTIVE DIGITAL CONTENT (DEVELOPER)**

VIDEO GAME TECH DEVELOPMENT, PRODUCTION & GAME DESIGN.

PROGRAMME STRENGTHS

- Specialisation in the **game develope and designer role, multi-device programmer.**
- Full training: Reasoning + Creativity.
- Multidisciplinary Projects.
- **Professional** orientation of the training.
- The first and the only video game course that has been awarded the seal of approval of the **Quality Agency of the University System of Catalonia.**

SYLLABUS

- Total number of ECTS credits: **240. 4 years.**
- Languages used: **Catalan, Spanish and English**

CAREER OPPORTUNITIES

- Video Game Developer
- App developer for Web, Mobile Devices, consoles and PC
- Applied Game Developer
- Cross-media Developer (Interactive installation)
- Game Designer
- Game producer
- Project Leader in Interactive Digital Content
- Specialist in simulation and VR
- Digital industry entrepreneur
- Playtester
- *Programmer in any industry*

REGISTRATION INFORMATION

If you are interested in studying with us, contact **info@enti.cat | T. 93 323 36 64** Enrolment PIN Code: **11071**

SUBJECTS

First year

- History of games
- Discrete mathematics and statistics
- Programming basics
- Introduction to Psychology
- Game design workshop
- Linear algebra and geometry
- Programming Technology
- Computer basics
- Usability and analysis of games
- Project I

Second year

- Video game design
- Programming in interpreted language
- Operating systems and networks
- Principles of composition and design
- Project II
- Audio-visual narrative
- Mechanics
- Environment Modelling
- Graphic computing
- Project II

Third year

- Interface design
- Basics of modelling and character animation
- Artificial intelligence techniques for video games
- Agile manufacturing methodologies
- Project III
- Network game programming
- Advanced game mechanics
- Digital music and audio production
- Level design
- Project III

Fourth year

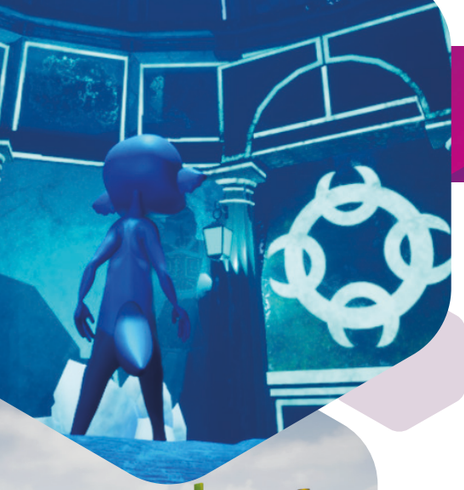
- Digital distribution and marketing of digital products
- Business model and monetisation scenarios in interactive products
- Extension of game design
- Design and production tools
- Final project (12 annual ECTS)
- Elective course* (24 ECTS)

*Elective Modules

- Console game programming
- Mobile game programming
- Input/output devices: the case of virtual reality
- Video games applied project
- Video games investigation
- Advanced animation techniques
- Digital illustration
- External internships I
- External internships II

All subjects are six-month courses (6 ECTS) except when indicated otherwise.

AQU POSITIVE Accreditation 2502925-72255-19
AQU Catalunya registered on EQAR







DEGREE IN **ARTISTIC CREATION FOR VIDEO GAMES AND APPLIED GAMES (ARTIST)**

VIDEO GAME ART, CONCEPT & GAME DESIGN.

PROGRAMME STRENGTHS

- Full training of video game **specialised artists and designers**.
- Teaching in Art + Creativity.
- Multidisciplinary Projects.
- Training focused on **professionalism**.

SYLLABUS

- Total number of ECTS credits: **180. 3 years.**
- Languages used: **Catalan, Spanish and English**.

CAREER OPPORTUNITIES

- Video Games and Applied Games Designer
- Concept Artist
- Modeller, Animator, 2D and 3D *Rigger*
- 3D Animation for Cinema, TV and Advertising
- Art Director
- VR and augmented reality
- VFX-Composition for visual effects
- Level Designer
- Playtesting Technician (QA)
- Video Game Sound Designer
- Entrepreneur in the Digital Art field
- Creator for any industry
- Designer for any industry

REGISTRATION INFORMATION

If you are interested in studying with us, contact **info@enti.cat | T. 93 323 36 64** Enrolment PIN Code: **11085**

SUBJECTS

First year

- Graphic Representation
- Theory of the Image
- Dynamics and motivators for the digital product
- History of games
- Game design workshop
- Modern Art
- Cinema Aesthetics
- 3D Modelling
- User-focused Design
- Project I

Second year

- Contemporary Art
- Basic 3D animation for virtual actors
- High-level languages for interactive development
- Interactive Scripts in transmedia environments
- Grid and graphic hierarchy
- Sound effects in video games and digital productions
- Basic mechanics for entertainment experiences
- Drawing for digital productions
- History of Art
- Project II

Third year

- Advanced mechanics for entertainment experiences
- Optimisation and Efficiency in 3D Animation
- Advanced 3D animation for virtual actors
- Elective* (12 ECTS)
- Heuristics and experience of digital use
- Lighting Techniques in Virtual Environments
- Art and architecture for map design
- Final project (6 annual ECTS)
- External Internships

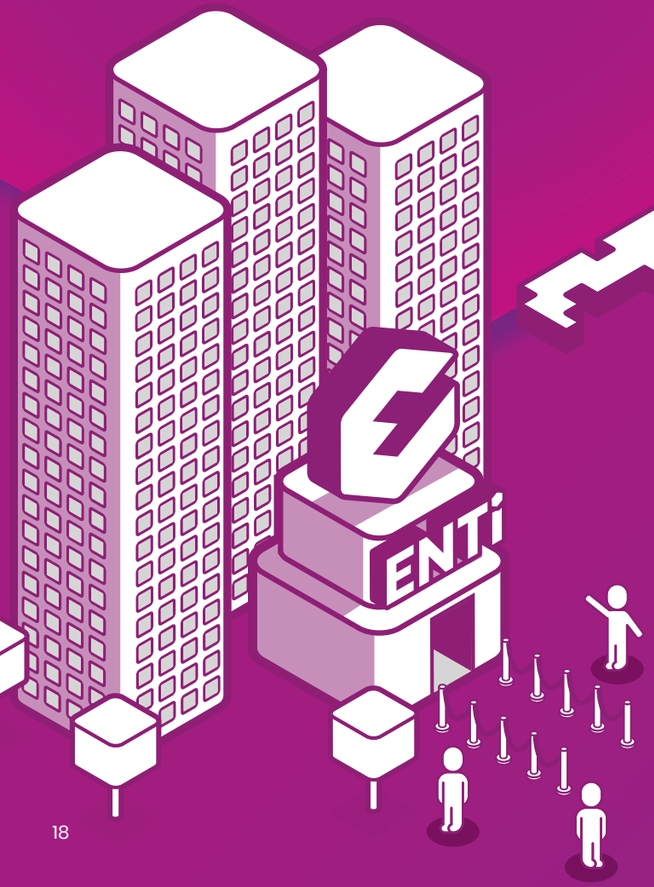
*Elective Modules

- Mapping and interactive installation
- Advanced musical editing on video games
- Advanced Scripts for video games
- Art Direction
- New media

All subjects are six-month courses (6 ECTS) except when indicated otherwise.

INTERNATIONAL RELATIONS

ENTI-UB is a centre affiliated with the University of Barcelona, the number one university in Spain according to international rankings. Furthermore, The Video Game University has strong international relations.



MEXICO
Institute of University Studies AMERIKE

DINAMARCA
Dania Academy

NETHERLANDS
HKU

FINLAND
KAMK-University of Applied Sciences

USA
Harvard Medical Faculty Physicians

Berlin School of Popular Arts (HDPK)

AUSTRIA
FH Joanneum

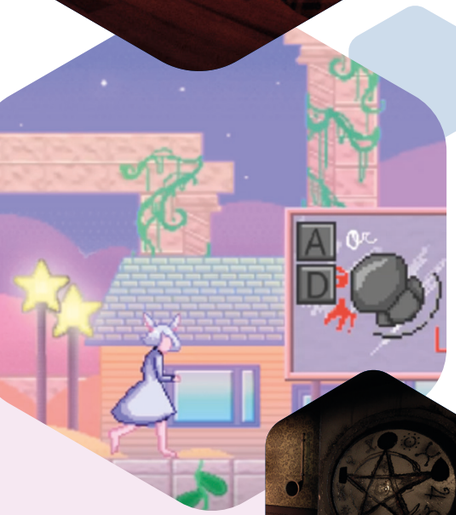
SOUTH KOREA
Dongseo University

Programmes with:

- Mexico: Institute of University Studies Amerike
- Denmark: Dania Academy
- Austria: FH Joanneum
- South Korea: Dongseo University
- The Netherlands: HKU
- Finland: KAMK-University of Applied Sciences
- Germany: Berlin School of Popular Arts (HDPK)

...And it continues to grow to broaden the network of associated educational institutions.







GRADUATE TRAINING PROGRAM
3D ANIMATION, GAMES AND INTERACTIVE ENVIRONMENTS

THEMED ENTERTAINMENT AND APPLIED GAMES

PROGRAMME STRENGTHS

- Conceptualising, planning and developing real video game, applied game and animation projects.
- Learning how to make 2D and 3D animations.
- Master the different artistic techniques to design any kind of multimedia products.
- Programming in game engines.
- **Exclusive ENTI module** related to thematic entertainment and training in applied games: learning to apply in any sector (medical, physiotherapy, education, simulator development...).

ACCREDITATIONS

The ENTI Advanced Training Programme in 3D Animation, Games and Interactive Environments allows you to **validate** credits of the ENTI-UB Degree in Artistic Creation for Video Games and Applied Games. There are also validations for the students of other Advanced Training Programmes or to access the Degree in Interactive Digital Content. The gateways can be checked in ENTI-UB, ask for a no-obligation consultation.

REGISTRATION INFORMATION

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CAREER OPPORTUNITIES

- Technical artist
- 2D/3D animation expert
- Digital industry entrepreneur
- Modeller
- Illustrator

SUBJECTS

First year

2D and 3D audio-visual animation projects	**66h**
Design, drawing and modelling for animation	**165h**
Animation of 2D and 3D elements	**231h**
Colour, lighting and 2D and 3D finishes	**165h**
Carrying out interactive multimedia projects	**132h**
Thematic entertainment and applied games. (ENTI exclusive)	**165h**

Second year

Projects for interactive games and environments	**66h**
Development of multi-device interactive environments and video games	**231h**
Carrying out the editing and post-production of audio-visual media	**132h**
Career Training and Guidance	**99h**
Enterprise and Entrepreneurial Initiative	**66h**
3D animation, games and interactive environment projects	**99h**
On-the-job training	**383h**







GRADUATE TRAINING PROGRAM
DEVELOPMENT OF MULTIPLATFORM APPLICATIONS FOR VIDEO GAMES

VIDEO GAME PROGRAMMING AND DIGITAL LEISURE

PROGRAMME STRENGTHS

- Programming in low-level languages: C++, *Java*, *c#*, Javascript, Python.
- Programming with engines: Unity and Unreal.
- Developing in 2D and 3D.
- Analysis and software optimisation.
- Entrepreneurship via projects to enrich the *portfolio*.
- Educational method focused on market priorities.

ACCREDITATIONS

The Advanced Training Programme of Multi-platform Application Development for video games and applied games allows to **validate** credits of the Interactive Digital Contents Degree, the first of its kind in Catalonia. It is a degree designed for programmers and game designers that also includes creative and artistic aspects. There are also validations for students from other Advanced Training Programmes or to have access to the degree in Art Creation for Video Games and Applied Games. The gateways can be checked in ENTI-UB, no-obligation consultation.

REGISTRATION INFORMATION

If you are interested in studying with us, contact **info@enti.cat | T. 93 323 36 64**

CAREER OPPORTUNITIES

- Developer for Mobile Devices
- Video Game Developer
- Digital industry entrepreneur
- *Playtester*
- Programmer in any industry

SUBJECTS

First year

Computer systems	**167h**
Databases	**138h**
Programming	**230h**
Brand Language and Information Management Systems	**91h**
Development Environments	**60h**
Game Design	**31h**
2D Design	**32h**
2D Video Game Programming	**80h**
Career Training and Guidance	**99h**

Second year

Interface Development	**94h**
Programming of Multimedia and Mobile Devices	**99h**
Programming of Services and Processes	**87h**
Business Management Systems	**55h**
Data Access	**80h**
3D Design	**66h**
3D Video Game Programming	**108h**
Enterprise and Entrepreneurial Initiative	**66h**
Cross-Platform Application Development Project	**99h**
On-the-Job Training	**317h**

ENTi Alumni

ENTI ex-students are the proof of the standards for new professionals in the video games industry. Their passion is now their profession.

Here are some examples:

BERNAT VALBUENA

Development Tester at Ubisoft.

"Regarding my years in ENTI-UB, I would highlight the project assignments that helped me get involved in a great company such as Ubisoft, since the methods at ENTI-UB are very similar to those of the leading companies."





JOAN MAESO

Golang Backend Developer at Paack Holdings Ltd.

"At my company, I program web services in Golang. It's an environment that is far removed from video games, but where the rigorous training I received at ENTI-UB was a great help."

INTERNSHIPS AND PROGRAMMES

ENTI-UB has an extensive network of programmes with the leading companies in the video game industry. The student will be able to do internships in a professional environment, in companies such as:

ENTI-UB is a partner of:

ENTi Sound

The Degree in Music and Sound Production for the Entertainment Industry offers a unique university education, a pioneer within the musical production, new technologies and sound design fields, as well as in the application of digital content in the entertainment industry specialising in music for advertisement, cinema and video games, among others.

The Master's Degree in Music for Entertainment Experiences is a unique Master's course in Europe, with a certificate issued by the University of Barcelona. Innovative Master's course and of added value within the musical production field (motion pictures, gamification, apps, simulators, live concerts, virtual reality...).

Discover the Undergraduate and Master's level courses in music at:

www.entisound.com



MASTER'S DEGREE
IN GAME, GAMIFICATION AND TECHNOLOGY APPLIED TO EDUCATION

In order to renew education, we need to include game and **gamification as a tool** for transforming classroom motivations, the way they present and discover knowledge and how they are applied to real learning contexts.

This Master's course offers the tools needed to reach an experience of **educational transformation through games**. It offers the theoretical knowledge needed, but directed at teaching practice. In addition, it shows the best educational experiences, puts their creators within reach, and offers face-to-face sessions for students, monthly challenges and close tutoring that guarantee an experience of constant creation.

The goal: the application of games and video game dynamics to teaching.



GAMIFICATION: SERIOUS GAMES

Representatives of the Video Game University (ENTI-UB), the University of Health and Sport (EUSES-UdG and EUSES-URV) and the IT division of Harvard Medical School Teaching Hospital have organised 4 editions of the Serious Games for Health and Sport.

ENTi Escola de Noves Tecnologies Interactives · Universitat de Barcelona

DCI Division of Clinical Informatics™ — An Academic Division of the Dept of Medicine at Harvard Medical Faculty Physicians at BIDMC, Inc.

EUSES Campus de Salt — Escola Universitària de la Salut i l'Esport · Centro adscrito a: Universitat de Girona

Beth Israel Deaconess Medical Center · Harvard Medical School Teaching Hospital

OTHER ACADEMIC OPPORTUNITIES

COURSES

ENTI works on specialised training through specific courses in areas such as: *game & level design*, art, animation and programming.

PHYSIOTHERAPY

The Degree in international physiotherapy includes the acquiring of scientific skills in the physiotherapy field through two differential cross-disciplinary elements: Advanced linguistic skills in English and the integration of new technologies applied to clinical and health fields. Solid academic education based on scientific evidence and a teaching method of *learning by doing* is strengthened by many qualified clinical internships. Discover the International Physiotherapy courses at:

www.physiotherapybarcelona.net



MASTER'S DEGREE IN **SCIENCE AND FOOTBALL TECHNOLOGY IN SCIENCE AND FOOTBALL TECHNOLOGY***

It's a **unique qualification that is the only one of its kind in the world** and that offers an innovative vision for the understanding and study of football, and is also relevant to other team sports. This Master's course **combines the basis of theory and science with the game methods of F.C. Barcelona**: associated and combined models for excellence.

From in-depth knowledge of football, the members of this Master's degree will conduct research (by using Technological tools) to apply new knowledge to training improvements, in the value systems of their team and of their rivals.

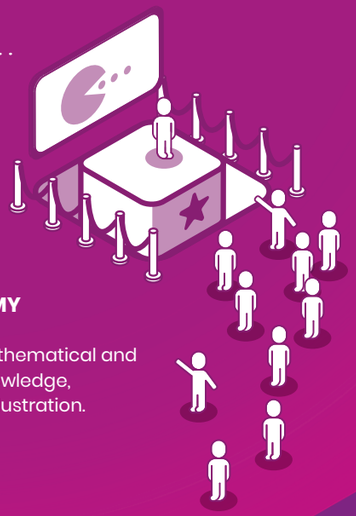
In cooperation with:

**Pending verification.*

ENTi POWER-UP

EXCELLENCE PLAN

Professional support or business projection by The Video Game University to the best academic record (presence at fairs, support for the beginning of projects...).



ACTION PLAN TUTORIAL

The student is a person and receives personal attention as a future professional and person. One-on-one mentoring.

ZERO CREDIT

Math preparation before the starting of the course.



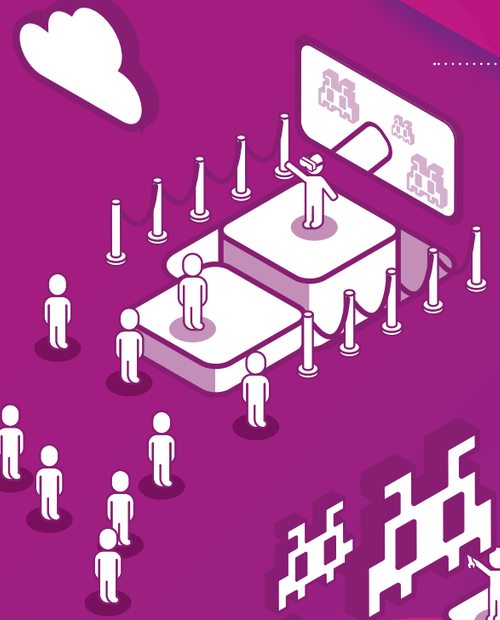
REVIEW ACADEMY

To strengthen mathematical and programming knowledge, *concept art* and illustration.



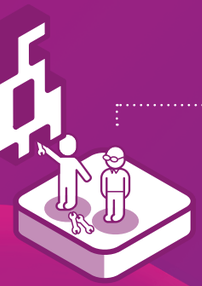
SPECIALISED TEACHING STAFF

Industry professionals: ENTI-UB lecturers and instructors work in the most important companies of The Video Game industry, such as King, Digital Legends, The Breach Studio, Undercoders, Beautiful Glitch, Blitworks, Epic Games... Among others.



INNOVATION

Virtual reality headsets, motion capture suits, consoles, tablets, computers, peripherals, Software, Official kits... The ENTI-UB student has all the necessary technology at their disposal in order to learn how the industry works.



GAMEBIZ

The European GameBiz project is all about entrepreneurship starting at university. Thus, we have procedures in place to guarantee that students not only have real job opportunities in well-established firms, but also, that they will have an entrepreneurial mindset to kickstart their own business ventures.

GAMEBIZ

JAMS

ENTI-UB students and professors participate in *gamejams* and *hackathons* in order to create video games in a few hours.



If you like video games, learn how to create them from scratch.

Make your passion a job
at The Video Game University







Sign up for Day of Open doors

enti.cat

New ENTI Campus

c/Baldiri Reixac, 7
08028, Barcelona

Contact

enti.cat / info@enti.cat / T. 93 323 36 64
Twitter: @ENTI_BCN / Instagram: ENTI_BCN