

BACHELOR'S DEGREE

DIGITAL GAMES DEVELOPMENT



2018/2019 ACADEMIC YEAR



INSTITUTO
POLITÉCNICO
DA MAIA **IPMAIA**

DIGITAL GAMES DEVELOPMENT

COORDINATOR

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ADMISSION EXAMS

Mathematics (16); or Portuguese (18);
or Drawing (03)

PUBLICATION IN THE OFFICIAL GAZETTE

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This bachelor's degree stands by the ultimate goal of graduating students in Digital Games Development. It is a first cycle degree with a 6 semester duration (180 ECTS), during which students are driven to explore both technical and art-related professional domains, leading to an effective integration in multi-disciplinary teams within the development and production of creative digital products for entertainment and communication. This degree aims to provide the future professionals with a wide range of game industry-standard skills. In parallel, it nurtures methodologies, teamwork experience and soft-skills that are paramount in the contemporary work environment and career progression, not only in the field of digital games but also in a broader sense. As a result, this degree presents itself as an answer to the needs of a demanding and competitive industry, which is still in solid expansion.

Professional opportunities

Conceived according to industry requisites, the Digital Games Development syllabus displays a pragmatic balance between practice, theory and methodology, providing students with a broad knowledge, tools and techniques, while offering a highly configurable and specialized learning path in two main areas:

- **Development and technology:** general development, computer graphics, simulation, network systems, multi- platform development and procedural generation;
- **Artistic creation:** illustration, concept art, 3D modelling, animation, motion capture, special effects, interaction design, level and environment design, sound for virtual environments.

Additionally, the degree also provides students with skills that allow them to seek for more general careers such as project manager, QA, game designer, content manager and user experience designer, as well as production specialist for the new media.

What makes this course different?

IPMAIA's degree on Digital Games Development strives to empower students, supporting their personal growth and enriching them with solid and comprehensive knowledge. These circumstances are supported by the qualified teaching staff, open connections to external companies and excellent campus facilities. Students will also be able to mingle with peers from different countries, cultures and ideas, and benefit from international mobility programs.

Building a comprehensive and high quality professional portfolio is one of the top priorities for this course. This initiative, supported by a guaranteed quality internship, aims to provide students with a smooth transition into the national or international job market.

YEAR 1

SEMESTER 1 • 30 ECTS

- 4 Videogame Theory and Aesthetics
- 6 Photography and Audiovisual Elements
- 6 Digital Image Laboratory
- 5 Introduction to Algorithmics
- 5 Creative Coding
- 4 Videogame Industries

SEMESTER 2 • 30 ECTS

- 5 3D Modelling
- 5 Visualization, Lighting and Materials
- 5 Interactive Virtual Environments
- 5 Computer Graphics and Simulation
- 5 Digital Illustration and Sketching - Option (1)
- 5 Introduction to Game Development - Option (1)
- 5 Graphic Design and Vector Image - Option (1)
- 5 Conceptual Art for Games - Option (1)
- 5 Information Access, Process and Storage - Option (1)

YEAR 2

SEMESTER 1 • 30 ECTS

- 5 Game Design
- 5 Interaction Design for Games
- 5 Digital Animation Techniques
- 5 Sound Design for Virtual Environments
- 5 Technical Drawing - Option (2)
- 5 Digital Sculpting - Option (2)
- 5 Software Analysis and Development - Option (2)
- 5 Technical Art for Games - Option (2)
- 5 2D Game Development - Option (2)

SEMESTER 2 • 30 ECTS

- 5 Interactive Storytelling
- 5 Prototyping and Player Experience
- 5 Virtual Environments and Spatial Design
- 5 Visual Effects and Advanced Materials
- 5 Game Assets Development - Option (3)
- 5 3D Game Development - Option (3)
- 5 Digital Cinematography and Character Animation- Option (3)
- 5 Computer Networks and Multiplayer Games - Option (3)
- 5 Tool Development - Option (3)

YEAR 3

SEMESTER 1 • 30 ECTS

- 5 Videogame Quality Assurance and Analysis
- 6 Experimental Games Laboratory
- 5 Gamification and Serious Games
- 6 Emerging Technologies Workshop
- 4 Portfolio
- 4 Project I

SEMESTER 2 • 30 ECTS

- 4 Seminar
- 4 Taxation and Digital Economy
- 4 Entrepreneurship and Business Creation
- 18 Internship/Project II

(1) - Choose 2 CU from this group

(2) - Choose 2 CU from this group

(3) - Choose 2 CU from this group

FOR FURTHER INFORMATION

 ipmaia.pt •  fb.com/ipmaia.pt

Exclusive conditions

- Extensive parking on campus.
- A comfortable, welcoming environment throughout the campus.
- Easy access by public transport, particularly the metro at ISMAI station.
- An environment with new technologies and sport, improved with the construction of a new, state-of-the-art sports complex.

Address

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Metro/Line C - ISMAI



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