Encourage students’ interest in computer science, game design, engineering and art with ProjectFUN!
Dear Parents and Students,

Welcome to the 18th year of DigiPen’s ProjectFUN Workshops!

This year, we are excited to once again offer our new summer programs for high school students in Spain, including the new Character Design and Sculpting Workshop.

With over two decades of experience in animation and game development education, DigiPen has a reputation for turning talented students into exceptional engineers, artists, and designers who are ready to make their mark on the simulation and interactive entertainment industries. DigiPen’s ProjectFUN programs let students explore these high-tech careers while developing crucial problem-solving and critical thinking skills. Along the way, ProjectFUN students will discover the role that core academic subjects such as math, physics, writing, and art play in the creation of their favorite entertainment media. Last year, over 1,300 students from 13 countries and 36 states participated in DigiPen’s ProjectFUN workshops online or on-site at one of our locations in the U.S., Canada, Singapore, and Spain, and we expect even more students to join in the fun this summer.

DigiPen’s ProjectFUN workshops give high school students a window into the world of digital media creation – and the knowledge and skills to become creators themselves.

We look forward to seeing you this summer!

Claude Comair
President and Founder,
DigiPen Institute of Technology
For over two decades, DigiPen Institute of Technology has helped advance the video game, simulation, and animation industries by empowering students to become engineers, programmers, and digital artists.

Founded in 1988, DigiPen Institute of Technology is a pioneer in game development and animation education. It is the first school in the world to offer a bachelor’s degree in video game programming. Since then, DigiPen’s curriculum has continually evolved to ensure graduates are ready to produce high quality digital media in a performance-driven environment.

DigiPen’s students are among the most respected in their field, consistently winning top honors in international competitions. Its world-class faculty draws from years of academic and industry experience, allowing instructors to teach both the theory and the practices necessary to succeed in the interactive media industries.

**Degree Programs**

Currently, DigiPen offers the following degree programs in Spain:

- Bachelor of Science in Computer Science in Real-Time Interactive Simulation
- Bachelor of Fine Arts in Digital Art and Animation

**DigiPen and Student Success**

- In 2010, 2011, and 2012, the Princeton Review ranked DigiPen Institute of Technology as one of the top four schools in North America offering Game Design programs.
- DigiPen’s students have placed the largest number of student projects in the Independent Games Festival (IGF) Student Showcase every year since it began, with a 12-year total of 29 finalists.
- In 2006, independent research group Enterprise Seattle named DigiPen “One of three major contributing factors to the exponential growth of the game industry in the Puget Sound region from 2002 to 2006.”
About ProjectFUN

DigiPen’s ProjectFUN Programs offer a high quality, engaging education to middle school and high school students to increase their knowledge of core academic subjects such as art, science, and math, and enhance their critical thinking abilities through “real-world” applications. Students apply their knowledge in hands-on game, animation, and engineering projects while overcoming obstacles in a fun environment. This method of applied learning gives students a greater understanding of the real-world connection between classroom concepts and digital media, and allows students to explore a range of high-tech careers while learning the importance of continuous learning and academic excellence.

ProjectFUN’s Core Values:
- Intellectual rigor
- Problem solving
- Critical thinking
- Academic excellence
- Applied learning
- Collaboration and teamwork

ProjectFUN Programs:
- Summer Workshops

ProjectFUN Differentiators:
- Commitment to Student Success: ProjectFUN instills in students the values of life-long learning, and gives students a blueprint for accomplishing their academic and personal goals.
- Team-Based Learning: ProjectFUN emphasizes teamwork and fosters collaboration among peers to help students achieve their individual goals.
- Decades of Experience: Founded in 1988, DigiPen is a longstanding leader in game development education.
- Enthusiastic and Knowledgeable Instructors: Teachers are DigiPen students and faculty members who are passionate and well-informed about the digital interactive entertainment industry.
- Rigorous Academics: ProjectFUN incorporates core academic subjects such as math, science, and art into its project-based curriculum and challenges students to put theory into practice in hands-on projects.
DigiPen offered me exactly what I was looking for early on: a course on how to make games and how to program software in general. The first summer session I did was a lot of fun; it gave me a considerably in-depth look at what computer animation and video game programming were all about, and convinced me to continue learning about programming. The three years I participated in the Technology Academy gave me vital experience that helped me succeed at the college. While many fellow students at the college were being exposed to computer programming and applied mathematics for the first time, it was a review for me, and I was able to take higher level courses, making my following semesters easier and freeing up time for internship opportunities later on.

DigiPen has helped me explore what I enjoy most and make a living out of it, and I’m extremely grateful for the people who have helped make DigiPen a reality.

~ Joshua Neff, DigiPen Institute of Technology alumnus, Class of 2008
Video Game Programming
Description: This introductory workshop teaches you how today’s digital games and interactive experiences are created. You will make a series of four games using DigiPen’s ProjectFUN Editor while learning the basics of programming in C/C++, immersing yourself in the game production process, and exploring pathways into video game careers. This basic understanding will help you appreciate what making your favorite game entails.

Two-week program, 50 hours.

Concepts Covered:
- Learning the video game production process
- Programming basics in C/C++
- Debugging and problem solving
- Animating player characters
- Programming for user input
- Creating basic artificial intelligence
- Applying sound effects and music

Classroom Connections: This workshop will reinforce high school mathematics concepts, including 2D coordinate systems, vectors, variables, linear equations, systems of linear equations, and quadratics for collision engines. Science topics reviewed in this course include gravity, friction, and algorithms for physics. You will reinforce your creative and technical writing skills while creating game design documentation.

Successful Completion: Introduction to 2D Video Game Programming will result in finished games that will demonstrate your understanding of the steps involved in making a video game.

WHAT YOU’LL MAKE: Your own playable 2D game!
DigiPen offers techie kids an opportunity to work on independent projects with the assistance of their teachers, enabling them to make large strides in a short period of time.”

~ Anne H., Parent
Advanced 2D Video Game Programming

Prerequisite: Successful completion of the Introduction to 2D Video Game Programming workshop.

Description: Building on the skills developed in Introduction to 2D Video Game Programming, this workshop covers game development in C# using industry standard software. By hand-coding two games in C#, you will expand your knowledge of artificial intelligence and programming for multiplayer games, and you will learn basic trigonometry to implement in your game. The amount of code writing in this workshop will give you a real sense of a programmer’s work.

Two-week program, 50 hours.

Concepts Covered:
- Programming basics in C#
- Expanding knowledge in expressions, statements, functions, pointers, and structures
- Using your own object-oriented programming
- Detecting and coding character interactions
- Coding connections between objects in a game

Classroom Connections: This workshop will continue to reinforce the skills you have learned in algebra, trigonometry, and basic linear algebra that are used in creating video games. You will also reinforce your creative and technical writing skills while creating game proposals and preparation documents.

Successful Completion: Advanced 2D Video Game Programming will result in finished games that will prove your understanding of programming in C#.

WHAT YOU’LL MAKE: Your own playable 2D game!
**Description:** This workshop introduces you to the world of animation through a variety of techniques and mediums, including claymation, cut-out animation, pixilation, 2D traditional animation, and 3D computer animation. As you explore animation through various projects, you will also learn about how animation is connected to traditional art skills.

*Two-week program, 50 hours.*

**Concepts Covered:**
- The art and science of animation
- Storytelling
- Stop motion techniques
- Introduction to dialog
- Exploring basic 3D computer animation, modeling, and texturing
- Introduction to basic art skills

**Classroom Connections:** This workshop reinforces traditional art skills learned in high school art classes and enhances creative writing and storytelling skills by applying them to various animation projects. This workshop also introduces you to 2D and 3D coordinate systems, which are important in geometry and algebra.

**Successful Completion:** You will demonstrate your understanding of the curriculum by completing various animation projects.

“...This really helped my daughter build confidence in her skills. She has much more interest in a career in animation and computer game design - she even made me buy the Autodesk software so she could continue this work on her own at home!”

~ Gavriella S., Parent
Workshop Highlights:

- **ProjectFUN Instructors**: Our teachers are DigiPen students and faculty members who are passionate and well-informed about the digital interactive entertainment industry.

- **One Year Membership to MYProjectFUN**: All participants will receive a free one-year membership to MYProjectFUN forums, new program announcements, updates, online classes, and tutorials. Participants of Introduction to 2D Game Programming workshop will also receive the ProjectFun Editor (€77).

- There is a **one-to-one student to computer ratio**.

**Join the FUN!**

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