Postgraduate Diploma

Advanced Design and Modeling for 3D Printing

tech global university

tech global university

Postgraduate Diploma
Advanced Design and Modeling for 3D Printing

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Accreditation: **18 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-advanced-design-modeling-3d-printing**

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01

Introduction to the Program

Advanced Design and Modeling for 3D Printing has established itself as an essential pillar in the transformation of production processes, offering innovative solutions for the manufacture of high-precision components. For example, recent studies have shown that the implementation of advanced modeling software reduces prototype development times by 40%, while improving the dimensional accuracy of parts by 25%. Given this, engineers need to have a solid understanding of the most cutting-edge techniques to optimize Design for Additive Manufacturing. With this in mind, TECH has developed an innovative university program focused on Advanced Design and Modeling for 3D Printing. And it's all available in a flexible, 100% online format!

Through this completely online Postgraduate Diploma, you will learn the most innovative techniques in Advanced Design and Modeling for 3D Printing"

The digital revolution in manufacturing has driven the development of advanced Design and Modeling techniques, which are essential for maximizing the capabilities of 3D Printing. In this regard, engineers play a key role in optimizing designs, reducing production times, and improving component quality, which drives innovation and efficiency in highly competitive industrial environments. For this reason, it is essential that professionals master the use of computer-aided design tools, understand the integration of advanced materials and are skilled in modern post-processing methods.

In this scenario, TECH presents a cutting-edge Postgraduate Diploma in Advanced Design and Modeling for 3D Printing. Developed by renowned specialists in this field, the syllabus will delve into factors ranging from advanced CAD software management and optimization of specific design for additive manufacturing to the most innovative post-processing techniques adapted to various media. In this way, students will be prepared to generate creative solutions, establish efficient production processes and lead digital transformation projects in the industry.

For the mastery of all these contents, TECH uses a disruptive methodology: Relearning. This didactic system promotes the gradual assimilation of the most complex concepts through repetition, while minimizing the investment of time and effort in having to memorize them. In addition, the program is 100% online, allowing engineers to organize their learning pace according to their other obligations. In this regard, the only requirement for students is to have an electronic device with an Internet connection to access the Virtual Campus. There they will find a variety of multimedia resources in formats such as explanatory videos, specialized readings, and interactive summaries. Without a doubt, this is an immersive experience that will allow graduates to significantly increase their job prospects.

This **Postgraduate Diploma in Advanced Design and Modeling for 3D Printing** contains the most complete and up-to-date program on the market. The most important features include:

- The development of case studies presented by experts in Advanced Design and Modeling for 3D Printing
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies in engineering practice
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

You will promote the development of innovative and customized solutions that can be adapted to the needs of different industrial sectors"

You will delve into various design methodologies to maximize the efficiency and functionality of parts"

You will be skilled in the integration of specialized software, simulation, materials analysis, and post-processing techniques to obtain high-quality products.

Thanks to the Relearning system used by TECH, you will reduce long hours of study and memorization.

The teaching staff includes professionals from the field of Advanced Design and Modeling for 3D Printing, who bring their work experience to this program, as well as renowned specialists from leading companies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive learning experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

02

Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it relies on an enormous faculty of more than 6,000 professors of the highest international renown.

Study at the world's largest online university and guarantee your professional success. The future starts at TECH"

The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.

The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.

Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.

The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.

03

Syllabus

The educational content that forms part of this university program has been designed by renowned experts in Advanced Design and Modeling for 3D Printing. The academic syllabus will delve into subjects ranging from the advanced use of CAD software and optimization of Design for Additive Manufacturing to the latest post-processing techniques for different media. Graduates will therefore be able to develop innovative solutions, implement efficient production processes, and lead digital transformation projects in the industrial sector, positioning themselves as leaders in the application of 3D technologies.

You will acquire skills to plan, execute, and lead projects in both Advanced Design and Modeling for 3D Printing"

Module 1. Modeling and File Preparation for 3D Printing

1.1. CAD Software: Tools for 3D Modeling
- 1.1.1. Main CAD Programs for 3D Design
- 1.1.2. Creating Parametric Models
- 1.1.3. Model Editing and Correction Tools

1.2. From CAD Design to STL File
- 1.2.1. File Export Process in STL Format
- 1.2.2. Considerations Regarding File Resolution and Size
- 1.2.3. Optimizing the Model to Avoid Printing Errors

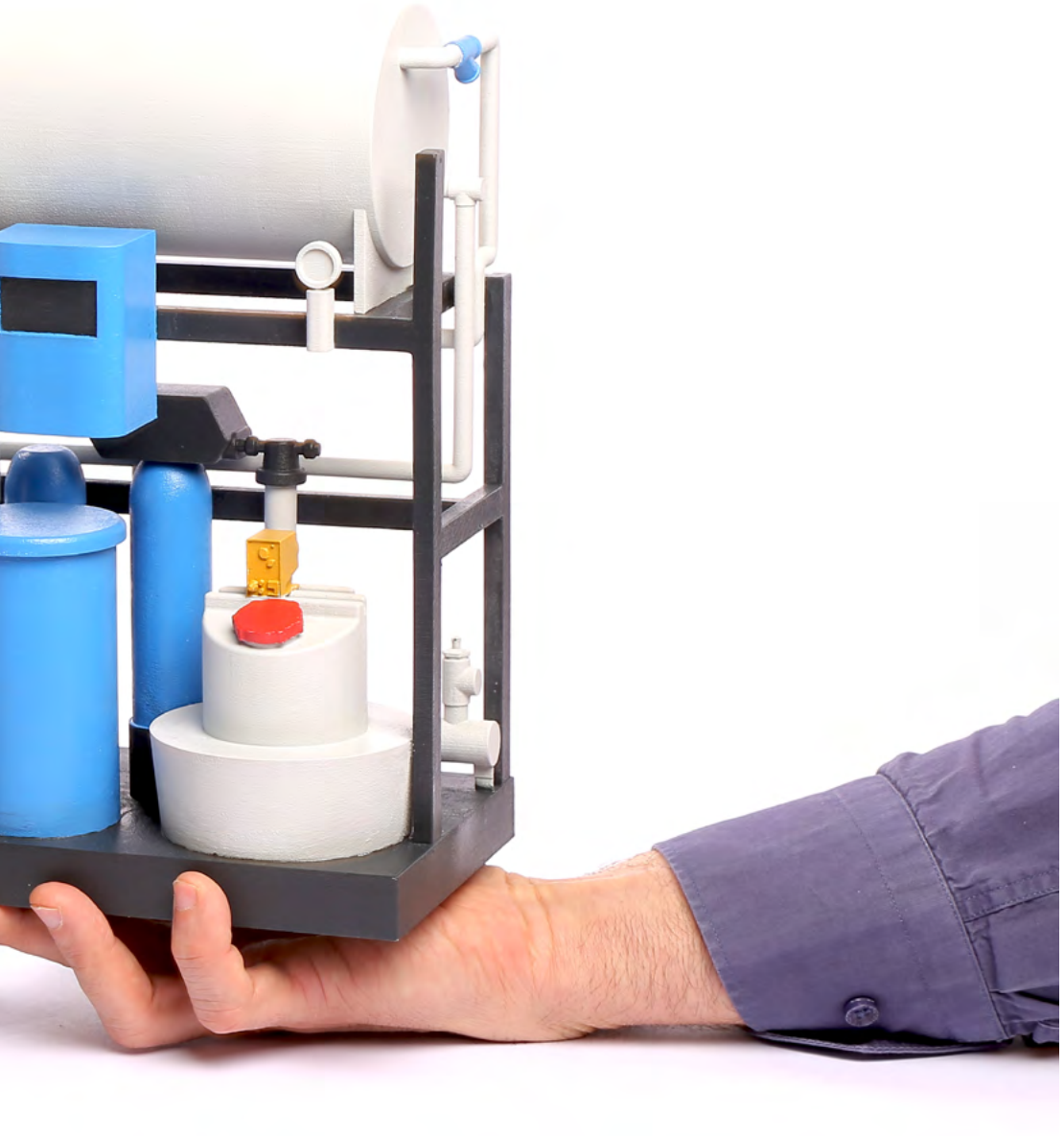
1.3. Adjusting Parameters in the STL File: Resolution and Tolerance
- 1.3.1. Using Slicing Software to Generate GCODE
- 1.3.2. Adjusting Parameters (Speed, Temperature, Layers)
- 1.3.3. Correcting Common Problems in Slicing

1.4. Slicing Software: GCODE Preparation
- 1.4.1. Using Slicing Software to Generate GCODE
- 1.4.2. Adjusting Parameters (Speed, Temperature, Layers)
- 1.4.3. Correcting Common Problems in Slicing

1.5. Design Optimization for Additive Manufacturing
- 1.5.1. Design to Improve Printing Efficiency
- 1.5.2. Avoiding Unnecessary Support Structures
- 1.5.3. Adapting Design to Technology Capabilities

1.6. Strategies for Reducing Support Use
- 1.6.1. Design Focused on Minimizing Supports
- 1.6.2. Use of Favorable Angles and Geometries
- 1.6.3. Technologies That Eliminate the Need for Supports

1.7. Techniques for Improving Surface Finish
- 1.7.1. Optimization of Print Settings
- 1.7.2. Post-Processing Methods for Improving Surfaces
- 1.7.3. Use of Thinner Layers to Improve Quality



1.8. Parametric Modeling and Generative Design
- 1.8.1. Advantages of Parametric Modeling in 3D Printing
- 1.8.2. Use of Generative Design for Part Optimization
- 1.8.3. Advanced Generative Design Tools

1.9. Integration of 3D Scanning into the Workflow
- 1.9.1. Use of 3D Scanners for Model Capture
- 1.9.2. Processing and Cleaning of Scanned Files
- 1.9.3. Integration of Scanned Models into CAD Software

Module 2. Design for Additive Manufacturing

2.1. Design Focused on Optimizing Weight and Strength
- 2.1.1. Use of Lattice Structures to Reduce Weight
- 2.1.2. Topological Optimization to Improve Strength
- 2.1.3. Application of Simulations in Design

2.2. Geometric Considerations in 3D Printing
- 2.2.1. Complex Geometries Feasible in 3D Printing
- 2.2.2. Orientation and Support Considerations
- 2.2.3. Avoiding Sharp Angles in Overhangs

2.3. Designing Functional Parts vs. Aesthetic Parts
- 2.3.1. Differences Between Functional and Decorative Design
- 2.3.2. Materials and Finishes for Functional Parts
- 2.3.3. Priorities in Geometry Selection

2.4. Reduction of Part and Assembly Count through Additive Manufacturing
- 2.4.1. Consolidation of Complex Assemblies into a Single Part
- 2.4.2. Advantages of Reducing Components for Production
- 2.4.3. Design Considerations for Minimizing Assembly

2.5. Generation of Internal Structures and Lattice/Infill
- 2.5.1. Design of Internal Lattice Structures
- 2.5.2. Optimization to Reduce Material and Weight
- 2.5.3. Applications in Lightweight and Strong Parts

2.6. Application of Generative Design in Complex Projects
- 2.6.1. Use of Software to Generate Optimized Designs
- 2.6.2. Considerations in Parameter Selection
- 2.6.3. Success Stories in Applied Generative Design

2.7. Considerations for Cantilevered Parts and Supports
- 2.7.1. Design Strategies to Avoid Cantilevers
- 2.7.2. Efficient Use of Supports to Reduce Post-Processing
- 2.7.3. Technologies That minimize the Need for Supports

2.8. Rapid Prototyping and Proof of Concept
- 2.8.1. Advantages of Rapid Prototyping in Product Development
- 2.8.2. Iteration Process in Proof of Concept
- 2.8.3. Time Optimization in Functional Prototyping

2.9. Limitations in Design for Additive Manufacturing
- 2.9.1. Restrictions due to Part Size and Resolution
- 2.9.2. Material and Precision Limitations
- 2.9.3. Impact of Printing Speed on Design

2.10. Design Optimization in 3D Printing
- 2.10.1. Design Strategies to Improve Manufacturing Efficiency
- 2.10.2. Reducing Printing Times through Design Adjustments
- 2.10.3. Advanced Optimization Techniques for Cost Reduction

Module 3. Additive Manufacturing Post-Processing and Surface Finishing

3.1. Post-Processing Techniques: Cutting, Sanding, Polishing
- 3.1.1. Automated Methods for Improving Surface Finish
- 3.1.2. Polishing Tools and Equipment for Printed Parts
- 3.1.3. Comparison of Techniques According to Material Type

3.2. Surface Finishes: Painting, Varnishing, and Texturizing
- 3.2.1. Application of Protective Coatings
- 3.2.2. Texturing Techniques to Improve Appearance
- 3.2.3. Use of Paint and Varnishes to Improve Aesthetic Finish

3.3. Heat Treatment and Hardening of Parts
- 3.3.1. Annealing Processes to Improve Strength
- 3.3.2. Applications of Heat Treatment in Printed Metals
- 3.3.3. Key Factors for Successful Hardening

3.4. Post-Printing Assembly Techniques
- 3.4.1. Methods for Joining 3D Printed Parts
- 3.4.2. Use of Adhesives and Welding in Complex Parts
- 3.4.3. Design for Assembly and Simplification of Assembly

3.5. Support Removal Methods
- 3.5.1. Mechanical and Chemical Techniques for Removing Supports
- 3.5.2. Design Optimization to Facilitate Removal
- 3.5.3. Reducing the Impact of Supports in Post-Processing

3.6. Post-Processing for Metallic Materials
- 3.6.1. Polishing and Sanding of 3D Printed Metal Parts
- 3.6.2. Specific Treatments to Improve Mechanical Properties
- 3.6.3. Comparison of Post-Processing Techniques for Different Metals

3.7. Use of Soluble Materials for Supports
- 3.7.1. Advantages of Using Water-Soluble Supports
- 3.7.2. Materials Compatible with Dual Extruder Printers
- 3.7.3. Reducing Post-Processing Time with Soluble Supports

3.8. Automation of Post-Processing: Advanced Systems
- 3.8.1. Automated Machines for Sanding and Polishing
- 3.8.2. Ultrasonic Cleaning Systems for Dust and Residue Removal
- 3.8.3. Use of Robots in Post-Processing of Large Parts

3.9. Quality Control in Printed Parts
- 3.9.1. Visual and Tactile Inspection Techniques
- 3.9.2. 3D Measurement and Scanning Tools for Accuracy Verification
- 3.9.3. Test Methods for Validating Strength and Durability

You will master the use of advanced simulation programs for optimizing parts for Additive Manufacturing"

04

Teaching Objectives

Through this Postgraduate Diploma, engineers will have access to the most cutting-edge tools in Design and Modeling for 3D Printing. In this sense, students will develop advanced skills to integrate specific Design methodologies, manage innovation projects, and optimize production processes. In addition, they will be trained to anticipate technological trends and apply customized solutions that drive digital transformation in the industry.

You will manage the most modern Design methodologies for Additive Manufacturing, ensuring the viability and efficiency of production"

General Objectives

- Understand the concepts of how Additive Manufacturing works
- Delve into the technologies specifically for the materials used
- Understand how each technology works and its application, whether by the function of the part or object or by its performance
- Use 3D surface modeling software
- Delve into the different types of 3D printers, understanding their operating principles
- Learn about topological design and optimization of parts for 3D printing
- Use the most advanced post-processing techniques to optimize 3D printing
- Visualize products for specific sectors such as automotive, aerospace, and architecture
- Encourage the identification of business opportunities in the field of Additive Manufacturing
- Develop project management skills, from conceptualization and design to manufacturing and post-processing of parts

Specific Objectives

Module 1. Modeling and File Preparation for 3D Printing

- Differentiate between software and its 3D modeling capabilities
- Transfer files from one software to another and export them in a format compatible with 3D printing

Module 2. Design for Additive Manufacturing

- Learn how to use CAD and simulation software, applying design methodologies that allow you to predict behavior during the printing process
- Identify and manage constraints such as overload angles, the need for supports, and the mechanical properties of materials

Module 3. Additive Manufacturing Post-Processing and Surface Finishing

- Address the best post-processing technique for each of the technologies and materials
- Develop skills to improve the quality, precision, and resistance of parts through polishing, heat treatment, painting, and other finishing techniques

You will achieve your objectives with the support of TECH's didactic tools, including explanatory videos and interactive summaries"

05

Career Opportunities

This TECH syllabus is a unique opportunity for all engineering professionals who wish to update their skills and master advanced Design and Modeling tools for 3D Printing. Through this cutting-edge knowledge, graduates of the university program will expand their job opportunities in innovative sectors, positioning themselves as leaders in digital transformation and Additive Manufacturing, with great prospects for the future.

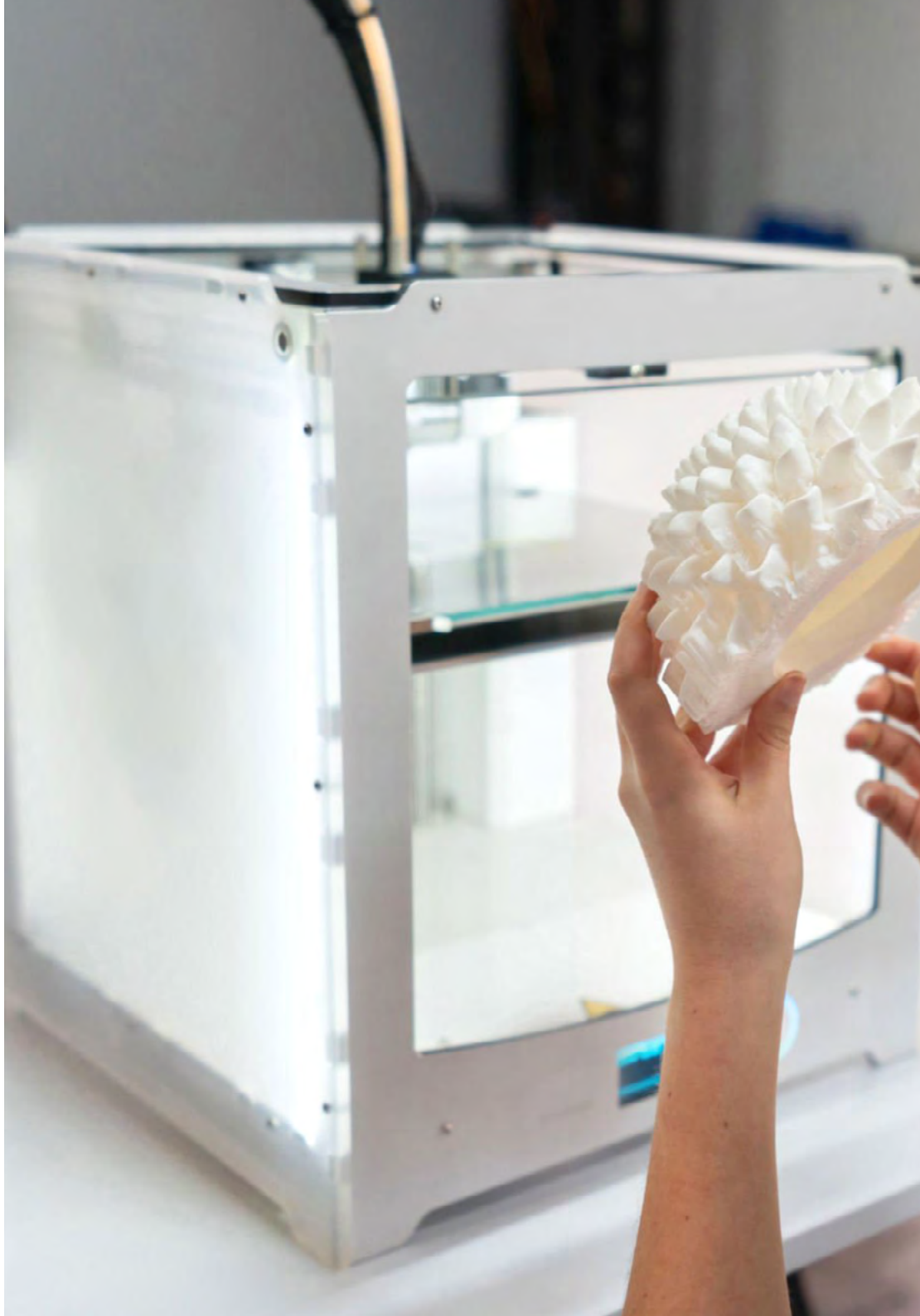
Are you looking to train as an Additive Manufacturing Project Manager? This university program will give you the keys to achieving this in just a few months"

Graduate Profile

Graduates of this Postgraduate Diploma in Advanced Design and Modeling for 3D Printing will be professionals skilled in integrating and applying cutting-edge digital tools in the development of innovative products. They will also have the skills to design, implement, and evaluate customized solutions that optimize production processes, ensuring quality and efficiency. In addition, they will be prepared to lead technological innovation projects and successfully promote digital transformation in industrial environments.

You will offer consulting services to companies on the integration of Additive Manufacturing solutions, improving their competitiveness and production efficiency.

- **Technological Adaptation in Production Processes:** Ability to incorporate advanced Additive Manufacturing and 3D Printing technologies into production processes, increasing efficiency and quality in product development
- **Industrial Problem-Solving:** Ability to apply analytical thinking to identify and solve technical challenges, optimizing manufacturing through innovative solutions based on 3D Printing technologies
- **Commitment to Sustainability and Innovation:** Responsibility in implementing ethical and sustainable principles in the use of advanced technologies, ensuring the efficiency and economic and environmental viability of production processes
- **Interdisciplinary Collaboration:** Ability to communicate and work effectively with multidisciplinary teams, facilitating the integration of additive manufacturing into the industrial value chain and promoting knowledge transfer between technical and design areas



After completing the program, you will be able to use your knowledge and skills in the following positions:

1. **Engineer specialized in Additive Manufacturing and 3D Printing:** Responsible for integrating and managing advanced 3D printing solutions in industrial environments to improve production efficiency and promote innovation in product design.
2. **Additive Manufacturing Data Management Engineer:** Responsible for collecting, analyzing, and protecting technical data generated in 3D printing processes, ensuring optimization and traceability in manufacturing.
3. **Engineer specializing in Rapid Prototyping with Additive Manufacturing:** Responsible for creating and validating prototypes using 3D printing technologies, enabling rapid iterations and accurate evaluations prior to large-scale production.
4. **Additive Manufacturing Project Consultant:** Coordinator dedicated to the implementation of 3D printing solutions in the industrial field, collaborating with multidisciplinary teams to adapt technologies to the specific needs of each sector.
5. **Internal Advisor on Additive Manufacturing Technologies:** Manager in manufacturing companies who provides training and specialized workshops on the use of 3D technologies, raising the technological competence of staff and promoting innovation.

"You will lead digital transformation initiatives in industrial environments, coordinating teams and resources to implement 3D Printing processes"

06

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career"

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.
The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

"At TECH you will NOT have live classes (which you might not be able to attend)"

The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

> *TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want"*

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.

Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

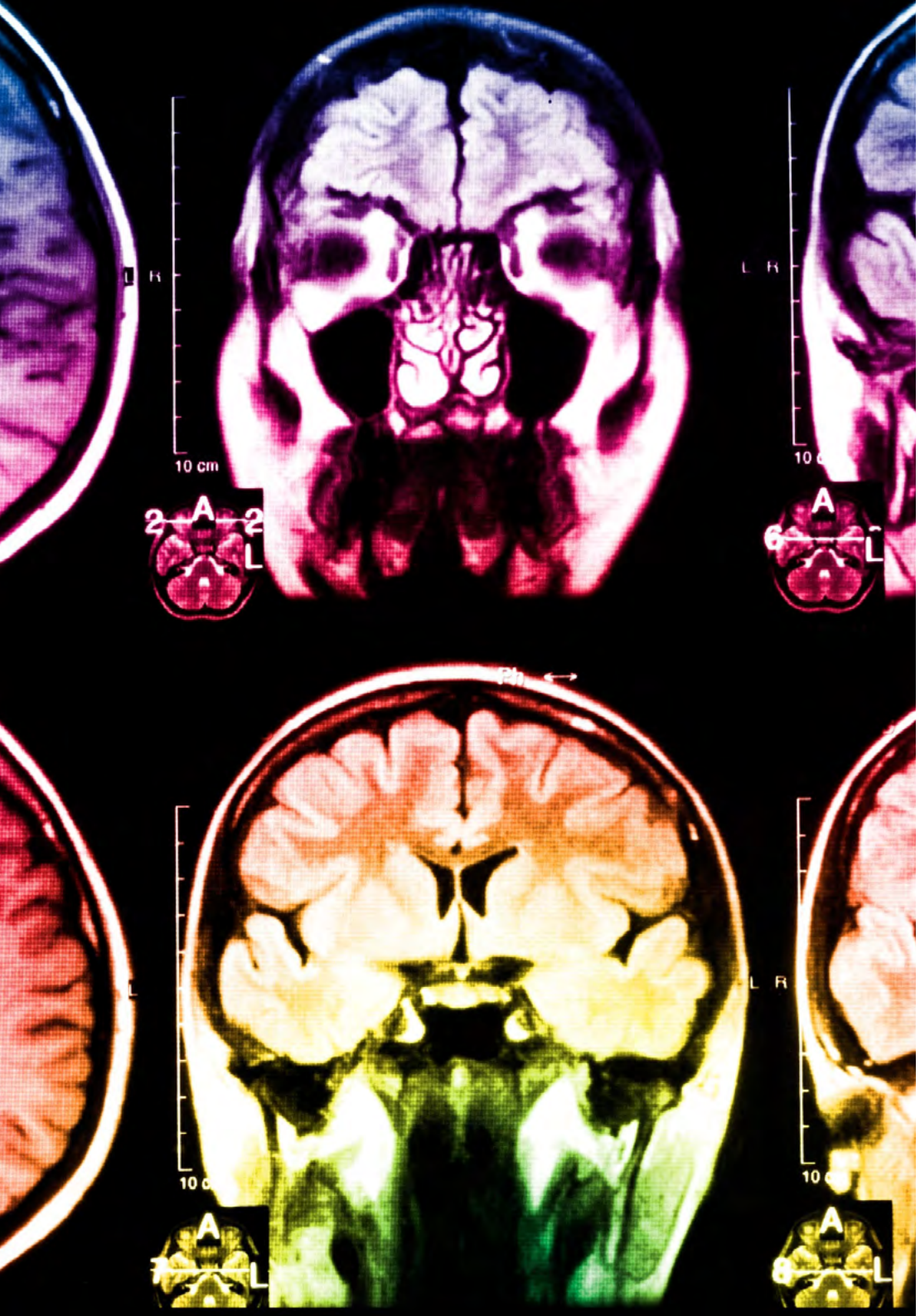
In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.

The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.

As such, the best educational materials, thoroughly prepared, will be available in this program:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.

Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.

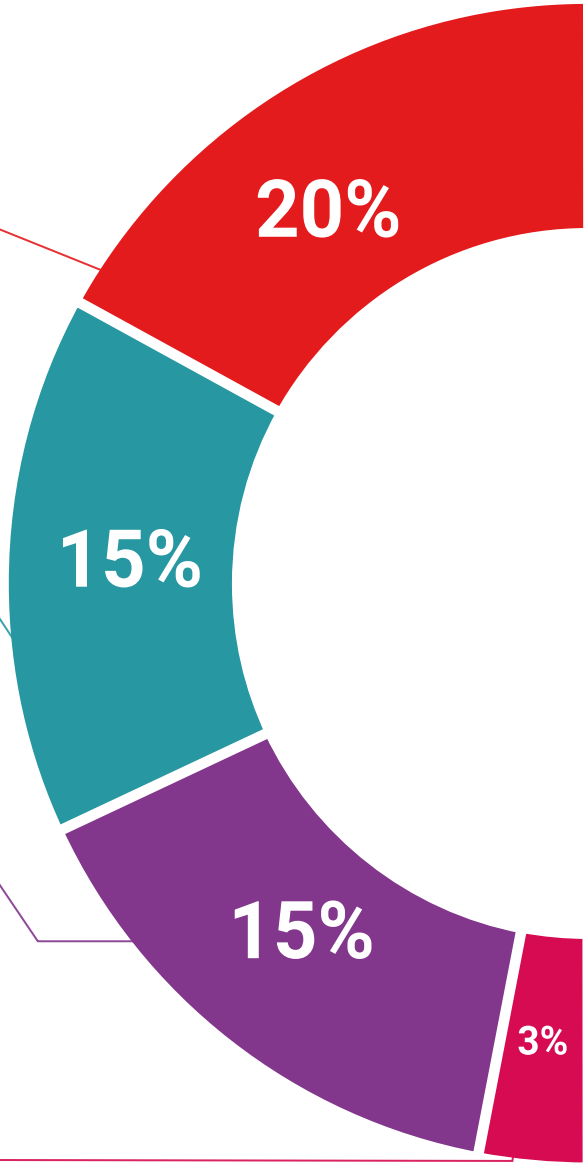
Interactive Summaries

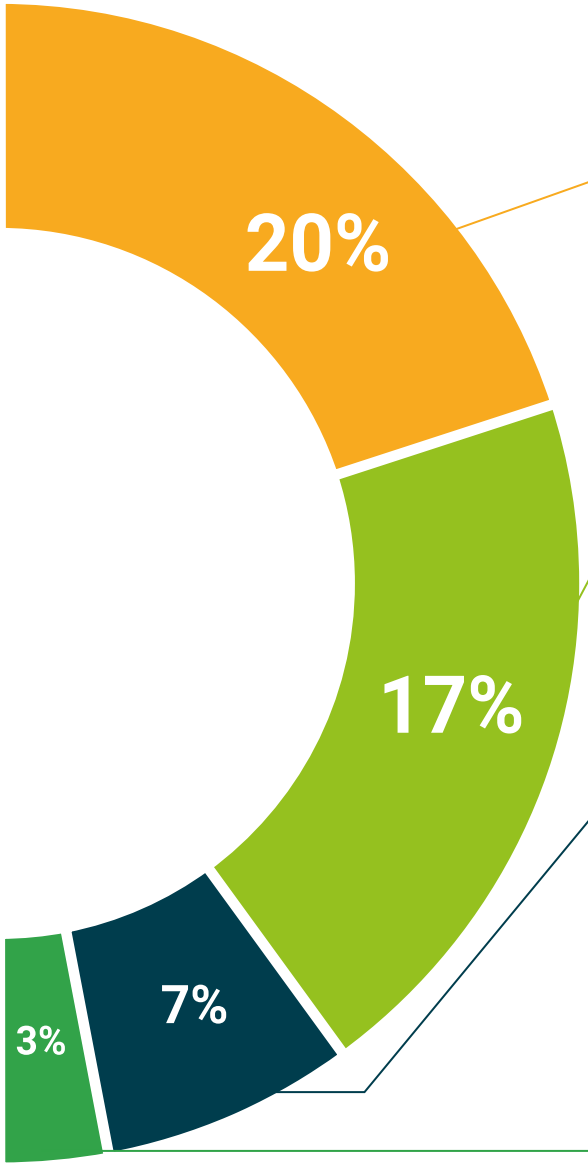
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





Case Studies

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence for future difficult decisions.

Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.

07

Teaching Staff

The fundamental premise of TECH is to provide the most comprehensive and innovative university programs available on the educational market. To achieve this, it carries out a rigorous selection process to assemble its teaching staff. As a result, this Postgraduate Diploma features the participation of the leading experts in Advanced Design and Modeling for 3D Printing. These professionals have developed a variety of teaching materials that stand out for their high quality and for meeting the demands of the job market. As a result, students have the guarantees they need to enjoy an intensive experience that will significantly broaden their career horizons.

You will enjoy personalized advice from the teaching team, made up of true leaders in Advanced Design and Modeling for 3D Printing"

Management

Mr. Parera Buxeres, Antoni

- CEO and Creative Director at Innou
- Project Manager and Industrial Designer at Play
- Master's Degree in Project Management and Efficient Project Management from the Polytechnic University of Catalonia
- Bachelor of Arts with a specialization in Design from the University of Southampton

Professors

Mr. Sánchez González, Antonio

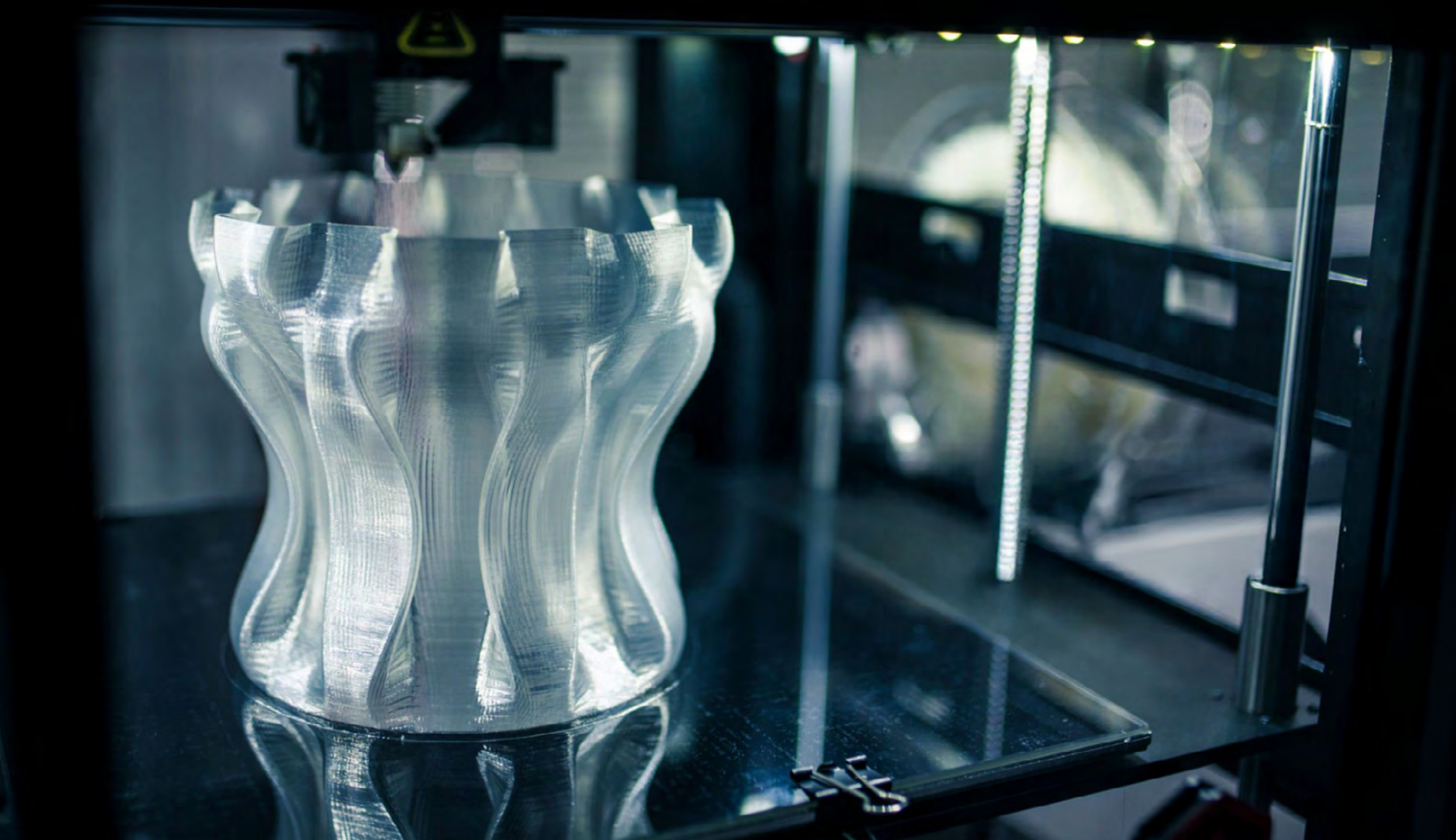
- Director of AsorCAD Engineering
- Industrial Designer at Segui Desing
- Project Manager in R&D at Play
- Founder of Innou
- Master's Degree in Technical Management and Production
- Bachelor's Degree in Mechanical Engineering from the University of Southampton

Mr. Alonso Almirall, Óscar

- Head of Additive Manufacturing and 3D Printing at Industria Digital
- Mechanical Engineer at Leitat Technology Center
- Product Development Engineer at Mazel Ingenieros
- Bachelor's Degree in Industrial Engineering with a specialization in Mechanics from the Polytechnic University of Catalonia

Mr. Tutó Cabedo, Xavier

- Director of Engineering and Design at Industria Digital
- Founder of Kxdesigners
- Master's Degree in Design Research and Management from TFRAF at ISEC
- Bachelor's Degree in Design Engineering from ELISAVA University School



08

Certificate

The Postgraduate Diploma and Advanced Design and Modeling for 3D Printing guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Postgraduate Diploma issued by TECH Global University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This private qualification will allow you to obtain a diploma for the **Postgraduate Diploma in Advanced Design and Modeling for 3D Printing** endorsed by TECH Global University, the world's largest online university.

TECH Global University, is an official European University publicly recognized by the Government of Andorra ***(official bulletin)***. Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

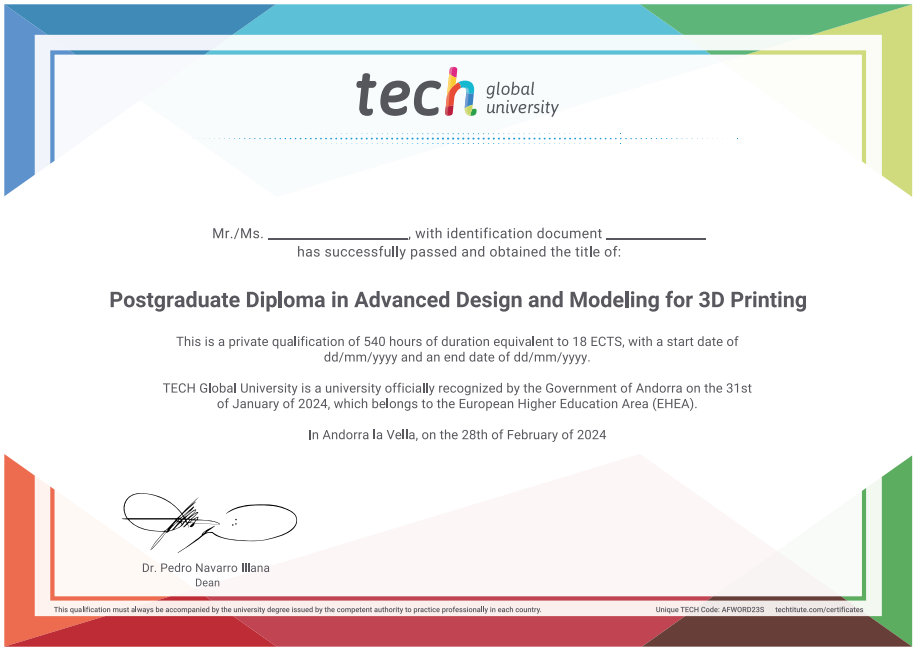
This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Advanced Design and Modeling for 3D Printing**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**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Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma in Advanced Design and Modeling for 3D Printing

This is a private qualification of 540 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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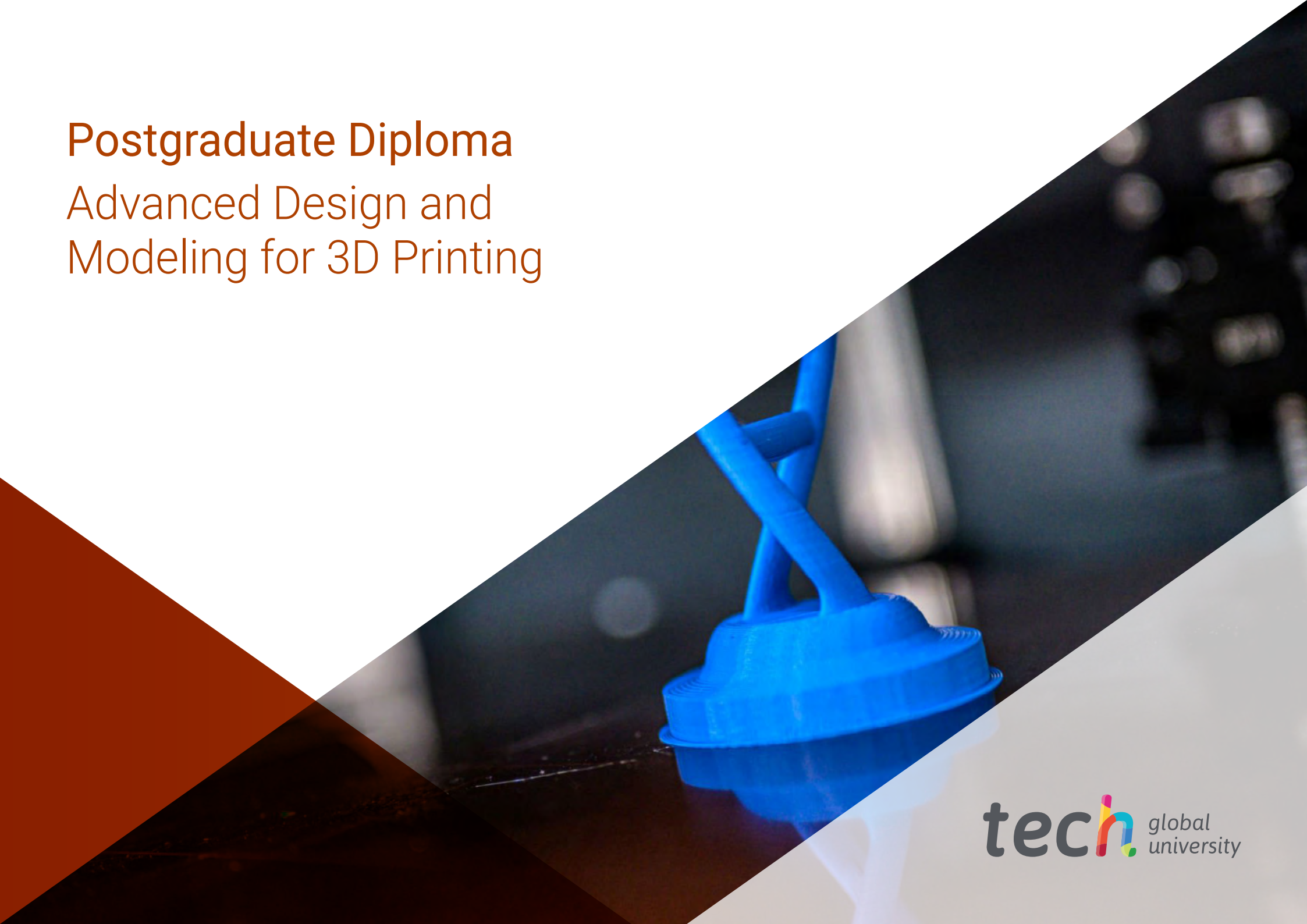
Postgraduate Diploma
Advanced Design and Modeling for 3D Printing

- Modality: **online**
- Duration: **6 months**
- Certificate: **TECH Global University**
- Accreditation: **18 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Postgraduate Diploma

Advanced Design and Modeling for 3D Printing



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