

# Postgraduate Diploma Shipbuilding





## Postgraduate Diploma Shipbuilding

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-shipbuilding](http://www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-shipbuilding)

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# 01

# Introduction

Shipbuilding is a highly specialized sector that requires highly qualified professionals. To meet this objective, TECH has proposed to offer the best program available today, an opportunity to specialize in Shipbuilding with the help of the best professionals in the field.



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*Shipbuilding is a constantly evolving sector that requires qualified professionals qualified in the use of the latest tools in the field”*

The Postgraduate Diploma in Shipbuilding is a program of the highest academic level that aims to educate professionals in the field, enabling them to carry out their work with the highest quality and safety requirements. It is a very complete program, imparted by professionals with years of experience, and which includes the latest advances in the field.

The program will serve as a tour of the methodology to be followed in calculating structures in Shipbuilding, taking into account the two calculation methods currently in use, namely, rule-based design and direct numerical simulation design. It is essential to understand every vessel is different, subjected to different stresses and classified under different typology, so no two ships will be the same, not even sister ships, which are the closest in similarity. This makes Shipbuilding a form of protocol Engineering in which each structural calculation is unique for each type of vessel.

An important part of the program is directed towards the basic engineering of facilities, machinery and electricity in naval vessel or craft projects. This section is of vital importance to any project, both for professionals in naval engineering of armament and machinery, as knowledge of which will be updated, and for anyone working in any sector in the industry, as knowledge of the core of the facilities on board will be covered, all of which will qualify professionals and strengthen their profiles for this particular niche in the field.

Aspects of Detailed Engineering will also be discussed starting from Basic Engineering, with the aim of developing the necessary technical information for the production phase of a Shipbuilding project. This section will be based on the use of current 3D modeling technologies and design tools used in Detailed Engineering, and their impact on the efficiency of a vessel's construction phase, ranging from hull shapes to virtual reality and its use in PLM systems. Finally, this program aims to reinforce student knowledge in the fields related to ship production and repair, emphasizing the different disciplines, specialties and latest trends in shipyard production and organization.

It should be noted that as this is a 100% online Postgraduate Diploma, the student is not conditioned by fixed schedules or the need to move to another physical location, but can access the contents at any time of the day, balancing their work or personal life with their academic life.

This **Postgraduate Diploma in Shipbuilding** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ Case studies presented by experts in naval Engineering
- ◆ 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
- ◆ Special emphasis on innovative methodologies in Shipbuilding
- ◆ 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



*The completion of this Postgraduate Diploma will place naval Engineering professionals at the forefront of the latest developments in the sector”*

“

*This Postgraduate Diploma is the best investment you can make in selecting a refresher program in the field of Naval Engineering. We offer you quality and free access to content"*

The teaching staff includes professionals in Naval Engineering, who bring their experience to this training program, as well as renowned specialists from leading societies 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 immersive specialization programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. To that end, students will have the help of an innovative, interactive video system made by recognized and extensively experienced university experts in Shipbuilding.

*This program has the best didactic material, which will enable a contextual study that will facilitate your learning.*

*This 100% online Postgraduate Diploma will allow you to combine your studies with your professional work. You choose where and when to train.*



# 02

# Objectives

The Postgraduate Diploma in Shipbuilding is designed to facilitate professional performance so students can acquire and learn about the main novelties in the field, which will allow them to practice their profession with the highest quality and professionalism.







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*Our goal is for you to become the best professional in your sector. And for this we have the best methodology and content”*



## General Objectives

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- ◆ Possess an overall vision of all stages of the life cycle of a naval project
- ◆ Possess and understand knowledge that provides the basis for developing research ideas
- ◆ Conceive and develop appropriate technical and economical solutions for naval projects
- ◆ Develop the conceptual design that meets shipowner requirements, cost estimates and risk assessments
- ◆ Work and negotiate with shipowners from the point of view of design, define ship missions, and assist shipowners in defining ships according to the requirements
- ◆ Apply acquired knowledge and problem-solving skills in new environments related to Naval Engineering
- ◆ Solve complex problems and make responsible decisions
- ◆ Acquire the basis of scientific and technological knowledge applicable to Naval and Ocean Engineering and management methods
- ◆ Organize and lead multidisciplinary work groups in multilingual environments
- ◆ Acquire the fundamental knowledge of ship design, structure, machinery and on-board installations
- ◆ Know the scope of detailed engineering of structure, outfitting, electricity, flag authorization and air conditioning
- ◆ Know how to organize and control the processes of construction, repair, transformation, maintenance and inspection of naval projects
- ◆ Delve into shipyard management for a global and current vision of all shipyard departments
- ◆ Acquire the knowledge of ship operations throughout the entire flow line
- ◆ Possess detailed knowledge of the latest trends in innovation and development in the naval market in all stages of the life cycle of projects, from the initial stages of design to operations and vessel or artifact scrapping



*Join us and we will help you achieve professional excellence"*



## Specific Objectives

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### Module 1. Structural Engineering

- ◆ Know the theories of structural calculation
- ◆ Identify structural construction systems
- ◆ Understand the materials used and how to weld them
- ◆ Understand the structure of double bottom, shell decks and bulkheads
- ◆ Perform load and stress calculations
- ◆ Perform the main scantling calculations
- ◆ Understand the principles of numerical simulation, model types and sub-models
- ◆ Generate key drawings and understand their significance
- ◆ Describe and understand the other structures within ships: stern, bow, machinery space, etc., as well as auxiliary structures and appendages
- ◆ Calculate supports and elements involved in ship mooring and mooring equipment
- ◆ Estimate weight and MTO in ordering preliminary materials

### Module 2. Installation, Machinery and Electrical Engineering

- ◆ Understand the different propulsion systems in ships
- ◆ Identify the implications of the new IMO regulations for on-board emission control on propulsion system designs and engine selection
- ◆ Know the different propulsion systems that can be installed on board
- ◆ Know the main installations on board
- ◆ Know the regulations required for different piping systems and equipment
- ◆ Manage the main equipment for each on-board service
- ◆ Know the materials used in most current services
- ◆ Know how to calculate the main equipment while observing their new requirements
- ◆ Know how to calculate the most important heat and water balances on board
- ◆ Generate curiosity about new technologies
- ◆ Analyze the most important documents, plans and electrical calculations for engineering approval for the classification society and shipowner

### Module 3. Development and Production Engineering

- ◆ Understand corporate strategy
- ◆ Know BSA (Build Strategy Approach)
- ◆ Break down tasks using Work Breakdown
- ◆ Become familiar with CAD-CAM systems and 3D modeling
- ◆ Interface with PLM tools and FEM and CFD calculations
- ◆ Identify Virtual Reality functionalities to navigate ships and to perform design verifications and revisions
- ◆ Know the following products: flat and curved plates and profiles; previous, sub-blocks and blocks
- ◆ Know how to use 3D modeling for auxiliary structures and equipment poles
- ◆ Know how to make construction and assembly drawings
- ◆ Know how to make equipment layout drawings
- ◆ Know how to perform 3D modeling for piping
- ◆ Know how to perform 3D modeling for electrical piping
- ◆ Know the layout of apparatus, switchboards and consoles
- ◆ Know system wiring layouts (power, lighting, communications, navigation, security and fire)
- ◆ Know how to make electrical diagrams
- ◆ Know how to use 3D modeling for air-conditioning ducts
- ◆ Know how to design construction and assembly drawings of rectangular section ducts
- ◆ Know how to make duct layout drawings
- ◆ Design detailed drawings of flanges and connecting pieces
- ◆ Draft drawings of lifting eyebolt locations to turn and/or assemble blocks and sub-blocks





#### Module 4. Production

- ◆ Reinforce knowledge of the areas related to ship production and repair
- ◆ Delve into different disciplines, specialties and the latest trends in shipyard production organization
- ◆ Define construction strategies
- ◆ Elaborate, interpret and use production budgets
- ◆ Establish productivity objectives
- ◆ Define subcontracting plans
- ◆ Correctly apply different production planning methodologies
- ◆ Organize and optimize production processes
- ◆ Manage and control subcontracting
- ◆ Manage purchasing and logistics
- ◆ Properly apply quality control and statistical process control

03

# Course Management

In our university we have professionals specialized in each area of study, who pour their expertise into our training courses.



“

*Our university employs the best professionals in all areas who share their knowledge to help you”*

## Management



### Ms. López Castejón, María Ángeles

- Naval and Ocean Engineer School of Naval Engineering (ETSIN)
- 22 years of experience in Naval Engineering, Engineering and Shipyards
- Master's Degree in Occupational Risk Prevention Safety. MAPFRE
- PRL Auditor C.E.F
- Safety Coordinator
- C.A.P. University of Seville
- CCPC Co-Active Professional Certified Coach CTI
- Director of Marine Projects at SENER INGENIERIA Y SISTEMAS, S.A.
- Certified Professional Coach



## Professors

### Mr. De Vicente Peño, Mario

- ◆ Naval and Ocean Engineer School of Naval Engineering (ETSIN)
- ◆ Master's Degree at UPM: Numerical Simulation in Engineering with ANSYS
- ◆ 16 years of experience in Naval Engineering and Classification Society
- ◆ Associate Professor of Structures and Shipbuilding at UPM, (ETSIN): Official Degree Courses: Finite Element Models in Ship Structures (1C), Master Frame Calculation (2C), MAERM Topics: Structural Design (1C), Structural Analysis of Offshore Platforms (2C)
- ◆ Director of Marine Projects at SENER INGENIERIA Y SISTEMAS, S.A.
- ◆ ETSIN Associate Professor

### Mr. Fiorentino, Norberto Eduardo

- ◆ Naval Engineer Buenos Aires Technology Institute (ITBA).
- ◆ Master's Degree in Environmental Management Postgraduate Course in Ship Construction, Repair and Maintenance
- ◆ 26 years of experience in academic management and university teaching
- ◆ 13 years of experience in Naval Engineering
- ◆ 9 years of experience as a Technical Fleet Manager
- ◆ 6 years of experience as an Engine Section Chief in Shipyard Engineering.
- ◆ Director of Naval Projects at SENER INGENIERIA Y SISTEMAS, S.A
- ◆ Director of the Naval Engineering Department at ITBA

### Mr. Labella Arnanz, José Ignacio

- ◆ Naval and Ocean Engineer School of Naval Engineering (ETSIN)
- ◆ Master's Degree in Financial Management. CEF
- ◆ Master's Degree in Senior Accounting CEF
- ◆ Master's Degree in Commercial Management and Marketing GESCO ESIC
- ◆ NACE CIP I and II
- ◆ General Manager at DEL MONTE SERVICIOS INDUSTRIALES, a company specialized in surface treatment, protection and insulation in the naval sector
- ◆ 24 years of experience in Naval and Industrial Engineering, Production and Maintenance
- ◆ 11 years of experience in General Management

# 04

# Structure and Content

The contents have been structured and designed by the best professionals in Naval and Ocean Engineering, who have extensive experience and recognized prestige in the profession, and who are aware of the benefits that the latest educational technology can bring to higher education.





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*We have the most complete and up-to-date academic program in the market. We strive for excellence and for you to achieve it too"*

## Module 1. Structural Engineering

- 1.1. Calculation Systems
  - 1.1.1. Rule-Based Design
  - 1.1.2. Rationally Based Design
- 1.2. Structural Design Principles
  - 1.2.1. Materials
  - 1.2.2. Bottom and Double Bottom Structures
  - 1.2.3. Deck Structure
  - 1.2.4. Liner Structure
  - 1.2.5. Bulkhead Structure
  - 1.2.6. Welding
- 1.3. Loads
  - 1.3.1. Internal
  - 1.3.2. External
  - 1.3.3. Sea-Related
  - 1.3.4. Specific
- 1.4. Scantlings
  - 1.4.1. Tertiary Element Calculation
  - 1.4.2. Ordinary Element Calculation
- 1.5. Primary Element Calculation
  - 1.5.1. New Technologies
  - 1.5.2. Numeric Methods
  - 1.5.3. Bar Numerical Simulation
  - 1.5.4. Shell Numerical Simulation
  - 1.5.5. Submodels
- 1.6. New Technologies
  - 1.6.1. Software
  - 1.6.2. Models and Submodels
  - 1.6.3. Fatigue

- 1.7. Key Plans
  - 1.7.1. Digital Twins
  - 1.7.2. Constructability
- 1.8. Other Structures (I)
  - 1.8.1. Bow
  - 1.8.2. Stern
  - 1.8.3. Engine Space
  - 1.8.4. Superstructure
- 1.9. Other Structures (II)
  - 1.9.1. Ramps and Side Doors
  - 1.9.2. Hatches
  - 1.9.3. Heliports
  - 1.9.4. Main from Engine Mount
  - 1.9.5. Crane Calculation
  - 1.9.6. Rudder and Appendages
- 1.10. Other Calculations
  - 1.10.1. Anchoring and Mooring Equipment Structure
  - 1.10.2. Anchoring Models
  - 1.10.3. Weight and Preliminary MTO

## Module 2. Installation, Machinery and Electrical Engineering

- 2.1. Current Propulsion Systems and Propellants
  - 2.1.1. Propulsion Systems
  - 2.1.2. Thrusters
  - 2.1.3. Latest IMO Emission Control Regulations
- 2.2. Main and Auxiliary Engine Services
  - 2.2.1. Regulations
  - 2.2.2. Materials
  - 2.2.3. Equipment
  - 2.2.4. Calculations

- 2.3. Other Machine Room Services
  - 2.3.1. Regulations
  - 2.3.2. Materials
  - 2.3.3. Equipment
  - 2.3.4. Calculations
- 2.4. Off-Site Machine Services
  - 2.4.1. Regulations
  - 2.4.2. Materials
  - 2.4.3. Equipment
  - 2.4.4. Calculations
- 2.5. Fire Services
  - 2.5.1. Regulations
  - 2.5.2. Materials
  - 2.5.3. Equipment
  - 2.5.4. Calculations
- 2.6. Hotel Services
  - 2.6.1. Regulations
  - 2.6.2. Materials
  - 2.6.3. Equipment
  - 2.6.4. Calculations
- 2.7. Balance
  - 2.7.1. Thermal
  - 2.7.2. Water
- 2.8. Ventilation and Air Conditioning
  - 2.8.1. Machine Room Ventilation
  - 2.8.2. Ventilation Outside the Machine Room
  - 2.8.3. HVAC
- 2.9. Electrical Balance and Single-Line Diagrams
  - 2.9.1. Electrical Balance
  - 2.9.2. Single-Line Diagrams
- 2.10. Basic Electrical Engineering
  - 2.10.1. Scope

### Module 3. Development and Production Engineering

- 3.1. Construction Strategies
  - 3.1.1. BSA (Build Strategy Approach)
  - 3.1.2. Work Breakdown
  - 3.1.3. Design to Build Engineering
- 3.2. CAD-CAM Systems. 3D Ship Modeling
  - 3.2.1. 3D Modeling
  - 3.2.2. Interface with PLM Tools and FEM and CFD Calculations
  - 3.2.3. Constructive Limitations in Design
  - 3.2.4. Virtual Reality, Verifications and Design Reviews
- 3.3. Steel Detail Engineering
  - 3.3.1. 3D Modeling
  - 3.3.2. Plate Nesting
  - 3.3.3. Profile Nesting
  - 3.3.4. Products (Flat and Curved Plates and Profiles; Pre-Blocks, Sub-Blocks and Blocks)
  - 3.3.5. Assembly: Sub-Blocks and Blocks
  - 3.3.6. Plate and Profile MTO
- 3.4. Detailed Outfitting Engineering (I)
  - 3.4.1. 3D Modeling of Auxiliary Structures and Equipment Poles
  - 3.4.2. Construction and Assembly Drawings
  - 3.4.3. Plate and Profile MTO
  - 3.4.4. Equipment Layout Drawings
- 3.5. Detailed Outfitting Engineering (II)
  - 3.5.1. 3D Modeling of Pipelines
  - 3.5.2. Spools
  - 3.5.3. Isometric
  - 3.5.4. Layout Drawings
  - 3.5.5. Pipes and Fittings MTO

- 3.6. Detailed Electrical Engineering (I)
  - 3.6.1. 3D Modeling of Electrical Conduits
  - 3.6.2. Arranging Apparatus, Switchboards and Consoles
  - 3.6.3. Listing and Arranging Apparatus in Hazardous Areas
  - 3.6.4. Tray Filling and Electrical Passages
  - 3.6.5. Construction Engineering Machine Control Console
  - 3.6.6. Constructive Engineering Electrical Panels
- 3.7. Detailed Electrical Engineering (II)
  - 3.7.1. Electrical Diagrams
  - 3.7.2. Cable Lists
  - 3.7.3. Wiring Diagrams
  - 3.7.4. System Wiring Arrangements (Power, Lighting, Communications, Navigation, Fire and Safety)
  - 3.7.5. List of Automated Functions and Alarms
- 3.8. Accommodation Detail Engineering
  - 3.8.1. Premises Layout
  - 3.8.2. Booth Layout
  - 3.8.3. General Flag Authorization Layout
  - 3.8.4. General Furniture Layout
  - 3.8.5. General Decorative Flooring Layout
  - 3.8.6. Decorative Projects
- 3.9. Detailed Electrical Engineering (II)
  - 3.9.1. 3D Modeling of Ducts
  - 3.9.2. Construction and Assembly Drawings of Rectangular Section Ducts
  - 3.9.3. Isometric Drawings of Circular Section Ducts
  - 3.9.4. Ducts Layout Drawings
  - 3.9.5. Detailed Drawings of Flanges and Fittings
  - 3.9.6. Ducts and Fittings MTO
- 3.10. Maneuvers
  - 3.10.1. Location Plans of Maneuvering Eyebolts to Turn and/or Assemble Blocks and Sub-Blocks

## Module 4. Production

- 4.1. Construction Strategies: Preparation
  - 4.1.1. Division into Blocks and Sections
  - 4.1.2. Physical Shipyard Conditions
  - 4.1.3. Constraints due to Facility Availability
  - 4.1.4. Project Constraints
  - 4.1.5. Supply Constraints
  - 4.1.6. Other Constraints
  - 4.1.7. Implications of Subcontracting
- 4.2. Budget and Planning
  - 4.2.1. Integrated Construction
  - 4.2.2. Steel
  - 4.2.3. Outfitting
  - 4.2.4. Painting
  - 4.2.5. Other: Electricity, Flag Authorization, Insulation
  - 4.2.6. Testing, Commissioning and Delivery
- 4.3. Production Organization (I)
  - 4.3.1. Steel
  - 4.3.2. Prearmament
  - 4.3.3. Engine Room
  - 4.3.4. Main Equipment and Shaft Lines
  - 4.3.5. Cargo and Deck
  - 4.3.6. Electricity
  - 4.3.7. Flag Authorization
- 4.4. Production Organization (II)
  - 4.4.1. Painting
  - 4.4.2. Insulation
  - 4.4.3. Launching and Floating



- 4.5. Outsourcing
  - 4.5.1. Advantages and Disadvantages of Outsourcing
  - 4.5.2. Outsourcing Planning
  - 4.5.3. Assessment, Decision Criteria and Awarding Criteria
  - 4.5.4. Outsourcing as a Strategic Competitive Element
- 4.6. Purchasing and Logistics Management
  - 4.6.1. Technical Specifications
  - 4.6.2. Materials and Equipment Purchasing Plans
  - 4.6.3. Monitoring and Quality Control
- 4.7. Quality Control and Statistical Control
  - 4.7.1. Statistical Process Control
  - 4.7.2. Statistical Methods Applied to Quality Control
- 4.8. Monitoring and Control
  - 4.8.1. Monitoring Planning
  - 4.8.2. Cost and Budget Monitoring
  - 4.8.3. Quality Monitoring
  - 4.8.4. Occupational Risk Prevention (ORP) Monitoring
  - 4.8.5. Environmental Monitoring
- 4.9. Delivery and Commissioning
  - 4.9.1. Test Protocols
  - 4.9.2. Stability Tests
  - 4.9.3. Dock Tests
  - 4.9.4. Sea Trials
  - 4.9.5. Warranties
- 4.10. Repairs
  - 4.10.1. The Ship Repair Business
  - 4.10.2. Repair Yard Features
  - 4.10.3. Repair Yard Organization
  - 4.10.4. Workflows
  - 4.10.5. Ship Repair Projects

05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.







“

*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

“

*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”*



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*



*The student will learn to solve complex situations in real business environments through collaborative activities and real cases.*

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

The case method is the most widely used learning system in the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

## Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

*In 2019, we obtained the best learning results of all online universities in the world.*

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



This program offers the best educational material, prepared with professionals in mind:



### 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.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### 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 in future difficult decisions.



### Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





**Case Studies**

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.



**Interactive Summaries**

The TECH team presents 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".



**Testing & Retesting**

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



06

# Certificate

The Postgraduate Diploma in Shipbuilding guarantees students, in addition to the most rigorous and up-to-date education, access to a 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 program will allow you to obtain your **Postgraduate Diploma in Shipbuilding** 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** title 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 Shipbuilding**

Modality: **online**

Duration: **6 months**

Accreditation: **24 ECTS**



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development language  
virtual classroom



## Postgraduate Diploma Shipbuilding

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma Shipbuilding

