

Internship Program Mechanical Engineering





tech global
university

Internship Program
Mechanical Engineering

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01

Introduction to the Program

Mechanical Engineering is a fundamental discipline that plays a key role in the development of innovative technological solutions. From the design and manufacture of components to the optimization of industrial systems, professionals face the challenge of improving efficiency, reducing costs and increasing the sustainability of processes. Therefore, it is essential that professionals incorporate the most innovative techniques into their daily practice to improve the efficiency of their processes and increase their sustainability. For this reason, TECH has created the present qualification, in which in 3 weeks the specialist will be integrated into a team versed in Mechanical Engineering to catch up on the latest developments and technologies available.

“

Thanks to this Internship Program, you will design innovative mechanical systems using state-of-the-art software”





According to a new study conducted by the United Nations, the industrial sector represents approximately 16% of the global Gross Domestic Product, and the demand for industrial machinery is expected to grow by 6% annually in the coming years. In this context, specialists need to manage the most sophisticated strategies to develop and optimize mechanical systems that not only increase efficiency, but are also sustainable and cost-effective.

In response to this, TECH has designed a program that consists of a 120-hour stay in a reference center in the field of Mechanical Engineering. Therefore, over the course of 3 weeks, the graduate will become part of a team of specialists of the highest level, with whom they will actively work on projects of design, optimization and manufacturing of advanced mechanical systems. In addition, they will be able to work with state-of-the-art tools, learn about the best practices in the sector and obtain an integral vision of mechanical engineering processes in cutting-edge industrial environments.

During the stay they will be supported by an assistant tutor, who will ensure that all the requirements for which this Practical Internship has been designed are met. On this basis, the specialist will work with total guarantee and security in the handling of the most innovative technology.

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 has a huge faculty of more than 6,000 professors of the highest international prestige.

“

TECH combines Relearning and the Case Method in all its university programs to guarantee excellent theoretical and practical learning by studying when you want and from wherever you want”



“

Study at the largest online university in the world and ensure your professional success. The future begins 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 world's best online university" 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 aimed at educating the professionals of the future"

Forbes
Mejor universidad
online del mundo

A world-class teaching staff

TECH's teaching staff is made up of more than 6,000 professors with the highest international recognition. 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.

Profesorado
TOP
Internacional

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 online educational catalog, one hundred percent online and covering the vast majority of areas of knowledge. We offer a large selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university degrees, in eleven different languages, make us the largest educational largest in the world.

nº1
Mundial
Mayor universidad
online del mundo

The most complete study plans on the university scene

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

Plan
de estudios
más completo

A unique learning method

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

La metodología
más eficaz

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 managed to become the leading university in employability. 99% 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 to 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 as a Google Premier Partner 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 official online university of the NBA

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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. These ratings place TECH as the absolute international university reference.



Leaders in employability

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03

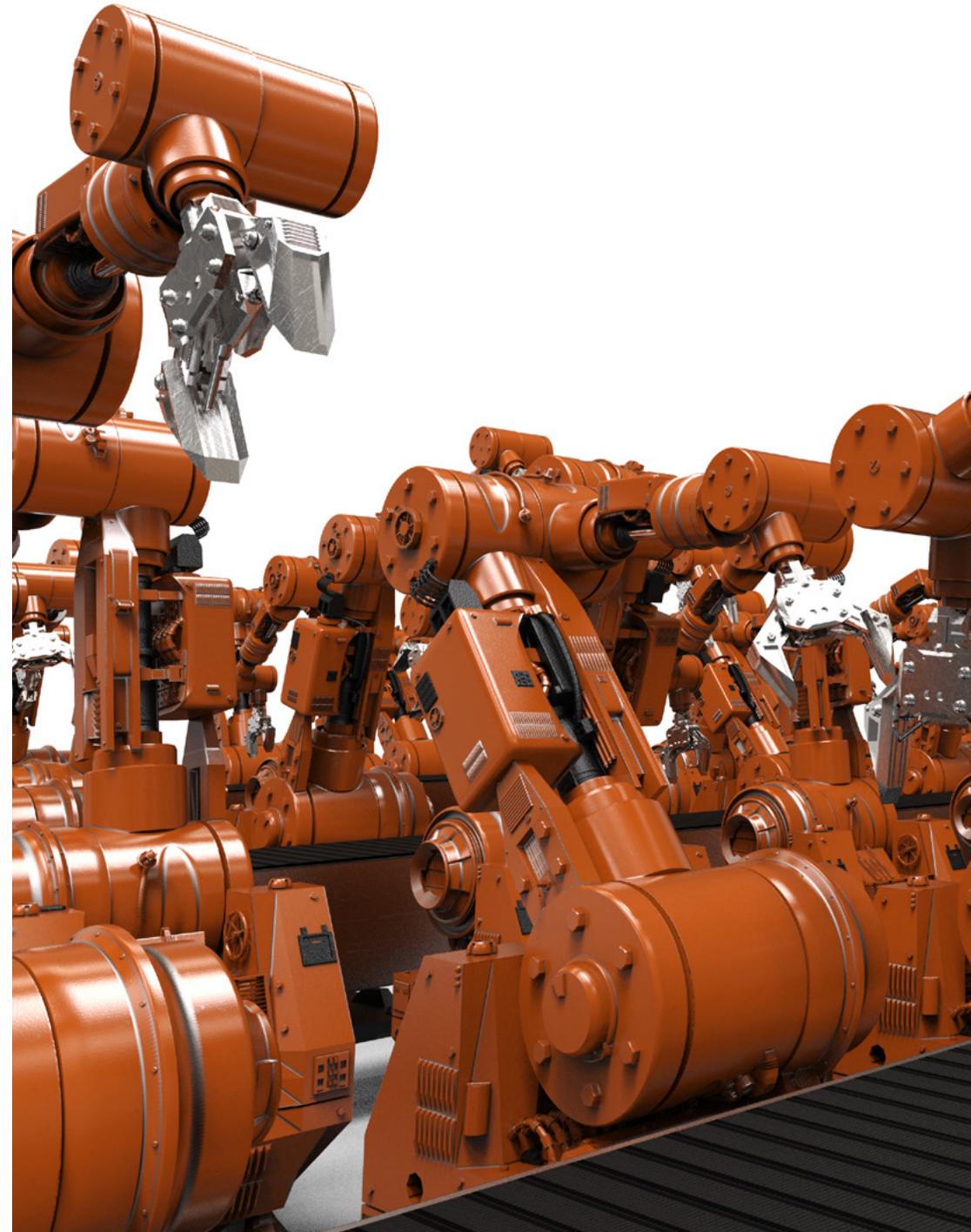
Teaching Objectives

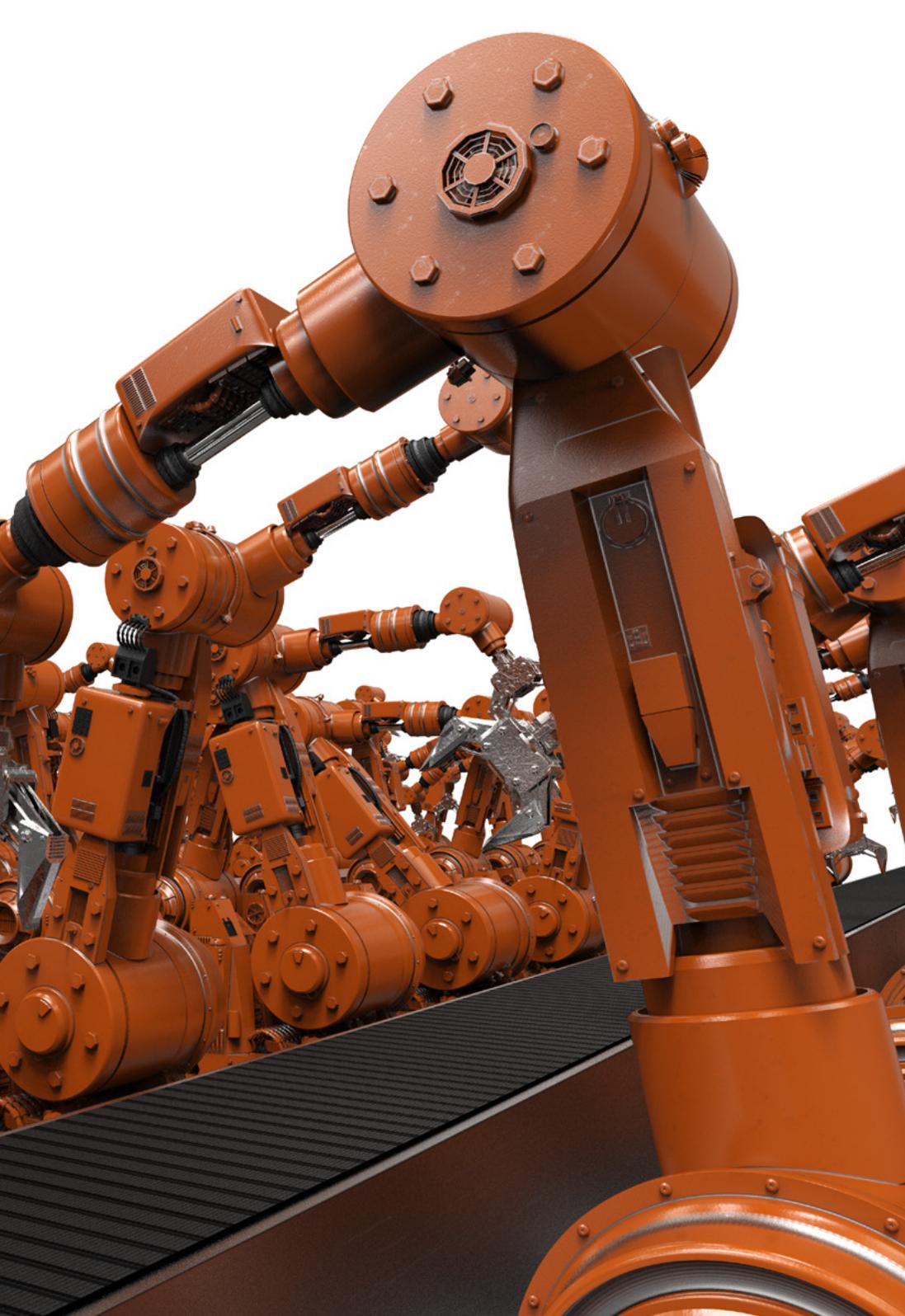
The main objective of the Internship Program in Mechanical Engineering is to provide graduates with the opportunity to apply their theoretical knowledge in real situations, developing skills in design, manufacturing and optimization of mechanical systems. Through direct experience, students will learn to solve complex problems, manage projects and work in multidisciplinary teams, all in compliance with the highest standards of quality and industrial sustainability.



General Objectives

- ♦ Obtain complex knowledge of engineering project management and continuous process improvement
- ♦ Gain complex knowledge of the design of machine elements, engines, structures and installations, including the choice of materials, their method of manufacture and reliability, safety and environmental considerations
- ♦ Delve into the necessary knowledge of Industry 4.0 applied to Mechanical Engineering.
- ♦ Delve into the necessary knowledge of advanced and innovative applications of Mechanical Engineering





Specific Objectives

- ◆ Develop the ability to apply the fundamental principles of Mechanical Engineering in the design, analysis and solution of real problems in industrial and work environments
- ◆ Use computer aided design and engineering simulation tools to model and analyze mechanical systems
- ◆ Perform stress, strain and fatigue analysis of materials and mechanical structures under different loading and temperature conditions
- ◆ Contribute to the improvement of manufacturing processes, material selection and manufacturing techniques, applying knowledge of quality control and resource optimization

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Select the most suitable materials for the design of mechanical products, taking into account their physical and environmental properties”

04 Internship

The Internship Program of this Mechanical Engineering program consists of a clinical internship in a reference institution in Mechanical Engineering, lasting 3 weeks, from Monday to Friday with 8 consecutive hours of practical training with an assistant specialist. This internship will allow students to work on projects of design, analysis, manufacturing and optimization of mechanical systems, reinforcing their practical skills and improving their ability to make decisions in a professional environment.

In this training proposal, completely practical in nature, the activities are aimed at developing and perfecting the skills necessary for the provision of Mechanical Engineering services in areas and conditions that require a high level of qualification, and which are oriented towards specific training for the exercise of the activity, in an environment of patient safety and high professional performance.

It is undoubtedly a unique opportunity to learn by working in one of the leading institutions in the field of mechanical engineering, where technological innovation and process optimization are at the center of the professional culture.

The practical part will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of the professors and other training partners that facilitate teamwork and multidisciplinary integration as transversal competences for the praxis of Mechanical Engineering (learning to be and learning to relate).

The procedures described below will be the basis of the practical part of the training, and its realization will be subject to the center's own availability and workload, being the proposed activities the following:





Module	Practical Activity
Project Coordination in Mechanical Engineering	Establish the project schedule, determining delivery times, intermediate deadlines and development stages
	Coordinate work teams with different specialties (mechanical, electrical, etc.)
	Supervise the assignment of tasks and responsibilities within the engineering team
	Identify potential risks related to the project, such as technical problems, machinery failures or material delivery delays
Conception of Mechanical Components	Identify customer needs and operating conditions of the mechanical component
	Analyze material properties suitable for mechanical components (strength, durability, weight, cost)
	Create initial solutions for the mechanical component, considering constraints and functional requirements
	Perform stress, strain and fatigue analysis of mechanical elements using simulation software
Environmentally Responsible Design	Conduct product and system reliability studies using methods such as failure mode and effects analysis (FMEA) or fault tree analysis
	Evaluate potential system failures and associated risks during the system life cycle (from design to operation) and establish strategies to mitigate them
	Incorporate safety features from the start of design, such as overload protection, short-circuit protection, emergency devices, etc.
	Design products that are robust and provide consistent performance over their lifetime, minimizing maintenance requirements and the likelihood of premature failure
Production-Oriented Design	Choose suitable materials for manufacturing based on their mechanical properties, cost and ease of workability with available manufacturing processes
	Determine the tolerances required for each component, balancing accuracy with manufacturing cost
	Use simulation software and CAD/CAM tools to predict the design behavior in the manufacturing processes
	Create detailed plans for the mass production of components, establishing schedules, required resources and possible bottlenecks

05 Internship Centers

In its maxim of offering quality education within the reach of most people, TECH has decided to broaden the academic horizons so that this training can be provided in various centers geographically. A unique opportunity that allows the professional to continue to grow their career alongside the best specialists in the field of Mechanics Engineering.

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You will carry out a practical stay at a recognized institution in the field of Mechanics Engineering”





The student will be able to do this program at the following centers:



Engineering

Talleres Alegría (Calle Peñasanta 7)

Country

Spain

City

Asturias

Address: Calle Peñasanta 7, Parque Empresarial
Silvota, Llanera, 33192, Asturias

Talleres Alegría is a company dedicated exclusively to the
manufacture of railway material and equipment

Related internship programs:

Mechanical Engineering



Engineering

Talleres Alegría (Calle Peñasanta Parcela 10)

Country

Spain

City

Asturias

Address: Calle Peñasanta Parcela 10, Parque Empresarial Silvota, Llanera, 33192, Asturias

Talleres Alegría is a company dedicated exclusively to the manufacture of railway material and equipment

Related internship programs:

Mechanical Engineering





**Talleres Alegría
(Plaza del Aramo 104)**

Country	City
Spain	Asturias

Address: Plaza del Aramo 104, Parque Empresarial Silvota, Llanera, 33192, Asturias

Talleres Alegría is a company dedicated exclusively to the manufacture of railway material and equipment

Related internship programs:

Mechanical Engineering

06

General Conditions

Civil Liability Insurance

The university's main concern is to guarantee the safety of the interns, other collaborating professionals involved in the internship process at the center. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, the university commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the stay at the internship center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the Internship Program period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



General Conditions of the Internship Program

The general terms and conditions of the internship program agreement shall be as follows:

1. TUTOR: During the Internship Program, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

2. DURATION: The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

3. ABSENCE: If the students does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

4. CERTIFICATION: Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.

5. EMPLOYMENT RELATIONSHIP: The Internship Program shall not constitute an employment relationship of any kind.

6. PRIOR EDUCATION: Some centers may require a certificate of prior education for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

7. DOES NOT INCLUDE: The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

07 Certificate

This private qualification will allow you to obtain a diploma for the **Internship Program in Mechanical Engineering** 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: **Internship Program in Mechanical Engineering**

Duration: **3 weeks**

Attendance: **Monday to Friday, 8-hour consecutive shifts**

Credits: **4 ECTS**



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

tech global
university

Internship Program
Mechanical Engineering

Internship Program

Mechanical Engineering

