



Postgraduate Certificate

Update on Anemia

» Modality: Online

» Duration: 6 weeks

» Certificate: TECH Global University

» Accreditation: 5 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-certificate/update-anemia

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06 Certificate



Anemia is one of the main pathologies that medical professionals have to deal with, so it is essential to make correct diagnoses in order to address these problems with the most accurate treatments. This course shows the latest updates in anemias.



tech 06 | Introduction

At present, the specialty of hematology is a pioneer in innovation in diagnosis and treatment and it should be noted that hematologists are leaders in the clinical application of immunotherapy in the fight against the different blood cancers.

Different scientific societies around the world that deal with this specialty strive to rapidly incorporate the results of biomedical research into clinical practice, especially the treatment of hematological malignancies (blood cancers), but also iron deficiency and anemias, the administration of direct-acting oral anticoagulants-DOACs, bone marrow transplants and, in the long-term, research focused on obtaining artificial blood, with the ultimate aim of ensuring that healthcare managers include these techniques in the services provided by national healthcare systems as soon as possible.

The reasons why hematology and hemotherapy is one of the fastest progressing medical disciplines in terms of knowledge and technology in recent decades lie in the integration of biological and clinical knowledge, which has led to a better understanding of the mechanisms of disease, thereby facilitating the development of more appropriate guidelines for clinical action. All of this has contributed to hematology and hemotherapy reaching a remarkable degree of maturity and justifying its future as an integrated specialty, this being the ideal framework for training and improving specialists in this area of medical knowledge.

This Postgraduate Certificate on Update on Anemia endorses the latest advances in research and the highest scientific evidence, with a robust and didactic teaching program that positions it as a teaching product of the highest scientific rigor at international level, aimed at health professionals, who in their daily clinical practice face the care of patients or populations with bleeding disorders. In addition, the training program is based on a multidisciplinary approach to its subjects, which allows training and professional development in different areas.

This Postgraduate Certificate in Update on Anemia supports the latest advances in research and the highest scientific evidence, with a solid and didactic teaching program that positions itself as a qualification of the highest scientific rigor at an international level. In addition, it includes a masterclass given by a world renowned expert in the field of hematology, further enriching the content. This program is aimed at healthcare professionals who, in their daily clinical practice, deal with the care of patients or populations with hemorrhagic diseases. The program is based on a multidisciplinary approach to its topics, allowing for education and professional development in different areas.

This **Postgraduate Certificate in Update on Anemia** is the most comprehensive and up-to-date educational program on the market. The most important features of the program include:

- Clinical symptoms cases presented by experts in hematology.
- The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional.
- Diagnostictherapeutic developments on assessment, diagnosis, and treatment in hematology patients..
- Practical exercises where the self-assessment process can be carried out to improve learning.
- The Iconography of clinical and diagnostic imaging tests.
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course..
- With special emphasis on evidence-based medicine and research methodologies in hematology.
- 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..



With the Postgraduate Certificate in Update on Anemia you have the opportunity to update your knowledge in a comfortable way and without renouncing to the maximum scientific rigor"



ThisPostgraduate Certificate is the best investment you can make to acquire the best and most up-to-date training in Update on Anaemia"

The teaching body is made up of respected and renowned professionals with extensive experience in healthcare, teaching, and research, who have work in many countries where these diseases are prevalent.

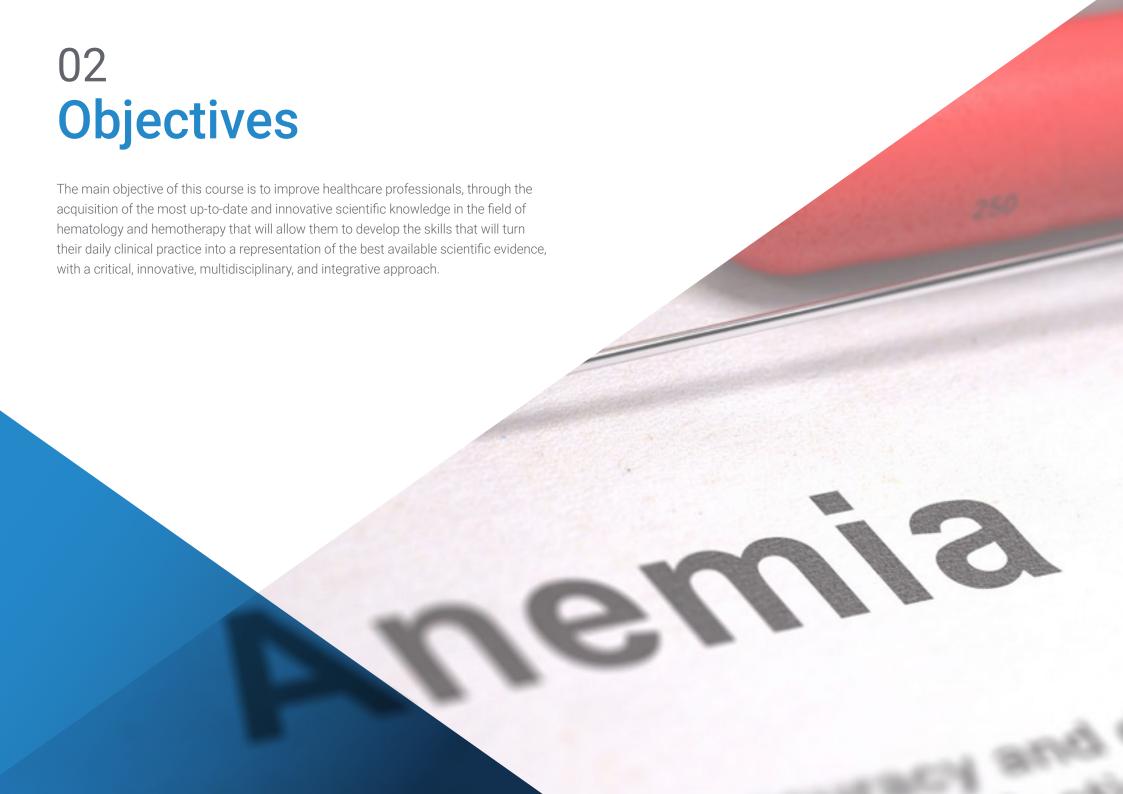
The methodological design of this course, developed by a multidisciplinary team of e-learning experts, integrates the latest advances in educational technology for the creation of numerous multimedia educational tools allow the professional, based primarily on the problem-based learning method, to address real problems in their daily clinical practice, which will allow them to advance by acquiring knowledge and developing skills that will impact their future professional work.

It should be noted in this course that each of the contents generated, as well as the videos, self-evaluations, clinical cases and exams, have been thoroughly reviewed, updated, and integrated by the team of experts that make up the faculty, to ensure that the learning process is orderly and instructive in order to achieve the program's objectives.

This course offers training in simulated environments, which provides an immersive learning experience designed to train for real-life situations.

It includes clinical cases to bring the program's degree as close as possible to the reality of care in medicine.







tech 10 | Objectives



General Objective

• Update the specialist's knowledge through the latest scientific evidence in the diagnosis and treatment of hematological diseases, in order to develop measures to prevent, diagnose, treat, and rehabilitate hematological diseases, with a multidisciplinary and integrative approach that supports medical care with the highest quality standards for managing and monitoring hematology patients..



Don't miss the opportunity and get up to date on anemia updates to incorporate them into your daily medical practice"





Objectives | 11 tech



Specific Module Objectives

- Provide students with advanced, in-depth, up-to-date, and multidisciplinary information
 that allows them to comprehensively approach the hematological health/disease
 process, ensuring proper treatment and the use of all appropriate therapeutic procedures.
- Provide training and practical/theoretical improvement that will ensure a reliable clinical diagnosis supported by the efficient use of diagnostic methods.
- Explain the complex pathophysiologic and etiopathogenic interrelationships in the mechanisms of hematologic disease onset.
- Emphasize the role of the rational use of diagnostic technologies when studying these patients.
- Address, in detail and depth, the most up-to-date scientific evidence on the mechanisms of action, adverse effects, dosage, and use of drugs to treat these diseases.





International Guest Director

Dr. Joseph Hai Oved is a pediatric hemato-oncology specialist at Memorial Sloane Kettering Cancer Center, considered one of the best cancer centers in the world. His work focuses on stem cell and bone marrow transplantation, as well as cell therapies, to treat non-cancerous diseases. His work in the field of transplantation to patients with difficult-to-treat immune dysfunctions or inherited immune deficiencies, as well as those with bone marrow failure syndromes, is particularly noteworthy.

His research is prolific in the hemato-oncology area, seeking new ways to personalize transplantation to achieve a precise cure with minimal side effects. He has studied in depth the effects of the different techniques used to manipulate donated stem cells, extracting or adding specific cells of interest. He has also analyzed how exposure to different conditioning agents (chemotherapies or other drugs used to prepare the body for transplantation) affect outcomes. His work has advanced the identification of biomarkers to more accurately predict transplant outcomes.

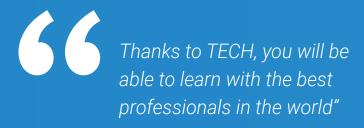
Joseph is a member of several national and international groups in bone marrow transplantation, hematology and immunology. He serves on committees of many of these organizations, where they discuss potential future therapies, clinical trials and efforts to further advance the field of pediatric transplantation and cellular therapies worldwide.

All his scientific contribution places him as a reference in his field, receiving several awards. These include two fellowships awarded by the Howard Hughes Medical Institute, one of the largest privately funded organizations for biological and medical research in the United States. He also received a fellowship in immunology from the Weizmann Institute of Science, considered one of the most advanced multidisciplinary research institutions in the world.



Dr. Hai Oved, Joseph

- Pediatrician specialized in hemato-oncology at the MSK Cancer Center New York
- Member of the Scientific Advisory Board of Emendo Biotherapeutics.
- Managing Partner of New World Health, LLC
- Observer on the board of BioTrace Medical Inc.
- Pediatrician specializing in hemato-oncology at Children's Hospital of Philadelphia
- M.D. from NYU School of Medicine
- Fellowship in pediatric hemato-oncology at Children's Hospital of Philadelphia
- Residency in Pediatrics at New York Presbyterian Weill Cornell Medical College



tech 14 | Course Management

Guest Director



Dr. Joaquín Martínez-López

- Head of the Hematology Department at the 12 de Octubre Hospital, Madrid.
- PhD in Medicine from the Complutense University of Madrid.
- Hematology Medical Specialist
- Director of the translational research group and the early clinical trials unit in hematology at 12 de Octubre Hospital.
- 140 publications in international scientific journals.
- President of AltumSequencing

Professors

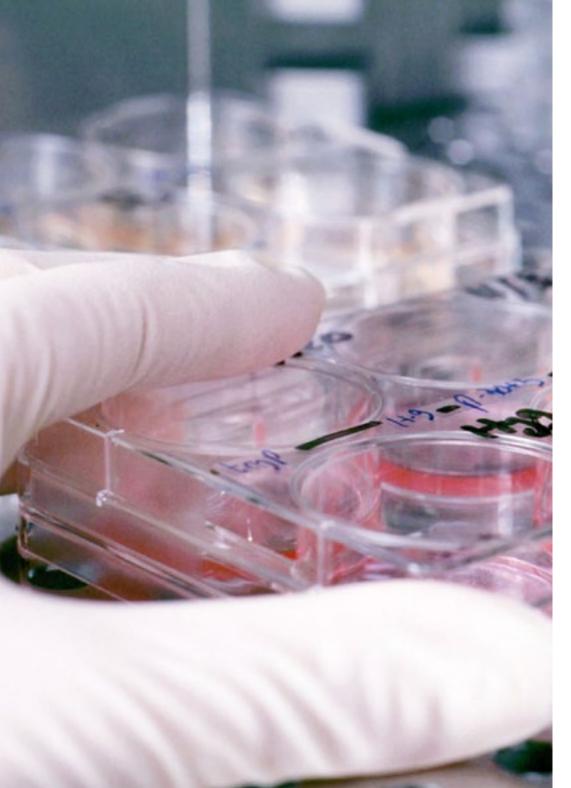
Dr. Rodríguez Rodríguez, Mario

- Specialist in Thrombophilia and Hemostasis consultation and in basic and special coagulation laboratory at the 12 de Octubre University Hospital. Since June 2017.
- Graduate in Medicine and Surgery from the Complutense University of Madrid. Class of 2006 2012.
- Hematology on-call duty as an attending physician (FEA). Since June 2017.
- Resident Medical Intern in Hematology and Hemotherapy at the 12 de Octubre University Hospital (21/05/2013 21/05/2017).
- Participation in quality work for ENAC accreditation in the coagulation laboratory at the 12 de Octubre University Hospital.
- Usability study/evaluation of the cobas t711 coagulometer, Roche Diagnostics.

 Participation in the following publications: "Evaluation of The MD Anderson Tumor Score for Diffuse Large B-cell Lymphomain the Rituximab Era", "Clinical course and risk factors for mortality from COVID-19 inpatients with haematological malignancies" and "Thrombosis and antiphospholipid antibodies in patients with SARS-COV-2 infection (COVID-19)", among others.

Dr. Paciello Coronel, María Liz

- Specialist in Hematology and Hemotherapy. 12 de Octubre University Hospital. Since 2008.
- Graduate in Medicine and Surgery. National University of Asunción, Paraguay.
- Collaborator in clinical trials as principal investigator and sub-investigator.



Course Management | 15 tech

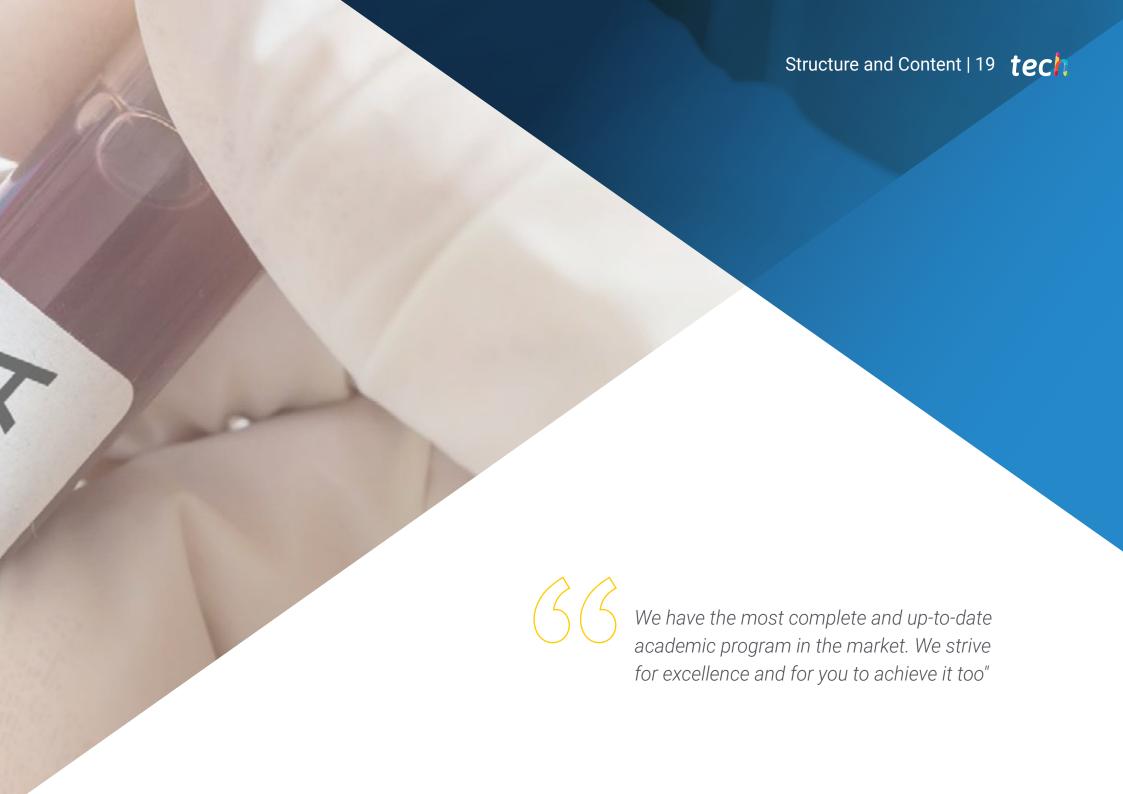
Dr. Sánchez Pina, José María

- Attending Physician in the area of hospitalization and hematopoietic transplantation.
 Member of the cell therapy group. Since 2017
- Degree in Medicine. University of Alcalá. 2006-2012
- TECH Master's Degree in Hematopoietic Transplantation, 4th edition, University of Valencia
- Resident intern of Hematology and Hemotherapy at 12 de Octubre University Hospital in Madrid. 2013-2017
- Teaching collaborator in the TECH Master's Degree in Translational Medicine. The Complutense University of Madrid; and TECH Master's Degree in Organ and Tissue Transplants. European University of Madrid.

Dr. Carreño Gómez-Tarragona, Gonzalo

- Specialist physician at the 12 de Octubre University Hospital.
- Degree in Medicine. Autonomous University of Madrid. 2013.
- TECH Master's Degree in Hematopoietic Transplantation. University of Valencia. 2019
- Cytology Course in Myelodysplasia. Del Mar Hospital. 2017.
- Teaching collaborator for the following subjects: Hematology and Hemotherapy, Degree
 of Medicine (Complutense University of Madrid); and Advances in Vascular Function,
 Degree of Medicine (Autonomous University of Madrid).
- Participation in the Clinical Research Ethics Committee at the 12 de Octubre University Hospital. 2019.
- Participation in national and international conferences.
- Distinction as Best Scientific Communication. VII National Research Conference for Undergraduate Students in Health Sciences. Complutense University of Madrid. 2013.





tech 20 | Structure and Content

Module 1. Update on Anemia

- 1.1. Mechanism of Erythropoiesis, Erythroid Differentiation and Maturation:
 - 1.1.1. Biopathology and Physiopathology of Erythrocytes.
 - 1.1.2. Structure and Types of Hemoglobin.
 - 1.1.3. Functions of Hemoglobin.
- 1.2. Classification of Erythrocyte Disorders and Clinical Manifestations:
 - 1.2.1. Classification of Erythrocyte Disorders.
 - 1.2.2. Symptoms and Signs of Anemia by Organ Systems.
- 1.3. Pure Red Cell Aplasia:
 - 1.3.1. Concept.
 - 1.3.2. Etiology.
 - 1.3.3. Clinical Manifestations
 - 1.3.4. Diagnosis.
 - 1.3.5. Current Treatment Alternatives.
- 1.4. Congenital Dyserythropoietic Anemias:
 - 1.4.1. Concept.
 - 1.4.2. Etiology.
 - 1.4.3. Clinical Manifestations
 - 1.4.4. Diagnosis.
 - 1.4.5. Current Treatments.
- 1.5. Iron Deficiency Anemia and Alterations in Iron Metabolism and Iron Overload: Current Management.
 - 1.5.1. Concept.
 - 1.5.2. Classification and Etiology.
 - 1.5.3. Clinical Picture.
 - 1.5.4. Staged Diagnosis of Iron Disorders.
 - 1.5.5. Treatment Variants of Iron Disorders.



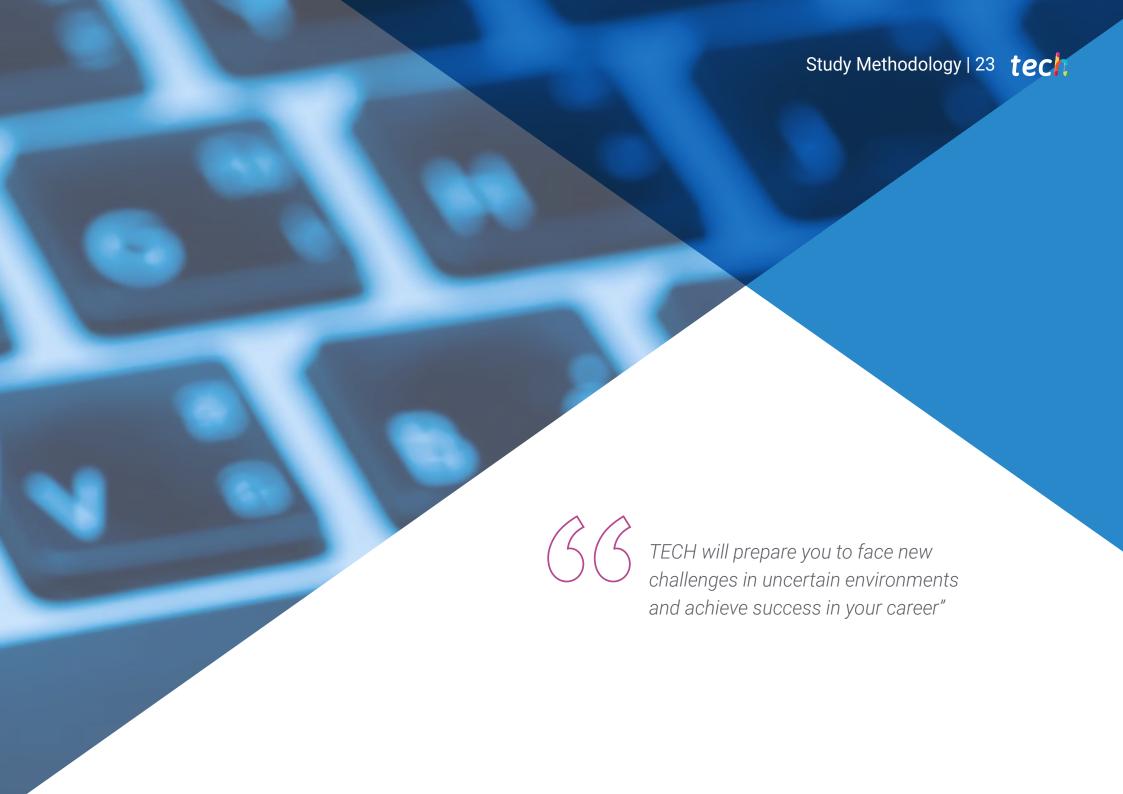


Structure and Content | 21 tech

- 1.6. Megaloblastic Anemias: Recent Advances.
 - 1.6.1. Concept.
 - 1.6.2. Classification and Etiology.
 - 1.6.3. Clinical Picture.
 - 1.6.4. Diagnostic Approach.
 - 1.6.5. Current Treatment Schemes and Recommendations.
- 1.7. Hemolytic Anemias: From Laboratory to Clinic.
 - 1.7.1. Concept.
 - 1.7.2. Classification and Etiology.
 - 1.7.3. Clinical Picture.
 - 1.7.4. Diagnostic Challenges.
 - 1.7.5. Treatment Alternatives.
- 1.8. Hemoglobin Disorder Anemias:
 - 1.8.1. Concept.
 - 1.8.2. Classification and Etiology.
 - 1.8.3. Clinical Picture.
 - 1.8.4. Analytical Diagnostic Challenges.
 - 1.8.5. Treatment Variants.





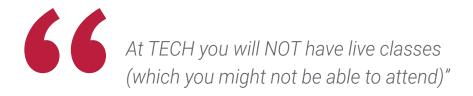


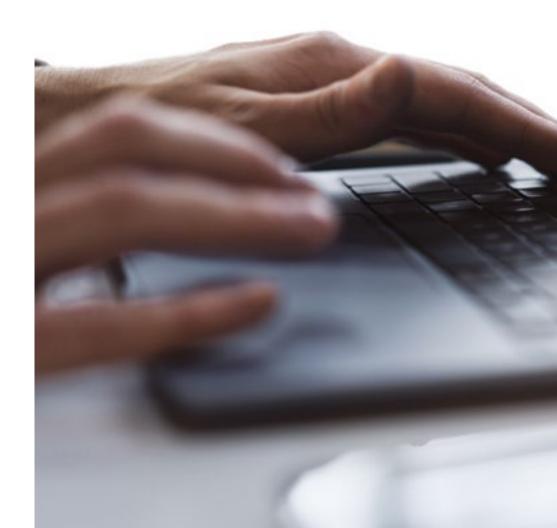
The student: the priority of all TECH programs

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.







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"

tech 26 | Study Methodology

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.

Study Methodology | 29 tech

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

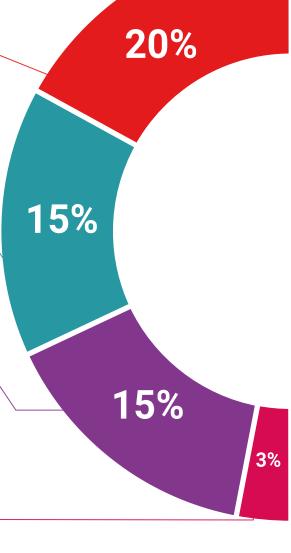
You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



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



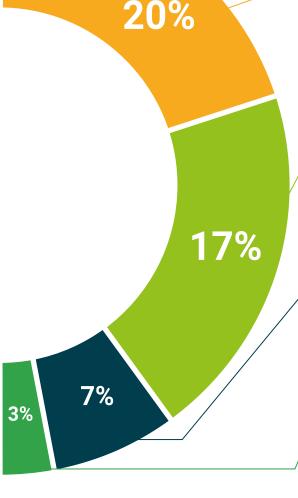
There is scientific evidence suggesting that observing third-party experts can be useful.

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.







tech 34 | Certificate

This private qualification will allow you to obtain a **Postgraduate Certificate in Update on Anemia** 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 Certificate in Update on Anemia

Modality: online

Duration: 6 Weeks

Accreditation: 5 ECTS



Mr./Ms. _____, with identification document ______
has successfully passed and obtained the title of:

Postgraduate Certificate in Update on Anemia

This is a private qualification of 150 hours of duration equivalent to 5 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



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

tech global university

Postgraduate Certificate Update on Anemia

- » Modality: Online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Accreditation: 5 ECTS
- » Schedule: at your own pace
- » Exams: online

