

Postgraduate Diploma
Biology and Geology Teacher
Training in High School
Education





Postgraduate Diploma Biology and Geology Teacher Training in High School Education

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

Website: www.techtute.com/us/education/postgraduate-diploma/postgraduate-diploma-biology-geology-teacher-training-high-school-education

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01

Introduction

Learning genetics through digital resources, designing a globosphere or creating activities about the Earth's impact craters are attractive teaching alternatives to bring Biology and Geology closer to High School Education students. In this way, thanks to the new methodologies, teaching professionals are able to break the 100% online program, which provides the teacher with the necessary tools and resources to successfully develop the programming and execution of these subjects in the classroom. For this purpose, you will have at your disposal innovative multimedia teaching material, prepared by an excellent teaching team with extensive experience in the educational sector.



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This Postgraduate Diploma 100% online will take you for 6 months to perfect your skills in the design of programs and teaching units in Biology and Geology”

The Science-Technology-Society (STS) approach to the teaching of Biology and Geology has allowed teaching professionals to bring science popularization to school environments in an attractive and enjoyable way.

Therefore, the use of digital tools and activities that allow collaborative work and effective learning of concepts that, in the past, raised significant problems for their understanding is becoming more and more frequent. Faced with this reality, TECH has designed this 100% online Postgraduate Diploma, which provides teachers with the resources they need to plan, design, implement, and evaluate Biology and Geology lessons in High School Education.

It is a program with an advanced syllabus that introduces the professional for 6 months in the main concepts to work on these subjects in the classroom, the design of teaching experiments, the syllabus design or the multitude of resources available to approach the high school in an attractive way the subject.

All of this is complemented by innovative teaching material based on video summaries of each topic, detailed videos, specialized readings, and case studies. Furthermore, thanks to the Relearning system, the teacher will be able to reduce the long hours of study and consolidate the concepts in a much easier way.

This **Postgraduate Diploma in Biology and Geology Teacher Training in High School Education** 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 teaching in High School Education
- ♦ The graphic, schematic, and practical contents with which they are created, provide 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
- ♦ 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



In this program, TECH provides you with new teaching approaches to make your classes both didactic and dynamic"

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It considerably reduces the long hours of study thanks to the Relearning system used by TECH”

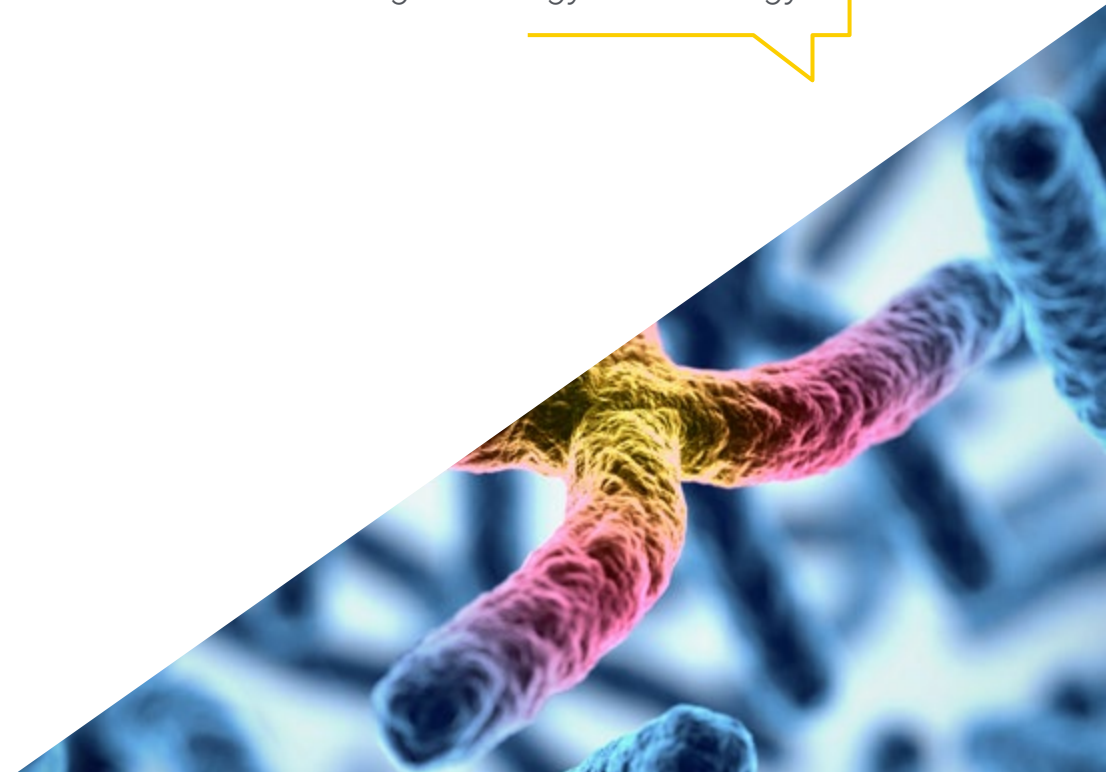
Get all the educational ICT resources you need to develop engaging and masterful Biology and Geology lessons.

It brings science popularization closer to the school environment through practical experiences in the teaching of Biology and Geology.

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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 education 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 during the educational year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.



02

Objectives

Upon completion of this university program, the teaching professionals will have broadened their skills and abilities for the teaching of Biology and Geology in High School Education. In order to achieve these objectives successfully, this educational institution provides pedagogical tools and a first class syllabus. In addition, thanks to the excellent teachers of this program, the high school students will be able to find the most relevant and current information on the teaching of this subject.





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Thanks to this program you will avoid making mistakes in the syllabus design of your Biology and Geology subject in High School Education"



General Objectives

- ♦ Introduce students to the world of teaching, from a broad perspective that provides them with the necessary skills for the performance of their work
- ♦ Know the new tools and technologies applied to teaching
- ♦ Show the different options and ways the teacher can work in his or her post
- ♦ Promote the acquisition of communication and knowledge transmission skills and abilities
- ♦ Encourage continuing education for students





Specific Objectives

Module 1. Complements for the Disciplinary Formation of Biology and Geology

- ♦ Know the different distorted visions of Science and its characteristics, therefore understanding the different misconceptions about it
- ♦ Expose the main characteristics of Science teaching, therefore, as well as the problems it addresses
- ♦ Mention the relationship between research activity and the scientific method, and its teaching in Biology and Geology
- ♦ Know what inquiry learning is and its characteristics
- ♦ Know the scientific method and its characteristics
- ♦ Learn about proposals for teaching biology and geology based on the scientific method and inquiry-based learning

Module 2. Biology and Geology Syllabus Design

- ♦ Define the concept of syllabus
- ♦ Detail the elements that make up the syllabus
- ♦ Explain the concept of syllabus design
- ♦ Describe the levels of concreteness of the syllabus
- ♦ Explain the different models of the syllabus
- ♦ Determine the aspects that should be taken into account in the elaboration of a teaching program

Module 3. Biology and Geology Teaching

- ♦ Understand the origin and evolution of didactics
- ♦ Different definitions of the concept of didactics
- ♦ Propose a classification of didactics
- ♦ Explain the contribution of the CSIC to the scientific formation of teachers
- ♦ Expose the objects of study of Science didactics



This program will allow you to improve your planning and performance in the classroom, overcoming the barriers that sometimes prevent you from reaching high school Education students".

03

Course Management

TECH has brought together in this university program a magnificent team teachers with extensive professional experience in the field of teaching in public and private educational centers. In this way, the high school students who take this program will have access to the most relevant and practical information for the successful teaching of Biology and Geology. In addition, if you have any doubts about the syllabus during the course of this program, the proximity of the faculty will allow you to resolve them.



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You have at your disposal an excellent team of teachers with extensive experience in teaching in public and private schools in High School Education. Be guided by their experience and knowledge"

Management



Dr. Barboyón Combey, Laura

- ♦ Teacher of Primary Education and Postgraduate Studies
- ♦ Teacher in Postgraduate University Studies of High School Teacher Formation
- ♦ Teacher of Primary Education in several schools
- ♦ Doctor in Education from the University of Valencia
- ♦ Master's Degree in Psychopedagogy from the University of Valencia
- ♦ Degree in Primary School Education with a major in English Teaching from the Catholic University of Valencia San Vicente Mártir



04

Structure and Content

The syllabus of this university program has been planned to provide the teaching professional with the necessary tools and resources to be able to design and plan the subject of Biology and Geology in High School Education. TECH provides, for this purpose, teaching material in which the latest technology applied to teaching has been used. Comprehensive and advanced content that you can access at any time of the day from any electronic device with an Internet connection. A unique opportunity that only this educational institution offers.



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A syllabus that will give you a current approach to planning, developing, and evaluating projects in the teaching of Biology and Geology"

Module 1. Complements for the Disciplinary Training of Biology and Geology

- 1.1. The Nature of Science as a Teaching Objective and Construction of Scientific Knowledge
 - 1.1.1. The Restricted and Simplifying Concept of Science
 - 1.1.2. The Decontextualized, Accumulative and Objective View of Science
 - 1.1.3. Science as a Neutral, Individualistic, and Elitist Activity
 - 1.1.4. A Teaching Proposal
- 1.2. History of Biology and La Geology Scientific Knowledge, School Science, and Science Education
 - 1.2.1. History of Science as a Teacher's Resource
 - 1.2.2. History of Science as a Tool of Training
 - 1.2.3. History of Science in the Teaching of Sciences
 - 1.2.4. Is There Improvement in Science Education?
 - 1.2.5. Science of Scientists
 - 1.2.6. Scholar Science
 - 1.2.7. From Teaching Content to Teaching Competencies
- 1.3. What Science to Teach: Literacy and Scientific Competence
 - 1.3.1. What Science to Teach?
 - 1.3.2. Student Perceptions of Science Education
 - 1.3.3. International Assessments about Science Education
 - 1.3.4. Society's Demand on Science Education
 - 1.3.5. Status of the Science Syllabus
 - 1.3.6. Why Teach Science?
 - 1.3.7. Characteristics of Scientific Literacy Curricular Materials
 - 1.3.8. Scientific Competence
 - 1.3.9. Criteria for the Selection of Scientific Contents Under the Competency Approach
 - 1.3.10. Need for a Contextualized Treatment of the Scientific Syllabus
 - 1.3.11. The Current Syllabus and Scientific Competence
 - 1.3.12. Some Proposals for Developing the Syllabus Based on Scientific Competence
- 1.4. The Big Questions of Biology
 - 1.4.1. What Is Life?
 - 1.4.2. What is the Origin of Life?
 - 1.4.3. What is the Origin of Species?
 - 1.4.4. What Gives Each Organism its Specific Identity and Individual Identity?
 - 1.4.5. How Does the Individual Develop?
 - 1.4.6. What Relationships do Living Things Have with Each Other and with Their Environment?
- 1.5. Biology and the World of the 21st Century The Evolution of Geological Knowledge Up to the 21st Century
 - 1.5.1. New Biology Basis
 - 1.5.2. Improvement of Human Health
 - 1.5.3. Promotion of Industries that Respond to Global Problems
 - 1.5.4. Knowledge in Basic Biology
 - 1.5.5. What Remains to Be Known
 - 1.5.6. Evolution of Geological Knowledge
 - 1.5.7. Challenges of Planetary Geology
 - 1.5.8. The New Era of Seismotectonics
 - 1.5.9. New Challenges of Plate Tectonics
 - 1.5.10. The Long Road of Hominid Evolution
 - 1.5.11. Exploration of Natural Resources
 - 1.5.12. The Geological Perspective on Climate Change
- 1.6. Environmental Issues and Sustainability
 - 1.6.1. What are the Main Environmental Problems?
 - 1.6.2. Characteristics of Environmental Degradation
 - 1.6.3. Individual and Collective Behaviors Associated to Environmental Problems
 - 1.6.4. Sustainability
 - 1.6.5. Scientific-Technological, Educational, and Political Measures
- 1.7. Biology and Geology and Its Relationship with the Science-Technology-Society (STS) Approach
 - 1.7.1. New Curricular Trends in Science Education
 - 1.7.2. The STS Educational Movement
 - 1.7.3. Teachers' STS Practice in Classrooms and Schools
 - 1.7.4. Some STS Curricular Materials
 - 1.7.5. Advantages and Disadvantages of STS Practice in Science Education
 - 1.7.6. The Iberian STS Movement and Prospective
- 1.8. Teacher Educational Research: Planning, Development and Evaluation of Projects in the Teaching of Biology and Geology
 - 1.8.1. Characteristics of Today's Society
 - 1.8.2. Faculty Research and its Cycles

- 1.8.3. Elaboration of a Work Plan
- 1.8.4. Performance in the Classroom
- 1.8.5. Data Analysis and Process Evaluation
- 1.9. Design of Didactic Experiments
 - 1.9.1. Safety Rules and Cleaning in the Laboratory
 - 1.9.2. Introduction: the Teaching Experiment
 - 1.9.3. Teaching Experiments in Biology
 - 1.9.4. Teaching Experiments in Geology
 - 1.9.5. Low-Cost Teaching Experiments or Experiments with Recycled Materials
- 1.10. Practical Experiences in the Teaching of Biology and Geology
 - 1.10.1. Practical Activities in the Teaching of Biology
 - 1.10.2. Dissemination of Practical Activities
 - 1.10.3. Web Pages on Practical Activities and Virtual Laboratories
 - 1.10.4. Fundamental Characteristics of Practical Activities in Geology
 - 1.10.5. Practical Activities in the Teaching of Geology
 - 1.10.6. Field Practices

Module 2. Biology and Geology Syllabus Design

- 2.1. Syllabus and its Structure
 - 2.1.1. School Syllabus: Concept and Components
 - 2.1.2. Syllabus Design: Concept, Structure and Functioning
 - 2.1.3. Levels of Syllabus Specification
 - 2.1.4. Syllabus Model
 - 2.1.5. Educational Programming as a Working Tool in the Classroom
- 2.2. Legislation as a Guide to Syllabus Design and Key Competencies
 - 2.2.1. Review of Current National Educational Legislation
 - 2.2.2. What are Competencies?
 - 2.2.3. Types of Skills
 - 2.2.4. Key Competencies
 - 2.2.5. Description and Components of Key Competencies LOMCE
- 2.3. The Spanish Education System Teaching Levels and Modalities
 - 2.3.1. Education System: Interaction between Society, Education and the School System
 - 2.3.2. The Educational System: Factors and Elements
 - 2.3.3. General Characteristics of the Spanish Educational System
 - 2.3.4. Configuration of the Spanish Educational System
 - 2.3.5. High School Education

- 2.3.6. Baccalaureate
- 2.3.7. Vocational Training
- 2.3.8. Artistic Education
- 2.3.9. Language Teaching
- 2.3.10. Sports Education
- 2.3.11. Adult Education
- 2.4. Analysis of Syllabus from the Specialty of Biology and Geology
 - 2.4.1. Establishment of the Biology and Geology Teacher Specialty
 - 2.4.2. Official Syllabus of the Subjects Assigned to the Teacher Specialization of Biology and Geology (ESO)
 - 2.4.3. Official Syllabus of the Subjects Assigned to the Teacher Specialization of Biology and Geology (High School)
 - 2.4.4. Vocational Training and their Arrangement
 - 2.4.5. The Teachers of the Biology and Geology Teaching Specialization in the Organizational Diagram of High School Education Institutes
- 2.5. The Teaching Program I: Introduction to the Teaching Programming in the Specialty of Biology and Geology
 - 2.5.1. What is Pedagogical Autonomy (Center Autonomy)?
 - 2.5.2. What Is a Teaching Plan? Characteristics and Functions
 - 2.5.3. Justification and Contextualization of a Teaching Program
 - 2.5.4. Basic Elements of a Teaching Program: Objectives, Contents, and Key Competences
 - 2.5.5. Teaching Programming by Key Competencies Contribution of our Specialty to the Competencies
 - 2.5.6. Considerations for Vocational Training Cycles
- 2.6. The Teaching Program II: the Treatment of Methodology, Assessment, Resources and other Elements of the Teaching Program
 - 2.6.1. Concept and General Considerations on the Methodology Autonomy
 - 2.6.2. Main Aspects to be Considered within the Methodology
 - 2.6.3. Concretization of Methodological Principles
 - 2.6.4. Practical Application of Constructivism
 - 2.6.5. Learning Styles
 - 2.6.6. General Aspects to Consider when Scheduling the Assessment Process
 - 2.6.7. Recovery of Pending Subjects
 - 2.6.8. Resources
 - 2.6.9. Extracurricular and Complementary Activities
 - 2.6.10. Attention to Diversity
 - 2.6.11. Assessment of the Program and Teaching Practice
 - 2.6.12. Final Conclusions for Programming

- 2.7. The Teaching Unit I: General Aspects of the Teaching Units Didactic Objectives and Competencies
 - 2.7.1. Introduction to the Teaching Unit
 - 2.7.2. Identification/ Justification
 - 2.7.3. Contextualization
 - 2.7.4. Teaching Objectives
 - 2.7.5. Criteria for Definition of Objectives
 - 2.7.6. Competencies
 - 2.7.7. Objectives in Terms of Competencies (Relation of Objectives and Competencies)
- 2.8. The Teaching Unit II: Inclusion of Contents, Assessment, and Methodology as the Central Axis of the Teaching Unit
 - 2.8.1. Criteria for the Selection, Organization and Time Distribution of Content
 - 2.8.2. Treatment of the Assessment in the Teaching Unit
 - 2.8.3. Differences between the Inclusion of Methodology in a Teaching Program and in a Teaching Unit
 - 2.8.4. Definition of Teaching Strategies
 - 2.8.5. Methodology According to Teaching Model
 - 2.8.6. Methodological Strategies and Techniques According to Teaching Model
 - 2.8.7. Strategies and Techniques that Can Support Each Learning Style
 - 2.8.8. Methods that Favor the Development of Competencies
 - 2.8.9. Methodology for the Attention to Diversity
 - 2.8.10. Methodology to Deal with Transversal Elements and Education in Values
- 2.9. The Management of Classroom Work
 - 2.9.1. Planning of Classroom Work
 - 2.9.2. Classroom Management and Attention to Diversity
 - 2.9.3. Time Distribution
 - 2.9.4. Criteria for the Selection and Sequencing of Activities
- 2.10. Recommendations and More Common Syllabus Design Errors
 - 2.10.1. Layout Collection of the Elements of a Teaching Plan
 - 2.10.2. Layout Collection of the Elements of a Teaching Plan for ESO and High School
 - 2.10.3. Comparison between Teaching Program and Teaching Unit for ESO and High School and between Teaching Program and Work Unit in Vocational Training Cycles
 - 2.10.4. Recommendations for Good Syllabus Design
 - 2.10.5. Most Common Mistakes that can be Made in the Syllabus Design of Teaching Programs and Teaching or Work Units

Module 3. Biology and Geology Teaching

- 3.1. General Didactics and Science Didactics
 - 3.1.1. Origin and Evolution of Didactics
 - 3.1.2. Definition of Didactics
 - 3.1.3. Internal Classification of Didactics
 - 3.1.4. Learning to Teach Science: Science Didactics
 - 3.1.5. Objects of Study of Science Didactics
- 3.2. The Role of the Teacher and His Role as a Generator of a Good Context for the Learning of Biology and Geology
 - 3.2.1. The Role of the Teacher and the Development of Teaching Skills
 - 3.2.2. The Teacher as Researcher
 - 3.2.3. The Motivating Teacher
 - 3.2.4. Characteristics of the Secondary School and Vocational Training Student Body
 - 3.2.5. The Teacher as a Manager of Coexistence and Promoter of the Functioning of the Groups
- 3.3. Learning Techniques and Strategies in Biology and Geology Stages
 - 3.3.1. What Are Learning Strategies?
 - 3.3.2. Thinking Phases and Corresponding Strategies
 - 3.3.3. Conditioning or Supporting Strategies
 - 3.3.4. Acquisitive Stage Receptive Stage: Strategies for Information Acquisition and Selection
 - 3.3.5. Acquisitive Stage Reflective Phase: Strategies of Knowledge Organization and Comprehension
 - 3.3.6. Acquisitive Stage Retentive Stage: Memorization Strategies for the Storage and Retrieval of Knowledge
 - 3.3.7. Reactive Stage Extensive-Creative Phase Inventive and Creative Strategies
 - 3.3.8. Reactive Stage Extensive- Reactive Phase Strategies for Knowledge Transfer
 - 3.3.9. Reactive Stage Symbolic Expressive Phase Oral and Written Expression Strategies
 - 3.3.10. Reactive Stage Practical Expression Phase Strategies for Technical, Artistic, and Ethical Expression
 - 3.3.11. Metacognition.

- 3.4. New Teaching Approaches Models and Methodologies Applied to the Specialty of Biology and Geology
 - 3.4.1. New Teaching Approaches of Biology and Geology STEM/STEAM
 - 3.4.2. Differences between the Teaching Model, Methodology, and Methodological Technique
 - 3.4.3. Transmission-Reception Model Expositive Model
 - 3.4.4. Models by Discovery
 - 3.4.5. Constructivist Model (Meaningful Learning and Cognitive Conflict)
 - 3.4.6. Gagné's instruction Model
 - 3.4.7. Explications in Science Classes
 - 3.4.8. Reasoning and Argumentation
 - 3.4.9. Problem-Based Learning (PBL), Case Studies, and Project Work
 - 3.4.10. Cooperative vs. Collaborative
 - 3.4.11. Flipped Classroom
 - 3.4.12. Game-Based Learning (Gamification)
- 3.5. Learning Difficulties Associated with the Teaching-Learning of Biology and Geology
 - 3.5.1. The Language of Science and the Language of School Science
 - 3.5.2. Difficulties Arising from the School Environment
 - 3.5.3. Difficulties Arising from Ways of Thinking
 - 3.5.4. Concrete and Formal Thinking
 - 3.5.5. Misconceptions in Biology
 - 3.5.6. Misconceptions in Geology
 - 3.5.7. Teaching Strategies to Overcome Learning Problems Associated with Biology and Geology.
- 3.6. General Aspects of Teaching Activities Classification and Selection Activity Types: Problems
 - 3.6.1. Definition and Importance of Science in Activities Exercises vs. Activities
 - 3.6.2. General Activity Classification
 - 3.6.3. Criteria for the Design and/or Teaching Activities Selection Blooms Taxonomy Revised
 - 3.6.4. Classification of Activities in Science Classes
 - 3.6.5. Problem and Classification Definition
 - 3.6.6. Problem Solving
 - 3.6.7. Methodological Proposals to Improve Problem Solving
- 3.7. Practical Activities and Activities Outside the Classroom
 - 3.7.1. Practical Work in Science
 - 3.7.2. Classification of Practical Work
 - 3.7.3. Factors Affecting the Difficulty of Practical Assignments
 - 3.7.4. Importance of the Use of the Environment in the Teaching of Natural Sciences
 - 3.7.5. Choice of the Place to Carry Out the Activity
 - 3.7.6. Types of Activities Outside the Classroom According to the Time They are Carried Out
 - 3.7.7. Types of Activities Outside the Classroom According to Their Relation to the Contents of the Syllabus
 - 3.7.8. Types of Activities Outside the Classroom According to Its Methodological Approach
- 3.8. General Aspects of Teaching Resources Conventional Resources in the Specialty of Biology and Geology
 - 3.8.1. What Are Teaching Resources?
 - 3.8.2. Classification of Teaching Resources
 - 3.8.3. Selection of Teaching Resources
 - 3.8.4. The Textbook
 - 3.8.5. The Conventional Resources in the Classroom of Biology and Geology
 - 3.8.6. The Conventional Resources in in Laboratories of Biology and Geology
 - 3.8.7. The Conventional Resources Outside the Classroom of Biology and Geology
- 3.9. Information and Communication Technologies (ICTs) Educational Resources in the Classroom of Biology and Geology
 - 3.9.1. Concept and Characteristics of Information and Communication Technologies (ICTs)
 - 3.9.2. ICT Teaching Possibilities
 - 3.9.3. Emergence of New Educational Modalities Following the Use of ICTs
 - 3.9.4. Technical Requirements to the Use of ICTs in the Classroom
 - 3.9.5. Integration of Educational Technology to the Classroom
 - 3.9.6. Web 2.0 and the Virtual Classroom
 - 3.9.7. Emerging Educational Technologies
 - 3.9.8. Websites for Searching and Obtaining ICT Resources
 - 3.9.9. Virtual Laboratories
 - 3.9.10. Video Games and Serious Games
 - 3.9.11. Augmented Reality (RA)
 - 3.9.12. Virtual Reality (RV)

- 3.10. The Evaluation of Learning in the Subjects from the Specialty of Biology and Geology in High School Teaching and Professional Training
 - 3.10.1. Evaluation: Concept and Basic Characteristics
 - 3.10.2. Why Evaluate and What to Evaluate?
 - 3.10.3. Evaluation Systems
 - 3.10.4. Types of Evaluations
 - 3.10.5. Educational Performance: Satisfactory vs. Sufficient
 - 3.10.6. Evaluation and Grading Criteria and Evaluable Learning Standards
 - 3.10.7. Evaluation Sessions
 - 3.10.8. Introduction to the Learning Evaluation Techniques and Instruments in Experimental Sciences
 - 3.10.9. Observation Techniques and Instruments
 - 3.10.10. Dialogues/Interviews
 - 3.10.11. Review of Class Work
 - 3.10.12. Tests
 - 3.10.13. Surveys/Questionnaires
 - 3.10.14. The Evaluation of Learning in the Subjects Assigned to the Specialty of Biology and Geology in ESO, High School and Professional Training





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This university program will enable you to apply the most effective teaching strategies to overcome the learning problems associated with Biology and Geology”

05

Methodology

This training program offers 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.





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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"

At TECH Education School we use the Case Method

In a given situation, what should a professional do? Throughout the program students will be presented with multiple simulated cases based on real situations, where they will have to investigate, establish hypotheses and, finally, resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method.

With TECH, educators can experience a learning methodology that is shaking the foundations of traditional universities around the world.



It is a technique that develops critical skills and prepares educators to make decisions, defend their arguments, and contrast opinions.

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Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

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

1. Educators who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process is solidly focused on practical skills that allow educators to better integrate the knowledge into daily practice.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life teaching.
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.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

Our University is the first in the world to combine case studies with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.



Educators will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 85,000 educators with unprecedented success in all specialties. 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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.

The overall score obtained by our learning system is 8.01, according to the highest international standards.



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



Study Material

All teaching material is produced by the specialist educators who teach the course, specifically for the course, so that the teaching content is really 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.



Educational Techniques and Procedures on Video

TECH introduces students to the latest techniques, with the latest educational advances, and to the forefront of Education. All this, first-hand, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



Interactive Summaries

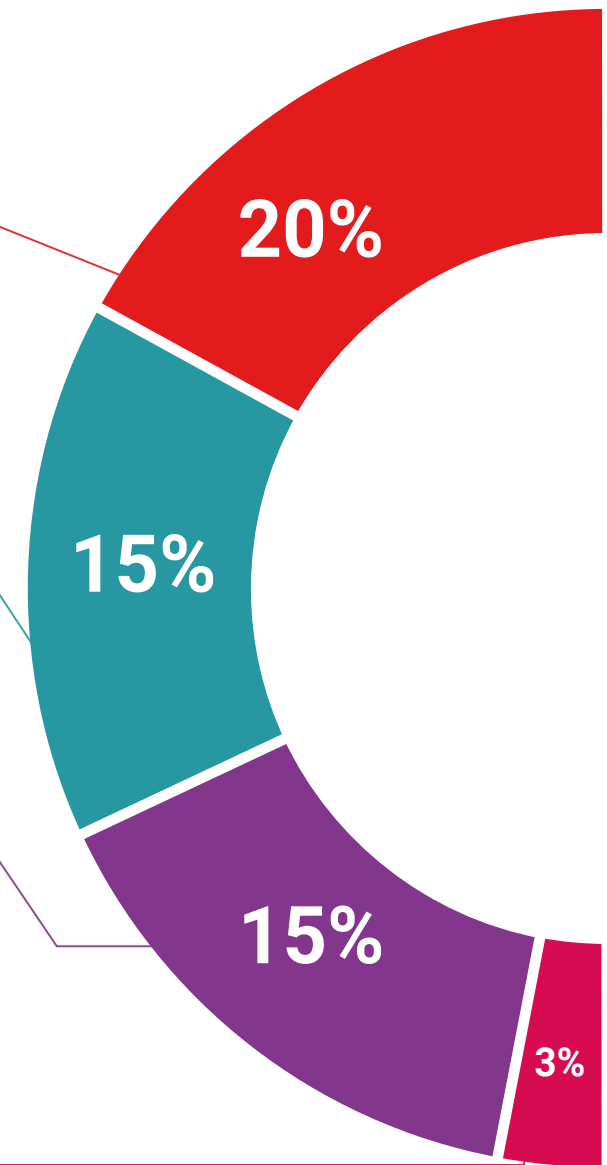
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive multimedia content presentation training Exclusive system was awarded by Microsoft as a "European Success Story".



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.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



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 your goals.



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.



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.



06

Certificate

This Postgraduate Diploma in Biology and Geology Teacher Training in High School Education guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.



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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.

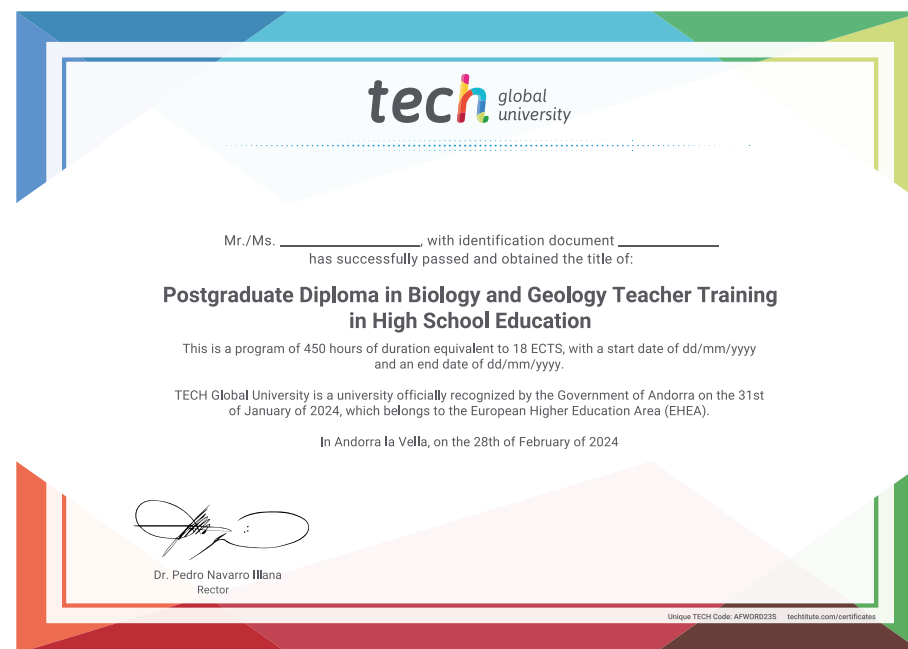
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Title: **Postgraduate Diploma in Biology and Geology Teacher Training in High School Education**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



*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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