

# Advanced Master's Degree Didactics and Teaching Practice in High School Education

Accreditation/Membership





## Advanced Master's Degree Didactics and Teaching Practice in High School Education

- » Modality: Online
- » Duration: 2 years
- » Certificate: TECH Global University
- » Accreditation: 120 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/education/advanced-master-degree/advanced-master-degree-didactics-teaching-practice-secondary-education](http://www.techtute.com/us/education/advanced-master-degree/advanced-master-degree-didactics-teaching-practice-secondary-education)

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# 01

# Introduction to the Program

Secondary education is a crucial period in the academic and personal development of students, as it lays the foundation for their future professional and social life. According to the OECD, one of the most determining factors in educational quality is teacher preparation, especially at the secondary level, where students begin to consolidate their academic and professional trajectories. In this context, TECH has developed this postgraduate program as a response to the growing demand for highly skilled experts who can address these challenges effectively. Through a 100% online methodology and an updated syllabus, specialists will acquire advanced pedagogical tools based on the best global academic practices.





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*A comprehensive and 100% online program, exclusive to TECH, with an international perspective backed by our membership in the Association for Teacher Education in Europe"*



Didactics and Teaching Practice in Secondary Education are essential for the educational development of young people, as educators play a key role in preparing students for the future. In this sense, the process requires not only the transmission of knowledge but also the application of innovative methodologies that promote critical thinking and autonomous learning.

In this context, the Advanced Master's Degree in Didactics and Teaching Practice in Secondary Education from TECH is designed to equip professionals with advanced pedagogical tools. Throughout the program, developed with a comprehensive approach, topics such as the use of digital technologies in the classroom, modern educational assessment, designing inclusive strategies, and developing students' socio-emotional skills will be addressed. This will allow the experts to apply what they have learned directly in their academic environments. Thus, they will be able to lead project teams, contribute to the development of new pedagogical strategies, and successfully perform in educational institutions.

At the same time, this university program will be taught 100% online, offering the flexibility to study from anywhere and at any time. Additionally, the Relearning methodology will ensure the consolidation of knowledge through repetition, facilitating a deep understanding of key concepts. As a conclusion to this enriching academic experience, students will have access to masterclasses taught by an International Guest Director.

Furthermore, thanks to TECH's membership in the **Association for Teacher Education in Europe (ATEE)**, professionals will have access to specialized academic journals and discounts on publications. They will also be able to attend webinars or conferences at no cost and receive linguistic support. Additionally, they will be included in the ATEE consultancy database, thereby expanding their professional network and gaining access to new opportunities.

This **Advanced Master's Degree in Didactics and Teaching Practice in High School Education** contains the most complete and up-to-date university program on the market. Its most notable features are:

- ♦ The development of practical cases presented by experts in Education
- ♦ 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 the self-assessment process can be carried out to improve learning
- ♦ Special emphasis on innovative methodologies in Didactics and Teaching Practice in High School Education.
- ♦ 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 Masterclasses delivered by a key international figure will allow you to discover cutting-edge methodologies and master key knowledge from a global perspective”*

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*TECH will offer you multimedia content and a high-level syllabus focused on pedagogical innovation, the use of digital technologies, and the creation of inclusive strategies”*

Its teaching staff includes professionals from the field of education, who bring to this program the experience of their work, as well as recognized specialists from reference 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 an immersive learning experience designed to prepare for real-life situations.

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

*Transform your career with the most complete Advanced Master's Degree! You will acquire innovative pedagogical tools that will make a difference in the classroom.*

*Do you want to take your teaching career to new heights and find better career opportunities? With this university degree, guided by a team of experts, you will achieve your goals.*



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.





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*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 best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

**Forbes**

The best online university in the world

The most complete **syllabus**

**The most complete syllabuses on the university scene**

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

**The best top international faculty**

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

**TOP**  
international faculty



The most effective methodology

**A unique learning method**

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

**The world's largest online university**

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

**World's No.1**  
The World's largest online university

**The official online university of the NBA**

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

**Leaders in employability**

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



**Google Premier Partner**

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



**The 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.



**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.



**Leaders in employability**

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

# 03

# Syllabus

The syllabus is carefully structured to address the most relevant aspects of secondary and high school education, combining theory and practice for a comprehensive learning experience. In this way, professionals will master key tools to apply in their daily work, including the use of digital resources, the development of socio-emotional skills in students, and the creation of collaborative learning environments. Furthermore, they will delve into curriculum planning, neuroscience applied to teaching, inclusive classroom management, and the use of emerging technologies in education.





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*With an integrated and dynamic approach, this syllabus will prepare you to transform classrooms and lead innovative and effective educational processes”*

## Module 1. Education and Development

- 1.1. Language and the Brain
  - 1.1.1. Brain and Language
  - 1.1.2. Communicative Processes of the Brain
  - 1.1.3. The Brain and Speech. Acquisition and Development of Language and Communication
- 1.2. Psycholinguistics
  - 1.2.1. Scientific Framework of Psycholinguistics
  - 1.2.2. Objectives of Psycholinguistics
  - 1.2.3. Language Processing System
  - 1.2.4. Theories on the Development of Language Learning
  - 1.2.5. The Information Processing System
    - 1.2.5.1. Levels of Processing
  - 1.2.6. Functional Architecture of the Language Processing System. Fodor's Modularist Position
- 1.3. Language Development vs. Neural Development
  - 1.3.1. Genetics and Language
    - 1.3.1.1. FOXP2 (Forkhead Box P2)
  - 1.3.2. Neurological Foundations of Language
  - 1.3.3. Developmental Dyslexia
  - 1.3.4. Specific Language Disorder (SLD)
- 1.4. Spoken Language and Written Language
  - 1.4.1. Language
  - 1.4.2. Comprehensive Language
  - 1.4.3. Spoken Language
  - 1.4.4. Reading Language
  - 1.4.5. Dyslexia
  - 1.4.6. Written Language
  - 1.4.7. Dysgraphia
- 1.5. Bilingual Brain
  - 1.5.1. Concept of Bilingualism
  - 1.5.2. Bilingual Brain
  - 1.5.3. Critical and Sensitive Periods
  - 1.5.4. Positive and Negative Effects of Bilingualism
  - 1.5.5. Brain of the Early Bilingual vs. Late Bilingual
  - 1.5.6. Changes in Neural Circuits in Bilingual Brains
  - 1.5.7. Learning Factors in the Acquisition of One or More Languages
    - 1.5.7.1. Window of Opportunity
    - 1.5.7.2. Aptitude
    - 1.5.7.3. Motivation
    - 1.5.7.4. Strategy
    - 1.5.7.5. Consistency
    - 1.5.7.6. Opportunity and Support
    - 1.5.7.7. Linguistic Relationship Between Languages
    - 1.5.7.8. Siblings
    - 1.5.7.9. Gender
    - 1.5.7.10. Right or Left-Handedness
  - 1.5.8. Bilingualism. Cognitive and Executive Functions
- 1.6. Speech and Language Development Disorders
  - 1.6.1. The Architecture of the Mind
  - 1.6.2. Language
    - 1.6.2.1. Language Development
  - 1.6.3. Communication Disorders
  - 1.6.4. Specific Speech and Language Development Disorders
    - 1.6.4.1. Specific Language Development Disorder
    - 1.6.4.2. Speech Development Disorders
- 1.7. Childhood Language Development
  - 1.7.1. Childhood Language Development
    - 1.7.1.1. Language Components
  - 1.7.2. Errors in Language Development
    - 1.7.2.1. Errors in the Content or Semantic Component
    - 1.7.2.2. Errors in the Form Component
  - 1.7.3. Communicative Contexts
  - 1.7.4. The Influence of Context and Interaction on Language Development
  - 1.7.5. The Relationship Between Gestures and Language Development
- 1.8. Adolescent Brain
  - 1.8.1. Adolescent Brain Mechanisms of Maturing
  - 1.8.2. Studies on the Adolescent Brain
  - 1.8.3. Neurosciences and Adolescence

**Module 2. The Reality of the Classroom**

- 2.1. The Educational System as a social system
  - 2.1.1. Educational System: definition and characteristics
  - 2.1.2. Educational system: Components
  - 2.1.3. Aims and principles of Education
  - 2.1.4. Decentralization of Powers
  - 2.1.5. Structure of the Center: Organs
  - 2.1.6. Structure of the Center: Documents
  - 2.1.7. Tutorial
  - 2.1.8. Center Coordination
  - 2.1.9. Intersection between Family Environment and School Education
  - 2.1.10. Parental Involvement
- 2.2. The Classroom as a Place of Learning
  - 2.2.1. Natural Learning
  - 2.2.2. Learning in the Classroom
  - 2.2.3. Active Participants
  - 2.2.4. Teaching Work
  - 2.2.5. Learning Processes
  - 2.2.6. Environmental Factors
  - 2.2.7. Principles of Arrangement
  - 2.2.8. Types of Grouping
  - 2.2.9. Corner Work
  - 2.2.10. Didactic Exploitation of the Corners
- 2.3. Building Learning
  - 2.3.1. Building Learning through Interaction
  - 2.3.2. Peer-to-peer Interactivity
  - 2.3.3. Interactivity with Adults
  - 2.3.4. Exploration and Research
  - 2.3.5. Creativity
  - 2.3.6. The Game
  - 2.3.7. Psychomotor Skills
  - 2.3.8. Moving in Class
  - 2.3.9. The Affective Dimension
  - 2.3.10. Working with Emotions
- 2.4. The Facilitating Teacher
  - 2.4.1. Teacher Profile
  - 2.4.2. Types of Teachers
  - 2.4.3. Functions of the Teacher Facilitator
  - 2.4.4. Effective Teaching
  - 2.4.5. Conceptual Competence: Knowing
  - 2.4.6. Procedural Competence: Knowing How to Do
  - 2.4.7. Attitudinal Competence: Knowing How To Be
  - 2.4.8. Teaching Collaboration
  - 2.4.9. Cases of Collaboration
  - 2.4.10. Obstacles to Collaboration
- 2.5. The Teacher in the Classroom
  - 2.5.1. Teaching Styles
  - 2.5.2. Classification of Styles
  - 2.5.3. Teachers' Expectations
  - 2.5.4. Communicating Expectations
  - 2.5.5. Strategies for Action
  - 2.5.6. Attention to Diversity
  - 2.5.7. Types of Diversity
  - 2.5.8. Inclusive Education Practices
  - 2.5.9. Space Management
  - 2.5.10. Time Mngement
- 2.6. Learning To Learn
  - 2.6.1. Learning in the Present Day
  - 2.6.2. Intelligence vs. Intelligences
  - 2.6.3. Types of Intelligence
  - 2.6.4. Implications of Multiple Intelligences in the Classroom
  - 2.6.5. Learning Styles: Definition
  - 2.6.6. Learning Styles: Types
  - 2.6.7. Implications of Learning Styles in the Classroom
  - 2.6.8. Learning Strategies
  - 2.6.9. Teaching Learning Strategies
  - 2.6.10. Self-Regulated Learning

- 2.7. The Student
  - 2.7.1. Hierarchy of Needs
  - 2.7.2. Security
  - 2.7.3. Love, Belonging, and Recognition
  - 2.7.4. Self-Actualization
  - 2.7.5. Motivation
  - 2.7.6. Measuring Motivation
  - 2.7.7. Motivational Strategies in the Classroom
  - 2.7.8. Special Educational Needs
  - 2.7.9. Typology of Needs
  - 2.7.10. Action Protocol
- 2.8. The Group
  - 2.8.1. Considerations
  - 2.8.2. What is a Group?
  - 2.8.3. Characteristics of a Group
  - 2.8.4. Group Dynamics
  - 2.8.5. Cohesion
  - 2.8.6. Rules and Objectives
  - 2.8.7. Life Development
  - 2.8.8. Good Practices
  - 2.8.9. Cooperative Learning
  - 2.8.10. Cooperative Activities
- 2.9. Classroom Management
  - 2.9.1. The Three Pillars
  - 2.9.2. Basic Premises
  - 2.9.3. The First Days of Class in Pre-School
  - 2.9.4. The First Days of Class in Primary School
  - 2.9.5. Initial Strategies
  - 2.9.6. Learning Environment
  - 2.9.7. Control Objectives
  - 2.9.8. Authority Style
  - 2.9.9. General Control Strategies
  - 2.9.10. Control Tools

- 2.10. Performance and Behavioral Problems
  - 2.10.1. Performance Problems: Identification and Management Strategies
  - 2.10.2. Behavioral Problems: Identification and Management Strategies

### Module 3. The Fundamentals of Didactics in Language and Literature

- 3.1. Teaching Language and Literature
  - 3.1.1. Introduction to the Concept of Teaching
  - 3.1.2. Teaching Language
  - 3.1.3. Teaching Literature
  - 3.1.4. Teaching from a Cultural Perspective
- 3.2. Oral Language Teaching
  - 3.2.1. Elements of Oral Proficiency
  - 3.2.2. Characteristics of Oral Language
  - 3.2.3. Teaching Oral Communication
  - 3.2.4. Teaching Proposals
- 3.3. Teaching Written Language
  - 3.3.1. Definition of the Concept of Written Language
  - 3.3.2. Key Elements in Teaching Written Language
  - 3.3.3. ICT in Teaching Language
  - 3.3.4. Written Language Evaluation

### Module 4. Methodology: Didactics and Programming

- 4.1. Competencies
  - 4.1.1. What are Competencies?
  - 4.1.2. A New Perspective
  - 4.1.3. Characteristics
  - 4.1.4. Key Competencies
  - 4.1.5. Competencies in the Curriculum
  - 4.1.6. Strategies for their Application
  - 4.1.7. Competencies in the Classroom
  - 4.1.8. Teaching Competencies
  - 4.1.9. Communicative Competence
  - 4.1.10. Competency-Based Assessment



- 4.2. Methodology
  - 4.2.1. Introduction
  - 4.2.2. Methodological Principles
  - 4.2.3. Teaching Methods and Techniques
  - 4.2.4. From Transmissive to Active Methods
  - 4.2.5. Exercises vs. Activities
  - 4.2.6. Methodological Strategies
  - 4.2.7. Group Work vs. Cooperative Work
  - 4.2.8. Cooperative Learning
  - 4.2.9. Problem-Based Learning
  - 4.2.10. Project Work
- 3.3. ICT in the Methodology
  - 3.3.1. ICT Today
  - 3.3.2. Digital Literacy
  - 3.3.3. Educating in ICT
  - 3.3.4. Consequences of the Change
  - 3.3.5. ICT Competences in Education
  - 3.3.6. Digital Competences
  - 3.3.7. ICT in Class
  - 3.3.8. ICT for Diversity
  - 3.3.9. ICT Resources in the Classroom
  - 3.3.10. ICT Resources in the Center
- 4.4. Evaluation
  - 4.4.1. The Classroom as an Evaluation Context
  - 4.4.2. Types of Assessment
  - 4.4.3. Traditional Assessments
  - 4.4.4. Current Assessments
  - 4.4.5. How to Evaluate? Techniques and Instrumentation
  - 4.4.6. Selection of Instruments and Techniques
  - 4.4.7. What to Assess?
  - 4.4.8. Evaluation Meetings
  - 4.4.9. Program Evaluation
  - 4.4.10. Evaluation Together with the Teaching Staff

## Module 5. Didactics of Literature

- 5.1. Teaching Literature and Literary Education
  - 5.1.1. Literary Education
  - 5.1.2. Encouragement to Read
  - 5.1.3. Literary Competence
  - 5.1.4. Literary Education Plan
- 5.2. Children and Young Adults Literature (CYL) and the Classics
  - 5.2.1. What Is CYL?
  - 5.2.2. CYL and the Reading Plan for Secondary Education
  - 5.2.3. The Place for the Classics
  - 5.2.4. Adaptations
  - 5.2.5. Proposals for Reading the Classics
- 5.3. Text Commentary
  - 5.3.1. History and Evolution of Text Commentary
  - 5.3.2. Comprehension and Interpretation of Texts
  - 5.3.3. Guide for Writing a Literary Text Commentary
- 5.4. Creative Writing
  - 5.4.1. Creative Writing in the Literature Classroom
  - 5.4.2. Writing Workshop
  - 5.4.3. Gianni Rodari and the Art of Inventing Stories
  - 5.4.4. Other Activities for Creative Writing
- 5.5. School Library
  - 5.5.1. Objectives of the School Library in High School
  - 5.5.2. Book Clubs
  - 5.5.3. The Bibliographic Collection
  - 5.5.4. Encouragement to Read in the School Library
  - 5.5.5. Library, Cultural Dynamization and Participation of the School Community
- 5.6. Literary Routes
  - 5.6.1. Definition and Origin
  - 5.6.2. Literary Routes in the School Environment
  - 5.6.3. Objectives of Literary Routes
  - 5.6.4. Organization of the Literary Route

- 5.7. ICT and Literature
  - 5.7.1. What is a Blog?
  - 5.7.2. Keys for Organizing and Designing a Blog
  - 5.7.3. Blogs in the Literature Classroom
  - 5.7.4. Booktubers and Literary Education
  - 5.7.5. Transmedia Literature
- 5.8. Dialogic Interaction and Inquiry
  - 5.8.1. The Sociocultural Perspective. Vygotsky
  - 5.8.2. Interactions and Identity Building
  - 5.8.3. Communicative Acts
  - 5.8.4. Dialogic Inquiry
- 5.9. Dialogic Reading
  - 5.9.1. Foundations of Dialogic Reading
  - 5.9.2. Reading Godmothers and Godfathers
  - 5.9.3. Accompanied Reading
  - 5.9.4. Tutored Library
- 5.10. Dialogical Literary Discussion Groups
  - 5.10.1. The Origin of Dialogic Literary Gatherings
  - 5.10.2. Interactions That Speed Up Reading
  - 5.10.3. The Classics in Pre-School and Primary School
  - 5.10.4. The Functioning of the Discussion Group
  - 5.10.5. Other Dialogical Discussion Groups

## Module 6. Didactics of Grammar

- 6.1. Application of Grammar in the Classroom
  - 6.1.1. Reflection and Communication
  - 6.1.2. Types of Exercises
- 6.2. Linguistic Text Commentary
  - 6.2.1. Concept of Linguistic Commentaries
  - 6.2.2. Importance and Difficulty of Text Commentary
  - 6.2.3. Strategies for the Text Commentary
  - 6.2.4. Tools for the Linguistic Commentary
  - 6.2.5. Elements of the Commentary





## Module 7. Teaching Lexicon and Semantics

- 7.1. Introduction to Lexical Semantics
  - 7.1.1. Historical Precedents
  - 7.1.2. Significance
  - 7.1.3. Signs and Symbols
  - 7.1.4. Linguistic Communication. The Linguistic Sign
- 7.2. Basic Fundamentals
  - 7.2.1. What is Semantics?
  - 7.2.2. Semantics a Science?
  - 7.2.3. Structural Semantics
  - 7.2.4. Semantics and Society
- 7.3. Learning and Acquisition
  - 7.3.1. Basic Principles
  - 7.3.2. Pedagogical Methods
  - 7.3.3. Evolutionary Development
  - 7.3.4. Difficulties

## Module 8. Mathematics Learning in High School Education

- 8.1. Defining Learning
  - 8.1.1. The Role of Learning
  - 8.1.2. Learning Types
- 8.2. Learning Mathematics
  - 8.2.1. Differential Learning of Mathematics
  - 8.2.2. Features of Mathematics
- 8.3. Cognitive and Metacognitive Processes in Mathematics
  - 8.3.1. Cognitive Processes in Mathematics
  - 8.3.2. Metacognitive Processes in Mathematics
- 8.4. Attention and Mathematics
  - 8.4.1. Focused Attention and Mathematics Learning
  - 8.4.2. Sustained Attention and Mathematics Learning
- 8.5. Memory and Mathematics
  - 8.5.1. Short-Term Memory and Mathematics Learning
  - 8.5.2. Long-Term Memory and Mathematics Learning

- 8.6. Language and Mathematics
  - 8.6.1. Language Development and Mathematics
  - 8.6.2. Mathematical Language
- 8.7. Intelligence and Mathematics
  - 8.7.1. Development of Intelligence and Mathematics
  - 8.7.2. Relationship between High Abilities, Giftedness and Mathematics
- 8.8. Neural Bases of Mathematics Learning
  - 8.8.1. Neural Foundations of Mathematics
  - 8.8.2. Adjacent Neural Processes of Mathematics
- 8.9. Characteristics of High School Students
  - 8.9.1. Adolescent Emotional Development
  - 8.9.2. Emotional Intelligence Applied to Adolescents
- 8.10. Adolescence and Mathematics
  - 8.10.1. Adolescent Mathematical Development
  - 8.10.2. Adolescent Mathematical Thinking

## Module 9. Gamification in Mathematics

- 9.1. The Game
  - 9.1.1. The Game
  - 9.1.2. The Game in the Middle Ages
- 9.2. The Game in Childhood
  - 9.2.1. Areas Developed by Play
- 9.3. Games in Adolescence
  - 9.3.1. Introduction
    - 9.3.1.1. Elements That Make Games So Important for Adolescents
    - 9.3.1.2. Adolescents and Video Games
    - 9.3.1.3. Better Hand-Eye Coordination
    - 9.3.1.4. Faster Thinking, Sharper Memory
    - 9.3.1.5. Greater Creativity
    - 9.3.1.6. Promote Learning
  - 9.3.2. The Video Game as an Educational Tool
    - 9.3.2.1. When to Act? When is Video Gaming Detrimental?

- 9.4. Gamification
  - 9.4.1. Motivation and "Continuous Feedback"
    - 9.4.1.1. Personalized Education
  - 9.4.2. Societal Change
  - 9.4.3. Elements of Gamification
- 9.5. Gamification of Mathematics
  - 9.5.1. Representation of All Types of Functions
  - 9.5.2. Solving 1st and 2nd Degree Equations
  - 9.5.3. Solving Systems of Equations
- 9.6. Application of Gamification in Mathematics Part I
  - 9.6.1. How Gamification Works
  - 9.6.2. Gamification Model
  - 9.6.3. Purpose of Gamification
  - 9.6.4. Padlocks
  - 9.6.5. Analysis of Gamification Elements
- 9.7. Application of Gamification in Mathematics Part II
  - 9.7.1. Introduction to Augmented Reality
  - 9.7.2. Creating Auras
  - 9.7.3. Mobile Configuration

## Module 10. Problem-Based Learning (PBL) in Mathematics

- 10.1. What Is PBL?
  - 10.1.1. Problem-Based Learning or Project-Based Learning?
    - 10.1.1.1. Problem-Based Learning
    - 10.1.1.2. Project-Based Learning
- 10.2. Features of PBL in Mathematics
  - 10.2.1. Features, Pros and Cons of Master Classes
    - 10.2.1.1. Characteristics
    - 10.2.1.2. Positive Aspects
    - 10.2.1.3. Negative Aspects
  - 10.2.2. Features, Advantages and Disadvantages of PBL
    - 10.2.2.1. Characteristics
    - 10.2.2.2. Positive Aspects



- 10.2.2.3. Negative Aspects
- 10.3. Planning PBL in Mathematics
  - 10.3.1. What Is a Problem?
  - 10.3.2. Criteria for Developing PBL Problems
  - 10.3.3. Variants of PBL
    - 10.3.3.1. PBL for 60 Students (Hong Kong)
    - 10.3.3.2. PBL 4x4
  - 10.3.4. Methodology
    - 10.3.4.1. Group Formation
    - 10.3.4.2. Planning and Design of PBL
  - 10.3.5. Design of PBL in Mathematics
- 10.4. Development of PBL in Mathematics
  - 10.4.1. Evolution of Group in the PBL
  - 10.4.2. Steps to Be Taken by Students in the Development of PBL
    - 10.4.2.1. General Process for Students
    - 10.4.2.2. Process Established by Morales and Landa (2004)
    - 10.4.2.3. Process Established by Exley and Dennick (2007)
  - 10.4.3. Use of Researched Information
- 10.5. Role of the Teacher and the Student
  - 10.5.1. The Role Played by Teachers in PBL
  - 10.5.2. Tutor's Way of Guiding/Counselling
  - 10.5.3. Use of Researched Information
  - 10.5.4. The Role Played by Students in PBL
  - 10.5.5. Student Roles in PBL
- 10.6. Assessment of PBL in Mathematics
  - 10.6.1. Student Assessment
  - 10.6.2. Teacher Evaluation
  - 10.6.3. PBL Assessment (Process)
  - 10.6.4. Assessment of Process Outcome
  - 10.6.5. Assessment Techniques

- 10.7. Example of PBL Applied to Mathematics
  - 10.7.1. Planning or Design of PBL
    - 10.7.1.1. Phases of the PBL Design
    - 10.7.1.2. Application Phases of PBL Design
  - 10.7.2. Group Determination
  - 10.7.3. Role of the Teacher
  - 10.7.4. Work Process with Students
  - 10.7.5. Evaluation of PBL

### Module 11. Cooperative Learning in Mathematics

- 11.1. What Is Cooperative Learning? How Is It Applied to Mathematics?
  - 11.1.1. Differentiation between Cooperative and Collaborative Work
- 11.2. The Objectives of Cooperative Learning in Mathematics
  - 11.2.1. The Objectives of Cooperative Learning
  - 11.2.2. Benefits of this Learning Method
  - 11.2.3. Objectives of Cooperative Learning in a Multicultural Context
  - 11.2.4. Disadvantages of this Learning Method
  - 11.2.5. In Mathematics
- 11.3. The Features of Cooperative Learning in Mathematics
  - 11.3.1. Positive Interdependence
  - 11.3.2. Mutual Support
  - 11.3.3. Individual Responsibility
  - 11.3.4. Social Skills
  - 11.3.5. Self-Assessment of Group Performance
- 11.4. Types of Cooperative Learning in Mathematics
  - 11.4.1. Puzzle or Jigsaws
  - 11.4.2. Team Achievement Divisions
  - 11.4.3. Research Groups
  - 11.4.4. Co-op Co-op
  - 11.4.5. Teams-Games-Tournaments

- 11.5. Planning and Guidance in Cooperative Work in Mathematics
  - 11.5.1. Implementation Stages
  - 11.5.2. Group Formation
  - 11.5.3. Classroom Set-Up
  - 11.5.4. Assignment of Student Roles
  - 11.5.5. Explanation of the Task to Be Performed
  - 11.5.6. Teacher Intervention in Cooperative Groups
- 11.6. The Teacher's Role in Cooperative Work in Mathematics
  - 11.6.1. Roles of the Teacher
  - 11.6.2. The Role of the Teacher
- 11.7. The Assessment of Cooperative Learning in Mathematics
  - 11.7.1. Assessment of the Individual Learning Process while Working Cooperatively in Mathematics
  - 11.7.2. Evaluation of the of Group Learning Process while Working: Cooperatively in Mathematics
  - 11.7.3. The Role of Observation for Assessment
  - 11.7.4. Co-Evaluation of Cooperative Work in Mathematics
  - 11.7.5. Self-Evaluation of Cooperative Work in Mathematics
- 11.8. Examples of Cooperative Learning Applied to Mathematics
  - 11.8.1. Review of Cooperative Project Planning
  - 11.8.2. First Phase: Preliminary Decision-Making
    - 11.8.2.1. Learning Objectives
    - 11.8.2.2. Cooperative Methodology to Be Used
    - 11.8.2.3. Group Size
    - 11.8.2.4. Learning Materials
    - 11.8.2.5. Assignment of Students to Groups
    - 11.8.2.6. Preparation of the Physical Space
    - 11.8.2.7. Role Distribution
  - 11.8.3. Second Phase: Task Structuring: Positive Interdependence
    - 11.8.3.1. Explanation of the Task
    - 11.8.3.2. Explanation of Criteria for Success
    - 11.8.3.3. Structuring Positive Interdependence
    - 11.8.3.4. Structuring of Individual Responsibility
    - 11.8.3.5. Interpersonal Skills and Social Skills

- 11.8.4. Third Phase: Execution and Control of the Process
- 11.8.5. Fourth Phase: Evaluation of the Learning Process and Group Interaction
  - 11.8.5.1. Activity Closure
  - 11.8.5.2. Assessment of Quantity and Quality of Learning
  - 11.8.5.3. Evaluation of Group Performance

## Module 12. Comprehension Projects in Mathematics

- 12.1. What Are Comprehension Projects Applied to Mathematics?
  - 12.1.1. Elements of the Mathematics Comprehension Project
- 12.2. Review the Multiple Intelligences Applied to Mathematics
  - 12.2.1. Types of Multiple Intelligences
  - 12.2.2. Biological Criteria
  - 12.2.3. Developmental Psychology Criteria
  - 12.2.4. Experimental Psychology Criteria
  - 12.2.5. Psychometric Studies Criteria
  - 12.2.6. Logical Analysis Criteria
  - 12.2.7. The Role Played by the Teacher
  - 12.2.8. Multiple Intelligences applied to Mathematics
- 12.3. Presentation of the Mathematics Comprehension Project
  - 12.3.1. What Is Expected in a Class Where Teaching for Understanding Occurs?
  - 12.3.2. What Is the Role of the Teacher in Classes Planned with Understanding in Mind?
  - 12.3.3. What Do Students Do in Classes Planned with Understanding in Mind?
  - 12.3.4. How to Motivate Students to Learn Science
  - 12.3.5. Developing a Comprehension Project
  - 12.3.6. Thinking about the Class from Back to Front
  - 12.3.7. Relationship between the Elements of the Comprehension Project
  - 12.3.8. Some Reflections on Working with the Teaching for Understanding Framework
  - 12.3.9. Curricular Unit on the Concept of Probability
- 12.4. The Generative Topic in the Comprehension Project Applied to Mathematics
  - 12.4.1. Generative Topics
  - 12.4.2. Key Features of Generative Topics
  - 12.4.3. How to Plan Generative Topics
  - 12.4.4. How to Improve Brainstorming on Generative Topics
  - 12.4.5. How to Teach with Generative Topics

- 12.5. Driving Threads in the Comprehension Project Applied to Mathematics
  - 12.5.1. Key Features of Comprehension Goals
- 12.6. Comprehension Activities in the Mathematics Comprehension Project
  - 12.6.1. Preliminary Activities in the Mathematics Comprehension Project
  - 12.6.2. Research Activities for a Mathematics Comprehension Project
  - 12.6.3. Synthesis Activities in the Mathematics Comprehension Project
- 12.7. Continuous Assessment in the Mathematics Comprehension Project
  - 12.7.1. Continuous Diagnostic Assessment
- 12.8. Documentation Creation in the Mathematics Comprehension Project
  - 12.8.1. Documentation for the Teacher's Own Use
  - 12.8.2. Documentation to Be Given to Students

### Module 13. Metacognitive Learning and Mathematics

- 13.1. Learning and Mathematics
  - 13.1.1. Learning
  - 13.1.2. Learning Styles
  - 13.1.3. Factors of Learning
  - 13.1.4. Teaching and Mathematics Learning
- 13.2. Learning Theories
  - 13.2.1. Behaviorist Theory
  - 13.2.2. Cognitivist Theory
  - 13.2.3. Constructivist Theory
  - 13.2.4. Sociocultural Theory
- 13.3. What Is Metacognition in Mathematics?
  - 13.3.1. What Is Metacognition?
  - 13.3.2. Metacognitive Knowledge
  - 13.3.3. Strategies
  - 13.3.4. Metacognitive Strategies in Mathematics
- 13.4. Teaching to Think in Mathematics
  - 13.4.1. Teaching to Learn and Think
  - 13.4.2. Keys to Teaching Learning and Thinking
  - 13.4.3. Mental Strategies for Learning and Thinking
  - 13.4.4. Methodology for Learning to Learn
  - 13.4.5. Factors Influencing Study and Work
  - 13.4.6. Study Planning
  - 13.4.7. Intellectual Work Techniques
- 13.5. Learning Strategies in Mathematics: Problem Solving
  - 13.5.1. Metacognition in Problem Solving
  - 13.5.2. What Is a Problem in Mathematics?
  - 13.5.3. Types of Problems
  - 13.5.4. Problem-Solving Models
    - 13.5.4.1. Pólya's Model
    - 13.5.4.2. Mayer's Model
    - 13.5.4.3. A. H. Schoenfeld's Model
    - 13.5.4.4. Mason-Burton-Stacey's Model
    - 13.5.4.5. Miguel de Guzmán's Model
    - 13.5.4.6. Manoli Pifarré and Jaume Sanuy's Model
- 13.6. Example of Metacognitive Learning Applied to Mathematics
  - 13.6.1. Learning Tools
    - 13.6.1.1. Underlining
    - 13.6.1.2. Drawing
    - 13.6.1.3. Summary
    - 13.6.1.4. The Scheme
    - 13.6.1.5. Conceptual Maps
    - 13.6.1.6. Mind Maps
    - 13.6.1.7. Teaching to Learn
    - 13.6.1.8. Brainstorming
  - 13.6.2. Application of Metacognition in Problem Solving

## Module 14. Design of a Mathematics Teaching Unit

- 14.1. What Does the Design of a Mathematics Teaching Unit Entail?
  - 14.1.1. Elements of a Teaching Unit
    - 14.1.1.1. Description
  - 14.1.2. Curriculum
    - 14.1.2.1. General Objectives by Stage
    - 14.1.2.2. General Objectives by Area
      - 14.1.2.2.1. Linguistic Communication Competences
      - 14.1.2.2.2. Mathematical Competence and Basic Competences in Science and Technology
      - 14.1.2.2.3. Digital Competences
      - 14.1.2.2.4. Learning To Learn
      - 14.1.2.2.5. Social and Civic Competences
      - 14.1.2.2.6. Sense of Initiative and Entrepreneurship
      - 14.1.2.2.7. Cultural Awareness and Expressions
  - 14.1.3. Content Strategy
    - 14.1.3.1. Minimum Contents
    - 14.1.3.2. Cross-Cutting Contents
    - 14.1.3.3. Interdisciplinary Contents
  - 14.1.4. Methodology
    - 14.1.4.1. Sequence of Activities
    - 14.1.4.2. Material Resources
    - 14.1.4.3. Organization of Space and Timing
    - 14.1.4.4. Attention to Diversity
  - 14.1.5. Evaluation
    - 14.1.5.1. Assessment Criteria
    - 14.1.5.2. Assessable Learning Standards
    - 14.1.5.3. Teaching Methodology
    - 14.1.5.4. Competences
- 14.2. Introduction of the Mathematics Teaching Unit
  - 14.2.1. Mathematics Area
  - 14.2.2. General Objectives by Stage
  - 14.2.3. General Objectives by Area
  - 14.2.4. Key Competencies
  - 14.2.5. Transversal Elements
- 14.3. Recipients of the Mathematics Teaching Unit
  - 14.3.1. Students with Special Educational Needs (SEN)
    - 14.3.1.1. Definition of Children with SEN
    - 14.3.1.2. Definition of Students with SEND (Special Educational Needs and Disabilities)
  - 14.3.2. Students with High Abilities
    - 14.3.2.1. The School
    - 14.3.2.2. The Role of the Teacher in the Classroom
  - 14.3.3. Students with Attention Deficit Hyperactivity Disorder (ADHD)
    - 14.3.3.1. In School
    - 14.3.3.2. The Role of the Teacher in the Classroom
  - 14.3.4. Students with Autism Spectrum Disorder (ASD)
    - 14.3.4.1. Characteristics
    - 14.3.4.2. The Role of the Teacher in the Classroom
  - 14.3.5. Students with Learning Difficulties
    - 14.3.5.1. Dyslexia
    - 14.3.5.2. Dysgraphia
    - 14.3.5.3. Dyscalculia
- 14.4. Choice of Methodology for the Implementation of the Teaching Unit
  - 14.4.1. Gamification in Mathematics
  - 14.4.2. The Portfolio Applied to Mathematics
  - 14.4.3. The Learning Landscape Applied to Mathematics
  - 14.4.4. Problem-Based Learning (PBL) in Mathematics
  - 14.4.5. Cooperative Learning in Mathematics

- 14.4.6. Comprehension Projects Applied to Mathematics
  - 14.4.7. Metacognitive Learning and Mathematics
  - 14.4.8. Flipped Classroom applied to Mathematics
  - 14.4.9. Conceptual Jigsaw Puzzles Applied to Mathematics
  - 14.4.10. Digital Walls Applied to Mathematics
  - 14.5. Selection of the Work Topic for the Mathematics Teaching Unit
    - 14.5.1. Mathematics: 1st and 2nd Year of Secondary Education
      - 14.5.1.1. Mathematical Processes, Methods and Attitudes
      - 14.5.1.2. Numbers and Algebra
      - 14.5.1.3. Geometry
      - 14.5.1.4. Roles
      - 14.5.1.5. Statistics and Probability
    - 14.5.2. Mathematics Focused on Academic Teaching: 3rd Year of Secondary Education
      - 14.5.2.1. Mathematical Processes, Methods and Attitudes
      - 14.5.2.2. Numbers and Algebra
      - 14.5.2.3. Geometry
      - 14.5.2.4. Roles
      - 14.5.2.5. Statistics and Probability
    - 14.5.3. Mathematics Focused on Academic Teaching: 4th Year of Secondary Education
      - 14.5.3.1. Mathematical Processes, Methods and Attitudes
      - 14.5.3.2. Numbers and Algebra
      - 14.5.3.3. Geometry
      - 14.5.3.4. Roles
      - 14.5.3.5. Statistics and Probability
    - 14.5.4. Mathematics Focused on Applied Teaching: 3rd Year of Secondary Education
      - 14.5.4.1. Mathematical Processes, Methods and Attitudes
      - 14.5.4.2. Numbers and Algebra
      - 14.5.4.3. Geometry
      - 14.5.4.4. Roles
      - 14.5.4.5. Statistics and Probability
    - 14.5.5. Mathematics Aimed at Applied Teaching for 4th Year High School Students
      - 14.5.5.1. Mathematical Processes, Methods and Attitudes
      - 14.5.5.2. Numbers and Algebra
      - 14.5.5.3. Geometry
      - 14.5.5.4. Roles
      - 14.5.5.5. Statistics and Probability
  - 14.5.6. Mathematics I: High School 1
    - 14.5.6.1. Mathematical Processes, Methods and Attitudes
    - 14.5.6.2. Numbers and Algebra
    - 14.5.6.3. Analysis
    - 14.5.6.4. Geometry
    - 14.5.6.5. Statistics and Probability
  - 14.5.7. Mathematics II: High School 2
    - 14.5.7.1. Mathematical Processes, Methods and Attitudes
    - 14.5.7.2. Numbers and Algebra
    - 14.5.7.3. Analysis
    - 14.5.7.4. Geometry
    - 14.5.7.5. Statistics and Probability
  - 14.5.8. Mathematics Applied to Social Sciences: High School 1
    - 14.5.8.1. Mathematical Processes, Methods and Attitudes
    - 14.5.8.2. Numbers and Algebra
    - 14.5.8.3. Analysis
    - 14.5.8.4. Statistics and Probability
  - 14.5.9. Mathematics Applied to Social Sciences: High School 2
    - 14.5.9.1. Mathematical Processes, Methods and Attitudes
    - 14.5.9.2. Numbers and Algebra
    - 14.5.9.3. Analysis
    - 14.5.9.4. Statistics and Probability
- 14.6. Creation of the Mathematics Teaching Unit
  - 14.6.1. Elements of a Teaching Unit
    - 14.6.1.1. Description
    - 14.6.1.2. Curriculum
      - 14.6.1.2.1. General Objectives by Stage
      - 14.6.1.2.2. General Objectives by Area
      - 14.6.1.2.3. Key Competencies
    - 14.6.1.3. Content Strategy
    - 14.6.1.4. Methodology



- 14.6.1.5. Sequence of Activities
- 14.6.1.6. Material Resources
- 14.6.1.7. Organization of Space and Timing
- 14.6.1.8. Attention to Diversity
- 14.6.1.9. Evaluation
- 14.7. Introduction of the Mathematics Teaching Unit
  - 14.7.1. The Cover
  - 14.7.2. The Index
  - 14.7.3. Previous Knowledge
  - 14.7.4. Themes
- 14.8. Classroom Application of the Mathematics Teaching Unit
  - 14.8.1. Documentation Delivery
  - 14.8.2. Creation of Cooperative Groups
  - 14.8.3. Cooperative Theoretical Work
  - 14.8.4. Synthesis Activity: Digital Wall
  - 14.8.5. Presentation of the Digital Wall
- 14.9. Assessment of a Mathematics Teaching Unit
  - 14.9.1. Assessment of the Teaching Unit
  - 14.9.2. Student Assessment
  - 14.9.3. Assessment of the Teaching Unit
  - 14.9.4. Grade

## Module 15. Didactics of Social Sciences

- 15.1. Transition from Expository to Interactive Education
  - 15.1.1. Objectives
  - 15.1.2. New Educational Trends
  - 15.1.3. Teaching Methods in Social Sciences Social
- 15.2. Constructivism
  - 15.2.1. Building Learning Using Web 2.0
  - 15.2.2. Constructivist Strategies to Teach Social
- 15.3. Teaching Documents
  - 15.3.1. Introduction
  - 15.3.2. E-learning
  - 15.3.3. Learning Environments
  - 15.3.4. Teaching Documents
- 15.4. Information Search and Organization
  - 15.4.1. Search Tools
  - 15.4.2. Other Google Information Search Tools
  - 15.4.3. Content Management
- 15.5. Information Storage
  - 15.5.1. The Cloud: Concept
  - 15.5.2. An Example of Cloud Computing in Education
- 15.6. Content Creation
  - 15.6.1. Virtual Media Libraries
  - 15.6.2. YouTube: Audiovisual Content
- 15.7. Content Presentation
  - 15.7.1. Introduction
  - 15.7.2. Creating Presentations
  - 15.7.3. Maps and Timelines
- 15.8. Content Publication
  - 15.8.1. Creative Commons Licenses
  - 15.8.2. Creative Commons
  - 15.8.3. Educational Blogs
  - 15.8.4. Social Media Campaigns
- 15.9. Communication and Collaborative Work
  - 15.9.1. Wikis
  - 15.9.2. Google Sites
  - 15.9.3. Collaborative Writing
- 15.10. Gamification
- 15.11. Augmented Reality
- 15.12. What Is Gamification?
- 15.13. Proposals to Gamify the Classroom

**Module 16. Geography and History as Social Sciences**

- 16.1. Concept of Social Science
  - 16.1.1. Social Sciences
  - 16.1.2. Concept of History
  - 16.1.3. Concept of Geography
- 16.2. Concept of History in Antiquity and the Middle Ages
  - 16.2.1. Myth and Its Written Record
  - 16.2.2. Greek and Roman Historians
  - 16.2.3. History in Medieval Christianity
- 16.3. Renaissance, Baroque and Enlightenment History
  - 16.3.1. Renaissance and Baroque
  - 16.3.2. The Enlightened Spirit
  - 16.3.3. Illustrated Historiography
- 16.4. Academic Consecration of History (19th Century)
  - 16.4.1. History as an Academic Discipline: Romanticism and Historicism
  - 16.4.2. Positivism
  - 16.4.3. National Histories
  - 16.4.4. The Rankean Method
  - 16.4.5. Langlois Seignobos
  - 16.4.6. Historical Materialism
- 16.5. History in the 20th Century
  - 16.5.1. Macroteoric Models
  - 16.5.2. The School of Annals
  - 16.5.3. New Historiographical Proposals
- 16.6. Geography in Antiquity
  - 16.6.1. Greece
  - 16.6.2. Rome
  - 16.6.3. The Eastern World
- 16.7. Geography in the Middle Ages and Modernity
  - 16.7.1. Medieval Geography: Different Sources
  - 16.7.2. Modern Geography and Different Projections
  - 16.7.3. The Importance of Geography and Cartography

- 16.8. Modern and Contemporary Geography
  - 16.8.1. Modern Geography and Different Projections
  - 16.8.2. Advances in Navigation
  - 16.8.3. New Places and Routes
- 16.9. Historical Periodization
  - 16.9.1. The First Periodizations
  - 16.9.2. Cellarius and the Classical Division
  - 16.9.3. Other Periodization Proposals
- 16.10. Categorization of Geography
  - 16.10.1. Physical Geography
  - 16.10.2. Human Geography
  - 16.10.3. Regional Geography
  - 16.10.4. Geopolitics

**Module 17. The Importance of Didactics in Geography and History**

- 17.1. The Path of History in Education
  - 17.1.1. History Emerges in Education
  - 17.1.2. Its Place in the Humanities
  - 17.1.3. Adapting History to Academic Life
- 17.2. The Path of Geography in Education
  - 17.2.1. Geography in Education
  - 17.2.2. Its Ambiguous Place between the Humanities and Other Sciences
  - 17.2.3. Adapting Geography to Academic Life
- 17.3. Historians as Teachers
  - 17.3.1. Academic Profile of Historians
  - 17.3.2. Historians as Researchers and Teachers
  - 17.3.3. The Importance of Knowing History
- 17.4. Geographer as Teachers
  - 17.4.1. Academic Profile of Geographers
  - 17.4.2. White Paper on the Geography and Spatial Planning Degree Program
  - 17.4.3. Professional Opportunities and the Importance of Geography Teachers

- 17.5. Art History as an Academic Discipline
  - 17.5.1. Academic Profile of Art Historians
  - 17.5.2. Fundamental Discipline to Know Our History and Environment
  - 17.5.3. Career Opportunities and the Importance of Knowledge of Art and Heritage
- 17.6. Changes in the Didactic Conception of the Social Sciences
  - 17.6.1. Links between History and Geography
  - 17.6.2. From Memorization to More Didactic Teaching
  - 17.6.3. Changes in Workbooks and Textbooks
- 17.7. Interdisciplinarity
  - 17.7.1. Auxiliary Sciences of History
  - 17.7.2. Auxiliary Sciences of Geography
  - 17.7.3. The Need for Cooperation between Different Modules
- 17.8. A Discipline of the Past, for the Present and the Future
  - 17.8.1. Historical Sources and Art as a Source of Knowledge
  - 17.8.2. The Importance of Art from an Early Age
  - 17.8.3. The Need to Expand the Discipline in Educational Curriculum
- 17.9. The Value of Humanistic Knowledge Today
  - 17.9.1. Crisis of the Humanities
  - 17.9.2. The Humanities and Their Work in Our Society
  - 17.9.3. Conclusion and Reflection on the Role of the Humanities in the Western World

## Module 18. Prehistory

- 18.1. The Importance of Anthropology and Archeology in the Study of Human Beings
  - 18.1.1. Prehistory
  - 18.1.2. Archeology
  - 18.1.3. Summary
- 18.2. The Hominization Process
  - 18.2.1. Objective
  - 18.2.2. The Hominization Process
- 18.3. The Paleolithic
  - 18.3.1. Objectives
  - 18.3.2. The Paleolithic

- 18.4. The Neolithic and Its Expansion
  - 18.4.1. Objectives
  - 18.4.2. General Features of the Mesolithic
  - 18.4.3. General Features of the Neolithic
- 18.5. The Metal Ages
  - 18.5.1. Prehistoric Periods
  - 18.5.2. The Iron Age
- 18.6. Prehistory in America. The First Settlers on the American Continent
  - 18.6.1. Theories on First Settlements
  - 18.6.2. Evolution of the Different American Peoples
- 18.7. 2.0 Tools Applied to Prehistory
  - 18.7.1. Pinterest
  - 18.7.2. Blogger
- 18.8. Assessment Systems
  - 18.8.1. Collaborative Learning. Peer Assessment. Co-Assessment
  - 18.8.2. Roles within Cooperative Groups and Cooperative Structures
- 18.9. Activities
  - 18.9.1. Assessment Tools
  - 18.9.2. Cooperative Group Logbook
- 18.10. Evaluation Tests
  - 18.10.1. Assessment Activities and Test

**Module 19. Ancient History**

- 19.1. Mesopotamia
  - 19.1.1. Mesopotamia: The Origin of Civilization
  - 19.1.2. Sumer and Akkadia
  - 19.1.3. Babylon and Assyria
- 19.2. Ancient Egypt
  - 19.2.1. Egypt: Geographical Environment and Historical Context
  - 19.2.2. The Predynastic Period
  - 19.2.3. The Protodynastic Period
  - 19.2.4. The Archaic Period
  - 19.2.5. Ancient Empires
  - 19.2.6. The First Intermediate Period
  - 19.2.7. Middle Empires
  - 19.2.8. The Second Intermediate Period
  - 19.2.9. New Empires
  - 19.2.10. The Third Intermediate Period
  - 19.2.11. The Late Period
  - 19.2.12. Ptolemaic Egypt
- 19.3. Ancient Greece
  - 19.3.1. Ancient Greece: Geographical Space
  - 19.3.2. Aegean Civilizations in the Bronze Age
  - 19.3.3. The Dark Ages
  - 19.3.4. The Archaic Age
  - 19.3.5. Classical Greece
  - 19.3.6. Hellenistic Greece
- 19.4. Ancient Rome
  - 19.4.1. Geographical Space in Ancient Rome
  - 19.4.2. The Origins of Ancient Rome
  - 19.4.3. The Monarchic Period
  - 19.4.4. The Republican Period
  - 19.4.5. The High Imperial Period
  - 19.4.6. The Low Imperial Period
- 19.5. The Romanization Process
  - 19.5.1. The Concept of Romanization
  - 19.5.2. The Romanization Process
  - 19.5.3. Factors and Consequences
- 19.6. American Ancient Cultures
  - 19.6.1. Ancient America
  - 19.6.2. The Maya Civilization
  - 19.6.3. The Aztec Civilization
  - 19.6.4. The Inca Civilization
- 19.7. 2.0 Tools Applied to Ancient History
  - 19.7.1. 2.0 Tools in Education
  - 19.7.2. Types of 2.0 Tools
  - 19.7.3. 2.0 Tools Applied to Ancient History
- 19.8. Assessment Systems
  - 19.8.1. Using Assessments in Learning
  - 19.8.2. The Cooperative Model and Assessments
  - 19.8.3. Self-Evaluation
  - 19.8.4. Peer Assessment
  - 19.8.5. Co-Evaluation
  - 19.8.6. Applying Cooperative Models to Ancient History Courses
- 19.9. Activities
  - 19.9.1. Theoretical Approaches in Teaching Activities
  - 19.9.2. Types of Activities
  - 19.9.3. Using Activities in Teaching Ancient History

- 19.10. Evaluation Tests
  - 19.10.1. Objectives
  - 19.10.2. Practical Application of Assessments
  - 19.10.3. Headings
  - 19.10.4. Checklists
  - 19.10.5. Range Scales
  - 19.10.6. Portfolio/Notebook
  - 19.10.7. Other Types

## Module 20. Middle Ages

- 20.1. The Early Middle Ages I
  - 20.1.1. The Fall of the Roman World
  - 20.1.2. The Romano-Germanic Kingdoms
- 20.2. The Early Middle Ages II
  - 20.2.1. The Byzantine Empire
  - 20.2.2. Islam
- 20.3. The Early Middle Ages III
  - 20.3.1. The Carolingian Era and the Birth of Europe
  - 20.3.2. The Holy Roman Empire: Charlemagne
- 20.4. The High Middle Ages I
  - 20.4.1. Romanesque Art in the Iberian Peninsula
  - 20.4.2. Western Europe: Growth and Expansion
- 20.5. The High Middle Ages II
  - 20.5.1. The Spread of Christianity. The Crusades and Other Expansionary Movements
  - 20.5.2. Feudal Transformation. Society, Culture, Economy and Mentality
- 20.6. The High Middle Ages III
  - 20.6.1. The Power Struggle between the Church and the Empire
  - 20.6.2. The Christian Kingdoms and the Taifas in the Iberian Peninsula
- 20.7. The Late Middle Ages I
  - 20.7.1. European Conflicts in the Late Middle Ages
  - 20.7.2. The Great Asian Civilizations

- 20.8. The Late Middle Ages II
  - 20.8.1. The End of the Byzantine Empire
  - 20.8.2. The Ottoman Empire at the Gates of Europe
- 20.9. The Middle Ages beyond the Atlantic
  - 20.9.1. The Inca Civilization
  - 20.9.2. The Aztec Civilization

## Module 21. European Modern Age

- 21.1. Modern States
  - 21.1.1. Origin and Formation
  - 21.1.2. Modern Monarchies and Political Forms in Europe
  - 21.1.3. Renaissance Culture and Humanism
- 21.2. Geographical Discoveries
  - 21.2.1. Discovery and European Colonization
  - 21.2.2. The Discovery of America
  - 21.2.3. Beginnings of Colonization
  - 21.2.4. Imperial Colonization
- 21.3. 16th Century Europe
  - 21.3.1. Introduction
  - 21.3.2. The Rupture of Christianity. Reformation and Counter-Reformation
- 21.4. 17th Century Europe
  - 21.4.1. Introduction
  - 21.4.2. Pax Hispanica and the Thirty Years' War
  - 21.4.3. The Imperialism of Louis XIV
  - 21.4.4. The Baroque
- 21.5. Conquest and Colonization in Hispanic America
  - 21.5.1. Colonization in the 16th and 17th Centuries
  - 21.5.2. Hispanic American Societies and Economies
  - 21.5.3. The Colonization of the Americas in the Spanish Black Legend
- 21.6. 18th Century Europe and America
  - 21.6.1. Introduction
  - 21.6.2. The Age of Enlightenment: The Enlightenment
  - 21.6.3. The Enlightened Absolutism
  - 21.6.4. 18th Century European Society and Economy
  - 21.6.5. The Bourbon Reforms in America



- 21.7. Cooperative Work
  - 21.7.1. Cooperative Work
  - 21.7.2. Interdisciplinary Work
- 21.8. New Technologies Applied to Teaching Modern History
  - 21.8.1. Platforms and Presentations
  - 21.8.2. Information Search on the Internet and Social Networks
  - 21.8.3. Timelines and Conceptual Maps
  - 21.8.4. Blogs and Mobile Devices
  - 21.8.5. Historical Re-enactment Video Games
- 21.9. Complementary Activities
  - 21.9.1. Introduction
  - 21.9.2. Text, Map, Image and Audiovisual Resource Analysis
  - 21.9.3. Preparing Conceptual Maps and Timelines
  - 21.9.4. Activities Outside the Classroom
- 21.10. Evaluation Tests
  - 21.10.1. Essay Type Test: Extended Response
  - 21.10.2. Essay Type Test: Restricted Response
  - 21.10.3. Other Assessment Tests

## Module 22. Contemporary Age

- 22.1. The Foundations of the Contemporary World
  - 22.1.1. 18th Century Europe
  - 22.1.2. The Enlightenment
  - 22.1.3. Economic Liberalism
  - 22.1.4. The Agrarian and Demographic Revolution
  - 22.1.5. The Industrial Revolution
  - 22.1.6. Foundations of the Western World Model
  - 22.1.7. 18th Century Culture and Art
  - 22.1.8. The Concepts of Contemporaneity
- 22.2. 18th Century Liberalism and Revolutions
  - 22.2.1. 18th Century Liberalism and Revolutions
  - 22.2.2. 19th Century Restoration and Revolutions
  - 22.2.3. Nationalism
- 22.3. The Emergence of the New American States
  - 22.3.1. Reception of Enlightenment Ideas
  - 22.3.2. Economic Situation
  - 22.3.3. From Emancipation to Independence
  - 22.3.4. America after Independence
- 22.4. Labor Movements and Democratic Liberalism
  - 22.4.1. Class Society
  - 22.4.2. Labor Movements
  - 22.4.3. Democratic Liberalism
  - 22.4.4. Colonial Empires
  - 22.4.5. International Relations
- 22.5. The First World War and the Russian Revolution
  - 22.5.1. The First World War: Causes
  - 22.5.2. The Russian Revolution
- 22.6. The Interwar Period and the Rise of Fascism
  - 22.6.1. The New International Order
  - 22.6.2. Measures to Overcome Recession
  - 22.6.3. The Rise of Fascism
- 22.7. The Second World War
  - 22.7.1. Causes
  - 22.7.2. Axis Powers
  - 22.7.3. Allied Powers
  - 22.7.4. How the Conflict Unfolded
- 22.8. The Cold War
  - 22.8.1. The End of the Alliance and the Origins of Bipolarity
  - 22.8.2. Asian Decolonization and the Middle East Conflict
  - 22.8.3. The Death of Stalin and the 20th Century Congress of the CPSU
  - 22.8.4. Latin America
  - 22.8.5. The Birth of the European Common Market
  - 22.8.6. The Beginning of Détente in the 1960s
  - 22.8.7. The Permanence of Conflict: Latin America and Vietnam
  - 22.8.8. Africa and Independence
  - 22.8.9. Conflict in the Middle East: From the Six Day War to Yom Kippur

- 22.9. From the Oil Crisis to the Year 2000
  - 22.9.1. A Decade in Review
  - 22.9.2. Social and Economic Consequences of the Oil Crisis
  - 22.9.3. Europe and Latin America in the 1970s
  - 22.9.4. U.S. policy and East-West Relations at the Height of Détente
  - 22.9.5. Meaning of "Thatcherism" and "Reaganism"
  - 22.9.6. The End of Détente
  - 22.9.7. The New Global Order
  - 22.9.8. The European Union
  - 22.9.9. Africa after the Cold War
- 22.10. Text Commentary
  - 22.10.1. Steps to Follow in Text Commentary
  - 22.10.2. Example of Text Commentary
  - 22.10.3. Commentary

## Module 23. Physical Geography

- 23.1. Planet Earth
  - 23.1.1. The Shape of the Earth
  - 23.1.2. Earth and the Solar System
- 23.2. Terrestrial Structure and Dynamics
  - 23.2.1. Introduction
  - 23.2.2. The Structure of Earth
  - 23.2.3. Terrestrial Dynamics
- 23.3. Structural Terrain
  - 23.3.1. Ocean Basins
  - 23.3.2. Landmasses
  - 23.3.3. Structural Terrain of Sedimentary Basins
  - 23.3.4. Appalachian Terrain
  - 23.3.5. Faulted Terrain
  - 23.3.6. Volcanic Terrain

- 23.4. Lithological Morphologies
  - 23.4.1. Granitic Terrain
  - 23.4.2. Karst Geomorphology
  - 23.4.3. Groundwater Circulation
- 23.5. Geomorphology due to External Forces I
  - 23.5.1. External Forces
  - 23.5.2. Weathering
  - 23.5.3. Slope Dynamics
  - 23.5.4. Erosion
- 23.6. Climatic Elements and Factors
  - 23.6.1. Objectives
  - 23.6.2. Introduction
  - 23.6.3. The Atmosphere
  - 23.6.4. Climate Factors
  - 23.6.5. Climate Elements
- 23.7. The Oceans
  - 23.7.1. Ocean Currents
  - 23.7.2. Atmosphere and Ocean
- 23.8. Climate Classification
  - 23.8.1. Introduction
  - 23.8.2. Köppen Classification
  - 23.8.3. Azonal Climates
  - 23.8.4. Zonal Climates
- 23.9. Guidance for Practical Exercises on Physical Geography
  - 23.9.1. Geographic Landscape Commentary
  - 23.9.2. Commentary Models
  - 23.9.3. The Main Charts in Physical Geography
- 23.10. Techniques and Guidelines to Study Geography
  - 23.10.1. Natural Resources
  - 23.10.2. Environmental Impact
  - 23.10.3. Principal Environmental Problems
  - 23.10.4. Positions on the Problems
  - 23.10.5. Ecological Footprint
  - 23.10.6. Natural Risks

**Module 24. Human Geography**

- 24.1. The Population
  - 24.1.1. Distribution and Dynamism
  - 24.1.2. Population growth
  - 24.1.3. Demographic Transition Model
  - 24.1.4. Population Movement
  - 24.1.5. Population Structure
- 24.2. Rural Areas
  - 24.2.1. The World and Rural Areas
  - 24.2.2. Economic Activity
  - 24.2.3. Problems in Rural Areas
  - 24.2.4. Depopulation and Economic and Environmental Problems
- 24.3. Cities and Urban Areas
  - 24.3.1. Introduction
  - 24.3.2. Morphology
  - 24.3.3. Globalization
- 24.4. Transportation Systems
  - 24.4.1. Introduction
  - 24.4.2. History, Classification and Economics
  - 24.4.3. Configuration and Features of Transportation Networks
  - 24.4.4. Transport System Flows and Problems
- 24.5. Economic Activity
  - 24.5.1. Objective
  - 24.5.2. Introduction
  - 24.5.3. Economic Activity Location by Sector
  - 24.5.4. Economic Problems
  - 24.5.5. Economic Policies
- 24.6. State Organization
  - 24.6.1. Territorial Distribution (Borders, Capital City, Political-Administrative Structure)
  - 24.6.2. International Relations
  - 24.6.3. Flipboard as a Classroom Asset
- 24.7. Society and Culture
  - 24.7.1. Organized Civil Society
  - 24.7.2. Citizen Participation: Associations
  - 24.7.3. Cultural Landscapes: Dynamism and Transformation
- 24.8. Tourism
  - 24.8.1. Economics and Tourism
  - 24.8.2. Economics of Tourism
  - 24.8.3. Types of Tourism
  - 24.8.4. SWOT Analysis
  - 24.8.5. The Current and Future Reality of Tourism
- 24.9. Tools to Study Geography
  - 24.9.1. Tools, Outlines and Maps
  - 24.9.2. Geographic Information Systems (GIS)
  - 24.9.3. ICT Tools to Teach Geography
- 24.10. The Impact of Human Activity
  - 24.10.1. Historical Development of Human Activity in the Environment
  - 24.10.2. Vegetation Degradation
  - 24.10.3. Soil Destruction
  - 24.10.4. Overexploitation
  - 24.10.5. Pollution

## Module 25. Art History Within the Social Sciences

- 25.1. Concept of Social Science
  - 25.1.1. Social Sciences
  - 25.1.2. The Concept of Art
  - 25.1.3. Art as a Subject of Study, Social Document and Heritage
  - 25.1.4. Artistic Typologies
- 25.2. The Concept of Ancient, Medieval, Modern and Contemporary Art
  - 25.2.1. Historical References
  - 25.2.2. Location and Artistic Evolution
- 25.3. Ancient Art
  - 25.3.1. Prehistoric
  - 25.3.2. Middle East
  - 25.3.3. Egyptian
  - 25.3.4. Classical: Greece and Roma
- 25.4. Medieval Art
  - 25.4.1. Byzantine
  - 25.4.2. Islamic and Mudejar
  - 25.4.3. Pre-Romanesque
  - 25.4.4. Romanesque
  - 25.4.5. Gothic
- 25.5. Modern Art
  - 25.5.1. Renaissance
  - 25.5.2. Baroque and Rococo
- 25.6. Contemporary Art
  - 25.6.1. Neoclassicism and Romanticism
  - 25.6.2. From Realism to Modernism
  - 25.6.3. Vanguards
  - 25.6.4. Art in the 20th Century

## Module 26. The Importance of Didactics in Art History

- 26.1. Art History as an Academic Discipline
  - 26.1.1. The Teaching of Historical Time
  - 26.1.2. Its Place in the Humanities
  - 26.1.3. Knowledge of Change, Continuity and Permanence
- 26.2. The Art Historian as a Teacher
  - 26.2.1. Academic Profile of Art Historians
  - 26.2.2. Art Historian as a Researcher and Teacher
  - 26.2.3. Career Opportunities and the Importance of Knowledge of Art and Heritage
- 26.3. Changes in the Conception of the Teaching Approach to Social Sciences
  - 26.3.1. From Memorization to More Didactic Teaching
  - 26.3.2. Changes in Workbooks and Textbooks
- 26.4. Interdisciplinarity
  - 26.4.1. Auxiliary Sciences of Art History
  - 26.4.2. The Need for Cooperation between Different Modules
- 26.5. A Discipline of the Past, for the Present and the Future
  - 26.5.1. Historical Sources and Art as a Source of Knowledge
  - 26.5.2. The Importance of Art from an Early Age
  - 26.5.3. The Need to Expand the Discipline in Educational Curricula
- 26.6. The Value of Humanistic Knowledge Today
  - 26.6.1. Crisis of the Humanities
  - 26.6.2. The Humanities and Their Work in Our Society
  - 26.6.3. Conclusion and Reflection on the Role of the Humanities in the Western World

## Module 27. Music Didactics

- 27.1. Introduction
  - 27.1.1. Introduction
  - 27.1.2. Music in Ancient Greece
  - 27.1.3. The Greek Ethos
  - 27.1.4. Epic Poetry: Homer
    - 27.1.4.1. The Iliad
    - 27.1.4.2. The Odyssey
  - 27.1.5. From Myth to Logos

- 27.1.6. Pythagoreanism
- 27.1.7. Music and Healing
- 27.2. Main Musical Methodologies
  - 27.2.1. Dalcroze Method
    - 27.2.1.1. Description of the Method
    - 27.2.1.2. Main Features
  - 27.2.2. Kodaly Method
    - 27.2.2.1. Description of the Method
    - 27.2.2.2. Main Features
  - 27.2.3. Willems Method
    - 27.2.3.1. Description of the Method
    - 27.2.3.2. Main Features
  - 27.2.4. Orff Method
    - 27.2.4.1. Description of the Method
    - 27.2.4.2. Main Features
  - 27.2.5. Suzuki Method
    - 27.2.5.1. Description of the Method
    - 27.2.5.2. Main Features
- 27.3. Music and Corporal Expression
  - 27.3.1. The Musical Experience through Movement
  - 27.3.2. Rhythmic-Corporal Expression
  - 27.3.3. Dance as a Teaching Resource
  - 27.3.4. Relaxation Techniques and their Relation with Musical Learning
- 27.4. Playing with Music as a Learning Activity
  - 27.4.1. What is Playing?
  - 27.4.2. Playing Features
  - 27.4.3. Benefits of Playing
  - 27.4.4. Playing with Music
    - 27.4.4.1. Resources for Playing with Music
- 27.5. Main Differences between Music Education for Children and Music Education for Adults
  - 27.5.1. Music Education in Children
  - 27.5.2. Music Education for Adults
  - 27.5.3. Comparative Study

- 27.6. Educational Resources for Music Education for Children: Musicograms and Musical Stories
  - 27.6.1. Musicograms
  - 27.6.2. Musical Stories
    - 27.6.2.1. The Elaboration of Texts in Musical Stories
    - 27.6.2.2. Musical Adaptation of the Texts
- 27.7. Educational Resources for Music Education for Adults
  - 27.7.1. Introduction
  - 27.7.2. Main Educational Resources for Adults

## Module 28. Material Resources for Music Education

- 28.1. Introduction
  - 28.1.1. The Change From Analogue to Digital
  - 28.1.2. Open Educational Resources as the Basis for Equality Among Students
  - 28.1.3. Education for All and its Relation to the New Technologies
  - 28.1.4. Some Educational Models Based on OER (Open Educational Resources)
    - 28.1.4.1. Open Learn (United Kingdom)
    - 28.1.4.2. The OpenCourseWare Worldwide Consortium (OCW)
    - 28.1.4.3. Digital Educational Platforms
    - 28.1.4.4. Open Materials for University Staff Training in E-learning and Learning Object Repositories
    - 28.1.4.5. *Open E-Learning Content Observatory Services*
  - 28.1.5. Materials and Resources for Music Learning
- 28.2. Music Learning Materials
  - 28.2.1. Characteristics of the Music Learning Materials
  - 28.2.2. Types of Material
- 28.3. Non-Musical Material Resources
  - 28.3.1. Main Non-Musical Material Resources
  - 28.3.2. The Use of New Technologies in the Learning of Music
    - 28.3.2.1. Some Technological Resources
      - 28.3.2.1.1. Digital Tablets
      - 28.3.2.1.2. Computers
      - 28.3.2.1.3. Web Applications and Resources



- 28.4. Musical Teaching Resources
  - 28.4.1. Main Teaching Resources
  - 28.4.2. Musical Instruments in the Classroom
  - 28.4.3. Musicograms in Pre-School and Primary Education
    - 28.4.3.1. Characteristics of the Musicogram
  - 28.4.4. The Songbooks
    - 28.4.4.1. Main Characteristics of Songbooks
    - 28.4.4.2. Popular Songs
    - 28.4.4.3. Importance of the Culture in Musical Learning
- 28.5. Resources for Dance Learning
  - 28.5.1. Importance of Dance in Music Learning
  - 28.5.2. Main Resources
    - 28.5.2.1. Adaptation of the Classroom to Dance Learning
- 28.6. Musical Instruments and Other Sound Elements for Music Learning
  - 28.6.1. The Body as a Musical Instrument
  - 28.6.2. Percussion Instruments in the Classroom
    - 28.6.2.1. Characteristics of the Percussion Instruments
    - 28.6.2.2. Percussion Instruments Most Commonly Used in the Classroom
    - 28.6.2.3. Music Education through Percussion Instruments
  - 28.6.3. Reed Instruments and their Importance in Musical Learning
    - 28.6.3.1. Xylophones and Marimbas
    - 28.6.3.2. Characteristics of Reed Instruments
    - 28.6.3.3. Music Education through Reeds
  - 28.6.4. Wind Instruments: the Recorder Flute
    - 28.6.4.1. Characteristics of the Recorder Flute
    - 28.6.4.2. Music Education through the Recorder Flute
- 28.7. Importance of the Audio-Visual Material for Musical Learning
  - 28.7.1. Digital Blackboards as a Tool for Musical Learning
  - 28.7.2. Audiovisual Material Resources

## Module 29. Instrumentation for Music Education

- 29.1. Introduction
  - 29.1.1. Concept of Musical Instruments
    - 29.1.1.1. Definition
    - 29.1.1.2. Types of Musical Instruments
  - 29.1.2. Instrumentation throughout History
    - 29.1.2.1. Historical Review
    - 29.1.2.2. The Instrument as an Artistic Object
  - 29.1.3. Instrumentation in the Classroom Context
    - 29.1.3.1. The Acquisition of Competences
    - 29.1.3.2. The Development of Skills
- 29.2. What is Musical Instrumentation?
  - 29.2.1. Up to J.S. Bach
    - 29.2.1.1. Treatises on Instrumentation
  - 29.2.2. From J.S. Bach
    - 29.2.2.1. Treatises on Instrumentation
- 29.3. Aspects of Instrumentation
  - 29.3.1. Pitch and Musical Timbre
    - 29.3.1.1. Tessitura of the Instruments
  - 29.3.2. Chords
    - 29.3.2.1. Construction
    - 29.3.2.2. Tonal Functions
- 29.4. Orff Instruments. Technical Knowledge of the Instruments in the Music Classroom
  - 29.4.1. Reed Instruments
    - 29.4.1.1. Family, Characteristics
  - 29.4.2. Small Percussion
    - 29.4.2.1. Membranophones
    - 29.4.2.2. Idiophones
    - 29.4.2.3. Shaken Instruments

- 29.5. Musical Instrumentation in Stringed Instruments
  - 29.5.1. Plucked String
    - 29.5.1.1. The Guitar
  - 29.5.2. The Plucked String
    - 29.5.2.1. The Piano
- 29.6. Musical Instrumentation for Recorder Flute
  - 29.6.1. Types of Recorder Flutes
    - 29.6.1.1. Flutes in Folklore
    - 29.6.1.2. Recorder
- 29.7. Percussion Instruments in the Classroom
  - 29.7.1. The Orff Family
    - 29.7.1.1. Uses
    - 29.7.1.2. Correct Positions of Instrumental Execution
  - 29.7.2. Small Percussion
    - 29.7.2.1. Execution Techniques
- 29.8. Instrumentation for Reeds
  - 29.8.1. Types of Drumsticks
    - 29.8.1.1. Uses
    - 29.8.1.2. Sonorities
  - 29.8.2. Use of Chords
    - 29.8.2.1. With 2 Sticks
    - 29.8.2.2. With 3 Sticks
  - 29.8.3. Melodic Function
    - 29.8.3.1. Introductory Exercises
    - 29.8.3.2. Attack Techniques and Expressiveness
- 29.9. Review of the Contents Covered
  - 29.9.1. Adaptation of Classroom Instruments
  - 29.9.2. Important Factors in Classroom Didactics

## Module 30. History of Musical Learning

- 30.1. Introduction: the Importance of Music in History
  - 30.1.1. Baroque
    - 30.1.1.1. Characteristics of the Period
  - 30.1.2. Classicism
    - 30.1.2.1. Characteristics of the Period
  - 30.1.3. Romanticism
    - 30.1.3.1. Characteristics of the Period
  - 30.1.4. Modern or Contemporary Music
    - 30.1.4.1. Characteristics of the Period
- 30.2. Music Education in History
  - 30.2.1. The Music Teacher in the Different Historical Periods
    - 30.2.1.1. The Role of the Teacher in the Baroque Period
    - 30.2.1.2. The Role of the Teacher in the Classical Period
    - 30.2.1.3. The Music Teacher in the Romanticism Period
    - 30.2.1.4. The Music Teacher in the Present Day
  - 30.2.2. The Emergence of the Conservatory
    - 30.2.2.1. The Beginnings and Origins
    - 30.2.2.2. The Conservatory as a Place of Intervention for Children at Risk of Social Exclusion
    - 30.2.2.3. The Conservatory Today
    - 30.2.2.4. New Spaces for Musical Learning
- 30.3. Music Education in the 20th Century
  - 30.3.1. Introduction
  - 30.3.2. A Traditional Model Based on Imposition
  - 30.3.3. A Change of Perspective: Towards Participatory, Non-Imposing Methodologies

- 30.4. Current Educational Paradigms applied to Music Education
  - 30.4.1. Introduction
  - 30.4.2. New Methodologies applied to Music Education
    - 30.4.2.1. Cooperative Learning and Music Learning
      - 30.4.2.1.1. What Is Cooperative Learning?
      - 30.4.2.1.2. The Characteristics of Cooperative Learning
    - 30.4.2.2. PBL: Project-Based Learning
      - 30.4.2.2.1. What Is PBL?
      - 30.4.2.2.2. Characteristics of Project-Based Learning
    - 30.4.2.3. Gamification in the Music Classroom
      - 30.4.2.3.1. What Is Gamification?
      - 30.4.2.3.2. Characteristics of Gamification

## Module 31. Evaluation of Music Students

- 31.1. Introduction
  - 31.1.1. General Overview
  - 31.1.2. References
- 31.2. What Does It Mean to Assess?
  - 31.2.1. Preliminary Considerations
  - 31.2.2. Main Definitions of the Evaluation Process
  - 31.2.3. Features of the evaluation
  - 31.2.4. The Role of Evaluation in the Teaching-Learning Process
- 31.3. What Should Be Evaluated in the Musical Area?
  - 31.3.1. Knowledge
  - 31.3.2. Competences
  - 31.3.3. Skills
- 31.4. Pre-Evaluation Guidelines and Criteria
  - 31.4.1. Evaluation Functions
  - 31.4.2. Educational Programming
    - 31.4.2.1. What is Educational Programming
  - 31.4.3. Why Pre-Programming?

- 31.5. Evaluation Tools and Instruments
  - 31.5.1. Observation as an Evaluation Tool
    - 31.5.1.1. Participant Observation
    - 31.5.1.2. Indirect Observation
  - 31.5.2. Portfolio
    - 31.5.2.1. What is a Portfolio?
    - 31.5.2.2. Characteristics of the Portfolio
  - 31.5.3. The Class Journal
    - 31.5.3.1. What is a Class Journal?
    - 31.5.3.2. Parts of a Class Journal
  - 31.5.4. The Debate
    - 31.5.4.1. What is Debating?
    - 31.5.4.2. Importance of the Debate in the Educational Process
    - 31.5.4.3. Considerations Prior to the Debate
  - 31.5.5. Conceptual Maps
    - 31.5.5.1. What is a Concept Map?
    - 31.5.5.2. Main Elements of the Concept Map
    - 31.5.5.3. ICT Tools for the Elaboration of Concept Maps
  - 31.5.6. The Objective Evaluation Tests
    - 31.5.6.1. Completion or Simple Recall Tests
    - 31.5.6.2. Matching
    - 31.5.6.3. Ordering Tests
    - 31.5.6.4. Exercises of Answers with Alternatives
    - 31.5.6.5. Multiple Solution
- 31.6. Musical Evaluation Applied to the New Technologies
  - 31.6.1. Kahoot and Other Virtual Evaluation Resources

## Module 32. Methodological Approaches

- 32.1. Difficulties of Teaching Art History
  - 32.1.1. Social and Political Vision
  - 32.1.2. Nature as a Social Science
  - 32.1.3. Student Body Interest

- 32.2. Teaching Methodology
  - 32.2.1. Definition of Teaching Methodology
  - 32.2.2. Methodology Efficacy
  - 32.2.3. Traditional and Modern Methodologies
- 32.3. Teaching-Learning Models
  - 32.3.1. Dimensions of Psychoeducational Knowledge
  - 32.3.2. Models of the Teaching-Learning Process
  - 32.3.3. Instructional Design
- 32.4. Lectures and Teacher Role
  - 32.4.1. Positive Aspects of Lectures
  - 32.4.2. Negative Aspects of Lectures
  - 32.4.3. Lectures Today
- 32.5. Behavioral Learning Theories and Educational Applications
  - 32.5.1. Classical Conditioning
  - 32.5.2. Operant Conditioning
  - 32.5.3. Vicarious Conditioning/Observational Learning
- 32.6. Cognitive Theories and Constructivist Theories
  - 32.6.1. Classical Theories of School Learning
  - 32.6.2. Cognitive Theories of Information Processing
  - 32.6.3. Constructivism
- 32.7. Methodologies for Developing Competencies
  - 32.7.1. Problem-Based Learning
  - 32.7.2. Case Studies
  - 32.7.3. Project-Based Learning.
  - 32.7.4. Cooperative Learning
- 32.8. Teaching Methodology Applied to Social Sciences
  - 32.8.1. Teachers as a Key Methodological Element
  - 32.8.2. Expository Strategies
  - 32.8.3. Inquiry Strategies

### Module 33. Student Motivation

- 33.1. Motivation and Its importance to Learners
  - 33.1.1. The Reason to Seek Motivation
  - 33.1.2. The Promotion of Curiosity in Social Sciences
  - 33.1.3. Positive Reinforcement and Autonomy Reinforcement
- 33.2. Teacher Role in the Motivational Task
  - 33.2.1. What to Do as Teachers to Become a Motivational Instrument?
  - 33.2.2. Proposal of Activities or Projects of Interest
  - 33.2.3. Recourse to Current Events: Example
- 33.3. Cognitive Theories
  - 33.3.1. Conceptual and Procedural Knowledge
  - 33.3.2. Intellectual Abilities and General Strategies
  - 33.3.3. Rosenshine and Stevens
- 33.4. Cognitive Theories II
  - 33.4.1. Different Opinions
  - 33.4.2. Activity Examples
  - 33.4.3. Situated Learning and Learner Engagement
- 33.5. Learning and Self-Learning
  - 33.5.1. Research Work for the Students
  - 33.5.2. Students as Their Own Teachers
  - 33.5.3. Transversal Projects
- 33.6. Motivation in Adolescence
  - 33.6.1. Understanding Adolescents
  - 33.6.2. Assessing the Classroom Situation
  - 33.6.3. Conflict Mediators
- 33.7. New Technologies as a Key Element in Academic Motivation
  - 33.7.1. Using Social Media
  - 33.7.2. Understanding Students' Social Reality and Their Motivations
  - 33.7.3. Evolution of the Youth

- 33.8. Attributional Programs
  - 33.8.1. What Does It Consist of?
  - 33.8.2. Real Applications
  - 33.8.3. Advantages in Adolescence
- 33.9. Self-Regulated Learning Theory
  - 33.9.1. What Does It Consist of?
  - 33.9.2. Real Applications
  - 33.9.3. Project-Based Education and Motivation

### Module 34. Adaptation to Different Classroom Situations and Multiple Intelligences

- 34.1. Adolescence and High School Education
  - 34.1.1. Most Problematic Years
  - 34.1.2. Adolescents at Risk of Social Exclusion
  - 34.1.3. Teachers, but Also Educators
- 34.2. Dysfunctions in Adolescence
  - 34.2.1. Different Problems
  - 34.2.2. Potential Solutions as Teachers and Educators
  - 34.2.3. Real Examples and Solutions
- 34.3. School Maladjustment
  - 34.3.1. School Absenteeism and Causes
  - 34.3.2. School Failure
  - 34.3.3. Situation in Spain
- 34.4. High Capacity Students
  - 34.4.1. Additional Material
  - 34.4.2. Motivation and New Challenges
  - 34.4.3. On How to Avoid Exclusion
- 34.5. Multiple Intelligences and Education
  - 34.5.1. Theory of Multiple Intelligences
  - 34.5.2. Types of Intelligence
  - 34.5.3. Project Zero
- 34.6. Education Based on Multiple Teachings
  - 34.6.1. Galton
  - 34.6.2. Cattell
  - 34.6.3. Wechler

- 34.7. Strategies, Guidelines and Activities
  - 34.7.1. According to Piaget
  - 34.7.2. Establish Student Abilities and Skills
  - 34.7.3. Skill Reinforcement
- 34.8. Social Sciences and Multiple Intelligences
  - 34.8.1. Linguistic Intelligence and Reasoning in Learning History
  - 34.8.2. Spatial Intelligence and Logic in Learning Geography
  - 34.8.3. Plastic and Artistic Intelligence
- 34.9. Problems in a More Personalized Approach to Education
  - 34.9.1. Lack of Resources
  - 34.9.2. The Need for Greater Investment
  - 34.9.3. Required Resources

### Module 35. ICT

- 35.1. What are ICTs? Use in Education
  - 35.1.1. Definition of ICT
  - 35.1.2. Advantages
  - 35.1.3. Digital Competencies in Educational Settings
- 35.2. ICT Use in High School
  - 35.2.1. Digital Tools
  - 35.2.2. Web-Based Tools
  - 35.2.3. Mobile Devices
- 35.3. Social Media Campaigns
  - 35.3.1. Definition of Social Networks
  - 35.3.2. Main Social Media Outlets
  - 35.3.3. Using Social Networks in Education
- 35.4. Geographic Information System (GIS) and Its Importance in the Geography
  - 35.4.1. GIS: What Are They?
  - 35.4.2. GIS Organisation and Structures
  - 35.4.3. GIS in Education
- 35.5. ICT in Teaching-- Learning History and Geography
  - 35.5.1. Web Resources of Historical and Geographical Interest
  - 35.5.2. Interactive Websites
  - 35.5.3. Gamification



- 35.6. Introduction to Developing Digital Teaching Material
  - 35.6.1. Creating and Editing Videos
  - 35.6.2. Creating Presentations
  - 35.6.3. Creating Educational Games (Gamification)
  - 35.6.4. Creating 3D Models
  - 35.6.5. Google Tools
- 35.7. Use and publication of Digital Teaching Materials
  - 35.7.1. Means of Publishing Audiovisual Resources
  - 35.7.2. Means of Publishing Interactive Resources
  - 35.7.3. Augmented Reality in the Classroom
- 35.8. Critical Spirit in the Use of Web Resources
  - 35.8.1. Student Education in the Use of New Technologies
  - 35.8.2. The Problem of Privacy Online
  - 35.8.3. Treating Information on the Internet Critically
- 35.9. ICT Teaching Materials in Teaching History and Geography
  - 35.9.1. First Cycle of Secondary Education
  - 35.9.2. Second Cycle of Secondary Education
  - 35.9.3. High School Education

## Module 36. Didactic Planning

- 36.1. What Does Programming Consist of?
  - 36.1.1. Different Meanings
  - 36.1.2. Programming as a Teacher Guide
  - 36.1.3. Different Types of Programs according to Academic Year
- 36.2. Educational Programming and Its Different Sections
  - 36.2.1. Objectives
  - 36.2.2. Content Strategy
  - 36.2.3. Learning Standards
- 36.3. Teaching Units and Sections
  - 36.3.1. Content Strategy
  - 36.3.2. Objectives
  - 36.3.3. Sample Activities and Suggested Tasks
  - 36.3.4. Attention to Diversity Spaces and Resources. Assessment Procedures. Assessment Tools
- 36.4. Different Educational Curriculums
  - 36.4.1. Comparison between Communities
  - 36.4.2. Common Elements of the Curriculums
  - 36.4.3. Differences between Secondary and High School Education
- 36.5. Useful Bibliography for Educational Programming
  - 36.5.1. Ausubel
  - 36.5.2. Piaget
  - 36.5.3. Combas Project
- 36.6. Possible Strategies when Defending an Educational Program or Unit
  - 36.6.1. On How to Face the Presentation
  - 36.6.2. Defense Models
  - 36.6.3. Annexes and Materials that Can Be Enclosed
- 36.7. Examinations, Possible Approaches
  - 36.7.1. Multiple-Choice Tests
  - 36.7.2. Examinations of Medium or Long Development
  - 36.7.3. Advantages and Disadvantages of Each and the Creation of Mixed Exams
- 36.8. Headings
  - 36.8.1. Examples and Templates
  - 36.8.2. Uses
  - 36.8.3. Templates or Rubrics as Tools for Improvement
- 36.9. Activities, Exercises, Tasks and the Different Levels of Complexity
  - 36.9.1. Differences and Examples
  - 36.9.2. Self-study
  - 36.9.3. Self-Assessment Exercise Plans
- 36.10. Importance of the 2nd year of High School Education
  - 36.10.1. A Decisive Year and What It Means for Students
  - 36.10.2. On How to Guide Students
  - 36.10.3. Characteristics

### Module 37. Evaluation

- 37.1. Objectives of Evaluation
  - 37.1.1. Identify Problems or Deficiencies
  - 37.1.2. Establish Solutions
  - 37.1.3. Improve the Teaching-Learning Process
- 37.2. Criteria to Follow
  - 37.2.1. Pre-Evaluation
  - 37.2.2. Establish the Most Suitable System
  - 37.2.3. Extraordinary Tests
- 37.3. Different Models of Evaluation
  - 37.3.1. Final Assessment
  - 37.3.2. Continuous
  - 37.3.3. Tests and Exams
- 37.4. Cases and Practical Examples
  - 37.4.1. Different Exam Models
  - 37.4.2. Different Headings
  - 37.4.3. Cumulative or Percentage Grading
- 37.5. The Importance of the Evaluation System
  - 37.5.1. Different Systems according to the Features of the Student Body
  - 37.5.2. Function of Evaluation Criteria
  - 37.5.3. List and Features of Assessment Techniques and Tools
- 37.6. Different Authors, Different Visions
  - 37.6.1. Zabalza
  - 37.6.2. Weiss
  - 37.6.3. Our Own Evaluation Project
- 37.7. Different Realities, Different Evaluation Systems
  - 37.7.1. Creating an Initial Evaluation: Examples and Templates
  - 37.7.2. Establishing a Teaching Plan
  - 37.7.3. Checking Learning Through Assessments
- 37.8. Self-Assessment as Teachers
  - 37.8.1. Questions to Ask Ourselves
  - 37.8.2. Analyzing Our Own Results
  - 37.8.3. Improving for the Next Academic Year

### Module 38. Didactics Outside the Classroom

- 38.1. History and Archaeology Museums
  - 38.1.1. History in Museums
  - 38.1.2. Archaeology Museums
  - 38.1.3. History Museums
- 38.2. Museums and Art Galleries
  - 38.2.1. Art in Museums
  - 38.2.2. Art Museums
  - 38.2.3. Art Galleries
- 38.3. Museum Accessibility
  - 38.3.1. The Concept of Accessibility
  - 38.3.2. Eliminating Physical Barriers
  - 38.3.3. Visual and Cognitive Integration of Art and Heritage
- 38.4. Archaeological Heritage
  - 38.4.1. Archaeological Objects
  - 38.4.2. Archaeological Sites
  - 38.4.3. The Value of Archaeological Heritage
- 38.5. Artistic Heritage
  - 38.5.1. The Concept of Work of Art
  - 38.5.2. Movable Works of Art
  - 38.5.3. Historic-Artistic Monuments
- 38.6. Historical and Ethnological Heritage
  - 38.6.1. Ethnological Heritage
  - 38.6.2. Historical Ensembles
  - 38.6.3. Historic Sites and Historic Gardens
- 38.7. Museology, Museography and Teaching
  - 38.7.1. Concept of Museology
  - 38.7.2. Concept of Museography
  - 38.7.3. Museums and Teaching

- 38.8. The School in the Museum
  - 38.8.1. School Visits to Museums
  - 38.8.2. Museums at School
  - 38.8.3. Coordination and Communication between School and Museum
- 38.9. Heritage and School
  - 38.9.1. Heritage Outside the Museum
  - 38.9.2. Adapting Visits
  - 38.9.3. Combination of Activities
- 38.10. Teaching in Museums through New Technologies
  - 38.10.1. New Technologies in Museums
  - 38.10.2. Augmented Reality
  - 38.10.3. Virtual Reality



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04

# Teaching Objectives

This Advanced Master's Degree is designed with the objective of preparing highly qualified professionals who understand the challenges and needs of contemporary secondary education. Throughout the university program, educators will delve into the development of pedagogical and methodological competencies, focusing on the creation of innovative strategies to promote effective learning tailored to new educational demands. Additionally, they will be prepared to identify and apply personalized pedagogical approaches that address the specific needs of students, ensuring equal opportunities for all.



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*By enrolling in this program, you will acquire a comprehensive and highly qualified profile that will enable you to face the challenges of the 21st century in secondary education”*



## General Objectives

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- ♦ Develop skills to design and apply effective didactic strategies in secondary education
- ♦ Apply innovative methodologies to foster active and participatory learning among students
- ♦ Develop competencies in classroom management to promote an inclusive learning environment
- ♦ Apply pedagogical approaches that address the diversity of needs and learning paces of students
- ♦ Develop skills to design lesson plans aligned with curricular objectives
- ♦ Implement technological tools to enrich teaching in the context of secondary education
- ♦ Develop continuous assessment strategies to measure students' progress and understanding
- ♦ Apply differentiated teaching approaches to cater to the diversity of secondary students
- ♦ Develop competencies in planning and organizing extracurricular activities that complement teaching
- ♦ Foster student motivation through interactive and dynamic teaching techniques
- ♦ Develop communication skills to facilitate interaction between teachers and students
- ♦ Apply collaborative approaches to promote teamwork and cooperation among students
- ♦ Develop capabilities to implement inclusive teaching strategies for students with special educational needs
- ♦ Implement project-based approaches to develop students' critical and analytical skills
- ♦ Develop strategies to foster autonomy and critical thinking in secondary students
- ♦ Apply research-based teaching methods to promote active learning and inquiry
- ♦ Develop competencies in integrating emotional education into the secondary curriculum
- ♦ Manage assessment of learning through formative and summative evaluation methods
- ♦ Apply innovative approaches to teaching specific subjects to engage students' interest
- ♦ Develop competencies in managing discipline and behavior in the classroom
- ♦ Promote continuous professional development in pedagogical practices to enhance teaching quality
- ♦ Develop skills in planning and organizing educational projects within the classroom
- ♦ Apply effective feedback techniques to improve academic and personal performance of students





- ♦ Develop communication strategies with parents and guardians to support students' academic development
- ♦ Manage educational resources and materials effectively to support learning in the classroom
- ♦ Develop competencies in evaluating educational programs and continuously improving the teaching process
- ♦ Apply student-centered teaching techniques to promote autonomous learning
- ♦ Develop skills to lead and coordinate educational projects within the secondary institution
- ♦ Apply active methodologies to teach multidisciplinary content in secondary education
- ♦ Develop capabilities to integrate a competency-based approach in planning and executing secondary school lessons



## Specific Objectives

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### Module 1. Education and Development

- ♦ Understand the relationships between development, learning, culture, and education, and comprehend the main conceptual controversies about human development and learning
- ♦ Define the main theoretical paradigms of human development and learning
- ♦ Discuss the determinants, characteristics, and psychological dimensions of puberty
- ♦ Understand the perceptual, cognitive, and emotional correlates of the adolescent brain

### Module 2. The Reality of the Classroom

- ♦ Understand the role of adolescents' relationships with their peers and with the group in social development
- ♦ Reflect on the functions of institutions, educational spaces, the teacher's role, and the family as relevant factors for the development of skills
- ♦ Design a series of strategies to minimize the damage caused by the obstacles and difficulties that students face
- ♦ Understand the nature of family processes and models during adolescence

### Module 3. The Fundamentals of Didactics in Language and Literature

- ♦ Understand the fundamentals of language and literature didactics for young people
- ♦ Present and explain the different didactic approaches and pedagogical perspective in teaching Language and Literature in Secondary and High School Education
- ♦ Set objectives for teaching language and literature in secondary education and high school
- ♦ Reflect on strategies for teaching grammar and literature to young people

### Module 4. Methodology: Didactics and Programming

- ♦ Set the goals and objectives to be achieved throughout the different stages of the learning process
- ♦ Identify the goals and objectives you want to achieve throughout the different stages of the learning process
- ♦ Summarize the sociocognitive approaches to learning
- ♦ Reflect on group control techniques

### Module 5. Didactics of Literature

- ♦ Understand the foundations and methodology for literary education
- ♦ Know how to establish an academic plan for literary education

### Module 6. Didactics of Grammar

- ♦ Determine the benefits of interaction as a didactic tool and the external and intrinsic factors that affect the linguistic development of students
- ♦ Deepen theoretical and practical concepts of grammar
- ♦ Know how to propose practical exercises to teach grammar to students
- ♦ Explore different methods for conducting linguistic text commentary

### Module 7. Teaching Lexicon and Semantics

- ♦ Understand the basic principles for teaching lexicon and semantics
- ♦ Deepen different methodologies for learning lexicon and semantics

**Module 8. Mathematics Learning in High School Education**

- ♦ Discover the function of learning
- ♦ Introduce mathematical language
- ♦ Understand the development of intelligence and mathematics
- ♦ Know the relationship between giftedness, talent, and mathematics

**Module 9. Gamification in Mathematics**

- ♦ Understand the role of play in childhood
- ♦ Understand the role of play in adolescence
- ♦ Discern between the role of play in childhood and adolescence
- ♦ Learn what gamification in mathematics is

**Module 10. Problem-Based Learning (PBL) in Mathematics**

- ♦ Learn what Problem-Based Learning (PBL) in Mathematics is
- ♦ Know the characteristics of PBL in Mathematics
- ♦ Plan a PBL in Mathematics
- ♦ Design a PBL in Mathematics

**Module 11. Cooperative Learning in Mathematics**

- ♦ Learn how to evaluate cooperative learning applied to mathematics
- ♦ Design a cooperative learning approach for mathematics
- ♦ Know how to apply cooperative learning strategies to any mathematics curriculum content
- ♦ Understand what cooperative learning applied to mathematics is

**Module 12. Comprehension Projects in Mathematics**

- ♦ Introduce differential learning in mathematics
- ♦ Distinguish the characteristics of mathematics learning
- ♦ Understand cognitive processes in mathematics
- ♦ Know the metacognitive processes in mathematics

**Module 13. Metacognitive Learning and Mathematics**

- ♦ Learn how to use Multiple Intelligences in designing various mathematics activities
- ♦ Know what metacognition in mathematics is
- ♦ Understand what learning mathematics is
- ♦ Understand behaviorism applied to mathematics

**Module 14. Design of a Mathematics Teaching Unit**

- ♦ Learn how to select the factors that determine a didactic unit in mathematics
- ♦ Create the necessary documentation for working with students on the mathematics didactic unit
- ♦ Know how to choose the most appropriate learning methodology based on the topic and the students to design a mathematics didactic unit
- ♦ Manage the necessary documentation to guide the teacher through the mathematics didactic unit

### **Module 15. Didactics of Social Sciences**

- ♦ Select, rigorously and precisely, the most suitable information to make a presentation
- ♦ Synthesize documents and information on a historical, geographical, or anthropological phenomenon
- ♦ Structure information to present a complex phenomenon analytically, coherently, and appropriately
- ♦ Understand past events and contextualize them

### **Module 16. Geography and History as Social Sciences**

- ♦ Explore potential career opportunities and work environments for social science professionals
- ♦ Analyze the fundamental role of geography and history in understanding their current role in society

### **Module 17. The Importance of Didactics in Geography and History**

- ♦ Explore the world of social science didactics beyond the classroom, learning about the possibilities in historical, artistic, and archaeological museums, as well as art galleries and archaeological sites
- ♦ Identify the different didactic approaches to be developed in the classroom to encourage the study of history and geography

### **Module 18. Prehistory**

- ♦ Understand and analyze what prehistory is
- ♦ Manage the process of hominization and its relevance today
- ♦ Learn about the main characteristics of humans and their ways of life in each of the three stages of prehistory: Paleolithic, Neolithic, and the Age of Metals
- ♦ Acquire basic knowledge of anthropology and archaeology

### **Module 19. Ancient History**

- ♦ Determine the first historical civilizations and locate them on a map
- ♦ Evaluate the role of the rivers where the first civilizations settled, triggering political, economic, and social changes
- ♦ Analyze and understand the social structures of the first historical civilizations
- ♦ Know and appreciate the cultural and artistic heritage of Mesopotamia and ancient Egypt

### **Module 20. Middle Ages**

- ♦ Identify the historical periods and territories, previously occupied by the Romans, where the two medieval Christian cultures developed: Byzantine and Carolingian
- ♦ Study Justinian and Charlemagne as the most important figures in their respective empires and recognize in both their attempts to restore the ancient Roman Empire
- ♦ Describe the political, economic, social, and cultural characteristics of each of these two cultures
- ♦ Appreciate the importance of the Justinian Code

**Module 21. European Modern Age**

- ♦ Understand the defining characteristics of modern states
- ♦ Differentiate between the various political forms in Europe
- ♦ Recognize the aesthetic conceptions and essential characteristics of Renaissance art, as well as some artists and their works
- ♦ Identify the characteristics of humanism and some authors and their works

**Module 22. Contemporary Age**

- ♦ Analyze the main historical and social events that have shaped the contemporary world
- ♦ Develop skills to interpret political, economic, and cultural transformations in the contemporary era
- ♦ Apply historical theories to understand the social and political movements of recent centuries
- ♦ Evaluate the impact of technological and scientific advances on contemporary societies

**Module 23. Physical Geography**

- ♦ Provide a generalist, integrated training on the fundamental content of various thematic areas of Geography, its epistemological development, and research methods
- ♦ Equip students with the ability to apply theoretical, methodological, and instrumental knowledge to integrated analysis and interpretation of spatial processes and problems, as well as territorial diagnosis
- ♦ Develop specific skills related to knowledge of work techniques, especially those related to the collection, analysis, treatment, and representation of geographical information, as well as fieldwork
- ♦ Ensure the necessary knowledge for teaching Geography in secondary education, while also addressing the complementary training legally required

**Module 24. Human Geography**

- ♦ Analyze and understand human geography as the discipline that studies the relationship between society and physical space. Study the dynamics and distribution of the population throughout history and how these have occurred
- ♦ Explain migrations and immigration, how they have affected the economy and space at a global level
- ♦ Understand rural spaces and the economic activities carried out there (livestock, agriculture, fishing, etc.)
- ♦ Analyze depopulation in rural areas and the problems that have arisen as a result

**Module 25. Art History Within the Social Sciences**

- ♦ Analyze and critically evaluate the curriculum of Social Sciences and Art History within the regulations for Secondary Education and High School
- ♦ Identify the role of art and its historical contribution to the social sciences

**Module 26. The Importance of Didactics in Art History**

- ♦ Identify the different methods and techniques for teaching art
- ♦ Analyze various teaching methodologies for different artistic movements
- ♦ Deepen into new techniques that allow for teaching art and its impact on modern culture
- ♦ Prepare future Art History teachers to make decisions, organize, and implement the historical knowledge they must teach in a specific classroom and institution

### **Module 27. Music Didactics**

- ♦ Explore possible pathways toward achieving quality music education
- ♦ Interpret the different pedagogical models for musical learning
- ♦ Justify current methodologies in music teaching
- ♦ Discuss the importance of learning styles and their impact on different educational stages

### **Module 28. Material Resources for Music Education**

- ♦ Understand the structure of the educational system and how projects and educational plans related to music are developed
- ♦ Learn about practical cases in musical learning
- ♦ Analyze the importance of learning styles in music students
- ♦ Manage different models that explain learning styles

### **Module 29. Instrumentation for Music Education**

- ♦ Apply instruments and tools in musical learning
- ♦ Technically understand the instruments available in the classroom
- ♦ Understand the aspects of instrumentation before and after J.S. Bach
- ♦ Master attack and expressiveness techniques in melodic functions

### **Module 30. History of Musical Learning**

- ♦ Analyze the historical background and evolution of musical learning
- ♦ Compare the evolution of the concept of music education in the international context and in our country
- ♦ Criticize the different currents in musical learning
- ♦ Identify myths and misconceptions in music education

### **Module 31. Evaluation of Music Students**

- ♦ Identify successful educational experiences through case analysis
- ♦ Master the available evaluation tools and instruments
- ♦ Propose the items that should be evaluated in music education
- ♦ Understand the importance of debate in the educational process

### **Module 32. Methodological Approaches**

- ♦ Identify the importance of art and its currents in history and their impact
- ♦ Deeply develop artistic concepts rooted in history

### **Module 33. Student Motivation**

- ♦ Deepen into student motivation and the teacher's role in this task, exploring various cognitive theories
- ♦ Influence adolescent motivation, specifically by understanding them and mediating any conflicts that arise in class



**Module 34. Adaptation to Different Classroom Situations and Multiple Intelligences**

- ♦ Obtain tools to deal with school maladjustment and how to teach students with high abilities
- ♦ Prepare teachers to adapt to different situations in the classroom, with a focus on adolescence and knowledge of multiple intelligences

**Module 35. ICT**

- ♦ Develop teachers' knowledge of ICT by showing its application and introducing them to the creation of teaching materials based on new technologies
- ♦ Teach teachers to critically assess the use of ICT in order to protect students from improper use of new technologies

**Module 36. Didactic Planning**

- ♦ Train teachers in the detailed development of a didactic plan according to current standards, using examples
- ♦ Develop new techniques for acquiring knowledge for Secondary and High School students

**Module 37. Evaluation**

- ♦ Delve into evaluation, showing its objectives, the criteria to follow, existing models and its importance
- ♦ Know the different views on evaluation through various authors

**Module 38. Didactics Outside the Classroom**

- ♦ Identify tools that influence knowledge acquisition outside the classroom
- ♦ Analyze various techniques for autonomous education outside the classroom



*Experience advanced methodologies and the expertise of highly qualified professionals, who will provide you with the most complete and up-to-date content in the market"*

05

# Career Opportunities

This university qualification will open up a wide range of professional opportunities for those looking to excel in this field. As such, some of the most prominent career paths include positions such as Pedagogical Coordinator to manage educational projects focused on the continuous improvement of learning processes. Additionally, graduates will have the necessary tools to work as Educational Consultants, supporting the implementation of policies and methodologies that respond to the demands of the current academic system.





“

*With the backing of TECH and a practical, innovative approach, you will access a future full of possibilities, developing a unique and highly valued career in the education sector”*



### Graduate Profile

The graduate will be defined by academic excellence, leadership skills, and an innovative approach to education. In this regard, they will possess in-depth knowledge of the most advanced teaching methodologies and a strategic vision to implement pedagogical practices that transform learning in the classroom. As a result, they will be recognized for their ability to design and implement educational projects adapted to the needs of students in diverse contexts. This expert will integrate technological tools and inclusive strategies that promote the holistic development of students.

*You will have a highly competitive profile, capable of occupying key roles in teaching, educational management, and academic consulting. Enroll now and become an agent of change!*

- ♦ **Educational Innovation Capacity:** Design and apply creative pedagogical strategies using emerging technologies and modern methodologies to enhance learning in the classroom.
- ♦ **Problem Solving in Educational Contexts:** Strengthen analytical and critical thinking skills to identify, address, and resolve challenges in school environments, promoting effective and sustainable solutions.
- ♦ **Leadership and Collaborative Work:** Lead teaching teams, foster collaboration, and manage educational projects that positively impact the school environment.
- ♦ **Adaptability to Multicultural Environments:** Develop cultural sensitivity and the ability to work in diverse settings, adapting educational practices to meet the needs of students from different backgrounds and cultures.





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

- 1. Educational Innovation Coordinator:** Responsible for implementing innovative strategies in the classroom, optimizing the use of technologies and methodologies to improve learning outcomes.
- 2. Pedagogical Advisor:** Provides guidance in developing and implementing effective teaching plans adapted to the needs of students.
- 3. Academic Director:** Oversees and manages the educational programs of an institution, ensuring their quality and compliance with standards.
- 4. Curriculum Design Supervisor:** Designs curricula to meet educational regulations and respond to the current demands of the academic environment.
- 5. Teacher Trainer:** Responsible for delivering workshops and training programs aimed at updating teachers' knowledge and pedagogical skills.
- 6. Independent Educational Consultant:** Advises institutions to optimize their teaching processes and improve their academic offerings.
- 7. Online Education Platform Tutor:** Responsible for supporting students in their virtual learning process, ensuring effective interaction with content and digital resources.
- 8. Educational Projects Coordinator:** Leads initiatives aimed at improving teaching quality and promoting innovation within educational institutions.
- 9. Educational Assessment Supervisor:** Designs evaluation systems to measure the performance of students and teachers, ensuring continuous improvement.
- 10. Manager of Educational Inclusion Programs:** Responsible for developing and supervising strategies that promote equal opportunities for students with special needs or from vulnerable backgrounds.

06

# Study Methodology

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

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





“

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

### The student: the priority of all TECH programs

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

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

“

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



### The most comprehensive study plans at the international level

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

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

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

“

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

## Case Studies and Case Method

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

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

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



## Relearning Methodology

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

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

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

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





## A 100% online Virtual Campus with the best teaching resources

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

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

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

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



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

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

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



### The university methodology top-rated by its students

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

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

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

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



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



#### Study Material

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

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



#### Practicing Skills and Abilities

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



#### Interactive Summaries

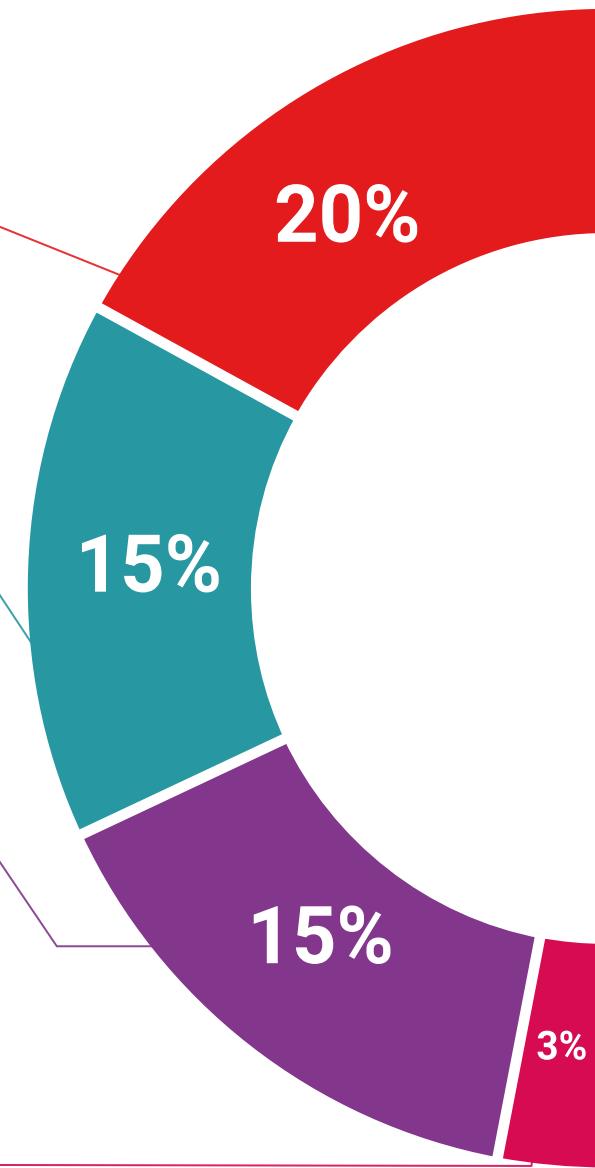
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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



#### Additional Reading

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





**Case Studies**

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



**Testing & Retesting**

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



**Classes**

There is scientific evidence suggesting that observing third-party experts can be useful.  
Learning from an expert strengthens knowledge and memory, and generates confidence for future difficult decisions.



**Quick Action Guides**

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



07

# Teaching Staff

The teaching team for this Advanced Master's Degree consists of a group of professionals with extensive experience in the educational field. This select group of experts combines a solid academic background with in-depth practical knowledge, ensuring high-level training adapted to the current needs of secondary and high school education. Moreover, among the mentors are specialists in innovative pedagogical methodologies, leaders in curriculum design, and experts in the use of technologies applied to the classroom.







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*The excellent teaching team will provide a global perspective, allowing you to broaden your viewpoints and tackle the challenges of a diverse and ever-evolving educational environment. Enroll now!”*

## International Guest Director

Dr. Jack Dieckmann is an outstanding **Senior Mathematics Advisor**, who has focused on the revision of curricular materials to strengthen **language development in Mathematics**. In fact, his expertise has encompassed the evaluation and improvement of **educational resources**, supporting the integration of effective classroom practices. In addition, he has held the position of **Director of Research** at Stanford University, where he has been dedicated to documenting the effectiveness of learning opportunities offered by **Youcubed**, including **Jo Boaler's** online courses on **mathematical mindsets** and other **research-based materials**.

In addition, throughout his career, he has held key roles at renowned institutions. As such, he has served as **Associate Director of Curriculum** at the **Center for Assessment, Learning and Equity (SCALE)**, where he has led the **Mathematics** team in the development of **performance assessments**, demonstrating his ability to innovate in **educational assessment** and apply **advanced teaching techniques**.

In this sense, at the international level, Dr. Dieckmann has been recognized for his impact on **mathematics education**, through his scientific participation in multiple activities. He has also obtained significant merits in his field, participating in **conferences and consultancies** in countries such as **China, Brazil and Chile**. As such, his work has been crucial for the implementation of best practices in **mathematics teaching**, and his experience has been instrumental in advancing **mathematics education** globally.

In this way, his further research has focused on "**language for mathematical purposes**", especially for students of **English as a second language**. In turn, he has continued to contribute to **mathematics education** through his work at **Youcubed**, as well as his **consulting** activities globally, demonstrating his position as an outstanding leader in the field.





## Dr. Dieckmann, Jack

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- ♦ Director of Research at Youcubed at Stanford University, San Francisco, United States
- ♦ Associate Director of Stanford's Center for Assessment, Learning and Equity (SCALE)
- ♦ Instructor at the Stanford Teacher Education Program (STEP)
- ♦ International Teaching Consultant in countries such as China, Brazil and Chile
- ♦ Ph.D. in Mathematics Education at Stanford GSE in 2009

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*Thanks to TECH, you will be able to learn with the best professionals in the world"*

## Management



### **Jurado Blanco, Juan**

- ♦ Secondary Education Teacher and Industrial Electronics Expert
- ♦ Mathematics and Technology teacher in Compulsory Secondary Education at Santa Teresa de Jesús School in Villanueva y Geltrú. Spain
- ♦ Expert in High Abilities
- ♦ Industrial Technical Engineer with Specialization in Industrial Electronics



### **Mr. Linares Tablero, Pedro**

- ♦ Coordinator of the Family Accompaniment Centre of the Edith Stein School
- ♦ Head of Studies, in Charge of New Technologies and Academic Organization at Edith Stein School
- ♦ Principal of Chesterton School
- ♦ Principal of Villamadrid School
- ♦ Degree in Philosophy and Educational Sciences from the Complutense University of Madrid.
- ♦ University Expert in Flipped Classroom in the Classroom by CEU Cardenal Herrera University



### Dr. Cañestro Donoso, Alejandro

- ♦ Researcher and Teacher in Art History
- ♦ Expert Researcher in Decorative Arts
- ♦ Author of several books on Art History
- ♦ University Teacher in Art History Studies
- ♦ PhD in Art History from the University of Murcia

## Teachers

### Mr. Rodríguez Rodríguez, José Javier

- ♦ Geography and History Teacher, Sagrada Familia School in Moratalaz
- ♦ Teacher Specialist in the Teaching Spanish as a Foreign Language endorsed by IL3 University of Barcelona
- ♦ Multidisciplinary teacher in countries such as Chile and the United Kingdom
- ♦ Degree in History from the University of Alcalá de Henares.
- ♦ Master's Degree in High School Teacher Training in the speciality of Geography and History by the University of Alcalá

### Mr. Alcocer Martín, Daniel

- ♦ Real Estate Advisory Partner. RE/MAX. Montepíncipe
- ♦ Head of Humanities Department at the Colegio Concertado
- ♦ Secondary Education Teacher at IES El Burgo de las Rozas
- ♦ Degree in History from the Complutense University of Madrid.
- ♦ Specialist in International Relations, Security and Defence from the Complutense University of Madrid.
- ♦ Master's Degree in Bioethics from the Universidad Rey Juan Carlos

**Dr. De la Serna, Juan Moisés**

- ♦ Independent Psychologist and expert writer in Neurosciences
- ♦ Writer specialized in Psychology and Neurosciences
- ♦ Author of the Open Chair of Psychology and Neurosciences
- ♦ Scientific Disseminator
- ♦ Doctorate in Psychology
- ♦ Bachelor's Degree in Psychology. University of Seville
- ♦ Master's Degree in Neurosciences and Behavioral Biology. Pablo de Olavide University, Seville
- ♦ Expert in Teaching Methodology. La Salle University
- ♦ University Specialist in Clinical Hypnosis, Hypnotherapy. National University of Distance Education - UNED.
- ♦ Postgraduate Certificate in Social Graduate, Human Resources Management, Personnel Administration. University of Seville
- ♦ Expert in Project Management, Administration and Business Management. Federation of Services U.G.T
- ♦ Trainer of Trainers. Official College of Psychologists of Andalusia

**Ms. Domínguez Alonso, Lourdes**

- ♦ History and Geography teacher for Secondary and High School Education
- ♦ History and Geography teacher in a public Institute
- ♦ Teacher of English and Spanish for foreigners support classes
- ♦ Private tutor at *GoStudent*
- ♦ Graduate in History, University of Alicante
- ♦ Master's Degree in Compulsory Secondary and High School Education Teaching

**Ms. Sánchez García, Manuel**

- ♦ Teacher of Secondary and High School Compulsory Education
- ♦ Mathematics teacher in Compulsory Secondary Education at Santa Teresa de Jesús School in Vilanova i la Geltrú.
- ♦ Vocational Training and Language Teaching
- ♦ Specialty in Health Biology
- ♦ Master's Degree in Teacher Training for Compulsory Secondary and High School Education
- ♦ Degree in Biology

**Mr. Reig Ruiz, Pedro**

- ♦ Geography and History Teacher, Nazaret Oporto School, Madrid
- ♦ Professor at IES Salvador Dalí
- ♦ Researcher at the University of Alcalá
- ♦ Writer at SegurCaixa Adeslas
- ♦ Degree in History, Complutense University of Madrid
- ♦ Master's Degree in Teacher Training for Secondary and High School Education by the Complutense University of Madrid
- ♦ Master's Degree in History of the Hispanic Monarchy from the Complutense University of Madrid

**Dr. García Casasempere, José Antonio**

- ♦ Secondary School teacher expert in Opera
- ♦ Teacher of Spanish at High School Pare Arques
- ♦ Co-author of *La ópera de Valencia*
- ♦ Doctor from the University of Valencia

**Mr. Lecuona Font, Enrique**

- ♦ Specialist in Geography and Urban Law
- ♦ Researcher
- ♦ Monitor of Extracurricular Sports Activities at Hispanic-English School in Santa Cruz de Tenerife
- ♦ Research Professor of Associations in the Canary Islands at the University of La Laguna
- ♦ Bachelor's Degree in Geography, University of La Laguna
- ♦ CAP (Certificate of Professional Aptitude in Spain), Alfonso X El Sabio University
- ♦ Master's Degree in Urban Law, University of La Laguna

**Dr. Guerrero Cuesta, Daniel**

- ♦ Speciality in Contemporary American History
- ♦ University Professor and Researcher
- ♦ PhD in the Department of History of America I of the Faculty of Geography and History of the Complutense University of Madrid
- ♦ Degree in History, Complutense University of Madrid
- ♦ Speciality in Contemporary American History
- ♦ Master's Degree in American History and Anthropology
- ♦ Master's Degree in Secondary and High School Teacher Education

**Ms. Villegas Puerto, Ana**

- ♦ Member of the Gabriel y Galán High School
- ♦ Secondary School Teacher at the Gabriel y Galán Secondary Education Institute
- ♦ Co-author of the work "Econews: The News Program as a Didactic Tool"
- ♦ Recipient of the first prize in the category "A More Civic and Solidary School"

**Mr. Mira Tomás, Josep**

- ♦ Web Developer at inaCátalog Mobility Sales
- ♦ SQA Junior Developer at Imaweb
- ♦ ERP & Web Management at Madrid Musical SA
- ♦ Creative producer at NOIIZ LTD
- ♦ Freelance Multimedia Music Composer
- ♦ Music Composer Degree at Conservatory
- ♦ Master's Degree in Music Technology at Katarina Gurska
- ♦ Higher Degree in Multiplatform Applications Development at Florida Universitaria
- ♦ Degree in Composition and Music Theory at Musikene

**Ms. Moya Pastor, María Luisa**

- ♦ Violinist and Violin Music Teaching Pedagogue
- ♦ Violinist and Freelance Violin Teacher
- ♦ Violin Teacher at the Mestre Feliu Professional Conservatory of Music Benicarló, Spain
- ♦ Violin Teacher at the Musicalis Academy
- ♦ Bachelor's Degree in Violin from the Joaquín Rodrigo Higher Conservatory of Music. Valencia
- ♦ Master's Degree in Digital Education, E-Learning, and Social Networks from TECH Global University
- ♦ Master's Degree in Violin Specialization from the Royal Conservatory of Liège
- ♦ Master's Degree in Violin Pedagogy from the Royal Conservatory of Liège
- ♦ Master's Degree in Musical Research from UNIR

**Mr. Notario Pardo, Francisco**

- ♦ Family and School Mediator and Official Judicial Expert
- ♦ Supervising Officer of the Department in the Valencian Government
- ♦ Social Educator of the Intervention Team of Basic Primary Attention of Social Services in the City Council of Alcoy
- ♦ Official Judicial Expert in Family Courts and Juvenile Prosecutor's Office
- ♦ Interim Social Educator in the Valencian Government
- ♦ Intervention Technician in Foster Care for the Trama Center Association
- ♦ Coordinator of the Foster Care Intervention Center in Alicante
- ♦ Director of the Master's Degree in Inclusive Education for Children at Social Risk
- ♦ Bachelor's Degree in Pedagogy from the University of Valencia
- ♦ Diploma in Social Education from the University of Valencia
- ♦ Diploma in Intervention with Families at Risk and Minors with Antisocial Behavior from the University of Valencia
- ♦ Specialization in Intervention and Therapeutics in Special Educational Needs and Socio-educational Needs by the Official College of Pedagogues and Psychopedagogues of the Valencian Community
- ♦ Official Judicial Expert by the Official College of Pedagogues and Psychopedagogues of the Valencian Community
- ♦ Teacher of Professional Training for Employment by the Servef Center
- ♦ University Certificate in Family and School Mediation from the Catholic University of Valencia San Vicente Mártir
- ♦ University Expert in Social Inclusion and Inclusive Education from the CEU Cardenal Herrera University
- ♦ Expert in Intervention with Families at Risk and Minors with Antisocial Behavior





**Mr. Palacios, Francisco**

- ♦ Pedagogue of Music Teaching
- ♦ Collaborating Lecturer in the Master's Program in Music Education
- ♦ Bachelor's Degree in Pedagogy

**Ms. Igual Pérez, María José**

- ♦ External Expert in Erasmus+ Programs at the Spanish Service for the Internationalization of Education
- ♦ Pedagogical Design Leader at the Pedagogical Design and Education for Sustainable Development Bootcam
- ♦ Master's Degree in Arts, Music Specialization (Instrument: Viola) from the Royal Conservatory of Brussels
- ♦ Master's Degree in Artistic Research, Music Specialization from the Polytechnic University of Valencia
- ♦ Bachelor's Degree in Arts, Music Specialization (Instrument: Viola) from the Royal Conservatory of Brussels
- ♦ Pedagogical Adaptation Course from the University of Valencia

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*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice”*

08

# Certificate

The Advanced Master's Degree in Didactics and Teaching Practice in High School Education guarantees students, in addition to the most rigorous and up-to-date education, access to a diploma for the Advanced Master's Degree issued by TECH Global University.





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



This private qualification will allow you to obtain a **Advanced Master's Degree in Didactics and Teaching Practice in High School Education** 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.

TECH is a member of the prestigious **Association for Teacher Education in Europe (ATEE)**, the leading international association dedicated to teacher training. This partnership highlights its commitment to academic advancement and quality.

#### Accreditation/Membership



Title: **Advanced Master's Degree in Didactics and Teaching Practice in High School Education**

Modality: **online**

Duration: **2 years**

Accreditation: **120 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.



## Advanced Master's Degree Didactics and Teaching Practice in High School Education

- » Modality: Online
- » Duration: 2 years
- » Certificate: TECH Global University
- » Accreditation: 120 ECTS
- » Schedule: at your own pace
- » Exams: online

# Advanced Master's Degree Didactics and Teaching Practice in High School Education

Accreditation/Membership

