Professional Master's Degree
Landscape Architecture

tech technological university

tech universidad tecnológica

Professional Master's Degree
Landscape Architecture

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Technological University**
- Dedicated: **16 hours a week**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/us/engineerin/professional-master-degree/master-landscape-architecture**

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01

Introduction

Landscape Architecture has redefined the conservation of natural species, prevented deforestation and achieved a better integration between the environment and urban areas. Therefore, more and more people are demanding highly trained professionals in the implementation of its most advanced techniques and state-of-the-art design tools. For this reason, TECH will lead students with this program to mastery of this cutting-edge field through an exclusive syllabus. A 100% online program where the most demanded garden styles, the most ecosystem-friendly construction materials and the key stages to plan and develop a landscape project will be addressed. Likewise, this academic proposal is supported by the very complete Relearning methodology to strengthen the most necessary and demanded theoretical and practical skills in this field.

You will learn in depth how to promote biodiversity through the most advanced principles of Landscape Architecture with this 100% online Professional Master's Degree"

The protection of the environment and the conservation of natural resources have become priority issues on political and public agendas at the state, business and social levels. Specific cases, such as the hotel industry, are betting on a more organic symbiosis between their constructive establishments and environmental or natural spaces. As a result, the demand for professionals with updated skills to implement the integration of infrastructures and more disruptive landscape techniques has increased.

For this reason, TECH has developed this Professional Master's Degree where students can obtain advanced training in the use of state-of-the-art technologies and computer programs that facilitate the design of outdoor projects. Also, the syllabus delves into the safest construction materials, which reduce the harmful impact of some building works on green spaces. Likewise, the graduate will delve into the keys for the selection of the most resistant plants and the previous and continuous evaluation that climatic or soil conditions may entail for various botanical species.

At the same time, this program stands out by examining the main styles of landscape and park design throughout the history of this discipline. Through the study of these aspects, landscape architects will be able to reproduce scenarios and environments, capturing the essence of some attractive representations such as the Japanese and English gardens, among others.

Likewise, this academic itinerary will be taught 100% online, from an interactive platform with multiple multimedia resources. This provides students with the opportunity to access the study materials 24 hours a day, from anywhere, with the help of the mobile device of their choice. Additionally, it will be supported by innovative teaching methods, such as the *Relearning*system, to ensure the rapid and flexible assimilation of the most complex content. Likewise, with the simulation of practical cases, you will develop cutting-edge skills and will be able to implement them immediately in your professional practice.

This **Professional Master's Degree in Landscape Architecture** contains the most complete and up-to-date program on the market. The most important features include:

- The development of case studies presented by experts in Landscaping, Gardening, Botany, among others
- The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential for professional practice
- The practical exercises where the self-evaluation process can be carried out to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

You will master, through this syllabus, the innovative principles of landscape design and construction such as drainage, irrigation and lighting systems"

With this program you will not have to make any unnecessary travel to an on-site center, allowing you to access the materials from anywhere in the world"

Thanks to TECH Technological University and its 100% online methodology, you will be able to access the most disruptive techniques for the conservation of green spaces.

No schedules or continuous evaluations: this is a program where you will be able to customize your studies according to your responsibilities and needs.

The program includes in its teaching staff professionals of the field who pour into this training the experience of their work, in addition to recognized specialists from reference societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, in which the professional will have to try to solve the different professional practice situations that will arise throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

02

Objectives

This program focuses on offering students an update of their skills in the field of Landscape Architecture through the most innovative tools and work strategies. All these contents have been incorporated into the syllabus taking into account their impact and results in this discipline. Therefore, upon completion of their studies, graduates will have a holistic vision of the most avant-garde technologies, materials, styles and design techniques. Likewise, throughout this academic itinerary, they will also have a very complete 100% online learning methodology.

The central goal of this program is for you to master the most disruptive strategies and techniques for landscape design management"

General Objectives

- Delve into the concepts and advanced principles of design applied to the Landscape
- Develop visual representation and graphic communication skills in the field of Landscape Architecture
- Delve into the planning and execution of design projects in Landscape Architecture
- Approach different strategies for ecological conservation and restoration
- Differentiate and manage the processes of construction and execution of Landscape Architecture projects
- Integrate Landscape management strategies and practices to preserve the health and beauty of natural and built environments

After 1,500 hours of study, you will achieve all your professional goals in an optimal and personalized way according to your aspirations"

Specific Objectives

Module 1. Landscape in Architecture Design

- Incorporate the fundamental principles of design as applied to the Landscape
- Develop site analysis skills to evaluate the natural and built features of a site
- Delve into design elements, such as color, form, and texture, to create harmonious landscape compositions
- Integrate natural and built elements in landscape design
- Define graphic representation tools and techniques to communicate design ideas and concepts
- Analyze examples of Landscape Architecture design projects and understand their development process

Module 2. Graphic Expression

- Integrate the use of computer-aided design (CAD) and 3D modeling software and tools to create accurate digital representations
- Develop graphic communication skills to present and visualize Landscape Architecture designs
- Differentiate the main techniques for rendering materials and textures to enrich graphic representations
- Address the principles of visual composition in the graphic representation of landscape designs

Module 3. The Landscaping Project. Drafting the Project

- Discern the stages and processes involved in the development of a design project in Landscape Architecture
- Deepen in design methodologies, such as research, concept generation and planning
- Delve into different strategies for integrating natural and built elements in landscape design
- Analyze and evaluate the feasibility and sustainability of proposed designs in economic, social and environmental terms

Module 4. Climate, Soil Science, Biology and Botany. Vegetation

- Approach the basic principles of Climate and its influence on the design and maintenance of landscape spaces
- Differentiate the characteristics and properties of soil (Edaphology) and its importance for the development of plants in the landscape
- Deepen in the fundamental concepts of plant biology and botany, including species identification and adaptability
- Develop strategies for water conservation and irrigation efficiency in landscape design
- Master legal and ethical aspects related to the conservation and protection of flora and fauna in landscape design

Module 5. Materials, Infrastructure, construction elements and furnishings

- Define materials used in the construction of landscape elements, such as pavements, walls, urban furniture, among others
- Integrate the properties, characteristics and applications of materials commonly used in Landscape Architecture
- Delve into the principles of design and construction of landscape infrastructures, such as drainage, irrigation and lighting systems
- Develop sustainable design strategies that incorporate recycled, low maintenance and low environmental impact materials

Module 6. The Landscape Construction Construction and project management of landscape Architecture projects

- Analyze the construction techniques used in the implementation of Landscape Architecture projects
- Interpret plans and technical specifications for the construction of landscape elements
- Address the construction methods used in the implementation of walls, paths, pavements and other structural elements
- Delve into handling tools and machinery used in landscape construction

Module 7. Conservation of Green Spaces

- Delve into the importance of conservation and proper management of green spaces in the Landscape Architecture context
- Evaluate the environmental and social impacts associated with the intervention in green spaces
- Analyze green space maintenance methods, such as pruning, pest and disease control, and green waste management
- Develop skills to assess and improve soil quality and plant health in green areas

Module 8. Public Space Design. Cities of the Future

- Deepen in the specific characteristics and requirements of public spaces, such as parks, squares and pedestrian walkways
- Evaluate user needs and environmental characteristics for the design of successful public spaces
- Discern between participatory and inclusive design techniques to involve the community in the public space design process
- Develop skills to create public spaces that encourage social interaction, recreation and community well-being

Module 9. Singular Projects

- Address design approaches applied to unique projects in Landscape Architecture
- Assess examples of unique and outstanding Landscape Architecture projects worldwide
- Analyze the integration of natural and built elements in singular projects, seeking a harmonious and unique balance
- Delve into the use of advanced technologies and materials in the execution of singular projects in Landscape Architecture

Module 10. Gardening Styles

- Master the different styles and trends in garden design, both historical and contemporary
- Differentiate all the characteristics and principles of each style, such as the formal garden, the English garden, the Japanese garden, among others
- Define the key elements of each style and their application in garden design and composition
- Deepen in the influence of cultural, geographic and climatic factors in the choice and development of styles in gardening

03

Skills

Graduates of this program will be able to work in the landscape design of diverse environments in urban, peri-urban, rural and protected areas. At the same time, they will master different strategies and constructive criteria that prevent soil contamination, guarantee a correct management of water resources and promote the general care of the surrounding environment. The academic itinerary also refers to the different styles of Gardening and their evolution throughout history, allowing students to reproduce characteristics and trends in their Landscaping projects.

With this exclusive TECH syllabus you will be trained in the use of computer programs such as REVIT to facilitate the design of natural spaces and structures"

General Skills

- Evaluate sustainability and ecology in Landscape design
- Identify and analyze the client's requirements and objectives for the development of a landscape project
- Select and use appropriate plants for different climatic conditions and soil types
- Choose appropriate building materials based on project needs and aesthetic, technical and durability considerations
- Implement techniques for the restoration and rehabilitation of degraded areas in green spaces
- Design different strategies to improve accessibility, safety and comfort in public landscaped spaces

Specific Skills

- Manage the main techniques, concepts and computer programs that facilitate the generation of designs
- Implement principles of composition, balance and hierarchy in landscape design
- Apply various design and critical analysis skills in the field of Landscape Architecture
- Master freehand drawing techniques, such as sketching and drawing, to quickly represent design ideas and concepts
- Represent topographies, plans, sections and perspectives in a clear and effective manner
- Develop and present landscape design proposals in a clear and effective manner
- Practice project management skills, including team coordination and design execution oversight
- Participate in practical projects involving the planning and execution of a design project in Landscape Architecture, applying acquired knowledge and skills
- Practice techniques for the analysis of existing vegetation and the evaluation of its state of health
- Perform practical activities, such as soil sampling, identification of plant species and analysis of climatic conditions
- Adapt construction techniques and methods used in the implementation of landscape elements, ensuring their correct installation and operation
- Identify legal and regulatory aspects related to construction in the context of Landscape Architecture
- Implement the installation of irrigation, lighting and drainage systems in landscape projects
- Apply safety and regulatory aspects related to construction in the context of Landscape Architecture
- Use advanced strategies and techniques in problem solving and the creation of innovative solutions in unique projects
- Analyze the relationship between landscaping style and the surrounding architecture, creating harmony and coherence in the environment
- Create garden designs that reflect a specific style, applying the principles and typical elements of that style

Through the skills you will acquire in this Professional Master's Degree, you will boost your professional career and develop innovative landscape projects in diverse areas"

04

Course Management

TECH Technological University offers a unique update through this program. All faculty members are part of prestigious companies where they apply the most advanced techniques and tools for the design of parks and gardens, as well as the conservation of plant species. These professors are also up to date on various notions of botany and handle the latest construction criteria to design better green and natural spaces in large cities. Therefore, through the rigorous academic guidance that these specialists have printed in the program, students will be able to fully master the main aspects of Landscape Architecture.

A teaching staff, made up of the best experts in Landscape Architecture, has prepared this very complete program for your update"

Management

Dr. Schiavo, Fiorella

- Landscape Architect & Digital Landscape Leader at OVE ARUP & PARTNERS
- BIM Implementation Consultant at LAND Italia
- PhD in Geography from the University of Barcelona
- Master's Degree in Landscape Architecture by the Polytechnic University of Catalonia
- Master's Degree in Territorial Planning and Environmental Management by the University of Barcelona
- Master's Degree in BIM Programming from the University Isabel II
- Diploma in Architecture

Professors

Ms. Esser Orellana, Paulina

- Founding Partner and Accessibility Coordinator at Inclusión Activa Consulting Firm.
- Landscape Architect and CSM Design Consultant at Stuart Moore
- Design Sennior External Consultant at Green Landscape
- Master's Degree in Landscape Architecture from the Polytechnic University of Catalonia
- Degree in Landscape Ecology from the Central University of Chile

Ms. Carrión Rodríguez, Eva

- Garden and Stock Quality Specialist at Leroy Merlin
- Technical Forestry Engineer at Sinergis Enginyeria
- Degree in Landscape Architecture from the Polytechnic University of Catalonia
- Degree in Forestry Technical Engineering from the University of Lleida
- Gardening Technician at the Torre d'en Gorgs Center

Mr. Arroyo Parras, Juan Gabriel

- Earth Observation Expert at INNECO
- Technical Surveying Engineer specialized in Satellite Geodesy
- GNSS technical consultant at ESSP SAS
- R+D+i project engineer at the Technological Center of Components.
- Master's Degree in Satellite Geodesy and Geophysics applied to Engineering and Geology by the University of Jaén
- Degree in Technical Engineering in Topography from the University of Jaén
- University Expert in Sustainable Energy Solutions by the International University of Andalucía

Mr. Arroyo Vega, Óscar

- Co-Founder and Collaborator at COMMONAISM COLLECTIVE
- Landscape Architect specializing in AI and Data Science
- Master's Degree in Landscape Architecture from the Polytechnic University of Catalonia
- Master's Degree in Landscape and Public Space by the University of Granada
- Expert in Design Studies ESDi by the Ramon Llull University
- Expert in Physical Sciences from the University of Barcelona

Ms. Nadal Ferrer, Margalida

- Founder and Landscape Architect at Estudio Paisajismo y Diseño.
- Architect specialized in Landscape and Garden Design
- Senior Architect by the I.E. University
- Expert in Digital Landscaping
- Expert in Energy Efficiency in Building Construction
- Expert in Vertical Garden Design and Construction by Urban Landscape Architecture

05

Structure and Content

This Professional Master's Degree addresses in depth the principles of landscape design, with special emphasis on advanced tools such as the technical drawing software REVIT or Geographic Information Systems. Likewise, the syllabus delves into the most up-to-date strategies for garden restoration, conservation of natural recreational spaces and sports lawns. In turn, TECH guarantees the mastery of all these contents through its innovative methodology, Relearning, which facilitates the assimilation of complex concepts in a flexible and immediate way. Therefore, graduates will have the precise theoretical and practical skills to implement the most avant-garde professional praxis.

You will delve into this program through the best 100% online learning platform"

Module 1. Landscape Architecture Design

1.1. Visual Elements
- 1.1.1. Point
- 1.1.2. Line
- 1.1.3. The Shot
- 1.1.4. The Shape. Volume
- 1.1.5. Movement
- 1.1.6. Color
- 1.1.7. Texture

1.2. Sensitive Elements
- 1.2.1. Sound
- 1.2.2. Fragrance
- 1.2.3. Touch

1.3. Time
- 1.3.1. The Forth Dimension
- 1.3.2. The Element that Differentiates us from the Other Construction Arts
- 1.3.3. The Growth of Vegetation
- 1.3.4. Transformation of the Projected Space

1.4. Formal Design
- 1.4.1. Starting from the Square. 90º angles
- 1.4.2. From Acute or Obtuse Angles
- 1.4.3. Triangles, Hexagons
- 1.4.4. From Circles, Arches, Tangents and Spirals

1.5. Informal Design
- 1.5.1. Naturalistic Shapes
- 1.5.2. Free Ellipses
- 1.5.3. Free Spirals
- 1.5.4. Irregular Polygons
- 1.5.5. Organic Shapes
- 1.5.6. Fragmentation and Clustering

1.6. Principles of Element Organization
- 1.6.1. Unit
- 1.6.2. Harmony
- 1.6.3. Interest
- 1.6.4. Simplicity
- 1.6.5. Emphasis-Dominance
- 1.6.6. Balance
- 1.6.7. Scale-Proportion
- 1.6.8. Sequences

1.7. The Scale
- 1.7.1. Scale Construction
- 1.7.2. Proportion
- 1.7.3. Appropriate Scales According to Use
- 1.7.4. Graphic Scale

1.8. Mathematics in Nature
- 1.8.1. The Proportion
- 1.8.2. Golden Ratio
- 1.8.3. The Fibonacci Series

1.9. Mathematics in Architecture and Landscape Architecture
- 1.9.1. Alhambra with Mathematics. An Example
- 1.9.2. Databases for Urban Vegetation Monitoring
- 1.9.3. An Example

1.10. From Pythagoras to Trigonometry
- 1.10.1. Formulas and Theorems
- 1.10.2. Application to the Architecture Field
- 1.10.3. The Landscape

Module 2. Graphic Expression

2.1. Technical Drawing. Linear Elements
- 2.1.1. Comparison of Straight Lines
- 2.1.2. Perpendicularity
- 2.1.3. Parallelism and Angular Measurement
- 2.1.4. Division of Circumferences into Equal Parts

2.2. Technical Drawing. Polygonal Shapes
- 2.2.1. Construction of Polygons in General
- 2.2.2. Construction of Regular Polygons
- 2.2.3. Construction of Convex Polygons
- 2.2.4. Construction of Stellated Polygons

2.3. Technical Drawing. Composition of Curved Shapes
- 2.3.1. Combination of Lines by Contact. Tangents
- 2.3.2. Shapes Based on Arcs of Tangent Circles: Ovals
- 2.3.3. Drawing of Spirals. Archimedean Spiral
- 2.3.4. Drawing of Ellipses. Gardener's Ellipse
- 2.3.5. Plotting a Hyperbola
- 2.3.6. Tracing Cycloids and Epicycloids

2.4. Technical Drawing. Shape Comparison
- 2.4.1. Equality
- 2.4.2. Symmetry
- 2.4.3. Similarities

2.5. Technical Drawing. Graphic Form Structure
- 2.5.1. Radial Structure
- 2.5.2. Perpendicular Structure
- 2.5.3. Parallel Structure
- 2.5.4. Independent Structure
- 2.5.5. Networks by Polygon Decomposition
- 2.5.6. Networks by Polygon Composition
- 2.5.7. Radial Networks

2.6. The Outlook
- 2.6.1. Conic Perspective
- 2.6.2. Axonometric Orthogonal Perspective
- 2.6.3. Oblique Axonometric Perspective

2.7. Freehand Drawing
- 2.7.1. Most Common Representation Techniques
- 2.7.2. Materials. Pencil, Markers, Watercolor
- 2.7.3. Sketches
- 2.7.4. Software to Support Manual Drawing. Morpholio as an Example

2.8. Computer-Assisted Drawing
- 2.8.1. From the Beginnings of Computer Aided Drafting to BIN
- 2.8.2. Basic Software for Gardens, Without Drawing Knowledge SketchUp
- 2.8.3. Description of the Most Common CAD Programs

2.9 CAD Associated with Databases
- 2.9.1. Most Common Architectural BIN programs: REVIT
- 2.9.2. VectorWorks. Features
- 2.9.3. ArchiCad. Features
- 2.9.4. GIS (Geographic Information Systems) programs. Differences with CAD

2.10. The Presentation of Projects
- 2.10.1. Final Art
- 2.10.2. Graphic Design Software for the Generation of Photorealistic Images
- 2.10.3. Rendering Most Used Software in Landscaping

Module 3. The Landscaping Project. Drafting the Project

3.1. The Landscape Program
- 3.1.1. Type of Clients: Public, Institutional, Private
- 3.1.2. Client Needs: Make a List of Desires or Needs
- 3.1.3. Landscape Program
- 3.1.4. Estimated Economic Volume

3.2. Site Inventory
- 3.2.1. Topography
- 3.2.2. Infrastructure Connection (Type and characteristics)
- 3.2.3. Existing Trees and Elements
- 3.2.4. Location, Climate and Orientation
- 3.2.5. Soil Analysis
- 3.2.6. Geological Study, if Construction is Required
- 3.2.7. Water Analysis if not Potable
- 3.2.8. Analysis of Surrounding Vegetation
- 3.2.9. Study of the Site in Relation to the Edges
- 3.2.10. Local, Regional or National Legislation Affecting the Site
- 3.2.11. Elaboration of the Current State Plan

3.3. Site Analysis
- 3.3.1. Combining the Program with the Survey Data to Establish the Basis of the Design
- 3.3.2. Analysis Plan: Vitas, Orientation, Shadows, Soils
- 3.3.3. Focal Points
- 3.3.4. List of Existing or Missing Infrastructure
- 3.3.5. Preliminary Zoning
- 3.3.6. Elements to be Removed
- 3.3.7. Elements to be Preserved

3.4. Conceptualization
- 3.4.1. General Philosophical Concepts
  - 3.4.1.1. Serious-Frivolous
  - 3.4.1.2. Active-Passive
  - 3.4.1.3. Introspective-Extroverted
  - 3.4.1.4. Interactive-Solidary
  - 3.4.1.5. Surprising-Obvious
- 3.4.2. Functional Concepts
  - 3.4.2.1. Reducing Erosion
  - 3.4.2.2. Increasing Drainage
  - 3.4.2.3. Prevent Vandalism
  - 3.4.2.4. Reduce Maintenance
  - 3.4.2.5. Minimize Water Consumption
  - 3.4.2.6. Reduce Solar Incidence
  - 3.4.2.7. Reduce or Increase Breezes
- 3.4.3. Choice of Style
  - 3.4.3.1. Classic
  - 3.4.3.2. Modern
  - 3.4.3.3. Minimalist
  - 3.4.3.4. Naturalized

3.5. Types of Landscaping Projects. Urban Landscape
- 3.5.1. Single-family Gardens
- 3.5.2. Urban Developments
- 3.5.3. Garden Cities
- 3.5.4. Urban Green Spaces. Streets, Squares, Gardens
- 3.5.5. Parks, Metropolitan Parks, Periurban Parks, Naturalized Spaces
- 3.5.6. Urban and School Gardens
- 3.5.7. Gardens for People with Special Needs

3.6. Types of Landscaping Projects. Rural Landscape / Natural Landscape
- 3.6.1. Natural Parks and Deterrent Parks
- 3.6.2. Coastal Landscapes. Natural Spaces, Protection of Dunes. Ports and Promenades
- 3.6.3. Restoration of Degraded Areas. Mines, Sealing of Waste Dumps
- 3.6.4. Design of River Banks
- 3.6.5. Design of Linear Infrastructure (Highways, Railroad Lines, Greenways)
- 3.6.6. Recovery of Desertified Areas

3.7. Types of Landscaping Projects. Special Projects
- 3.7.1. Cultural and Heritage Landscapes. ICONS

3.7.2. Restoration of Historic Gardens
3.7.3. Botanical Garden Design
3.7.4. Design of Theme Parks and Exhibitions
3.8. Graphic Representation Shots
3.8.1. Preparation of Drawings According to the Type of Customer and Contract
3.8.2. Drawing Formats
3.8.3. Initial Sketches. Sketches
3.8.4. General Drawings. Zoning General Floor Plan. Content According to the Type of Customer
3.8.5. Infrastructure Plans. (Drainage, Water System, Lighting)
3.8.6. Civil Works Plans
3.8.7. Plantation Plans
3.8.8. Furniture Plans
3.8.9. Detail Drawings
3.8.10. Perspectives and/or Renderings, Normally Contracted Separately
3.9. Technical Documentation
3.9.1. Depending on the Scope of the Assignment and the Type of Client
3.9.2. Differences Between Preliminary Design, Basic Design and Execution Design
3.9.3. Memory List of Materials
3.9.4. General Technical Specifications
3.9.5. Specific Technical Specifications
3.9.6. Administrative Specifications (Usually Provided by the Contracting Administration)
3.9.7. Measurements and Budgets
3.10. Programs of Measurements and Budgets
3.10.1. Price Databases
3.10.2. Concepts of Unit Prices, Composite Prices and Decomposed Prices
3.10.3. Specific Measurement and Budgeting Software
3.10.4. Menfis Example

Module 4. Climate, Soil Science, Biology and Botany. Vegetation

4.1. Relationship between Climate, Soil and Vegetation
4.1.1. Introduction
4.1.2. Types of Climate
4.1.3. Bioclimatic Zones
4.1.4. Classification Table
4.1.5. Climatic Records
4.2. Soil Science
4.2.1. Types of Soil Structure
4.2.2. Types of Soil Texture
4.2.3. Soil Oigin. Types of Soil
4.2.4. Chemical Dterminants
4.2.5. pH
4.2.6. Fertile Soil Characteristics. Organic Matter
4.2.7. Amendments
4.2.8. Artificial Substrates Design
4.2.9. Hydroponic Media and Stock Solutions
4.3. Water
4.3.1. The Water Cycle
4.3.2. Historical Precipitation Series by Area
4.3.3. Water Quality
4.3.4. Electrical Conductivity
4.3.5. Need to Recover Fresh Water. Systems
4.3.6. Concept of Xerogardening
4.4. Plant Morphology, Anatomy and Physiology
4.4.1. From the Plant Cell to the Tissues
4.4.2. Plant Organs

4.4.3. Basic Metabolic Processes of Plants
4.4.3.1. Photosynthesis and Respiration. Stomata
4.4.3.2. Pigments Chlorophyll and Carotenoids
4.4.3.3. Plant Nutrition. Macro and Micronutrients
4.4.3.4. Cell-tissue-organ Interactions
4.4.3.5. Phytohormones
4.4.3.6. Photo Journalism
4.4.3.7. Ecophysiology

4.5. Concepts of Ecogeography and Systematic Botany
4.5.1. Definition of Biome
4.5.2. Definition of Ecosystems
4.5.3. Definition of Natural Vegetation Series
4.5.4. Classification of the Plant Kingdom. Bryophytes, Ferns, Angiosperms and Gymnosperms
4.5.5. Monocotyledons and Dicotyledons
4.5.6. Botanical Systematics. Family, Genus, Species
4.5.7. Family, Genus, Species
4.5.8. Dichotomous Classification Guides
4.5.9. Fungi
4.5.10. Distinction between Deciduous and Perennial Species
4.5.11. Plant recognition

4.6. Plant Species. Classification of Planters. Palmaceae
4.6.1. Definition of the Concept Palmaceae
4.6.2. Morfoligical
4.6.3. Fan-leaved Palms
4.6.3.1. List of species by Morphological Characteristics, Use, Climate, Soil, Water Needs and Limitations
4.6.4. Pinnate-leaved Palms
4.6.4.1. List of species by Morphological Characteristics, Use, Climate, Soil, Water Needs and Limitations

4.7. Plant Species. Classification of Planters. Trees
4.7.1. Definition of Tree Concept
4.7.2. Conifers
4.7.2.1. Morfoligical
4.7.2.2. List of species by Morphological Characteristics, Use, Climate, Soil, Water Needs and Limitations
4.7.3. Hardwoods
4.7.3.1. Morfoligical
4.7.3.2. List of species by Morphological Characteristics, Use, Climate, Soil, Water Needs and Limitations

4.8. Plant Species. Classification of Planters. Shrubs, Climbers, Bushes and Aromatic Plants
4.8.1. Definition of the Shrubs Concept. Groupings According to their Interest in the Garden
4.8.2. Flowering Shrubs of Interest
4.8.2.1. List of Species by Use, Climate, Soil, Water Needs and Limitations
4.8.3. Shrubs of Leafy Interest
4.8.3.1. List of Species by Use, Climate, Soil, Water Needs and Limitations
4.8.4. Climbers
4.8.4.1. Types of Climbers
4.8.4.2. List of Species by Use, Climate, Soil, Water Needs and Limitations
4.8.5. Shrubs and Aromatics
4.8.5.1. List of Species by Use, Climate, Soil, Water Needs and Limitations

4.9. Plant Species. Classification of Planters. Perennials, Biannuals and Annuals
4.9.1. Definition of the Perennial Concept. Groupings According to their Interest in the Garden
4.9.2. List of Species by Use, Climate, Soil, Water Needs and Limitations
4.9.3. Annuals and Biennials
4.9.4. List of Species by Use, Climate, Soil, Water Needs and Limitations

4.10. Plant Species. Classification of Planters. Ground Cover and Cespitosas, Aquatic and Ferns
- 4.10.1. Definition of the Concept of Ground Cover Plant. Groupings According to their Use in the Garden
  - 4.10.1.1. List of Species by Use, Climate, Soil, Water Needs and Limitations
- 4.10.2. Cespitosas Species and Bamboos
  - 4.10.2.1. List of Species by Use, Climate, Soil, Water Needs and Limitations
- 4.10.3. Aquatic and Amphibious Species
  - 4.10.3.1. List of Species by Use, Climate, Soil, Water Needs and Limitations
- 4.10.4. Ferns
  - 4.10.4.1. List of Species by Use, Climate, Soil, Water Needs and Limitations

Module 5. Materials, Infrastructure, construction elements and furnishings

5.1. Properties of Construction Materials
- 5.1.1. Material Properties
- 5.1.2. Basic Principles of Force Mechanics
- 5.1.3. Loads and Reactions
- 5.1.4. Beams and Columns

5.2. Construction Materials. Uses, Types and Application Techniques of each of the Following Materials to Different Construction Solutions
- 5.2.1. Stone
- 5.2.2. Concrete
- 5.2.3. Brick
- 5.2.4. Metals
- 5.2.5. Wood
- 5.2.6. Glass
- 5.2.7. Polymers (Plastics and Rubbers)
- 5.2.8. Soil, Turf and Non-conventional Materials
- 5.2.9. Thixotropic Mortars

5.3. Constructive Elements of the Landscape
- 5.3.1. Consolidated Soils, Earthworks, Slopes and Backfills. Drainages
- 5.3.2. Containment Structures
  - 5.3.2.1. Stairs, Ramps, Retaining Walls, Ha-Ha, Reinforced floors
  - 5.3.2.2. Typologies of Each Element, Uses, Force Diagrams
  - 5.3.2.3. Materials Used for their Construction
  - 5.3.2.4. Foundations and Structures
- 5.3.3. Pavements
  - 5.3.3.1. Types of Pavements. Hard, Flexible, Porous
  - 5.3.3.2. Foundations
  - 5.3.3.3. Border Elements, Curbs, Steels
  - 5.3.3.4. Pavement Design. Color, Textures
- 5.3.4. Pergolas, Balustrades, Metallic Structures, Profiles, Plastic Elements
  - 5.3.4.1. Materials, Constructive Solutions and Problems Associated with the Material
- 5.3.5. Root Protection Systems in Urban Environments by Means of
- 5.3.6. Material Connections, Mechanical, Adhesive and Metallic Fasteners. Advantages and Disadvantages
- 5.3.7. Protections and Finishes. Maintenance

5.4. Structures and tThemed Elements
- 5.4.1. Mortars with TXT Resin for Recreation of Themed Spaces
- 5.4.2. Types of Material
- 5.4.3. Structures Depending on the Location
- 5.4.4. Friezes, Retaining Walls, Artificial Rocks, Theming of Ashlars
- 5.4.5. Sand Pools

5.5. Water Elements
- 5.5.1. Elements and Aquatic Gardens. Fountains, Canals, Ponds and Lagoons. Typologies. Rigid, Flexible, Irregular, Formal Ponds. Scale and Location
- 5.5.2. Design. Site Conditions, Location, Drainage and Infrastructure, Water Table, Basic Depth of Force Mechanics. Types of Waterproofing
- 5.5.3. Distribution of Aquatic Species as a Function of Depth and Design of the Same
- 5.5.4. Benefits of Ponds and Water in the Garden
- 5.5.5. Filling by Drainage and Water Recirculation

5.6. Landscape Furnishings
- 5.6.1. Street Furniture Design
  - 5.6.1.1. Benches, Garbage Cans, Platforms, Planters, Milestones
  - 5.6.1.2. Construction Details
- 5.6.2. Ephemeral Structures in the Landscape
- 5.6.3. Temporary Scenographies
- 5.6.4. Mirrors

5.7. Design of Modular and Mobile Structures. Planters, Ponds, Rails
- 5.7.1. Modular Planters
- 5.7.2. Mobile Ponds
- 5.7.3. Modular Rails

5.8. Drainage Infrastructure
- 5.8.1. Conventional Drains. Types, Designs and Materials
- 5.8.2. Sustainable Urban Drainage Systems. The Permeability of Cities
- 5.8.3. Atlantis System
- 5.8.4. Stockholm System
- 5.8.5. Rain Gardens

5.9. Irrigation Infrastructure
- 5.9.1. Design of Irrigation Projects
- 5.9.2. Hydrozones
- 5.9.3. Connection Point
- 5.9.4. Piping Distribution and Calculation
- 5.9.5. Types of Emitters
- 5.9.6. Low Water Consumption Emitters
- 5.9.7. Programmers. Types Depending on the Size of the Project
- 5.9.8. Pumping

5.10. Electricity Infrastructure
- 5.10.1. Design of a Garden Lighting Installation
- 5.10.2. The Approved Project
- 5.10.3. Protection Elements
- 5.10.4. Conduits and Connection Elements
- 5.10.5. Comparison of Consumption of Different Types of Emitters
- 5.10.6. Selection of Lighting Fixtures, Street Lamps, Poles, Spotlights, in Accordance with the Style of the Space and its Use within it
- 5.10.7. Reduction of Light Pollution

Module 6. The Landscape Construction Construction and project management of landscape Architecture projects

6.1. Project Management and Technical Management of Landscaping Works
- 6.1.1. Definitions
- 6.1.2. Differences
- 6.1.3. Book of orders

6.2. Equipment Coordination and Vendor Supplies
- 6.2.1. Activity Inspection Forms
- 6.2.2. Staff Control
- 6.2.3. Supply Logistics
- 6.2.4. Stockpile Area Management

6.3. Planning
- 6.3.1. Planning Software Use
- 6.3.2. Gantt Chart
- 6.3.3. Milestones

6.4. Control of Economic Costs of the Project
- 6.4.1. Certifications
- 6.4.2 Budget Control
- 6.4.3. Cost Estimation

6.5. Financial Settlement
- 6.5.1. Cost Review
- 6.5.2. Extras Evaluation
- 6.5.3. Payment Management

6.6. Provisional and Final Settlement Documents
- 6.6.1. Warranty Periods
- 6.6.2. Provisional Work Settlement Act
- 6.6.3. Cost Justification Documents

6.7. Health and Safety Coordination
- 6.7.1. Identification and Risk Assessment
- 6.7.2. Health and Safety Plan
- 6.7.3. Coordination with the Different Agents

6.8. Quality Control and Environmental Management in Landscape Construction
- 6.8.1. Establishment of Standards
- 6.8.2. Inspection and Follow-up
- 6.8.3. Tests and Trials

6.9. Sequence of Works
- 6.9.1. Protection of Elements to Remain. Trees, Buildings, Infrastructures, Singular Elements
- 6.9.2. Clearing, Land Clearing and Demolitions
- 6.9.3. Topographic Stakeout
- 6.9.4. Earthworks and Drainage Works
- 6.9.5. Layout of Facilities and Civil Works
- 6.9.6. Construction of Civil Works Elements
  - 6.9.6.1. Masonry works, Ponds, Swimming Pools and Fountains, Sport Areas and Playgrounds, Foundations for Furniture, etc
  - 6.9.6.2. Drainage Infrastructure Installation
  - 6.9.6.3. Installation of Irrigation Infrastructures (Buried Elements)
  - 6.9.6.4. Installation of Electrical Infrastructure
  - 6.9.6.5. Layout and Construction of Roads
  - 6.9.6.6. Land Preparation for Planting
  - 6.9.6.7. Definitive Staking Out of the Ground Plans
  - 6.9.6.8. Installation of Rotors or Sprinklers and Overhead Drip Irrigation System
  - 6.9.6.9. Installation of Fountains, Pergolas, Statues, Walkways on Previous Foundations
  - 6.9.6.10. Opening of Holes and Planting
  - 6.9.6.11. Protection of Planted Elements and Distribution of the Drip Irrigation System
  - 6.9.6.12. Leveling and Cleaning of the Soil
  - 6.9.6.13. Placement of Weed Control Netting and Sprayed Mulch
  - 6.9.6.14. Site Cleanup

6.10. Ideal Planning of Works According to the Time of the Year
- 6.10.1. Summer
- 6.10.2. Autumn
- 6.10.3. Spring
- 6.10.4. Winter

Module 7. Conservation of Green Spaces

7.1. The State of Conservation of Green Spaces
- 7.1.1. Status of the Service. Inventory of Personnel and Means and Relation with Surface Area and Typology
- 7.1.2. Difference Between Public and Private Spaces
- 7.1.3. Difference in Management According to Surface Areas
- 7.1.4. Management System: Public-Private-Mixed
- 7.1.5. Study of Current and Future Needs

7.2. Comprehensive Maintenance of Green Spaces
- 7.2.1. Objectives
- 7.2.2. Typology
- 7.2.3. Principles
- 7.2.4. Planning

7.3. Conservation Management
- 7.3.1. Management Plan Elaboration
  - 7.3.1.1. Technical and Human Resources
  - 7.3.1.2. Financial resources
- 7.3.2. Application Systems
- 7.3.3. Human Resources Management
- 7.3.4. Supply or Purchase Management
  - 7.3.4.1. Public Production Nurseries
  - 7.3.4.2. Plant Purchases

7.4. Public Parks and Gardens Services
- 7.4.1. Service Structure
- 7.4.2. Resources
- 7.4.3. Roles and Responsibilities
- 7.4.4. Integration or Independence in Supramunicipal Structures
- 7.4.5. Strengths and Weaknesses

7.5. Park and Garden Service Companies
- 7.5.1. Structure Depending on the Type of Customers. Public or Private
- 7.5.2. Resources
- 7.5.3. Roles and Responsibilities
- 7.5.4. Integration or Independence in Construction Companies
- 7.5.5. Strengths and Weaknesses

7.6. Conservation Work
- 7.6.1. Description and List of Conservation Activities
- 7.6.2. Chronology of Responsible Actions
- 7.6.3. Human and Material Resources Required for Each Task
- 7.6.4. Minimum Resource Requirements in Terms of Quality and Type of Space and Surface Area
- 7.6.5. Programming and Annual Planning of Resources and Activities

7.7. The Trees
- 7.7.1. Basic Arboriculture Concepts
- 7.7.2. Conservation Work
- 7.7.3. Pruning Trends and Errors
- 7.7.4. Differences in the Evolution of Urban Trees in Public Spaces Depending on the Location
- 7.7.5. Risk Assessment Systems
- 7.7.6. Urban Tree Management Systems
- 7.7.7. Master Plans for Urban Tree Planting

7.8. Landscaping Staff Training
- 7.8.1. Gardening Schools
- 7.8.2. Ongoing Training
- 7.8.3. Specialty Programs

7.9. Quality of Service Management
- 7.9.1. Objectives for the Customer, Public or Private
- 7.9.2. Integrated Quality Plan
  - 7.9.2.1. Certification Standards
- 7.9.3. Integrated Environmental Management Plan
- 7.9.4. Certification Standards
- 7.9.5. Waste Management

7.10. Risk Prevention
- 7.10.1. Regulations
- 7.10.2. Identification, Estimation
- 7.10.3. Risk Assessment
- 7.10.4. Risk Prevention Plan

Module 8. Public Space Design. Cities of the Future

8.1. The State of Our City
- 8.1.1. Preliminary Needs Study
- 8.1.2. Studies: Population, Resources and Services
- 8.1.3. Spatial Study
- 8.1.4. Climate Study
- 8.1.5. Urban Potential Study

8.2. Master Plans
- 8.2.1. Integration of Landscape Master Plans in General Urban Development Plans
- 8.2.2. Need for Sectoral Master Plans
- 8.2.3. Accessibility Regulations

8.3. Typology of Spaces
- 8.3.1. Identification of Existing Spaces. Squares, Streets, Parks
- 8.3.2. Identification of Residual Spaces
- 8.3.3. Study of Deficiencies and Advantages of Current Designs
- 8.3.4. Definition of Future Solutions. Trend Application of 3-30-300

8.4. Personality and Homogeneity in Cities
- 8.4.1. Singularized Study of Neighborhoods and Districts
- 8.4.2. Cultural Components
- 8.4.3. Sociological
- 8.4.4. Historical

8.5. Style Guide
- 8.5.1. Definition of Minimum Quality in Spaces
- 8.5.2. Definition of Standardized Norms in Materials
- 8.5.3. Components
- 8.5.4. Definition of Facilities in the Service Management in Public Spaces

8.6. Harmonization in the Management of Public Spaces
- 8.6.1. Coordination of Urban Projects
- 8.6.2. Urban Planning, Parks and Gardens, Infrastructure
- 8.6.3. Coordination of Urban works
- 8.6.4. Integrated Technical Office

8.7. Landscape Design of Streets
- 8.7.1. Typology of Existing Streets
- 8.7.2. Definition of Needs
- 8.7.3. Application of Accessibility Regulations
- 8.7.4. Local Mobility Study
- 8.7.5. Harmonization of Trees and Parking
- 8.7.6. Landscape Reform Projects

8.8. Landscape Design of Squares
- 8.8.1. Typology of Existing Squares
- 8.8.2. Definition of Needs
- 8.8.3. Application of Accessibility Regulations
- 8.8.4. Local Mobility Study
- 8.8.5. Social Needs Study
- 8.8.6. Harmonization of Public Space and Parking
- 8.8.7. Squares over Parking Lots
- 8.8.8. Landscape Reform Projects

8.9. Landscape Design of Gardens and Parks
- 8.9.1. Typology of Existing Gardens and Parks
  - 8.9.1.1. Distribution in the City
- 8.9.2. Definition of Needs
- 8.9.3. Application of Accessibility Regulations
- 8.9.4. Local Mobility Study
- 8.9.5. Social Needs Study
- 8.9.6. Landscape Reform Projects

8.10. Metropolitan Integration
- 8.10.1. Typology of Metropolitan Public Spaces
  - 8.10.1.1. Parks
  - 8.10.1.2. Landscape Wounds. Natural and Artificial
- 8.10.2. Definition of Needs
- 8.10.3. Identification of Territorial Barriers
- 8.10.4. Local Mobility Study
- 8.10.5. Social Needs Study
- 8.10.6. Study of the Image of the City from the Accesses
- 8.10.7. Green Rings. Expansion in the Territory
- 8.10.8. Landscape Reform Projects

Module 9. Singular Projects

9.1. Sports Fields
- 9.1.1. Design of Natural Grass Sports Fields
  - 9.1.1.1. Standard Dimensions
  - 9.1.1.2. Design of Drains and Cisterns for Reuse of Irrigation Water
  - 9.1.1.3. Ground Preparation
  - 9.1.1.4. Lawns with Low Water Requirements, for Dry Areas
  - 9.1.1.5. Grass Mixtures Suitable for Each Need

9.2. Design of Low-water-use Golf Courses with Qplus Certification
- 9.2.1. Landscape Design with Xeroscaping Concepts and Maximizing Drainage Networks Associated with Ponds and Lakes to Reuse the Highest Percentage of Irrigation Water
- 9.2.2. Mesh Irrigation Design and Sensor Control of Actual Irrigation Needs, Adapting Irrigation to the Hours of Least Evapotranspiration
- 9.2.3. Drainages
- 9.2.4. Ground Preparation
- 9.2.5. Drought-adapted Grasses in the Rough and *Outrough*
- 9.2.6. Grass Mixtures Suitable for Each Need
- 9.2.7. Use of Regenerated Water
- 9.2.8. Strict Control of Fertilizer Doses and Waterproofing of *Greens* to Avoid Leaching into Aquifers

9.3. Vertical Gardens with Hydroponic System
- 9.3.1. Types of Green Building Envelopes
- 9.3.2. Design of Hydroponic f+p Vertical Gardens
- 9.3.3. Sectorization of Plantings and Irrigation sectors, depending on the Orientation, the most Suitable Species Best Adapted to the Climate and the Degree of Insolation

9.3.4. Design of the System to Recover Irrigation and Purification Effluents for their Reuse, avoiding the Discharge of Fertilizers into the Sewage System and Water Loss
9.3.5. Domotic Control of the Irrigation and Fertigation System, and Incorporation of Sensors to Automate the System According to Water Needs
9.3.6. Species Selection
9.3.7. Use of Reclaimed Water if Possible

9.4. Green Roofs and Terrace Gardens. Use of Hydroponic Technology and Water Reclamation
9.4.1. Type of Green Roofs. Extensive and Intensive
9.4.2. Roof Gardens
9.4.3. Design of Roofs with Water Accumulation Systems, to Reduce the Frequency of Irrigation and Generate Additional Insulating Chamber to the Building Roof
9.4.4. Selection of Low Water Consumption Ground Cover Species
9.4.5. Incorporation of Domotic Irrigation Systems Developed for the Vertical Gardens
9.4.6. Species Selection

9.5. Kindergartens
9.5.1. Types of Kindergartens
9.5.2. Location Study. Sunlighting, Shading, Wind, Noise, Environment
9.5.3. Element Kindergartens
9.5.3.1. Types of Playground Equipment
9.5.4. Themed Kindergartens
9.5.4.1. Particular Design Integrated in the Space
9.5.5. Selection of Plant Species for Playgrounds
9.5.6. Standardized Norms in the Design of Playground Elements
9.5.7. Accessibility

9.6. Design of Environmental Modules of Landscape Intervention for Intervention in Large Extensions of Territory
9.6.1. Methodology for Intervention in the Recovery of Natural Habitats Degraded by Fire, Environmental Pollution, Floods, Linear Infrastructures
9.6.2. Environmental Study of the Territory of Implantation
9.6.3. Topographical and Edaphological Study of the Same Analysis of Basins
9.6.4. Study of the Potential Vegetation
9.6.5. Selection of Species with the Data Collected and the Study of the Vegetation Series of the Area
9.6.6. Incorporation into the List of Fast-growing, Non-invasive Species that Improve the Environmental Quality of the Area and Facilitate the Rooting and Growth of the Definitive Species in the Territory
9.6.7. Designs of Different Vegetation Modules within the Chosen Botanical Series, of Dimensions in Accordance with the Intervention, Adapting the Selection to the Topography and Edaphic Characteristics of the Terrain

9.7. Landscape Design of Corporate, Industrial or University Spaces with Sustainability and Low Maintenance Criteria
9.7.1. Study of the Territory and Use of the Space
9.7.2. Elaboration of the Program of Needs
9.7.3. Zoning According to the Degree of Use and Typology of the Open Spaces
9.7.4. Selection of Species Appropriate to the Area with Specific Study of the Incidence of Shadows Cast by the Buildings and the Effect of the Same to Improve the Thermal Effects on the Facades
9.7.5. Design of the Irrigation and Drainage System Suitable for Each Planting Zone
9.7.6. Hierarchization in the Design Between Areas of Intensive Use and Areas of Residual Use

9.8. Landscape Design of Tourist Enclaves, Hotel Complexes, High Standing Residential Areas with Sustainability Criteria
9.8.1. Common Features Demand for High Landscape Quality, High Density and Variety of Species and High Level of Maintenance
9.8.2. Careful Selection of Species, Introducing a High Percentage of Naturalized or Autochthonous Species of High Quality and Minimum Requirements
9.8.3. Specific Detailed Projects for Transit and Living Areas
9.8.4. Automation of Irrigation with Reduction of Aerial Emitters and Their Replacement by Subway Irrigation in the Areas of Greatest Intensity of Use
9.8.5. Design of Parking Decks and Terraces
9.8.6. Hierarchization in the Design Between Areas of Intensive Use and Areas of Residual Use

9.9. Interventions and Current Trends in Landscape Architecture
9.9.1. Examples of Interventions that Set Styles
9.9.2. Current Landscape Architects
9.9.3. Sustainable Design

9.10. References in Urban Sustainability Projects
- 9.10.1. Copenhagen. Capital of Innovation in Sustainable Landscaping
- 9.10.2. American Pioneer Cities and Entities in the Rational Use of Water in Landscaping
- 9.10.3. The *High Line Park*,New York

Module 10. Gardening Styles

10.1. Ancient Gardens
- 10.1.1. The Origins of the Garden
- 10.1.2. Egypt
- 10.1.3. Persia
- 10.1.4. Greece:
- 10.1.5. The Garden in Rome

10.2. The Arabic Garden
- 10.2.1. Paradise Concept
- 10.2.2. The Hispanic-Muslim Garden
- 10.2.3. The Asian Islamic Garden

10.3. The Medieval Christian Garden
- 10.3.1. The Cloistered Garden
- 10.3.2. Monastic Gardens
- 10.3.3. Symbolism

10.4. Gardens from Renaissance to Baroque
- 10.4.1. The Evolution of the Italian Villas
- 10.4.2. Mannerism
- 10.4.3. Baroque Garden
- 10.4.4. Spain and Portugal, the Beginning of Botanical Expeditions and the Globalization of Species

10.5. French Rationalism
- 10.5.1. From the Middle Ages to Le Nôtre
- 10.5.2. The Garden as a Court Setting
- 10.5.3. Parterre
- 10.5.4. The Sources

10.6. The Landscape Revolution
- 10.6.1. Breaking with Cartesian
- 10.6.2. Evolution of the Landscape Garden
- 10.6.3. Pope to *Capability Brown*
- 10.6.4. Origins of Public Parks. Central Park

10.7. Oriental Gardens, a Separate Concept
- 10.7.1. The Conception of Chinese Landscaping. Evolution
- 10.7.2. Japanese Garden
- 10.7.3. Sublimation of the Zen Garden
- 10.7.4. Oriental Gardening Techniques

10.8. 20th Century Eclecticism
- 10.8.1. From the Mix of Styles to Minimalism
- 10.8.2. Unique Movements of the 20th Century
- 10.8.3. Universalization of Public Green Spaces. From the Plaza to the Metropolitan Park
- 10.8.4. Expansion of Natural Parks and Deterrents
- 10.8.5. New Urban Leisure Spaces: Theme Parks, Aquariums, Children's Playgrounds, etc

10.9. Art as an Element of Landscape
- 10.9.1. Historical Evolution of Garden Art
- 10.9.2. The *Land-Art* as an integrating concept of Landscape
- 10.9.3. Modern Sculpture
- 10.9.4. The Garden

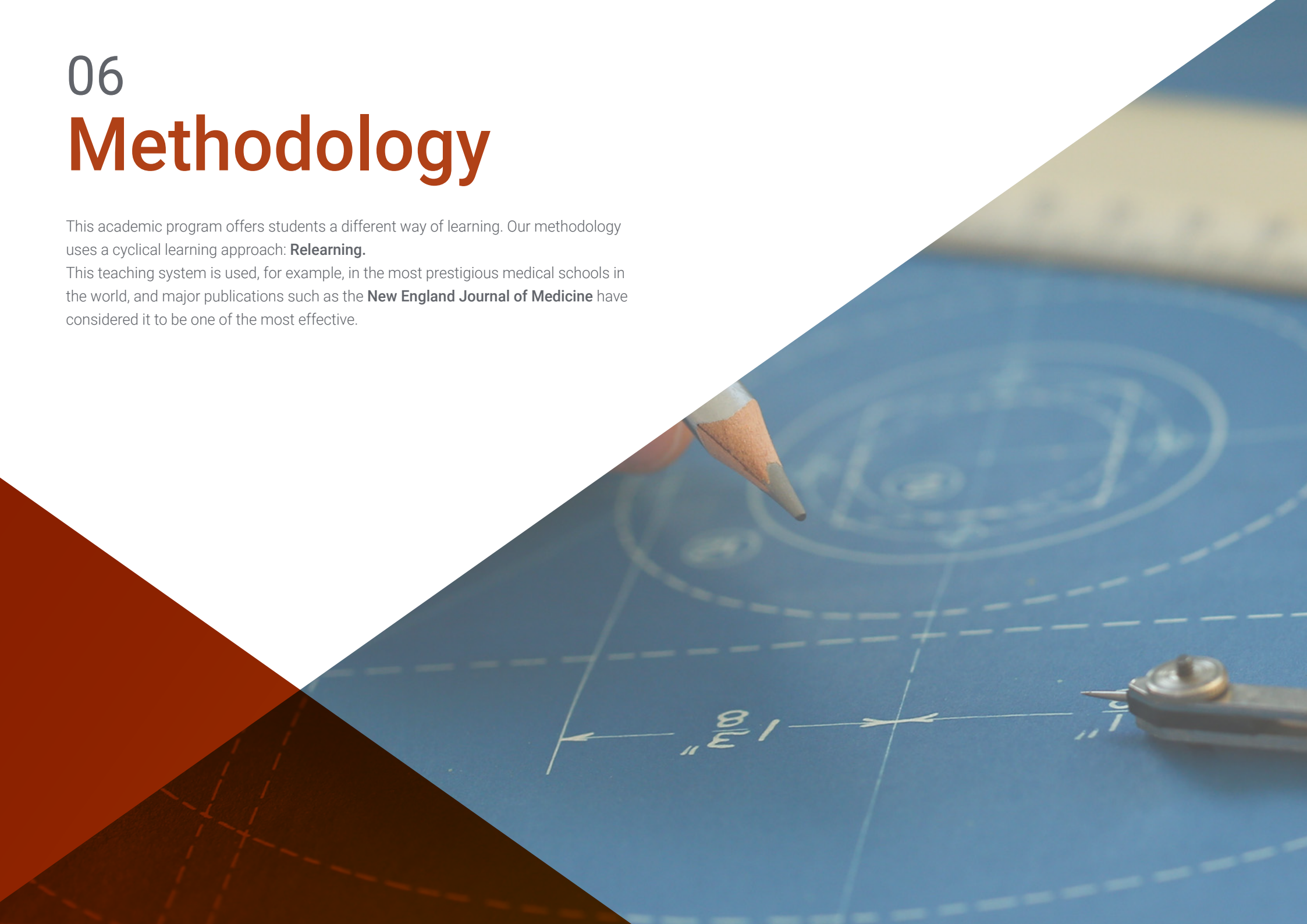
10.10. Sustainability as the Basis for 21st Century Design
- 10.10.1. Evolution of Landscaping Towards Sustainability
- 10.10.2. The Concept of Green Infrastructure in Cities
- 10.10.3. Technical Development Evolves Garden Concepts
- 10.10.4. From Hydroponics to Green Roofs

06

Methodology

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

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



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

Case Study to contextualize all content

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

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

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

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

A learning method that is different and innovative

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

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

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

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

Relearning Methodology

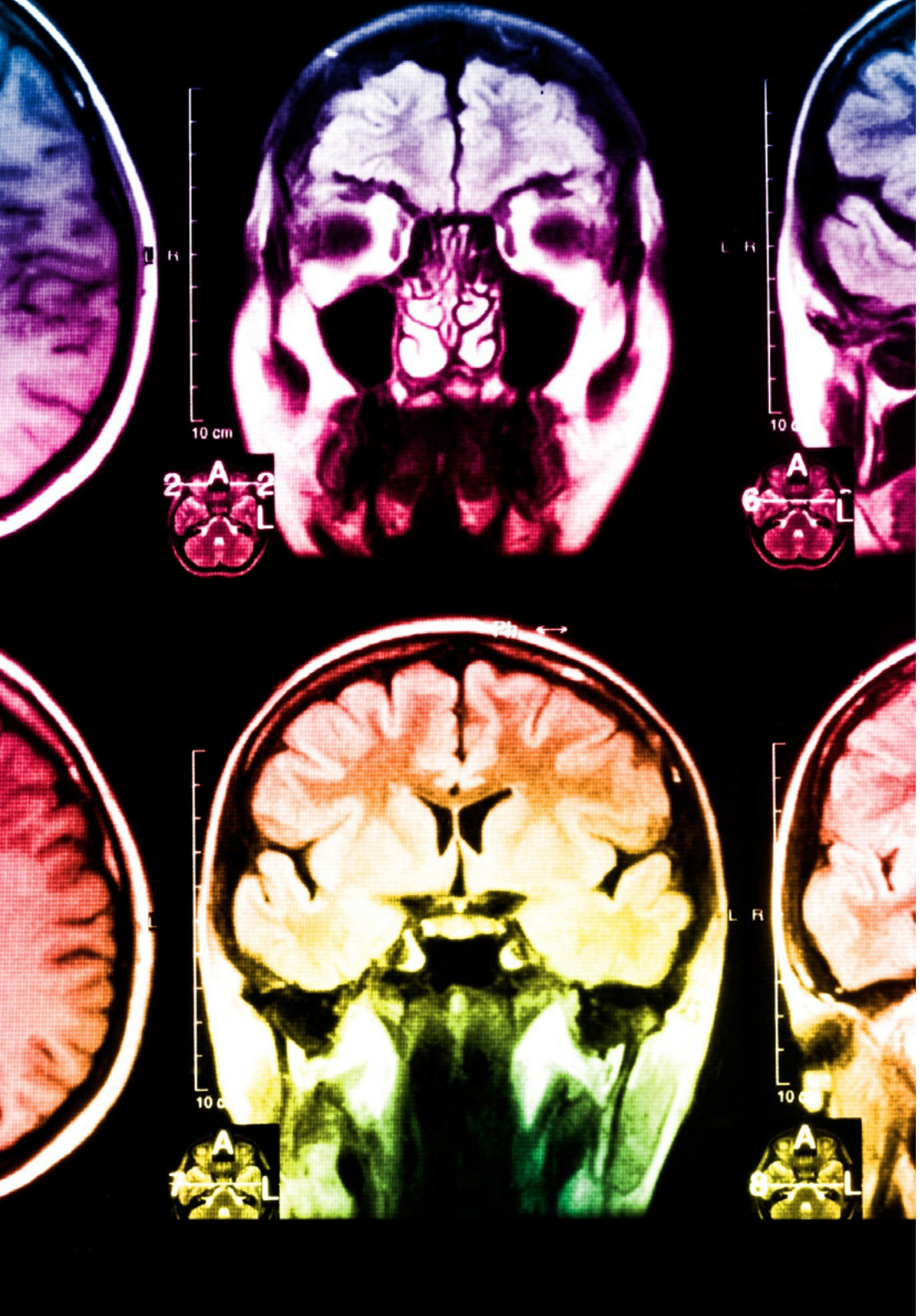
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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

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

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

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



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically. This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

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

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

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

Study Material

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

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

Classes

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

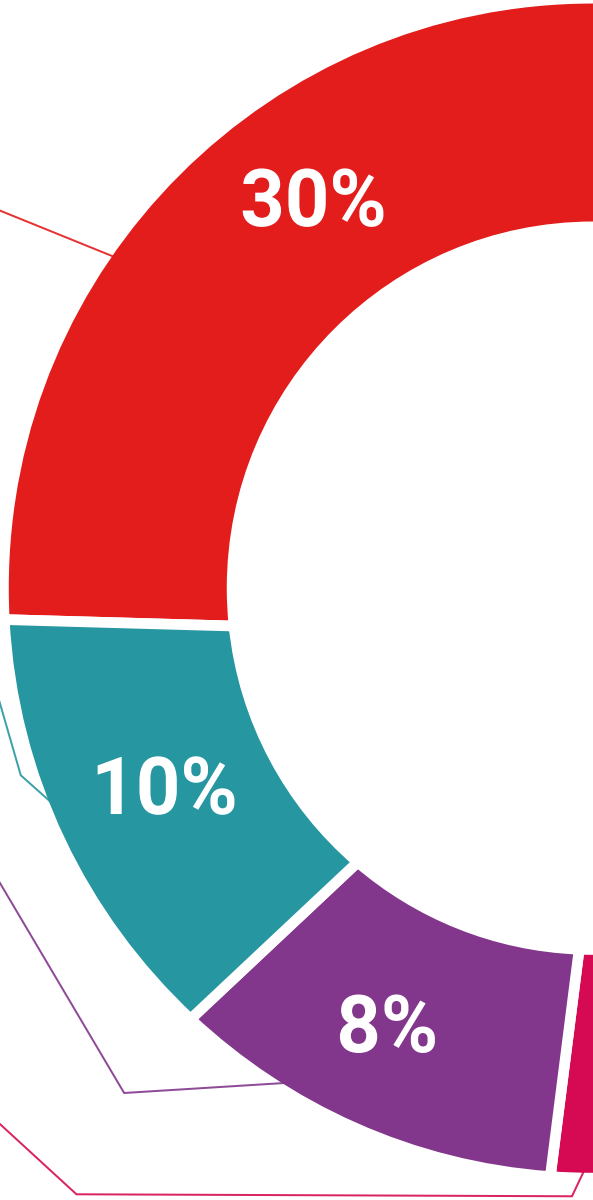
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

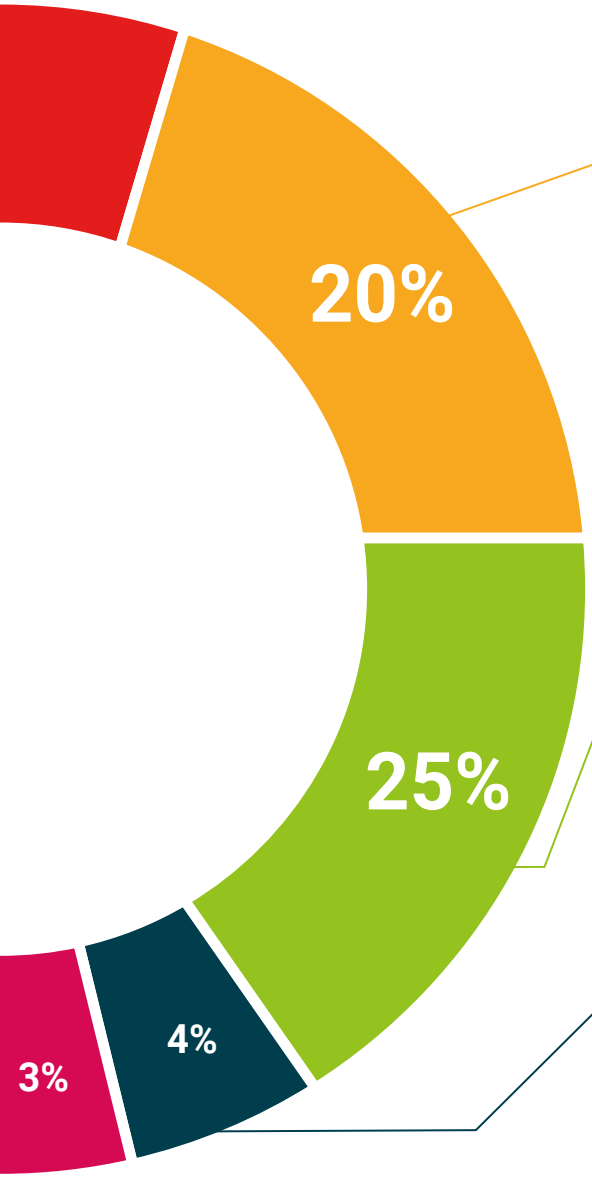
Practising Skills and Abilities

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

Additional Reading

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





Case Studies

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

Interactive Summaries

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

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

Testing & Retesting

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

07

Certificate

The Professional Master's Degree in Landscape Architecture guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Technological University.

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

This **Professional Master's Degree in Landscape Architecture** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Professional Master's Degree in Landscape Architecture**

Official Nº of Hours: **1,500 h.**


tech technological university

Awards the following

DIPLOMA

to

Mr./Ms. _____ with identification number _____.

For having successfully passed and accredited the following program

PROFESSIONAL MASTER'S DEGREE

in

Landscape Architecture

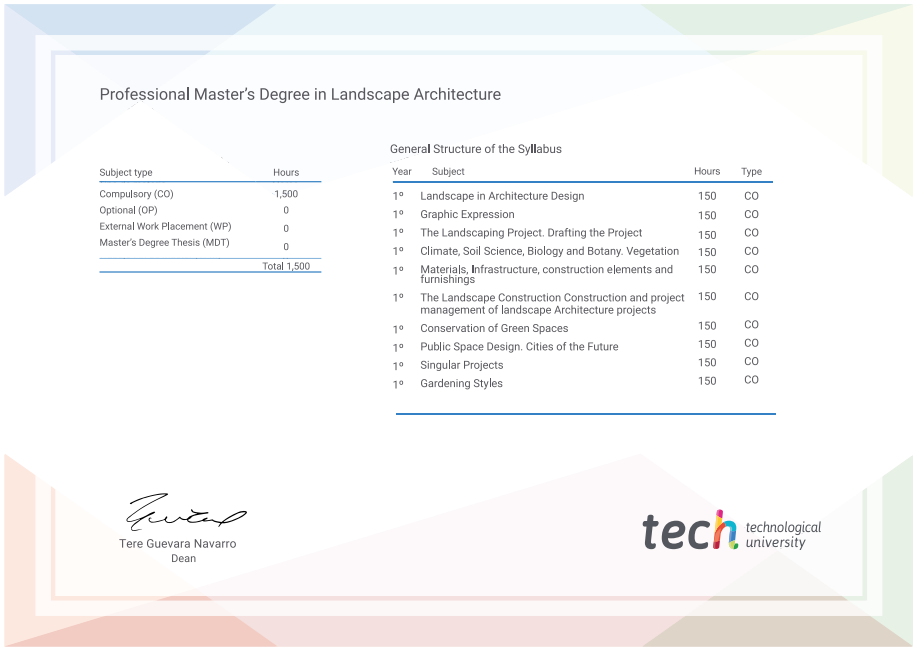
This is a qualification awarded by this University, equivalent to 1,500 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates


Professional Master's Degree in Landscape Architecture

Subject type	Hours
Compulsory (CO)	1,500
Optional (OP)	0
External Work Placement (WP)	0
Master's Degree Thesis (MDT)	0
	Total 1,500

General Structure of the Syllabus

Year	Subject	Hours	Type
1º	Landscape in Architecture Design	150	CO
1º	Graphic Expression	150	CO
1º	The Landscaping Project. Drafting the Project	150	CO
1º	Climate, Soil Science, Biology and Botany. Vegetation	150	CO
1º	Materials, Infrastructure, construction elements and furnishings	150	CO
1º	The Landscape Construction Construction and project management of landscape Architecture projects	150	CO
1º	Conservation of Green Spaces	150	CO
1º	Public Space Design. Cities of the Future	150	CO
1º	Singular Projects	150	CO
1º	Gardening Styles	150	CO

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

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Professional Master's Degree

Landscape Architecture

- Modality: **online**
- Duration: **12 months**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Professional Master's Degree
Landscape Architecture

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